

# **INTEROFFICE MEMORANDUM**

TO: Michael Cooke

THRU: Trina Vielhauer  
Jim Pennington

FROM: Bruce Mitchell

DATE: June 9, 2004

SUBJECT: Request for a Reduction of the Allowable Sulfur Dioxide (SO<sub>2</sub>) Emission Limiting Standard for Boilers Nos. 4, 5, 6 and 7, When Burning Solid Fuel (Pulverized Coal)  
Gulf Power Company  
Crist Electric Generating Plant  
Air Construction Permit Project No.: 0330045-008-AC

The proposed project was requested to establish a reduction of the allowable sulfur dioxide (SO<sub>2</sub>) emission limiting standard for Boilers Nos. 4, 5, 6 and 7, when burning solid fuel (pulverized coal), and to revise one (1) Specific Condition, specifically No. 5., that was established in air construction permit, No. AC17-234016, for Boiler No. 6. These emissions units are located at the Gulf Power Company's Crist Electric Generating Plant in Pensacola, Escambia County. The allowable SO<sub>2</sub> emissions limiting standard will change from 5.90 pounds per million Btu heat input, when burning solid fuel (pulverized coal), 24-hour average, to 2.40 pounds per million Btu heat input, when burning solid fuel (pulverized coal), 24-hour average, with compliance demonstrated using certified stack SO<sub>2</sub> continuous emission monitors.

There were no comments received during the Public Notice period (14-days). Therefore, it is recommended that the Final permit (letter) be signed as drafted and Public Noticed..

MGC/rbm

Attachments

**NOTICE OF FINAL PERMIT**

In the Matter of an  
Application for Permit:

Mr. Gene L. Ussery, Jr.  
V.P. of Power Generation  
Gulf Power Company  
One Energy Place  
Pensacola, Florida 32520

DEP File No.: 0330045-008-AC  
Escambia County

Enclosed is the Final Air Construction Permit, No. 0330045-008-AC. The subject of the permit (letter) is to establish a reduction of the allowable sulfur dioxide (SO<sub>2</sub>) emission limiting standard for Boilers Nos. 4, 5, 6 and 7, when burning solid fuel (pulverized coal), and to revise one (1) Specific Condition, specifically No. 5., that was established in air construction permit, No. AC17-234016, for Boiler No. 6. These emissions units are located at the Gulf Power Company's Crist Electric Generating Plant in Pensacola, Escambia County. This permit (letter) is issued pursuant to Chapter 403, Florida Statutes (F.S.). There were no comments received during the Public Notice period.

Any party to this order (permit) has the right to seek judicial review of the permit (letter) pursuant to Section 120.68, F.S., by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Legal Office; 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 (thirty) days from the date this Notice is filed with the Clerk of the Department.

Executed in Tallahassee, Florida.



Trina L. Vielhauer  
Chief  
Bureau of Air Regulation

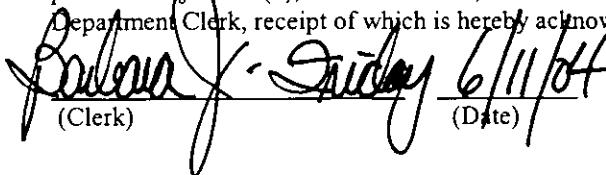
**CERTIFICATE OF SERVICE**

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF FINAL PERMIT (including the Final Permit) was sent by certified mail (\*) and copies were mailed by U.S. Mail before the close of business on 6/11/04 to the person(s) listed or as otherwise noted:

Mr. Gene L. Ussery, Jr. \*, V.P. of Power Generation, GPC  
Ms. Sandra Veazey, NWD  
Mr. Kevin White, NWD  
Mr. Andy Allen, NWD  
Mr. G. Dwain Waters, QEP, Air Quality Programs Supervisor, GPC

Clerk Stamp

**FILING AND ACKNOWLEDGMENT FILED**, on this date, pursuant to ~~8130.52~~ 8130.52(7), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

  
(Clerk) 6/11/04 (Date)

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

7001 1140 0002 1578 1352

**OFFICIAL USE**  
 Mr. Gene L. Ussery, Jr., V.P.

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

Postmark  
Here

Sent To  
 Mr. Gene L. Ussery, Jr., V.P.  
 Street, Apt. No.,  
 or PO Box No. One Energy Place  
 City, State, ZIP+4  
 Pensacola, Florida 32520-0328  
 PS Form 3800, January 2001 See Reverse for Instructions

**SENDER: COMPLETE THIS SECTION**

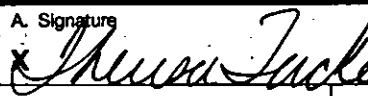
- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:  
 Mr. Gene L. Ussery, Jr.  
 V.P. of Power Generation/Transmission  
 Gulf Power Company  
 One Energy Place  
 Pensacola, Florida 32520-0328

2. Article Number  
 (Transfer from service label)

7001 1140 0002 1578 1352

**COMPLETE THIS SECTION ON DELIVERY**

A. Signature  
  Agent  Addressee

B. Received by (Printed Name)  
 THERESA TUCKER

C. Date of Delivery  
 7-8-04

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



# Department of Environmental Protection

Jeb Bush  
Governor

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

Colleen M. Castille  
Secretary

June 10, 2004

CERTIFIED MAIL – Return Receipt Requested

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

Dear Mr. Ussery:

RE: Request for a Reduction of the Allowable Sulfur Dioxide Emission Limiting Standard for Boilers Nos. 4, 5, 6 and 7, When Burning Solid Fuel (Pulverized Coal)  
Gulf Power Company  
Crist Electric Generating Plant  
Project No.: 0330045-008-AC

The Department has reviewed the request that you provided on May 3, 2004, which asked for a reduction in the allowable sulfur dioxide (SO<sub>2</sub>) emission limiting standard for Boilers Nos. 4, 5, 6 and 7, when burning solid fuel (pulverized coal), at Gulf Power Company's Crist Electric Generating Plant. This permitting project establishes an allowable SO<sub>2</sub> emission limiting standard for Boilers Nos. 4, 5, 6 and 7, when burning solid fuel (pulverized coal), and revises one (1) Specific Condition, specifically No. 5, that was established in air construction permit, No. AC17-234016, for Boiler No. 6. Therefore, the following are added and changed:

**A. Specific Conditions.**

1. The Crist Electric Generating Plant's Boilers Nos. 4, 5, 6 and 7, shall not exceed 2.40 pounds per million Btu heat input, 24-hour average, while burning solid fuel (pulverized coal), with compliance determined by certified stack SO<sub>2</sub> continuous emission monitors.

[Applicant Request; Rules 62-4.070(3), 62-204.220(1) and 62-212.300(1)(b), F.A.C.; and, 0330045-008-AC]

2. All of the terms and conditions of the attached air construction permit, No. AC17-234016, remain the same except for Specific Condition No. 5., as follows:

a. Revision to Specific Condition No. 5., AC17-234016, for Boiler No. 6.

**FROM:**

The manner, nature, volume and frequency of permitted emissions, applicable emissions limiting standards, if any, and allowable emissions are listed as per FAC Rule 17-210.300(2)(a):

Airborne Contaminant Emitted	FAC Rule	Allowable Emissions T/yr
SO <sub>2</sub>	17-296.405(1)(c)2c	87035 <sup>2</sup>

<sup>2</sup> Based on steady-state operating parameters, application to construct and rule: SO<sub>2</sub> emissions shall not exceed 5.90 pounds per million Btu heat input.

"More Protection, Less Process"

Printed on recycled paper.

Mr. Gene L. Ussery, Jr.  
Gulf Power Company: Crist Electric Generating Plant  
Boilers Nos. 4, 5, 6 and 7  
Project No.: 0330045-008-AC  
Page 2 of 2

**TO:**

The manner, nature, volume and frequency of permitted emissions, applicable emissions limiting standards, if any, and allowable emissions are listed as per Rule 62-210.300(2)(a), F.A.C.:

<u>Airborne Contaminant Emitted</u>	<u>FAC Rule</u>	<u>Allowable Emissions T/yr</u>
SO <sub>2</sub>	62-296.405(1)(c)2.c.	38945 <sup>2</sup>

<sup>2</sup> Based on steady-state operating parameters, application to construct and rule:  
SO<sub>2</sub> emissions shall not exceed 2.40 pounds per million Btu heat input, 24-hour average, for the coal-fired emissions unit.

[Applicant Request; Rules 62-4.070(3), 62-204.220(1) and 62-212.300(1)(b), F.A.C.; and, 0330045-008-AC]

3. ATTACHMENT GENERAL CONDITIONS is a part of this permit (letter) and incorporated by reference.

**B. Attachment Section.**

- a. Air construction permit, No. AC17-234016, dated October 7, 1993.
- b. Mr. G. Dwain Waters's letter received May 3, 2004.
- c. ATTACHMENT GENERAL CONDITIONS.
- d. Public Notice affidavit received June 1, 2004.
- e. Final Determination.

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

Sincerely,



Michael G. Cooke, Director  
Division of Air Resource Management

MGC/rbm

Enclosures

cc: Trina Vielhauer, DEP - BAR  
Jonathan Holtom, DEP - BAR  
Sandra Veazey, DEP - NWD  
G. Dwain Waters, Q.E.P., GPC

Jim Pennington, DEP - BAR  
Cleve Holladay, DEP - BAR  
Andy Allen, DEP - NWD



Lawton Chiles  
Governor

# Florida Department of Environmental Protection

Northwest District  
160 Governmental Center  
Pensacola, Florida 32501-5794

Virginia B. Wetherell  
Secretary

**PERMITTEE:**

Gulf Power Company

I.D. Number: 10PEN17004506  
Permit/Certification Number: AC17-234016  
Date of Issue: October 7, 1993  
Expiration Date: December 1, 1994  
County: Escambia  
Latitude/Longitude: 30°33'57"N/87°13'29.5"W  
Project: Electrostatic Precipitator, Crist 6

This permit is issued under the provisions of Section 403.087, Florida Statutes, and Florida Administrative Code Rules 17-296, 17-297 and 17-4. The above named applicant, hereinafter called Permittee, is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents attached hereto or on file with the Department and made a part hereof and specifically described as follows:

Construction of a replacement Electrostatic Precipitator (ESP), for Crist Unit No. 6. The new ESP will reduce PM emissions by 922 T/yr. The coal-fired power boiler (Crist No. 6) is used to supply steam for the generation of 320 MW of electricity.

Emissions of particulates will be controlled by the ESP, Wheelabrator model HaRDE. The ESP has a PM removal efficiency of 99.6% at full load flow conditions of 1,325,820 ACFM. Emissions of sulfur dioxide are controlled by the sulfur content of the coal. Continuous emissions monitoring systems for opacity, sulfur dioxide, nitrogen oxides and oxygen are installed. Collected fly ash and bottom ash generated by the combustion of fossil fuels are to be disposed of in an on-site permitted landfill.

Located: Gulf Power Crist Plant, Ten Mile Road, on Governor's Bayou, north of Pensacola.

Specific Condition No. 2 requires notification upon commencement of construction. Projects beyond one year require annual status reports.

Specific Condition No. 2 also requires notification and prior approval of any changes or revisions made during construction.

Specific Condition No. 18 requires submittal of certificate of completion of construction with appropriate fee within 75 days after completion of construction.

Specific Condition No. 18 also requires obtaining an operating permit before the expiration date (December 1, 1994) of this construction permit for continued operation.

PERMITTEE:  
Gulf Power Company

I.D. Number: 10PEN17004506  
Permit/Certification Number: AC17-234016  
Date of Issue: October 7, 1993  
Expiration Date: December 1, 1994

SPECIFIC CONDITIONS:

1. The attached General Conditions are part of this permit.
2. The Department shall be notified upon commencement of construction. The Department shall be notified and prior approval shall be obtained of any substantial changes or revisions made during construction. Projects beyond one year require annual status reports.
3. The nameplate capacity is 320 MW net output of electricity based on the maximum fuel consumption of 3368 MBtu/hr input as measured by average fuel heating values. This is the operating rate at which compliance with standards shall be demonstrated. The maximum allowable heat input is that heat input necessary to maintain electrical load output at 110 percent of nameplate capacity or the level at which the most recent successful emissions compliance test was conducted. If the test was conducted at less than 90 percent of nameplate capacity of the unit, permittee may operate the unit at loads up to the nameplate capacity for purposes of preparation for testing for up to ten calendar days. The Department shall be advised in writing prior to each testing.
4. The Electrostatic Precipitator, and Crist Unit 6 may operate continuously, i.e., 8760 hrs/yr.
5. The manner, nature, volume and frequency of permitted emissions, applicable emissions limiting standards, if any, and allowable emissions are listed as per FAC Rule 17-210.300(2)(a):

<u>Airborne Contaminant Emitted</u>	<u>FAC Rule</u>	<u>Allowable Emissions T/yr</u>
PM	17-296.405(1)(b)	1475 1
SO <sub>2</sub>	17-296.405(1)(c)2c	87035 2
Objectionable Odors	17-296.320(2)	None allowed off plant property, 3
VE	17-296.405(1)(a)	40% opacity 3

- 1 Based on steady-state operating parameters, application to construct and rule:  
PM emissions shall not exceed 0.1 pounds per million Btu heat input.
- 2 Based on steady-state operating parameters, application to construct and rule:  
SO<sub>2</sub> emissions shall not exceed 5.90 pounds per million Btu heat input.
- 3 Department order dated May 12, 1988.

6. Excess emissions as stated in FAC Rule 17-210.700 shall be allowed. The steady-state hourly emission rate allowable for PM listed in Specific Condition #5 shall not apply during soot-blowing or load changes. However, PM emissions shall not exceed an average of 0.3 lb/MMBtu heat input (equivalent to 1011 lb/hr allowable emissions - steady state) during the 3 hour excess emissions period allowed by 17-210.700 ( ref. FAC rule 17-210.700(3) ).

PERMITTEE:  
Gulf Power Company

I.D. Number: 10PEN17004506  
Permit/Certification Number: AC17-234016  
Date of Issue: October 7, 1993  
Expiration Date: December 1, 1994

SPECIFIC CONDITIONS:

7. Excess emissions are defined as:

- A. Any six-minute average for opacity which exceeds the standard.
- B. Any 24-hour average for sulfur dioxide which exceeds the standard.

8. The Department shall be notified as soon as possible (by telephone) of excess emissions that are beyond the allowances of FAC Rule 17-210.700, such as:

A. Any soot blowing or load changes that cause excess visible emissions for a period longer than three hours, or that exceed 60 percent opacity (six minute average) more than four times in any one day.

B. Any malfunction that causes excess visible emissions for a period longer than two hours in any one day.

C. A 24-hour average of SO<sub>2</sub> emissions measured by the continuous monitor that exceeds the standard, or daily average SO<sub>2</sub> emissions measured by coal analysis (in the event the permittee chooses) that exceeds the standard.

Immediately upon notification of excess emissions that are beyond the allowances, the permittee shall take the necessary steps to determine the cause and arrange a meeting with the Department within 72 hours to discuss a settlement of the violation with corrective action to avoid recurrence.

9. A log shall be maintained showing the duration, magnitude and cause of excess visible emissions, and of excess SO<sub>2</sub> emissions.

10. A quarterly report of excess emissions shall be submitted within 30 days following the end of each calendar quarter. The report shall consist of each individual exceedance of opacity or SO<sub>2</sub> emissions (specific Conditions 7 and 8) with duration, magnitude and cause. Any exceedance that is beyond the allowances of FAC Rule 17-210.700 shall be highlighted with note indicating compliance with specific condition 8. A continuous emissions monitor quarterly summary report shall be submitted for each CEM.

11. A maintenance log of the continuous monitoring system shall be kept showing time out of service, and calibrations and adjustments.



PERMITTEE:  
Gulf Power Company

I.D. Number: 10PEN17004506  
Permit/Certification Number: AC17-234016  
Date of Issue: October 7, 1993  
Expiration Date: December 1, 1994

SPECIFIC CONDITIONS:

12. Emissions tests are required to show compliance with the standards of the Department. The test results must provide reasonable assurance that the source is capable of compliance at the permitted maximum operating rate. Tests shall be conducted in accordance with the table below. Such tests shall be scheduled within 30 days after construction is completed. The Department shall be notified at least 15 days prior to testing to allow witnessing. Results shall be submitted to the Department within 45 days after testing.

<u>Pollutant</u>	<u>Test Method</u>
PM	DEP method 1, 2, 3, and 17
VE	DEP method 9

The VE test shall be conducted during one of the PM test runs. Test reports shall comply with F.A.C. Rule 17-297.570, Test Reports. The Department can require special compliance tests in accordance with F.A.C. Rule 17-297.340(2). Other test methods and alternate compliance procedures may be used only after prior Departmental approval has been obtained in writing.

13. Immediately upon notification of a particulate test report that fails to demonstrate compliance with the particulate emission limit of 0.1 pounds per million Btu heat input, the permittee shall take necessary steps to determine the cause of the test failure and arrange a meeting with the Department within 72 hours to discuss a settlement of the violation and a schedule for retesting when the cause of the test failure has been determined and corrected.
14. Boilers No. 6 and 7 use a common stack. Visible emission violations from this stack shall be attributed to both boilers unless opacity meter results show the specific boiler causing the violation.
15. Continuous SO<sub>2</sub> emission monitoring 24-hour averages are required to demonstrate compliance with the standard of the Department (specific condition 5). A valid 24-hour average shall consist of no less than 18 hours of valid data capture per calendar day. In the event that valid data capture is not available, the permittee shall initiate as-fired fuel sampling to demonstrate compliance with the SO<sub>2</sub> emission standard. The as-fired fuel sampling shall be initiated no later than 36 hours after the permittee has verified the problem or no later than 36 hours after the end of the affected calendar day. Fuel sampling shall continue until such time as the valid data capture is restored. In lieu of as-fired fuel sampling the permittee may elect to demonstrate SO<sub>2</sub> emission compliance by the temporary use of a spare SO<sub>2</sub> emission monitor. The spare SO<sub>2</sub> emission monitor must be installed and collecting data in the same time frame as required above for as-fired fuel sampling.

PERMITTEE:  
Gulf Power Company

I.D. Number: 10PEN17004506  
Permit/Certification Number: AC17-234016  
Date of Issue: October 7, 1993  
Expiration Date: December 1, 1994

SPECIFIC CONDITIONS:

16. The permittee shall develop and implement a QC program. As a minimum, the QC program must include written procedures which should describe in detail complete, step-by-step procedures and operations for each of the following activities:

1. Calibration of CEMS.
2. Calibration Drift determination and adjustment of CEMS.
3. Preventive maintenance of CEMS (including spare parts inventory).
4. Data recording, calculations and reporting.
5. Accuracy audit procedures including sampling and analysis methods.
6. Program of corrective action for malfunctioning CEMS.

17. The applicant shall retain a Professional Engineer, registered in the State of Florida, for the inspection of the construction of this project. Upon completion the engineer shall inspect for conformity to the permit application and associated documents. A Certificate of Completion [Form DEP 17-1.202(3) attached] shall be submitted with the compliance test results and appropriate fee as application for an operation permit. These are to be submitted within 75 days after completion of construction. The permittee shall obtain an operating permit for this source before the expiration of this construction permit if the permittee desires to continue operation.

18. All fugitive dust generated at this site shall be adequately controlled.

19. The permanent source identification number for this point source is 10PEN17004506. Please cite this number on all test reports and other correspondence specific to this permitted point source.

20. The Department telephone number for reporting problems, malfunctions or exceedances under this permit is (904) 436-8300, day or night, and for emergencies involving a significant threat to human health or the environment is (904) 488-1320. For routine business, telephone (904) 436-8364 during normal working hours.

Expiration Date:

Issued this 7<sup>th</sup> day of October,  
1993.

December 1, 1994

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL PROTECTION

  
BOBBY A. COOLEY  
District Director