

Sheplak, Scott

From: Waters, Glenn D. [GDWATERS@southernco.com]
Sent: Monday, April 02, 2001 2:42 PM
To: Salmon, Carolyn; Sheplak, Scott
Cc: Veazey, Sandra
Subject: Crist 5 Flow Petition Approved by EPA

After several weeks of discussion, EPA staff finally convinced the EPA attorneys to agree to the Gulf Power Petition to allow Gulf to resubmit the year 2000 Acid Rain quarterly reports for Crist Unit 5. As you may recall, several weeks ago, Gulf Power discovered an error in our quality assurance evaluation for a flow RATA conducted on Crist Unit 5. We self reported this finding to EPA and FDEP. Our petition and subsequent approval by Brian McLean should resolve the Acid Rain reconciliation report for Crist for year 2000. There should be no problem regarding excess emissions for this unit since there are sufficient allowances in the Crist 5 account to cover the increased calculated emissions. At this point, I don't anticipate any additional penalties or concerns from EPA regarding this matter. Please let me know if you have any questions. Thanks, Dwain

G. Dwain Waters, QEP
Air Quality Programs Supervisor
Gulf Power
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gdwaters@southernco.com

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Sheplak, Scott

From: Waters, Glenn D. [GDWATERS@southernco.com]
Sent: Tuesday, March 20, 2001 3:02 PM
To: Kim NGUYEN (E-mail); Sheplak, Scott; Salmon, Carolyn; Lynn Haynes (E-mail); David McNeal (E-mail)
Cc: Herrin, William D.; Vick, James O.; Andrews, Jacquelyn S.; Gary Perko (E-mail); Dominey, John M.
Subject: Crist Unit 5 Flow Petition to EPA

EPAPetitionCov03019 EPAPetitionCr5Flow31
01.DOC 901.doc

Attached is an electronic version of the EPA petition for Crist Unit 5 as FedX'd to Brian McLean earlier today. The petition is based on Gulf Power discussions with Kim Nguyen (EPA) over the last several weeks. Gulf Power is prepared to re-submit the Crist 5 acid rain quarterly reports for 2000 as soon as this petition is accepted by EPA. We have also confirmed with our ATS contact, Kenon Smith (EPA) to have the additional SO2 allowances outlined in the petition and new annual reconciliation deducted from the Crist Unit 5 ATS account on a "first in, first out" basis. The Crist Unit 5 ATS account has sufficient allowances to cover the re-submission. At this point it doesn't appear that there are any compliance issues and no resubmission of the annual Title IV or V certifications required. Please let me know if you have any questions.

Thank you Kim, David, and Lynn for your quick and reasonable response to this issue.

Thanks again, DWAIN
<<EPAPetitionCov0301901.DOC>> <<EPAPetitionCr5Flow31901.doc>>
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RECEIVED

MAR 23 2001

BUREAU OF AIR REGULATION



Certified Mail

March 20, 2001

Mr. Brian J. McLean
United States Environmental Protection Agency
Acid Rain Program (6204N)
633 3rd Street, NW
Washington, DC 20001

Dear Mr. McLean:

RE: GULF POWER COMPANY – CRIST UNIT 5 FLOW MONITORING PETITION
CRIST ELECTRIC GENERATING PLANT (Title V No: 0330045-001-AV)
ORIS CODE: 641

Attached, please find Gulf Power Company's petition to EPA for correction of flow monitoring data for Crist Unit 5 for the period from March 8, 2000 to March 7, 2001.

On March 6, 2001, Gulf Power discovered during a routine investigation that errors were made in last year's Relative Accuracy Test Audit for the flow CEM (continuous emission monitor) located on Unit 5 at the Crist Electric Generating Plant. Gulf Power believes this is a fair and accurate method to correct the data for the 2000 annual reconciliation. Gulf Power regrets this isolated discrepancy with this data and is implementing a corrective action plan to make sure it doesn't occur again. Gulf Power is self reporting this problem and has advised the Florida Department of Environmental Protection and EPA Region IV to the issue and proposed action plan.

If you have any questions or need further information regarding the Crist Unit 5 Flow Monitoring Petition, please call me at (850) 444.6527.

Sincerely,

A handwritten signature in black ink that reads "G. Dwain Waters Q.E.P." The signature is written in a cursive style.

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

March 20, 2001

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Mr. Brian J. Mclean

Crist Unit 5 Flow Monitoring Petition

cc: w/att: Robert G. Moore, Gulf Power Company
Jim Vick, Gulf Power Company
Joe Martin, Gulf Power Company
Terry Wright, Gulf Power Company
John Dominey, Gulf Power Company
Danny Herrin, Southern Company Services
Gary Perko, Hopping, Green, Sams & Smith
✓ Scott Sheplak, Florida Department of Environmental Protection,
Air Resources Management, Tallahassee, Florida
Sandra Veazey, Northwest District, Florida Department of
Environmental Protection, Pensacola, Florida
Lynn Haynes, Environmental Protection Agency, Region IV
Atlanta, Georgia
Kim Nguyen, Environmental Protection Agency, CAA Markets Division
Washington, DC

GULF POWER PETITION TO EPA FOR CORRECTION OF FLOW MONITORING DATA FOR CRIST UNIT 5


03/19/01

Gulf Power, hereby petitions EPA Clean Air Act Markets Division to allow the adjustment of data previously submitted in quarterly emissions reports under Part 75 of the Clean Air Act for Crist Unit 5 heat input for year 2000. The data under petition for correction is from March 8, 2000 to December 31, 2000 and from January 1, 2001 to March 7, 2001.

Gulf Power proposes to use an alternative to the missing data procedure outlined in 40 CFR Part 75.33 (C) (4) for volumetric flow for Crist Unit 5 when monitor availability falls below 80%. The proposed alternative procedure substitutes missing data using the maximum flow value recorded for the prior 2160 quality-assured monitor operating hours for those hours when monitor availability falls below 80% in lieu of the highest maximum potential flow recorded as outlined in Part 75. Using this procedure will require an estimated 1176 SO₂ allowances to be additionally deducted from the Crist 5 ATS Unit Account for year 2000.

Preliminary review of this alternative procedure has been discussed with the technical staff of EPA Clean Air Act Markets Division with much support. Gulf Power believes this is a fair and accurate method to correct the Crist Unit 5 flow data. Gulf Power regrets this isolated discrepancy with this data and is implementing a corrective action plan to make sure it doesn't occur again. Gulf Power is self reporting this problem and has advised the Florida Department of Environmental Protection and EPA Region IV to the issue and proposed action plan.

Attached is a white paper summarizing the issue and Gulf Power's proposed corrective action plan. Please call G. Dwain Waters at (850) 444-6527 regarding any questions on this petition.



James O. Vick
Alternative Designated Representative*
Crist Electric Generating Plant

000706
AAR#

3/19/01
Date

* Please note that this facility has two Alternative Designated Representatives.

CRIST UNIT 5 FLOW RATA ISSUE SUMMARY

03/19/01 (revised by GDW)

Issue: On March 7, 2001 Crist Unit 5 conducted the annual Relative Accuracy Test Audit (RATA) on the stack gas flow monitor for high load. As part of the process to re-calibrate, test and successfully pass the 2001 RATA, Gulf Power discovered that the flow RATA for the previous year conducted on March 8, 2000 should have failed, but was based on inaccurate data and was mistakenly reported as passed. The error has been traced to Gulf Power receiving bad data from our test contractor (Sanders Engineering) in the field. The original data presented in the field was flow data measured on a dry basis whereas the correct data should have been determined on a wet basis (moisture included). The difference in the data set is critical whether the test passed or failed. In re-calculating the 2000 RATA data, Gulf Power determined that the test conducted on March 8, 2000 had actually failed.

FACTS and COMMENTS:

- Crist Unit 5 is an 94 MW, tangentially coal fired Phase I Substitution Unit with the CEM system located in the duct system before the stack. The monitor of concern is a United Sciences ultra-sonic flow monitor. Quarterly "Flow to Load" QA/QC tests revealed no problems during the year due the data error being carried over into these tests.
- The 2000 Normal Load (High) Flow RATA test on Unit 5 on March 6, 2000 was originally reported as passed @ 3.46% Relative Accuracy (RA) with no bias adjustment. Using corrected data (wet basis), the RATA was failed at 10.83% Relative Accuracy (RA) with a 1.106 Bias Factor. The Low Load Flow RATA was also mis-calculated and was recorded as passing at 3.34% RA when it actually failed at 13.20 RA with a bias factor of 1.144. No mid load Flow RATA was required or conducted due to the belief that the normal and low load RATAs had passed.
- Unit 5 has banked allowances totaling 28,278 from Phase I therefore excess emissions from under reporting for Year 2000 should not an be issue.
- Re-calibration and adjustment of the K factor on the United Sciences ultra-sonic flow monitor have corrected the flow-monitoring problem on Crist Unit 5. The monitor was consider "certified" on 3/08/01.
- Gulf Power proposes one of the following options to correct any under reporting for SO₂ and CO₂ for Unit 5 for Year 2000 and 2001.
 - (a) Re-calculate quarterly reports for 2000 and 2001 using missing data routine from date of RATA failure until re-certification in 2001 (3/8/00 to 3/7/01). Additional allowance surrender estimated at 3,121 (Estimated value: \$540,000).
 - (b) Re-calculate quarterly reports for 2000 and 2001 using missing data routine modified for time below 80% availability to use the maximum recorded value during the prior 2160 quality-assured monitoring hours. Additional allowance surrender estimated at 1176 allowances. (Estimated value: \$203,000)
 - (c) Re-calculate quarterly reports for 2000 and 2001 using the bias adjustment factor for the worst case RATA correctly calculated for 2000 on 3/08/01 for all data periods from 3/8/00 to 3/7/01. Additional allowance surrender estimated at 589. (Estimated value: \$102,000)

Note: Gulf Power proposes Option (b) as the most accurate method to correct the data.

- It is Gulf Power's position that the normal missing data routine over penalties a source with extended periods of missing data as outlined in this case. Thus option (b) is a fair and accurate method to correct the database. Crist Unit 5 availability was determined to be 99.2 % for Year 2000 before discovery of the referenced problem.
- The Unit 5 Flow problem effects annual tons for SO₂, CO₂ tons and Annual Heat Input for the Acid Rain Program. There is no impact to the SO₂ rate, NO_x rate, NO_x Averaging Plan or compliance to the state standards for Unit 5.
- All Gulf Power RATA reports for Year 2000 were reviewed to determine if this was an isolated problem only with Unit 5. No problems were identified with other RATA reports or units operated by Gulf Power.
- A Corrective Action Plan to make sure this problem doesn't reoccur will be implemented to include:
 - (a) Adopt a policy that all field data is properly identified by utilizing a standardized software program to determine dry vs wet flow data. Require contractor to adopt and use the program as a "best practices".
 - (b) Increase quality assurance and control review of the field reports and the overall RATA process to a second internal level of review. Specific action; Add QA/QC review of all final RATA reports as a direct responsibility to the "Environmental Engineer" performance plan.
 - (c) Implement a "data certification" signature sheet for contractor and reviewer for all RATA and Compliance Test reports.

Previous Actions:

- Noticed made to DR/ADRs on Crist 5 Flow Problem at 8 am on 03/09/01.
- Contacted FDEP – Northwest District Office (Carolyn Salmon) on March 9, 2001 to advise District on issue and Gulf Power proposed action plan.
- Contacted FDEP – Tallahassee Office (Jim Pennington) to March 9, 2001 to advise agency on issue and Gulf Power proposed action plan.
- Initial contact with EPA – Washington Office on March 9, 2001 to advise agency regarding flow issue on Crist Unit 5. (Message left with Kim Nguyen and Louis Nichols.) Confirmed problem with Ms. Nguyen and Mr. Nichols at 8:30 am on March 12, 2001. Discussed Gulf Power action plan to submit petition to revise Crist Unit 5 quarterly reports for 2000 and 2001.
- Contacted EPA Region IV Office on March 9, 2001 to advise Atlanta office of Crist Unit 5 flow issue. Discussed Gulf Power draft corrective action plan with David McNeal and Lynn Haynes.
- Draft Petition submitted to EPA (Kim Nguyen) on March 12, 2001.
- March 15, 2001: Discussions with EPA (Kim Nguyen) regarding other options.

AGREEMENT FOR THE PURPOSE OF ENSURING COMPLIANCE WITH OZONE AMBIENT AIR QUALITY STANDARDS

This agreement is entered into by the Florida Department of Environmental Protection (DEP) and Gulf Power Company (GULF), for the exclusive purposes as follows: (a) ensuring that GULF's electrical generating facility located within the Pensacola, Florida Metropolitan Planning Area (PFMPA) supports the Area's compliance with the eight hour ozone ambient air quality standard and (b) authorizing related cost recovery pursuant to Section 366.8255(1)(d) of the Florida Statutes as amended by the Florida Legislature in its 2002 session and signed into law by the Governor of the State of Florida.

WHEREAS:

I. GULF owns and operates the Crist Plant electrical generating facility in Escambia County, Florida. This plant generates electricity for the consuming public through the combustion of fossil fuel. The combustion of fossil fuels produces some of the precursor compounds that contribute to the formation of ozone in the ambient air.

II. Under the authority of the Clean Air Act, the U. S. Environmental Protection Agency (EPA) promulgated regulations dealing with air quality, including ambient air quality standards designed to protect human health and welfare. One such regulation places a limit on the amount of ozone that is considered to be acceptable in the ambient air during any 8-hour period (Ozone Standard).

III. Based upon the best available information, including ambient air quality monitoring data, DEP does not expect Escambia and Santa Rosa Counties to be in compliance with the Ozone Standard in 2004/2005 unless significant reductions of emissions of ozone precursor compounds are achieved in the Pensacola, Florida Metropolitan Planning Area.

IV. In its 2002 session, the Florida legislature adopted amendments to section 366.8255(1)(d) of the Florida Statutes to provide that an electric utility may seek recovery of costs and expenses prudently incurred pursuant to a voluntary agreement with DEP or EPA, for the purpose of ensuring compliance with ozone ambient air quality standards.

V. Representatives of DEP and GULF have met and arrived at a mutual agreement in furtherance of the purposes of Section 366.8255(1)(d)7 of the Florida Statutes as amended during the 2002 Florida legislative session.

VI. DEP and GULF concur that installation of Selective Catalytic Reduction (SCR) controls at Crist Unit #7 as well as the implementation of other NOx reduction

technologies on one or more of the other three coal-fired generating units at Plant Crist will be needed as part of a community wide effort to reduce ozone precursor compounds in the Pensacola Metropolitan Planning Area. Due to structural interference and performance concerns for the new SCR, a new Unit #7 precipitator will also be constructed at a new location and the SCR will be completed one year later in the location of the old Unit #7 precipitator.

VII. It is anticipated that the implementation of this agreement will result in an approximately 61% reduction [9,188 tons] in annual NO_x emissions from the GULF Crist Plant based upon 1999 baseline data.

NOW THEREFORE, in consideration of the premises and the mutual agreements contained herein, and intending to be legally bound, the DEP and GULF hereby agree as follows:

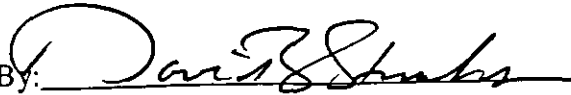
1. By May 1, 2005, GULF, after obtaining necessary permits and approvals, will install and begin and continue operating an SCR system at Crist Unit #7 whenever the Crist Unit #7 is online. The SCR system is designed to achieve no less than an 85% reduction in the quantity of nitrogen oxides as measured at the SCR unit inlet (SCR Project). The SCR Project includes the installation of a new precipitator necessary to structurally accommodate installation of the SCR. See Exhibit "A" for proposed project schedule.
2. In addition to the Crist Unit #7 SCR Project, and in order to achieve an overall plant wide Btu weighted average of 0.2 lbs/mmbtu NO_x emission rate as further specified in paragraph 3 below, Gulf agrees to conduct engineering studies on the feasibility of other NO_x reduction technologies on one or more of the remaining three coal-fired units at Plant Crist. Such studies and related unit specific demonstration projects may include (but are not limited to) SCR, Selective Non-Catalytic Reduction (SNCR) technology, Over-Fired Air (OFA) technology, natural gas reburn technology, selective use of biomass fuel, etc. Gulf further agrees to complete these studies by May 1, 2005. In the event GULF identifies an SCR project for Crist Unit #6 as the NO_x reduction technology, GULF will implement, begin and continue operating the SCR on Crist Unit #6 as described in paragraph 3 below by December 31, 2007. In the event GULF identifies a NO_x reduction technology other than SCR on Crist Unit #6, GULF will select and implement one or more NO_x reduction technologies on one or more of the three other Plant Crist coal-fired units by May 1, 2006. GULF will obtain written concurrence from DEP, before implementing such NO_x reduction technology or technologies, that the use thereof is reasonable and necessary to achieve the overall plantwide emission rate of 0.2 lbs/mmbtu specified in paragraph 3 below.

3. GULF will make necessary changes identified and within the timeframes set forth in paragraph 2 above, that will allow it to limit the overall 30 day average NOx emission rate at the Crist Plant to 0.2 lbs./mmbtu year-round except for periods in which Crist Unit #7 is offline. The emission rate shall be calculated pursuant to the formula set forth in Exhibit "B" to this agreement. While Crist Unit #7 is online, this 0.2 lbs./mmbtu will be achieved by utilizing the SCR system on Crist Unit #7 [discussed in paragraph 1 above] and the controls identified pursuant to paragraph 2 above. During such time as Crist Unit #7 may be offline between May 1 and September 15, GULF agrees to operate any NOx reduction technology or technologies DEP may have determined to be reasonable and necessary at other Plant Crist coal-fired units, pursuant to paragraph 2 above, unless prevented from doing so by circumstances beyond its reasonable control.
4. In addition to the NOx emission rate reduction strategies implemented pursuant to paragraphs 1 through 3 above, as a further part of this agreement to support the PFMPA's compliance with the eight hour ozone ambient air quality standard, GULF agrees to retire Crist Unit #1 within 120 days of receiving a final order from the Florida Public Service Commission as provided in paragraph 8 below. In addition, GULF further agrees to retire Crist Unit #2 and Crist Unit #3 on or before May 1, 2006.
5. In the event state or federal law changes to require a change in NOx emissions or the PFMPA is declared non-attainment for ozone, any reduction requirements would be in accordance with all applicable state and federal requirements. In addition, although Florida currently has no state statute providing for NOx trading or credits, GULF shall be entitled to retain all NOx reduction credits and trading rights that may be authorized by Florida law in the future.
6. In the event the FPSC issues a final order authorizing GULF to recover costs incurred pursuant to this agreement, by July 5, 2004, GULF will submit a Title V renewal application to the Department's Bureau of Air Regulation, 2600 Blair Stone Rd, MS 5500, Tallahassee, FL 32399 to incorporate the control technologies contained in this agreement as well as the NOx emission rate as described in paragraphs 1 through 3 above. DEP concurs that the changes envisioned by this agreement will not constitute "modifications" that trigger New Source Review.
7. DEP concurs that the steps and changes described in paragraphs 1 through 4 above are prudent for purposes of (a) ensuring that GULF's electrical generating facility located within the PFMPA supports the Area's compliance with the eight hour ozone ambient air quality standard and (b) authorizing

related cost recovery pursuant to Section 366.8255(1)(d) of the Florida Statutes as amended by the Florida Legislature in its 2002 session and signed into law by the Governor of the State of Florida.

8. This agreement is based upon the assumption that an order from the Florida Public Service Commission (FPSC) authorizing GULF to recover the costs incurred pursuant to this agreement through the Environmental Cost Recovery Clause is rendered final (final order) within 90 days of the execution of the agreement. A final order is one that is no longer subject to review or appeal by a court of competent jurisdiction. If a final order is not rendered within 90 days of the date of execution of this agreement, the parties concur that the dates and schedules herein are subject to revision solely by mutual agreement, in order to allow GULF to move forward with the activities described in paragraphs 1-4 above pending a final order by the FPSC. Gulf will exercise good faith in seeking approval of such cost recovery from the FPSC in a timely manner. DEP will support the efforts of GULF before the FPSC and in any subsequent review or appeal. If a final order is not rendered within 120 days of execution of this agreement, the entire agreement shall automatically become null and void unless extended by mutual written agreement of the parties within 30 days thereafter.
9. This agreement shall bind the parties hereto and those whom they represent and may be modified only in writing with the consent of both parties.
10. This agreement is entered into and effective on the date of the last signature of the parties below.

FLORIDA DEPARTMENT OF
ENVIRONMENTAL PROTECTION

By: 
David B. Struhs
Secretary

Date: August 28, 2002

GULF POWER COMPANY

By: 
Thomas A. Fanning
President and Chief Executive Officer

Date: August 28, 2002

**AGREEMENT FOR THE PURPOSE OF ENSURING
COMPLIANCE WITH OZONE AMBIENT AIR
QUALITY STANDARDS**

Exhibit "B"

Gulf will measure its compliance with the emission rate limit set forth in paragraph 3 of this agreement by determining the Plant Crist NOx emission rate, when Crist Unit #7 has operated for 30 sequential days (which need not be consecutive) on a generating unit-specific btu weighted average basis pursuant to the following formula:

$$\begin{array}{l} \text{plant wide} \\ \text{daily} \\ \text{mmbtu} \\ \text{weighted} \\ \text{NOx rate} \end{array} = \frac{\sum_{\substack{\text{Units} \\ 4, 5, 6, 7}} \left[\left(\text{Unit \# daily mmbtu} \right) \times \left(24 \text{ hour avg unit \# NOx CEMs rate} \right) \right]}{\sum_{\substack{\text{Units} \\ 4, 5, 6, 7}} \left(\text{Unit \# daily mmbtu} \right)}$$

For the purposes of this calculation, a Crist Unit #7 operating day means any calendar day that Crist Unit #7 is online a minimum of 18 hours.

Unit # daily mmbtu (heat input) in the foregoing formula is determined by Plant Crist's daily as-burned fuel analysis