

## **FINAL DETERMINATION**

**Gulf Power Company**

**Crist Electric Generating Plant**

**Project No.: 0330045-003-AC**

### **I. Public Notice and Comments.**

The Public Notice of the permitting project was published in the Pensacola News Herald on July 11, 2002. No comments were received during the Public Notice period (14-days), which concluded at the close of business of July 25, 2002.

### **II. Conclusion.**

It is recommended to issue the authorization letter as noticed.



Jeb Bush  
Governor

# Department of Environmental Protection

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

David B. Struhs  
Secretary

July 26, 2002

CERTIFIED MAIL – Return Receipt Requested

Mr. Gene L. Ussery  
V.P. of Power Generation/Transmission  
Gulf Power Company  
One Energy Place  
Pensacola, Florida 32520-0328

Dear Mr. Ussery:

RE: Authorization to Conduct Pollutant Testing and Parameter Measurements for the Development of a Compliance Assurance Monitoring (CAM) Protocol for the Gulf Power Company's Crist Electric Generating Plant's Units Nos. 4, 5 & 6's Electrostatic Precipitator (ESP)  
0330045-003-AC

The Department has reviewed the request that you provided on June 5, 2002. We have considered the Department's legal authority to allow Gulf Power Company to conduct the requested testing and measurements on its Crist Electric Generating Plant's Units Nos. 4, 5 & 6's ESP (electrostatic precipitator) located in Pensacola, Escambia County. The purpose is to help the company address Compliance Assurance Monitoring (CAM), which will have to be addressed regarding the ESP upon renewal of their Title V Operation Permit. Paragraph 403.061(16), Florida Statutes (F.S.), authorizes the Department to encourage voluntary cooperation by persons in order to achieve the purposes of the state environmental control act. Paragraph 403.061(18), F.S., authorizes the Department to encourage and conduct studies, investigations, and research relating to the causes and control of pollution. Rule 62-210.700(5), Florida Administrative Code (F.A.C.), authorizes the Department to consider variation in industrial equipment and make allowances for excess emissions that provide reasonable and practical regulatory controls consistent with public interest.

In accordance with the provisions of Paragraphs 403.061(16) and (18), F.S., and Rule 62-210.700(5), F.A.C., you are hereby authorized to conduct pollutant testing and parameter measurements for the development of a CAM protocol for the Gulf Power Company's Crist Electric Generating Plant's Units Nos. 4, 5 & 6's ESP. This evaluation will require Gulf Power Company to vary the collection efficiency of the ESP to establish a performance curve between opacity, particulate matter emissions and ash resistivity, thus creating an operational condition near or in excess of the Florida particulate matter emissions and opacity standards. The data gathered will allow the calibration of an EPRI (Electrical Power Research Institute) computer model to evaluate the performance of the Crist Units Nos. 4, 5 & 6's ESP. The pollutants and or parameters to be measured or monitored will include sulfur dioxide [CEM (continuous emission monitor)], nitrogen oxides (CEM), particulate matter, carbon dioxide (CEM), ash content of the fuel, ultimate fuel analyses, unit operational parameters including load, fuel flow, excess air, flue gas temperature, and other unit specific parameters that are needed for the EPRI computer model. Particulate size distribution may be evaluated also.

*"More Protection, Less Process"*

Printed on recycled paper.

Mr. Gene L. Ussery  
Gulf Power Company  
Crist Electric Generating Plant: Units Nos. 4, 5 & 6  
0330045-003-AC  
Page Two

The performance tests and parameter measurements or monitoring shall be subject to the following conditions:

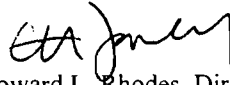
1. Unless waived, the permittee shall notify the Department's Northwest District Office and Bureau of Air Regulation Office at least 15 days prior to commencement of the performance tests and parameter measurements or monitoring. A written report shall be submitted to these offices within 45 days upon completion of the last test run and parameter measurements and monitoring.
2. The authorized testing and measurement and monitoring schedule is from September 1 through November 30, 2002. If additional time is needed, the permittee shall provide the Department with documentation of the progress accomplished to date and shall identify what is left to be done to complete the testing and measurements or monitoring.
3. The parameters to be measured or monitored are sulfur dioxide [CEM (continuous emission monitor)], nitrogen oxides (CEM), particulate matter, carbon dioxide (CEM), ash content of the fuel, ultimate fuel analyses, unit operational parameters including load, fuel flow, excess air, flue gas temperature, and other unit specific parameters that are needed for the EPRI computer model. Particulate size distribution may be evaluated also.
4. Emissions testing shall be conducted concurrently for the following pollutants and using the following test methods:
  - a. Particulate matter                   EPA Test Method 17 (including EPA Test Methods 1 thru 4)
  - b. Visible emissions                   EPA Test Method 9
5. The performance test plans are as follows:
  1. Conduct a performance test (three 1-hour runs) using EPA Method 17 at "normal" operations;
  2. Conduct a performance test (three 1-hour runs) using EPA Method 17 at a reduction in the ESP efficiency; and,
  - 3.a. If the test results show that the PM allowable limit was exceeded; then the ESP's efficiency will be increased and a third performance test using EPA Method 17 will be conducted (supposedly between "normal" and "at the reduced efficiency"); or,
  - b. If the test results show that the PM allowable limit was not exceeded; then the ESP's efficiency will be further decreased and a third performance test using EPA Method 17 will be conducted in an attempt to define the outer range of the ESP's efficiency at which the PM allowable limit will be exceeded; and,
  - c. If the outer range is not established by the 2<sup>nd</sup> and 3<sup>rd</sup> performance tests, then the performance testing is ended for that emissions unit; and, Gulf Power Company will use the data to help define their CAM Plan for that emissions unit tested.
6. The release of objectionable odors pursuant to Rule 62-296.320(2), F.A.C., is not authorized for this activity.
7. Performance testing shall immediately cease upon the occurrence of a valid environmental complaint by a citizen or other party, or a nuisance or danger to the public health or welfare. Performance testing shall not resume until appropriate measures to correct the problem have been implemented.

Mr. Gene L. Ussery  
Gulf Power Company  
Crist Electric Generating Plant: Units Nos. 4, 5 & 6  
0330045-003-AC  
Page Three

8. The performance tests and parameter measurements and monitoring shall be under the direct supervision and responsible charge of a professional engineer registered in Florida.
9. This Department action is just to authorize the performance testing and parameter measurements and monitoring for the Crist Units Nos. 4, 5 & 6's ESP for the purpose of developing a CAM protocol.
10. Complete documentation of the activity shall be kept on file for at least 5 (five) years.
11. The Department shall be notified in writing on the date of the last test run and parameter measurement and monitoring completion. If after work hours, notification shall occur on the next work day.
12. Attachment Section.
  - a. Mr. G. Dwain Waters's letter received June 5, 2002.
  - b. Final Determination.

The Department has relied on the information referenced in the Attachment Section and conversations with representatives of Gulf Power Company in authorizing this activity.

Sincerely,

  
for Howard L. Rhodes, Director  
Division of Air Resources Management

HLR/rbm

Enclosures

cc: Clair Fancy, DEP - BAR  
Scott Sheplak, DEP - BAR  
Sandra Veazey, DEP - NWD  
Kevin White, DEP - NWD  
Joe Kahn, DEP - BAMMS  
G. Dwain Waters, Q.E.P., GPC  
Gregory N. Terry, P.E., GPC

**U.S. Postal Service**  
**CERTIFIED MAIL RECEIPT**  
*(Domestic Mail Only; No Insurance Coverage Provided)*

94HE 4259 T200 0090 0002

<b>Article Sent To:</b>	
Mr. Gene L. Ussery	
Postage	\$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
<b>Total Postage &amp; Fees</b>	<b>\$</b>
Postmark Here	
Name (Please Print Clearly) (to be completed by mailer) Mr. Gene L. Ussery	
Street, Apt. No.; or PO Box No. One Energy Place	
City, State, ZIP+4 Pensacola, Florida 32520-0328	
PS Form 3800, July 1999 <span style="float: right;">See Reverse for Instructions</span>	

**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:  
 Mr. Gene L. Ussery  
 V.P. of Power Generation/Transmission  
 Gulf Power Company  
 One ENERGY Place  
 Pensacola, Florida 32520-0328

2. Article Number (Copy from service label)  
 7000 0600 0021 6524 3/48

PS Form 3811, July 1999

**COMPLETE THIS SECTION ON DELIVERY**

A. Received by (Please Print Clearly) | B. Date of Delivery  
 Jackie S. Andrews | 8-2-02

C. Signature  Agent  
 Addressee  
 X Jackie S. Andrews

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

Domestic Return Receipt

102595-00-M-0952

**Mitchell, Bruce**

---

To: Waters, Glenn D.  
Cc: Holtom, Jonathan  
Subject: RE: CAM Construction Permit Extension

10/17/02

I have discussed the extension with Pat. We will extend the permit without renoticing. I need a request per facility from you and the target dates.

Bruce Mitchell  
850/413-9198


-----Original Message-----

From: Waters, Glenn D. [mailto:GDWATERS@southernco.com]  
Sent: Thursday, October 17, 2002 9:07 AM  
To: Mitchell, Bruce  
Subject: CAM Construction Permit Extension

Did you ever get word back from Pat regarding if we can extend the CAM construction permits for Smith and Crist? And is a new public notice needed? Let me know the best way for me to proceed. Thanks, Dwain

G. Dwain Waters  
Air Quality Programs Supervisor  
Gulf Power Company  
One Energy Place  
Pensacola, Florida 32520-0328  
Phone: (850) 444-6527  
Pager: (850) 469-4076  
gdwaters@southernco.com

10-17-02  
@ 10:59

Spoke with Dwain requested a letter / facility with some explanation as to why they were not able to complete to originally proposed test and the target date for the extension of time. 

## Mitchell, Bruce

---

**From:** Waters, Glenn D. [GDWATERS@southernco.com]  
**Sent:** Thursday, October 17, 2002 9:07 AM  
**To:** Mitchell, Bruce  
**Subject:** CAM Construction Permit Extension

Did you ever get word back from Pat regarding if we can extend the CAM construction permits for Smith and Crist? And is a new public notice needed? Let me know the best way for me to proceed. Thanks, Dwain

G. Dwain Waters  
Air Quality Programs Supervisor  
Gulf Power Company  
One Energy Place  
Pensacola, Florida 32520-0328  
Phone: (850) 444-6527  
Pager: (850) 469-4076  
gdwaters@southernco.com

**Mitchell, Bruce**

---

**To:** Zhu, Yi  
**Cc:** Sheplak, Scott; Fancy, Clair  
**Subject:** ARMS update for Gulf Power Comply: 0330045-003-AC: Crist Electric Generating Plant.

8/1/02

Yi,

I have added a comment to the "Facility Page" regarding the authorization of the upcoming CAM testing at the above referenced plant. Take care.

Bruce



Florida Department of  
**Environmental Protection**

**Memorandum**

---

\*used 7/18/02  
received date

TO: Howard Rhodes

THRU: Clair Fancy

FROM: Bruce Mitchell *BM*

DATE: July 26, 2002

SUBJECT: Authorization to Conduct Pollutant Testing and Parameter Measurements for the Development of a Compliance Assurance Monitoring (CAM) Protocol for the Gulf Power Company's Crist Electric Generating Plant's Units Nos. 4, 5 & 6's Electrostatic Precipitators

The proposed project was Public Noticed in the Pensacola News Herald on July 11, 2002. No comments were received during the Public Notice period (14-days), which concluded on July 25, 2002.

In conclusion, it is recommended that the authorization letter be signed as noticed.

HLR/rbm

Attachment

GULF POWER COMPANY  
One Energy Place  
Pensacola, FL 32520-0328

Fax Phone: 850.444.6217 -  
Environmental Affairs

RECEIVED

JUL 18 2002

BUREAU OF AIR REGULATION

**Fax**

<b>To:</b>	Bruce Mitchell FDEP Tallahassee, FL	<b>From:</b>	Dwain Waters Gulf Power Co. / Environmental Affairs
<b>Fax:</b>	850-413-9198	<b>Pages:</b>	3 plus cover page
<b>Phone:</b>	850-922-6979	<b>Date:</b>	07/18/02
<b>Re:</b>			

Urgent                       For Your Review                       Comment by \_\_\_\_\_

Please Reply                       Please Recycle

● **Comments:**

Please find attached public notice affidavit for  
the Crist CAM Air Construction Permit. The original will be  
mailed today to you. Please let me know if you  
have any questions or concerns. Thanks, Dwain  
(850-444-6527)

One Energy Place  
Pensacola, Florida 32520

Tel 850.444.6111



Certified Mail

July 18, 2002

Mr. Bruce Mitchell  
Florida Department of Environmental Protection  
Bureau of Air Regulation  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

Dear Mr. Mitchell:

RE: CRIST ELECTRIC GENERATION FACILITY  
DEP File No. 0330045-003-AC  
Air Construction Permit for CAM - Public Notice Affidavit

Thanks for the quick response to Gulf Power's request for an air construction permit to conduct CAM testing at Plant Crist. Enclosed is the proof of publication, i.e., newspaper affidavit regarding the Public Notice of Intent to Issue An Air Construction Permit originally sent to Gene L. Ussery (Gulf Power) on June 25, 2002.

Please let me know if you have any questions regarding this matter and if you receive any public comments regarding our request.

Sincerely,

G. Dwain Waters, Q.E.P.  
Air Quality Programs Supervisor

Cc: J. O. Vick, Gulf Power Company  
Terry Wright, Gulf Power Company  
John Dominey, Gulf Power Company  
Sandra Veazey, FDEP, Northwest District  
Kevin White, FDEP Northwest District

# PENSACOLA News Journal

Informed. In Tune. In Touch.

BEST AVAILABLE COPY

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENT

Draft Air Construction Permit No.:  
Gulf Power Company  
Crest Electric Generating Plant  
Escambia County

Published Daily-Pensacola, Escambia County, FL

## STATE OF FLORIDA County of Escambia

Before the undersigned authority personally appeared Glenda Nell who is personally known to me and who on oath says that he/she is a representative of The Pensacola News Journal, a daily newspaper published in Pensacola in Escambia County, Florida; that the attached copy of advertisement, being a legal in the matter of Public Notice of Intent to Issue an Air Construction Permit was published in said newspaper in the issues of July 11, 2002. Affiant further says that the said Pensacola News Journal is a newspaper published in Pensacola, in said Escambia County, Florida, and that the said newspaper has heretofore been continuously published in said Escambia County, Florida each day and has been entered as second class mail matter at the post office in Pensacola, in said Escambia County, Florida, for a period of one year next preceding the first publication of the attached copy of advertisement; and Affiant further says that he/she has neither paid nor promised any person, firm, or corporation any discount, rebate, commission or refund for the purpose of securing this advertisement for publication in the said newspaper.

Sworn to and subscribed before me this 11<sup>th</sup> day of July A.D., 2002.

*Bereth Ferguson*  
Bereth Ferguson  
Notary Public

**BERETH FERGUSON**  
Notary Public-State of FL  
My Comm. Expires OCT. 10, 2005  
Comm. No. DD048662

The Department of Environmental Protection (per: intent to issue an air construction permit to Gulf Power Company for the proposed construction of the Crest Electric Generating Plant located in Pensacola, Escambia County, Florida at One Energy Plaza, Pensacola, Florida 32520-0300).

The permittee, Gulf Power Company, applied on August 15, 2002 to the Department of Environmental Protection for an Air Construction Permit to construct and operate Units Nos. 4, 5 & 6's ESP (electrostatic precipitator) at the Crest Electric Generating Plant in Pensacola, Escambia County, Florida. The permittee requested the Department of Environmental Protection to vary the collection efficiency of the ESP's from the design value of 99.5% to 99.0% to allow for an operational condition near or in excess of the FPM standard. The data gathered will allow the calibration of the Department's computer model to evaluate the particulate size distribution may be evaluated also. The test run is to run from September 1 through November 30, 2002.

The permitting authority will issue the Air Construction Permit in accordance with the conditions of the Permit unless a response received in accordance with the Department's Bureau of Air Regulation in Tallahassee, Florida 32399-2400. Any written comments received by the permitting authority in response to the Draft Air Construction Permit, the permitting authority will accept written comments in accordance with the Department's Bureau of Air Regulation in Tallahassee, Florida 32399-2400. Any written comments received by the permitting authority in response to the Draft Air Construction Permit and require, if applicable, another Air Construction Permit issuance action for a period of 30 days from the date of publication of this Notice. Written comments received by the Department's Bureau of Air Regulation, 2600 Blair Street, Tallahassee, Florida 32309-3000 (Telephone: 904/303-3600) must be filed within fourteen (14) days of the date of receipt of the notice of intent to issue the Air Construction Permit.

A person whose substantial interests are affected by the Department's action may petition for an administrative hearing under Sections 120.569 and 120.57, Florida Statutes (F.S.). The petition must be filed with the Department of Environmental Protection, 3900 Commodore Boulevard, Tallahassee, Florida 32399-3000 (Telephone: 904/303-3600) within fourteen (14) days of the date of receipt of the notice of intent to issue the Air Construction Permit. A petitioner who files a petition with the Department of Environmental Protection shall not be deemed to have waived the petitioner's right to request an administrative hearing under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding. Any subsequent intervention will be only at the discretion of the Department of Environmental Protection.

A petition that disputes the material facts on which the Department's action is based shall state that no other information is available for the Department's action and shall contain the same information as required by Rule 28-108.301, F.A.C. Because the administrative hearing process is discretionary, the filing of a petition means that the petitioner's substantial interests will be affected by any such action on the application have the right to proceed with the Department's action. Mediation is not available for this proceeding. A complete project file is available for public inspection from 8:00 a.m. to 5:00 p.m., Monday through Friday.

**Permitting Authority:**  
Department of Environmental Protection  
Bureau of Air Regulation  
111 South Magnolia Drive, Suite 4  
Tallahassee, Florida 32301  
Telephone: 850/488-0114  
Fax: 850/922-6979

**Affiant:**  
Dept. of Environmental Protection  
North  
160 C  
Pensacola  
Tel: 850/922-6979  
Fax: 850/922-6979

The complete project file includes the Draft Air Construction Permit application/request, and the information submitted by the permittee, and the records under Section 403.111, F.S. Scott M. Sheplak, P.E., at the above address, or information.

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Draft Air Construction Permit No.: 0330046-003-AG  
Gulf Power Company  
Crist Electric Generating Plant  
Escambia County

The Department of Environmental Protection (permitting authority) gives notice of its intent to issue an air construction permit to Gulf Power Company for its Crist Electric Generating Plant located in Pensacola, Escambia County. The applicant's name and address are: Gene L. Useery, V.P. of Power Generation/Transmission, Gulf Power Company, One Energy Place, Pensacola, Florida 32520-0328.

The permittee, Gulf Power Company, applied on June 5, 2002, for authorization to conduct pollutant testing and parameter measurements for the development of a Compliance Assurance Monitoring (CAM) protocol for the Gulf Power Company's Crist Units Nos. 4, 5, & 6's ESP (electrostatic precipitator), which is located at the Crist Electric Generating Plant in Pensacola, Escambia County. This evaluation will require Gulf Power Company to vary the collection efficiency of the ESP to establish a performance curve between opacity, particulate matter emissions and ash resistivity, thus creating an operational condition near or in excess of the Florida particulate matter emissions standard. The data gathered will allow the calibration of an EPA (Electrical Power Research Institute) computer model to evaluate the performance of the Crist Units Nos. 4, 5 & 6's ESP. The pollutants and/or parameters to be measured or monitored will include sulfur dioxide (SO<sub>2</sub>) (CEM (continuous emission monitor)), nitrogen dioxide (NO<sub>2</sub>), particulate matter, carbon dioxide (CO<sub>2</sub>), ash content of the fuel, ultimate fuel analyses, unit operational parameters including load, fuel flow, excess air, flue gas temperature, and other unit specific parameters that are needed for the EPA computer model. Particulate size distribution may be evaluated also. The development testing is scheduled to run from September 1 through November 30, 2002.

The permitting authority will issue the Air Construction Permit, and subsequent Final Air Construction Permit, in accordance with the conditions of the Draft Air Construction 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 Draft Air Construction Permit issuance action for a period of 14 (fourteen) days from the date of publication of this Notice. Written comments should be provided to the Department's Bureau of Air Regulation, 2600 Blair Stone Road, Mail Station #5505, Tallahassee, Florida 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in this Draft Air Construction Permit, the permitting authority shall issue a Revised Draft Air Construction Permit and require, if applicable, another Public Notice.

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, Florida Statutes (F.S.). The petition must contain the information set forth below and must be filed (received) in Office of General Counsel of the Department of Environmental Protection, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000 (Telephone: 850/488-9230; Fax: 850/487-4938). Petitions filed by any persons other than those entitled to written notice under Section 120.80(3), F.S., must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of the notice of intent, whichever occurs first. Under Section 120.80(3), F.S., however, any person who asks 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 applicable 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, Florida Administrative Code (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(s) or identification number(s), if known;
- (b) The name, address and telephone number of the petitioner, 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 petitioner's substantial rights will be affected by the agency determination;
- (c) A statement of how and when the 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 petitioner must so state;
- (e) A concise statement of the ultimate facts alleged, as well as the laws and statutes which entitle petitioner to relief; and
- (f) A demand for relief.

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 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 is not available for this proceeding.

A complete project file is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at:

**Permitting Authority:**  
Department of Environmental Protection  
Bureau of Air Regulation  
111 South Magnolia Drive, Suite 4  
Tallahassee, Florida 32301  
Telephone: 850/488-0114  
Fax: 850/922-6979

**Affected District Authority:**  
Department of Environmental Protection  
Northwest District Office  
Air Resources  
160 Governmental Place  
Pensacola, Florida 32520-0328  
Telephone: 850/595-8300  
Fax: 850/595-4417

The complete project file includes the Draft Air Construction Permit, the application/request, and the information submitted by the responsible official, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact Scott M. Sheplak, P.E., at the above address, or call 850/921-9532 for additional

One Energy Place  
Pensacola, Florida 32520

Tel 850.444.6111

*Smith  
page like look at this.*

*Smith  
12/28*

RECEIVED

DEC 11 2001

BUREAU OF AIR REGULATION

Certified Mail



December 5, 2001

*0050014-003-AC  
PSD-FL-269*

Mr. Scott M. Sheplak, P.E.  
Department of Environmental Protection  
Bureau of Air Regulation  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

Bureau of Air Monitoring  
& Mobile Sources

DEC 12 2001

RECEIVED

Dear Mr. Sheplak:

RE: STARTUP ISSUES

Lansing Smith Unit 4 & 5 (PSD-FL-269 (PA99-40))

As you are aware, Gulf Power is preparing to startup a new combined cycle unit at the Lansing Smith Electric Generating Plant. As previously discussed, there are various environmental time clocks which begin at different stages when coordinating the startup of a new unit that must meet NSPS, PSD, CEM certification and Acid Rain. At many times these conflict with each other and at best can be confusing for all involved. Pursuant to this, Gulf Power has developed a gantt chart outlining the various tasks to help us through all the environmental provisions of startup and certification. Because there is some interpretation of regulations involved, we would like to share our determinations with you. Thus, we should have agreement as these actions occur. For your review, please find our gantt chart enclosed as "Attachment One". Additionally, please note a change in the startup date for Smith Unit 5 since our November 16 letter to you. The new startup date of Unit 5 is January 12, 2002.

As noted above, there are several items that require interpretation. We have outlined these in "Attachment Two" for easy reference. Please review our list and let me know if there are any problems with Gulf Power proceeding as outlined in our worksheet and gantt chart schedule.

Please call me at 850.444.6527 if you have any questions or need more information regarding these issues. Your help is appreciated.

Sincerely,

*G. Dwain Waters Q.E.P.*

G. Dwain Waters, Q.E.P.

Air Quality Programs Supervisor

Page 2

Mr. Scott Sheplak

December 5, 2001

cc: Robert G. Moore, Gulf Power Company  
James O. Vick, Gulf Power Company  
Mike Sarab, Gulf Power Company  
Valerie Wade, Gulf Power Company  
Robert Haskew, Gulf Power Company  
Marie Largilliere, Gulf Power Company  
Danny Herrin, Southern Company Services  
Dale Evely, Southern Company Services  
Sandra Veazey, FDEP-NWF District, Pensacola, FL

# SMITH COMBINED CYCLE REGULATORY ISSUES WORKSHEET

12/05/01

## **Maximum Production Rate Definition:**

As applied to the initial startup of a combined cycle unit, maximum production rate is met when a combined cycle unit reaches between 90-100 percent of the total heat input (Combustion Turbine + Duct Burner w/o Power Augmentation) as outlined in the design and permit application.

Discussion: This definition is critical because PSD certification tests must be conducted within 60 days of reaching the maximum production rate. The maximum production rate may not be reached until 2-3 months after initial first fire.

## **Custom Fuel Monitoring Plan:**

The custom fuel monitoring plan is no longer required to contain information regarding H<sub>2</sub>S as previously required under the Acid Rain Part 75 rules. This change is outlined in a recent EPA rule revision removing H<sub>2</sub>S from consideration when determining pipeline quality natural gas.

Discussion: Based on the latest guidance from EPA, no monitoring for H<sub>2</sub>S will be implemented for Plant Smith. Heat input and total Sulfur will be provided by the natural gas pipeline transmission company.

## **Reduction of Multiple Load Testing for NSPS Subpart GG:**

Pursuant to guidance recently issued by EPA, initial testing at 4 operating loads for NSPS Subpart GG is not necessary if CEMs are used for compliance. (See attached Determination Letter)

Discussion: Initial NSPS Subpart GG compliance testing of the Smith combustion turbines will take place at maximum CT load in lieu of 4 loads since CEMS will be used for continuous compliance to the NO<sub>x</sub> standards.

## **RATA Test Results in lieu of Method 20:**

Pursuant to guidance recently issued by EPA, RATA NO<sub>x</sub> test results of greater than 3 hours of data may be used in lieu of Method 20 as long as the CEMS are calibrated in accordance with the procedure in Section 6.2.3 of Method 20. (See attached Determination Letter)

Discussion: Initial and annual NO<sub>x</sub> compliance tests at Plant Smith will be conducted using EPA Reference Method 7E in lieu of Method 20. Calibration must meet Section 6.2.3 of Method 20 and greater than 3 hours of data must be used.



## Determination Detail

---

Control Number: 0000063

**Category:** NSPS  
**EPA Office:** Region 4  
**Date:** 05/26/2000  
**Title:** Alternative Testing & Monitoring for Combustion Turbines  
**Recipient:** Region 4 Air Division Directors  
**Author:** R. Douglas Neeley  
**Comments:**

---

**Subparts:** Part 60, GG                      Stationary Gas Turbines

---

**References:** 60.333(b)  
60.334(b)  
60.334(b)(1)  
60.334(b)(2)  
60.334(c)(1)  
60.335(c)(1)  
60.335(c)(2)  
60.335(c)(3)

---

**Abstract:**

**Q:** Has authority been delegated to State and Local Agencies to approve certain monitoring and testing alternatives for stationary gas turbines subject to Subpart GG?

**A:** Yes. All State and Local Agencies in Region 4 have been delegated the authority to approve certain monitoring and testing alternatives for stationary gas turbines subject to 40 CFR Subpart GG. Based upon the fact that these alternatives are routinely approved by Region 4, it was determined that requiring them to be submitted to the Region for case-by-case reviews consumes significant resources without providing a corresponding environmental benefit.

**Letter:**

4APT-ARB

State or Local Air Director

**SUBJ: Approval of Routine Alternative Testing and Monitoring Procedures for Combustion Turbines Regulated Under New Source Performance Standards**

Dear State or Local Air Director:

Over the past year, Region 4 has received numerous requests for approval of alternative testing and monitoring procedures for combustion turbines (CTs) regulated under 40 C.F.R. Part 60, Subpart GG (Standards of Performance for Stationary Gas Turbines). In the process of reviewing these requests, we have identified several alternatives that are routinely approved. Although these alternatives are being approved on a regular basis, the U.S. Environmental Protection Agency (EPA) Region 4 has typically required that all alternative testing and monitoring proposals be submitted for case-by-case reviews. Since the approval of certain alternatives has become so routine, we have concluded that submitting them to Region 4 for review consumes regional, state, and local agency resources and slows down the approval process without providing a corresponding environmental benefit. Specific alternatives for which we have found this to be the case are described in detail in the remainder of this letter, and due to their routine nature, it will no longer be necessary for you to submit such alternative testing or monitoring proposals to Region 4 for case-by-case review or approval. These (alternatives) may be approved by your Agency without additional input from Region 4.

**Nitrogen monitoring requirement for gas-fired CTs**

Under the provisions for 40 C.F.R. Section 60.334(b)(2), owners and operators of CTs who do not have intermediate bulk storage for the fuel fired in their turbines are required to conduct daily monitoring to determine the sulfur and nitrogen content of the fuel combusted. Under the terms of the enclosed August 14, 1987, custom fuel monitoring policy issued by EPA Headquarters, the nitrogen monitoring requirement for pipeline quality natural gas-fired turbines can be waived because this fuel does not contain fuel-bound nitrogen and any free nitrogen that it may contain does not contribute appreciably to the formation of nitrogen oxides (NO<sub>x</sub>) emissions. Based upon the precedent set in the August 1987 custom fuel monitoring policy, the requirement to monitor the nitrogen content of pipeline quality natural gas can be waived for all Subpart GG turbines.

**Sulfur monitoring for gas-fired CTs**

EPA's August 1987 custom fuel monitoring policy also provides details regarding a procedure that owners and operators of natural gas-fired

turbines can follow in order to obtain approval to reduce their sulfur analysis frequency from a daily to a semiannual basis. Under this policy, owners and operators of affected facilities can obtain approval for a semiannual monitoring frequency by collecting and analyzing samples under the following schedule:

1. Samples must initially be collected and analyzed twice a month for six months. If six months of bi-monthly sampling and analysis indicate that sulfur concentrations are well below the applicable standard with low variability, the sampling frequency can be reduced to a quarterly basis.
2. If six quarters of quarterly sampling and analysis indicate that sulfur concentrations are well below the applicable standard with low variability, the sampling frequency can be reduced to a semiannual basis.
3. If any analyses indicate noncompliance with the applicable sulfur limit of 0.8 weight percent in 40 C.F.R. Section 60.333(b), samples must be collected and analyzed on a weekly basis while the custom fuel monitoring schedule is re-examined.
4. If there is a substantial change in fuel quality, samples must be collected and analyzed on a weekly basis while the custom fuel monitoring schedule is re-examined.

In addition to situations where the owner or operator of a CT regulated under Subpart GG proposes a custom fuel monitoring schedule that is identical to the one outlined in EPA's August 1987 policy, there are two other natural gas sulfur content monitoring alternatives that will not have to be submitted to Region 4 for review. One of these alternatives involves allowing an owner or operator of a new facility to use a semiannual monitoring frequency for natural gas sulfur content immediately upon startup if they can provide the results of bi-monthly and quarterly analyses conducted in accordance with the first and second steps of the schedule outlined above. Region 4 has approved this type of alternative on several occasions. The analytical data needed to justify a waiver of the bi-monthly and quarterly sampling steps may be available when a new unit is added to a source where ongoing monitoring is being conducted for other CTs at the site or when the company's gas supplier can provide previous analytical results for samples whose sulfur content is representative of the fuel that it will be supplying for the new CT.

The other natural gas sulfur monitoring alternative that will not have to be submitted to Region 4 for case-by-case reviews involves situations in which the owner or operator of a CT subject to Subpart GG proposes that the gas samples be collected at a place in the gas transmission line either upstream or downstream of the site where the CT is located. In several previous determinations Region 4 has indicated using such sampling locations is acceptable provided that no new gas enters the transmission line between the sampling location and the affected facility in question. The basis for approval of an alternate sampling location in this situation is that if no new gas enters the transmission line between the offsite sampling location and the CT, the sulfur content of the samples collected and analyzed will be representative of that burned in the affected facility.

Use of continuous emission monitors for NOx

The monitoring provisions in 40 C.F.R. Section 60.334(c)(1) use operating parameters (water-to-fuel injection rates and fuel nitrogen content) to identify periods of NO<sub>x</sub> excess emissions. Since many of the turbines being installed today are fired with pipeline quality natural gas and do not rely on water injection control, the monitoring required in Subpart GG will not provide any useful information about excess emissions for such turbines. According to the enclosed May 31, 1994, EPA Headquarters' determination, owners and operators of CTs that do not use water injection for NO<sub>x</sub> control must propose a method for monitoring excess emissions under Subpart GG. One approach that many CT owners and operators rely on to address this requirement is to use NO<sub>x</sub> continuous emission monitoring systems (CEMS) that have been installed and certified under other requirements such as the acid rain monitoring rule in 40 C.F.R. Part 75 or through conditions in a Prevention of Significant Deterioration (PSD) permit. The enclosed March 12, 1993, EPA Headquarters' determination contains detailed requirements when CEMS are used as an alternative means of monitoring NO<sub>x</sub> emissions under Subpart GG. Requests from owners and operators proposing to follow these procedures would not have to be submitted to Region 4 for review. In cases where a CEMS is used to satisfy the NO<sub>x</sub> monitoring requirements under Subpart GG, the requirement to collect and analyze oil samples for nitrogen content under the provisions in 40 C.F.R. Section 60.334(b) can also be waived.

#### Correcting NO<sub>x</sub> data to International Standards Organization conditions

One provision in the March 12, 1993, Headquarters' policy regarding the use of NO<sub>x</sub> CEMS for which Region 4 has routinely approved alternatives involves the requirement that the continuous monitor be capable of calculating emission rates corrected to International Standards Organization (ISO) standard day conditions (288 degrees Kelvin, 60 percent relative humidity, and 101.3 kilopascals of pressure). Since the testing provision in 40 C.F.R. Section 60.335(c)(1) requires that performance test results be corrected to ISO standard day conditions, CEMS results must also be expressed on this same basis in order to conclusively identify periods of excess emissions. In many cases today, however, CTs are subject to NO<sub>x</sub> limits under PSD that are considerably more stringent than those in Subpart GG, and typically these PSD limits are not expressed on an ISO-corrected basis. Depending on the type of turbine, the applicable NO<sub>x</sub> standard in Subpart GG is either 75 parts per million (ppm) or 150 ppm, and limits contained in PSD permits being issued today are often less than 10 ppm. Based upon the fact that these limits are more stringent than those in Subpart GG, New Source Performance Standard (NSPS) compliance would generally be a concern only in cases where a source is in violation of the corresponding PSD limit. On this basis, Region 4 routinely waives the requirement to correct CEMS results to ISO standard day conditions on a continuous basis provided that the source owner or operator maintains records of the data (ambient temperature, ambient humidity, and combustor inlet pressure) that would enable it to make the correction at the request of EPA or a state or local agency to which the authority to implement Subpart GG has been delegated. Based upon the previous approvals granted by Region 4, requests that CEMS not be required to make ISO corrections on a continuous basis when units are subject to PSD NO<sub>x</sub> limits that are more stringent than those in Subpart GG would not have to be submitted to Region 4 for case-by-case reviews. One condition imposed on any such approvals, however, must be that the CT owner or operator keeps records of the data needed to make the correction.

#### Multiple load testing requirements

Under the provisions of 40 C.F.R. Section 60.335(c)(2), owners and operators of CTs subject to Subpart GG must conduct NO<sub>x</sub> performance testing at four different loads across the unit operating range. There are two circumstances under which it would be acceptable for initial performance testing to be conducted at a single operating load. One circumstance which is addressed in the enclosed EPA Region 2

determination dated May 19, 1994, would be one in which a turbine is subject to a permit condition which restricts the unit to operating at a single load level. In this situation, a single load test provides adequate assurance of compliance, and nothing would be gained by conducting testing for three additional load levels at which the turbine is not intended to operate.

Although we are not aware of many CTs that are restricted to operating at a single load level, one common situation where a waiver of the requirement to conduct a multiple load performance test on a CT would be one in which a CEMS is used to satisfy the NOx monitoring requirements in the rule. One reason for conducting a multiple load test on a CT is to determine the water injection rate needed to maintain NOx compliance across the unit's normal operating range. Since it is difficult to predict which operating load will represent "worst case" conditions for a CT, conducting a multiple load test is often necessary in order to provide an adequate level of compliance assurance even for turbines that do not use water injection for NOx control. For CTs equipped with NOx CEMS, however, the monitors will provide credible evidence regarding the unit's compliance status on a continuous basis following the initial test, and the level of compliance assurance provided in this case is sufficient to justify approval of requests that initial performance testing be allowed at a single operating load.

#### Initial NOx performance testing options for CEMS-equipped units

In addition to approving requests that single-load testing be accepted for units equipped with NOx CEMS, Region 4 has also allowed companies to use certified monitors to collect the data needed for demonstrating initial compliance. The NOx test method specified for Subpart GG under the provisions in 40 C.F.R. Section 60.335(c)(3) is EPA Method 20, and once a NOx CEMS has been certified, the main difference between using the monitor or Method 20 to collect the data for the initial performance test involves the number of traverse points at which the sampling is conducted. Although a CEMS extracts the sample from a single point instead of the eight traverse points required under Method 20, part of the monitor certification process involves verifying that the CEMS probe is collecting a sample from a representative location in the stack. Therefore, Region 4 has allowed owners and operators of Subpart GG turbines to use certified CEMS to collect data for initial NOx performance testing on a number of occasions. Conditions for these approvals have been that compliance be based on a minimum of three test runs representing a total of at least three hours of data and that the CEMS be calibrated in accordance with the procedure in Section 6.2.3 of Method 20 following each run. Provided that owners and operators agree to these conditions, it will not be necessary to submit future proposals for using NOx CEMS to conduct initial performance testing on Subpart GG turbines to Region 4 for a case-by-case review.

Another initial testing alternative that we know has recently been approved in at least one other EPA Region involves demonstrating compliance with the emission standard in Subpart GG using the data collected during the relative accuracy test audit (RATA) performed on a NOx CEMS. Although no CT owner or operator has made a specific proposal of this type in Region 4, it would be acceptable to us since the amount of sampling conducted during the RATA (a minimum of nine 21-minute test runs) using EPA reference test methods provides enough representative emissions data to determine the CT's compliance status. Therefore, if you receive any proposals to determine NOx compliance for a CT using the reference method test data collected during a RATA conducted on the unit's CEMS, it will not be necessary to submit the proposal to Region 4 for a case-by-case review.

#### Alternative sampling procedures for oil storage tanks

- (1) August 14, 1987, EPA Headquarters custom fuel monitoring policy for Subpart GG turbines
- (2) May 31, 1994, EPA Headquarters determination regarding monitoring obligations for CTs that do not use water injection for NOx control
- (3) March 12, 1993, EPA Headquarters determination regarding the use of CEMS for excess emission monitoring under NSPS Subpart GG
- (4) May 19, 1994, EPA Region 2 approval for single load NOx performance testing on a CT that is restricted to operating at one load

12/03/01 10:59 HGS → 8504446217

# Smith Combined Cycle Environmental Air Compliance Test and CEM Certification Workplan

ID	Task Name	Start	Finish	November	December	January	February	March	April	May	June
1	Engineering Report	Fri 11/9/01	Fri 11/9/01	◆ 11/9							
2	Cooling Tower letter of certification	Fri 11/9/01	Thu 12/20/01								
3	FDEP/EPA Startup Notice	Fri 11/9/01	Tue 11/20/01								
4	First Fire Unit 4 & Tie to Grid	Thu 12/20/01	Thu 12/20/01		◆ 12/20						
5	First Fire Unit 5	Sat 1/12/02	Sat 1/12/02			◆ 1/12					
6	Implement Custom Fuel Monitoring Plan	Fri 11/9/01	Wed 12/19/01								
7	Maximum Production Rate Achieved	Tue 3/12/02	Tue 3/12/02					◆ 3/12			
8	FDEP Compliance Test Notification	Mon 1/21/02	Thu 2/28/02								
9	Initial Compliance Testing	Thu 12/20/01	Tue 6/18/02								
10	Corrections to ambient curve	Sat 5/11/02	Tue 6/25/02								
11	PSD emissions compliance tests	Tue 3/12/02	Sat 5/11/02								
12	SO2 Allowances Unit 4	Wed 3/20/02	Wed 3/20/02					◆ 3/20			
13	SO2 Allowances Unit 5	Fri 4/12/02	Fri 4/12/02						◆ 4/12		
14	Notification of Initial Certification	Thu 12/20/01	Sun 2/3/02								
15	CEMS Certification Unit 4	Thu 12/20/01	Wed 3/20/02								
16	CEMS Certificaton Unit 5	Sat 1/12/02	Fri 4/12/02								
17	CEMS/Fuel Monitoring Plans	Thu 12/20/01	Sun 2/3/02								
18	CEMS Initial Certification Report	Wed 3/20/02	Sat 5/4/02								
19	NOx Emissions Cap Reports	Sat 6/1/02	Sat 6/1/02								◆ 6/1

Project: Smith 3 Deadlines updated 11-  
Date: Wed 12/5/01

Task		Rolled Up Task		External Tasks	
Progress		Rolled Up Milestone		Project Summary	
Milestone		Rolled Up Progress			
Summary		Split			