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BUREAU OF AIR REGULATION



Certified Mail

March 12, 2007

Jonathan Holtom, P.E.
Florida Department of Environmental Protection
Division of Air Resources Management
2600 Blair Stone Road
Mail Station #5510
Tallahassee, Florida 32399-2400

Dear Mr. Holtom:

RE: CRIST ELECTRIC GENERATING PLANT
ADDITIONAL INFORMATION RESPONSE
FGD CONSTRUCTION PERMIT APPLICATION
File No: 0330045-015-AC

Gulf Power has completed the tasks requested in FDEP's letter dated November 29, 2006 regarding additional information for the Crist Flue Gas Desulfurization (FGD) project. In addition, we have several other items discussed during project conference calls over the last several months that we have included in today's submission. A certification by the Responsible Official is attached regarding Gulf's submission of the Crist FGD request for additional information.

Item #1 requested Gulf to complete "AERMod" air emissions modeling to demonstrate project impacts for SO₂ and NO_x during proposed bypass scrubber operations at Plant Crist. The results are summarized in "Attachment 1". Gulf's AERMod files for Plant Crist were previously electronically submitted to the Department on March 5, 2007 for review. Pursuant to the initial review by the Department and subsequent discussions on March 8, 2007, Gulf modified its modeling protocol to determine pre and post impacts due to the project. Our modeling results reveal that the Crist FGD project doesn't significantly impact ambient air quality.

Item #2 requested Gulf to confirm that the new proposed scrubber stack would be built to at least the Good Engineering Practice (GEP) stack height. The original GEP analysis included in the Crist FGD Construction Permit Application was based on the existing structures at Plant Crist. That analysis resulted in a GEP of 487 feet. Gulf's FAA application of 490 feet was based on this analysis and Gulf received a "Determination Of No Hazard To Air Navigation" on January 9, 2007. The FAA Determination Letter is enclosed as "Attachment 2".

Gulf has several additional items of submission for the Department's review. "Attachment 3" is a summary of Volatile Organic Compound (VOC) emissions anticipated during the on site fiberglass spinning process for the scrubber vessel. These emissions will be temporary during the construction of the scrubber and will utilize a 50% vapor suppressant process. Gulf believes these emissions will have a minimum impact on local air quality.

Finally, Gulf has developed a Crist Continuous Emission Monitoring Proposal regarding how the Company plans on meeting Federal and State monitoring requirements associated with the Crist FGD scrubber project. Gulf's monitoring proposal is enclosed as "Attachment 4". We have electronically routed this proposal to Sandra Veazey (FDEP – Bureau of Air Monitoring and Mobile Sources) for review as an alternative monitoring protocol.

Gulf Power's schedule to begin construction of this project is May 7, 2007. We appreciate your efforts to work with us regarding the startup of this emissions control system. Please call me regarding any additional questions or concerns.

Sincerely,



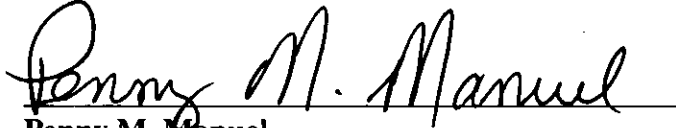
G. Dwain Waters, Q.E.P.
Special Projects and Environmental Assets Coordinator

cc: w/att: Jeff Koerner, FDEP – Tallahassee Office
 Jim Vick, Gulf Power Company
 Wright, Terry, Gulf Power Company
 John Dominey, Gulf Power Company
 Greg Terry, Gulf Power Company
 David Hollinger, Southern Company
 Jay Weston, Gulf Power Company
 Tom Davis, ECT
 Angela Morrison Uhland, Hopping, Green & Sams
 Mr. Rick Bradburn, FDEP Northwest District Office, Pensacola, Florida

**GULF POWER RESPONSE TO FDEP'S REQUEST FOR
ADDITIONAL INFORMATION FOR CRIST FGD PROJECT
CERTIFICATION BY RESPONSIBLE OFFICIAL**

"I, the undersigned, am the responsible official, as defined in Chapter 62-210.200, F.A.C., for the Title V source for which this information is being submitted. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made and data contained in Gulf's response to FDEP's request for additional information for the Crist FGD project is true, accurate and complete."

Responsible Official Signature:



**Penny M. Manuel
Vice-President & Senior Production Officer**

3-12-2007
Date:

Pre & Post Crist FGD Project Ambient Air Significant Impact Level (SIL) Evaluation

Table 1. Plant Crist - AERMOD Modeling Results

A. Annual NO₂ Impacts

Source	Maximum Annual NO ₂ Impact (µg/m ³)				
	2001	2002	2003	2004	2005
Gulf Plant Crst - Net Change	0.0	0.0	0.0	0.0	0.0
PSD SIL	1	1	1	1	1
Exceed PSD SIL (Y/N)	N	N	N	N	N

B. Annual SO₂ Impacts

Source	Maximum Annual SO ₂ Impact (µg/m ³)				
	2001	2002	2003	2004	2005
Gulf Plant Crst - Net Change	0.0	0.0	0.0	0.0	0.0
PSD SIL	1	1	1	1	1
Exceed PSD SIL (Y/N)	N	N	N	N	N

C. 3-Hour SO₂ Impacts

Source	Maximum 3-Hour SO ₂ Impact (µg/m ³)				
	2001	2002	2003	2004	2005
Gulf Plant Crst - Net Change	1.4	2.7	3.1	5.3	12.7
PSD SIL	25	25	25	25	25
Exceed PSD SIL (Y/N)	N	N	N	N	N

D. 24-Hour SO₂ Impacts

Source	Maximum 24-Hour SO ₂ Impact (µg/m ³)				
	2001	2002	2003	2004	2005
Gulf Plant Crst - Net Change	0.03	2.4	0.04	0.08	0.23
PSD SIL	5	5	5	5	5
Exceed PSD SIL (Y/N)	N	N	N	N	N

¹ Net Change - Change in impacts from Plant Crst Units 4 - 7 before and after installation of the flue gas desulfurization (FGD) control system.

Source: ECT, 2007.



Federal Aviation Administration
 Air Traffic Airspace Branch, ASW-520
 2601 Meacham Blvd.
 Fort Worth, TX 76137-0520

Aeronautical Study N
 2006-ASO-6794-0E

Issued Date: 01/09/2007

Glenn Dwain Waters
 Gulf Power
 One Energy place
 Pensacola, FL 32520-0329

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has completed an aeronautical study under the provisions of 49 U.S.C., Section 44718 and, if applicable, Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure: STACK
 Location: Pensacola, FL
 Latitude: 30-34-.34 N NAD 83
 Longitude: 87-13-36.50 W
 Heights: 490 feet above ground level (AGL)
 508 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

As a condition to this Determination, the structure is marked and/or lighted in accordance with FAA Advisory Circular 70/7460-1 AC 70/7460-1K Change 1, Obstruction Marking and Lighting, 24-hr med-strobes - Chapters 4, 6 (MIWOL), & 12.

It is required that the enclosed FAA Form 7460-2, Notice of Actual Construction or Alteration, be completed and returned to this office any time the project is abandoned or:

At least 10 days prior to start of construction
 (7460-2, Part I)

Within 5 days after the construction reaches its greatest height
 (7460-2, Part II)

While the structure does not constitute a hazard to air navigation, it would be located within or near a military training area and/or route.

This determination expires on 07/9/2008 unless:

- (a) extended, revised or terminated by the issuing office.
- (b) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION

MUST BE POSTMARKED OR DELIVERED TO THIS OFFICE AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE.

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights, and frequencies or use of greater power will void this determination. Any future construction or alteration, including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

A copy of this determination will be forwarded to the Federal Communications Commission if the structure is subject to their licensing authority.

If we can be of further assistance, please contact our office at (404) 305-5592. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2006-ASO-6794-OE.

Signature Control No: 492700-519398

(DNE)

Earl Newalu
Specialist

7460-2 Attached

PLANT CRIST PROPOSED EMISSIONS MONITORING PLAN

January 29, 2007

Background: Plant Crist faces major changes in operations due to forthcoming installation of SO₂, Hg and NO_x control systems due to Clean Air Interstate Rule (CAIR) and the Clean Air Mercury Rule (CAMR). These systems are earmarked for startup in 2009 and 2010. Accordingly, monitoring locations and methods of monitoring emissions will change. In addition, there is a great deal of uncertainty regarding how well new mercury monitoring technologies will work and what the certification & quality assurance methods will be for these systems. The purpose of Crist Emissions Monitoring Plan is to formulate a monitoring strategy to meet the current and future compliance requirements of federal and state air regulations.

Monitoring Issues: Emission compliance monitoring at Plant Crist can be divided into two categories: State and Federal. Each has different objectives and reporting requirements. Gulf Power believes there is some flexibility in State requirements due to the new plant configuration and corresponding operational changes. Whereas, Federal emission monitoring requirements for allowance accounting for the Acid Rain, CAIR and CAMR programs are not flexible. Below are general discussions of each category as we believe they apply to Plant Crist:

- **Federal Monitoring Requirements:** The Acid Rain, CAIR and CAMR emission monitoring programs are governed under 40 CFR Part 75 regulations. These regulations require hourly accounting for sulfur dioxide, nitrogen oxides, carbon dioxide, mercury and heat input (through flue gas flow). Specific procedures are used for certification, quality assurance and missing data routines. Plant Crist currently meets these requirements on a unit by unit basis monitoring emissions in the unit's flue gas duct work before being discharged through the stacks. The future Crist configuration includes additional NO_x control for Crist Unit 6 and a single flue gas desulfurization SO₂ (scrubber) system with a new stack for all of the Crist units. The new stack will be the primary monitoring location for SO₂, NO_x, CO₂, Hg and heat input (flow). The existing stacks will remain as "by-pass" stacks for startup, shutdown, malfunction and for scrubber & SCR maintenance with restricted operational periods. For "by-pass" operations, we believe that Crist can utilize Part 75 "missing data" procedures for SO₂, NO_x, CO₂ and Hg parameters. This strategy will, however, penalize the Company in allowance accounting due to the overestimation of emissions. Additionally, it would be virtually impossible to schedule quarterly and annual quality assurance tests to meet the requirements under Part 75 for a "by-pass" CEM system. In fact, Gulf could be forced to operate the units in the "by-pass" mode unnecessarily in order to maintain monitor certification if "missing data" procedures aren't used. This action would disrupt plant operation and add unnecessary pollution to the environment.

- **State Monitoring Requirements:** Florida emission monitoring permit conditions for Plant Crist include a mixture of State Implementation Plan (SIP), Title V, and voluntary requirements. These regulations require SO₂ and NO_x data on an hourly basis and opacity recorded in 6 minute averaging increments. Plant Crist currently meets these requirements on a unit by unit basis monitoring SO₂, NO_x and opacity in the unit's flue gas duct work before being discharged through the stacks. The future Crist configuration includes additional NO_x emissions control for Crist Unit 6 and a single flue gas desulfurization SO₂ (scrubber) system with a new stack for all of the Crist units. The new stack will be the primary monitoring location for SO₂, NO_x, and heat input (flow) for State monitoring and reporting requirements. The existing stacks will remain as "by-pass" stacks for startup, shutdown, malfunction and for scrubber & SCR maintenance with restricted operational time periods. For "by-pass" operations, Gulf Power proposes the following strategy:

(a) Maintain opacity measurements in the unit duct work post the electrostatic precipitator but prior to the damper so particulate collection performance can be evaluated whether the unit is in "by-pass" or normal mode. (see diagram)

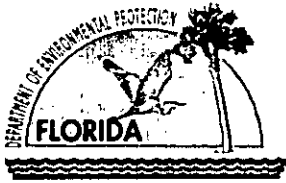
(b) Maintain the flue gas flow monitor in a location post the "by-pass" dampers near or within the Units 4-5 and 6-7 stacks to document hours of "by-pass" operation and/or vent operation per the FGD operational design. However, daily compliance determination of permitted heat input capacity shall remain through fuel analysis and fuel usage methodologies. (see diagram)

(c) Utilize permitted alternative procedures regarding fuel sampling to demonstrate daily SIP SO₂ compliance limitations.

(d) Utilize parametric procedures (for SNCR units) and F-Gas monitoring systems (for units with SCR) to demonstrate the facility wide 30 day NO_x averaging limitation.

Additional Monitoring & Compliance Issues: Gulf proposes to continue monitoring opacity and demonstrate annual particulate compliance on a unit by unit basis prior to the Crist scrubber. New opacity monitor and particulate test locations will need to be addressed for Units 6 & 7 pursuant to the change in the plant configuration. Gulf will also request FDEP to revise the Crist CAM plan to add the scrubber as an additional control measure for particulate matter. Gulf and FDEP will need to revisit the Gulf-FDEP Ozone Agreement regarding averaging procedures and prepare an alternative strategy for demonstrating compliance for Crist scrubber mode of operation. Gulf has submitted a petition to EPA requesting a delay in the installation and certification of the mercury monitoring requirements outlined in Part 75 for Crist Units 4,5,6 and 7 until the scrubber comes on line in the fall of 2009. The petition also outlines Gulf's plan to utilize missing data procedures for "by-pass" operations under Part 75 for Acid Rain, CAIR and CAMR.

Summary: Gulf has reviewed the current and future regulatory monitoring requirements for Plant Crist and has developed a monitoring plan to meet these requirements for scrubber and “by-pass operations. In summary, we believe that when the Crist scrubber is “on line” as the normal mode of operation that the CEMs monitoring system in the new scrubber stack will meet all State and Federal monitoring and reporting requirements. This includes parameters for SO₂, NO_x, CO₂, Hg and Heat Input. Opacity is the exception and is recommended to remain in the unit’s duct work for compliance reporting including CAM. For “by-pass” and scrubber modes of operation, we believe a flow monitor near or within each stack will be needed to document operational periods and modes of operation. For State “by-pass” monitoring requirements, we believe the current backup fuel sampling & analysis program can be substituted for CEM data in order to demonstrate the facility’s SIP based SO₂ emission limitation. Additionally, we believe parametric monitoring of SNCR and SCR systems can be substituted for CEM data to demonstrate NO_x monitoring requirements during “by-pass” periods for the Gulf-FDEP Ozone Agreement. For Federal “by-pass” reporting, we believe the use of EPA’s “missing data” procedures for allowance accounting for SO₂, NO_x, and mercury is acceptable for Acid Rain, CAIR and CAMR programs.



Department of Environmental Protection

Jeb Bush
Governor

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

Colleen M. Castille
Secretary

November 29, 2006

Ms. Penny Manuel (pmmanuel@southernco.com)
Vice President & Senior Production Officer
Gulf Power Company
One Energy Place
Pensacola, Florida 32520-0100

Re: Request for Additional Information Regarding Flue Gas Desulfurization Project at Plant Crist
File No.: 0330045-015-AC

Dear Ms. Manuel:

The Department has received your air construction permit application for the Crist Electric Generating Plant for the purpose of adding a Flue Gas Desulfurization scrubber to control emissions from units 4, 5, 6 and 7. However, in order to continue processing this application, the Department is requesting the additional information outlined below. Should your response to any of the listed items require new calculations or result in changes to the submitted information, please submit the new calculations, assumptions, reference material and appropriate revised pages of the application form, certified by your Professional Engineer.

1. Based on the revised building information sent to us by e-mail, we are concerned that the stacks for Units 4 and 5 and Units 6 and 7 will now be subject to downwash when used in the bypass mode. Please model these stacks using AERMOD and BPIP with the latest building information to determine maximum predicted SO₂ and NO_x impacts for comparison with the AAQS.
2. In addition, please confirm that the new scrubber stack for all four units will be built to at least GEP stack height. If the FAA does not approve at least a GEP stack height, then this stack will also need to be modeled to determine maximum SO₂ and NO_x impacts using AERMOD and BPIP with the latest building information.

The above comments require a written response to the Department within ninety days of receipt of this notice unless additional time is requested pursuant to Rule 62-4.055(1), F.A.C.

If you should have any questions, please contact me at (850) 921-9531.

Sincerely,

Jonathan Holtom, P.E.
North Permitting Section

/jh

CC: Mr. Tom Davis, P.E., ECT (E-mail) (tdavis@ectinc.com)
Mr. G. Dwain Waters, Gulf Power Company (E-mail) (gdwaters@southernco.com)
Ms. Sandra Veazey, DEP, Northwest District Office (Sandra.Veazey@dep.state.fl.us)
Mr. Greg Worley, U.S. EPA Region 4 (worley.gregg@epamail.epa.gov)