Florida Department of Environmental Protection

Bob Martinez Center
2600 Blair Stone Road, MS#5505
Tallahassee, Florida 32399-2400

Rick Scott
Governor

Jennifer Carroll
Lt. Governor

Herschel T. Vinyard Jr.
Secretary

August 17, 2012

Ms. Lynda Crum, Associate Regional Counsel
United States Environmental Protection Agency, Region 4
Office of Environmental Accountability
Office of Legal Support
61 Forsyth Street SW
Atlanta, GA 30303

Re: Air Program: Gulf Power Company's Application for Certification of Pollution Control Facility
Crist Electric Generating Plant

Dear Ms. Crum:

Enclosed is a signed copy of an "Application for Certification of Pollution Control Facility" (EPA Form 3300-1) submitted by the Gulf Power Company. The Gulf Power Company is requesting this certification for the selective catalytic reduction system (SCR) installed on Unit 6 at the Crist Electric Generating Plant in Pensacola, Florida. In accordance with the instructions on the EPA forms and 40 CFR 20.6, the State is required to certify that the facility described in the application has been constructed in conformity with state requirements. The state requirement applicable to this facility is the requirement to obtain an air construction permit for the new control equipment. The new equipment was installed to reduce nitrogen oxides emissions and facilitate compliance with the Clean Air Interstate Rule (CAIR) and the DEP-Gulf Power Ozone Agreement. My staff has certified that the Gulf Power Company obtained the appropriate state air construction permit and that the SCR system is in operation.

I am forwarding the application to you for a determination and federal certification that the facility is a "treatment facility" pursuant to 40 CFR 20.8, 26 USC 169 and rules promulgated thereunder.

If you have any questions, please contact Jeff Koerner at 850-717-9083.

Sincerely,

Brian Accardo, Director
Division of Air Resource Management

BA/jk

Enclosure

cc: Kay Prince, Chief, Air Planning Branch, EPA Region 4
James O. Vick, Director of Environmental Affairs, Gulf Power Company
Greg Terry, Gulf Power Company

Jeffs copy

GULF POWER
A SOUTHERN COMPANY

July 17, 2012

APPLICATION FOR CERTIFICATION
Pollution Control Facility (2012)
Via US Mail and Electronic Mail - Electronic Receipt Requested

DEPARTMENT OF
ENVIRONMENTAL PROTECTION
JUL 25 2012
SITING COORDINATION

Cindy Mulkey, Program Administrator
Email: SCO@dep.state.fl.us
Florida Department of Environmental Protection
Office of Siting Coordination
Douglas Building, MS# 48
3900 Commonwealth Boulevard
Tallahassee, FL 32399-3000

Dear Ms. Mulkey:

Enclosed please find a signed copy of an "Application for Certification of Pollution Control Facility". This application consists of EPA Form 3300-1 for the following pollution control facility:

Plant Crist Unit 6- Selective Catalytic Reduction (SCR) System

According to instructions supplied by the U.S. Environmental Protection Agency (EPA), the State of Florida must grant certification through EPA Form 3300-1, enclosed. After processing, the form should be forwarded to the address below or returned to Gulf Power for forwarding.

Lynda Crum, Associate Regional Counsel
USEPA, Region 4
Office of Environmental Accountability
Office of Legal Support
61 Forsyth St. SW
Atlanta, GA 30303

A copy of the signed State Certification should also be mailed to Gulf Power Environmental Affairs, attention Greg Terry. If the facility is denied certification, please provide Gulf Power a written explanation of the rationale for the determination. The remaining copy of the application may be retained by the State for its records.

We appreciate your review of this application. If you need any assistance in this process, please contact Greg Terry at (850) 444-6144, gnterry@southernco.com.

Sincerely,

James O. Vick
Director of Environmental Affairs

Cc: Lynda Crum, EPA
Greg Terry, Gulf Power Company

RECEIVED
JUL 26 2012
DIVISION OF AIR
RESOURCE MANAGEMENT

Form Approved
OMB NO. 158-R0013

ENVIRONMENTAL PROTECTION AGENCY

APPLICATION FOR CERTIFICATION OF POLLUTION CONTROL FACILITY
(Pursuant to Section 169 of the Internal Revenue Code of 1954, as amended)

NO CERTIFICATION MAY BE MADE UNLESS A COMPLETED APPLICATION FORM HAS BEEN RECEIVED (26 U.S.C. §169; 40 C.F.R. PART 20). IF NO CLAIM OF BUSINESS CONFIDENTIALITY ACCOMPANIES THIS INFORMATION WHEN IT IS RECEIVED BY EPA, IT MAY BE MADE AVAILABLE TO THE PUBLIC BY EPA WITHOUT FURTHER NOTICE. INFORMATION COVERED BY A CLAIM OF CONFIDENTIALITY WILL BE DISCLOSED BY EPA ONLY TO THE EXTENT, AND BY MEANS OF THE PROCEDURES, SET FORTH IN TITLE 40, CODE OF FEDERAL REGULATIONS, PART 2, 41 C.F.R. 26902 et seq., SEPTEMBER 1, 1976.

A BUSINESS CONFIDENTIALITY CLAIM COVERING ALL OR PART OF THE INFORMATION FURNISHED IN OR WITH THIS APPLICATION MAY BE ASSERTED BY PLACING AN (OR ATTACHING TO) THE INFORMATION AT THE TIME IT IS SUBMITTED TO EPA, A COVER SHEET STAMPED OR TYPED LEGEND, OR OTHER SUITABLE FORM OF NOTICE EMPLOYING LANGUAGE SUCH AS "TRADE SECRET," "PROPRIETARY," OR "COMPANY CONFIDENTIAL." ALLEGEDLY CONFIDENTIAL PORTIONS OF OTHERWISE NON-CONFIDENTIAL DOCUMENTS SHOULD BE CLEARLY IDENTIFIED, AND MAY BE SUBMITTED SEPARATELY TO FACILITATE IDENTIFICATION AND HANDLING BY EPA. IF THE APPLICANT DESIRES CONFIDENTIAL TREATMENT ONLY UNTIL A CERTAIN DATE OR UNTIL THE OCCURRENCE OF A CERTAIN EVENT, THE NOTICE SHOULD SO STATE.

Application is hereby made for certification of the pollution control facility described herein. The following is submitted in accordance with provisions of Part 20 of Title 40 of the Code of Federal Regulations and to the best of my knowledge and belief is true and correct.

APPLICANT	**DATE**
Michael L. Burroughs	July 18, 2012
SIGNATURE	**STREET ADDRESS, CITY, STATE, ZIP CODE**
Michael L Burroughs	One Energy Place, Pensacola, FL 32520-0100
TITLE Vice-President and Senior Production Officer	

NOTE: READ ACCOMPANYING INSTRUCTIONS CAREFULLY PRIOR TO COMPLETING FORM

Form Approved
OMB No. 158-R0013

SECTION A - IDENTITY AND LOCATION OF CONTROL FACILITY

1. **FULL BUSINESS NAME OF APPLICANT**	2. **TYPE OF OWNERSHIP**
Gulf Power Company	[ ] INDIVIDUAL [ ] OTHER (*Describe*) [ ] PARTNERSHIP [X] CORPORATION
3. **PERSON TO CONTACT REGARDING THIS APPLICATION** (*Name and Title*) Greg Terry, Air Quality Programs Supervisor	**TELEPHONE** 850-444-6144
ADDRESS (*Street, City, State, Zip Code*) One Energy Place, Pensacola, Florida, 32520-0328	
4. **PERSON AUTHORIZED TO RECEIVE CERTIFICATION** (*Name and Title*) Michael L. Burroughs, Vice-President and Senior Production Officer	
5. BUSINESS NAME OF PLANT (If different from Item 1) (*Street, City, State, Zip Code*) Crist Electric Generating Plant 11999 Pate Street Pensacola, FL 32514	**6. APPLICANT'S EMPLOYER IDENTIFICATION NO.** **59-0276810**

SECTION B - DESCRIPTION OF CONTROL FACILITY

1. DESCRIBE THE FACILITY FOR WHICH CERTIFICATION IS SOUGHT. INCLUDE TYPE OF EQUIPMENT, MANUFACTURER AND MODEL NUMBER. SUBMIT DESIGN CRITERIA, ENGINEERING REPORT AND/OR PERFORMANCE SPECIFICATIONS WHICH DESCRIBE FUNCTION AND OPERATION OF FACILITY: Gulf Power will install on Plant Crist Unit 6 a selective catalytic reduction (SCR) system. The SCR is designed to provide no less than an 85% reduction of nitrogen oxides when operating.

2. IS FACILITY IN OPERATION?	A. IF "YES" DATE FACILITY WAS PLACED IN OPERATION	B. IF "NO" DATE FACILITY IS EXPECTED TO BE PLACED IN OPERATION	3. IF FACILITY CONSISTS OF A BUILDING, IS IT EXCLUSIVELY FOR CONTROL OF POLLUTION?
[X] YES [ ] NO		May 2012	[X] YES [ ] NO

4. DOES THE FACILITY (*installed after December 31, 1975 ONLY*) AFFECT THE OPERATING UNIT (*of the plant or other property in connection with which the facility is used*) MOST DIRECTLY ASSOCIATED WITH THE FACILITY IN ANY OF THE FOLLOWING WAYS?

INCREASE THE OUTPUT OR CAPACITY [ ] YES [X] NO EXTEND THE USEFUL LIFE? [ ] YES [X] NO
REDUCE THE TOTAL OPERATING COSTS ? [ ] YES [X] NO

a. IF THE ANSWER TO ANY OF THE ABOVE IS "YES" IS THE PERCENTAGE BY WHICH THE OPERATING UNIT WAS EFFECTED [ ] 5% OR [ ] LESS
b. IF NONE OF THE FOREGOING INCREASES, EXTENSIONS, OR REDUCTIONS EXCEEDING 5% STATE THE RATIONALE AND FURNISH THE DATA USED TO ARRIVE AT THE PERCENTAGE(S) GIVEN IN RESPONSE TO ITEM 4(a).

SECTION C – DESCRIPTION OF COMMERCIAL PROCESS OR ACTIVITY

1. DESCRIBE PROCESS OR ACTIVITY IN CONNECTION WITH WHICH FACILITY IS OR WILL BE USED.
Unit 6 is a Foster Wheeler front walled fired, dry bottom boiler used to generate electricity. It is rated at a maximum heat input of 3704.8 million Btu per hour when firing pulverized coal, natural gas, or distillate fuel oil. NOX emissions are currently controlled by Low NOX Burners and by a Selective Non-Catalytic Reduction (SNCR) system designed to achieve no less than a 20% reduction in NOX emissions as measured across the SNCR unit inlet and outlet. The designed target ammonia slip level is 5 ppmv corrected to 3% O2 based on a 24-hour average. The selective catalytic reduction system which will be installed on Unit 6 will be used to reduce the amount of NOx in the flue gas.

2. STANDARD INDUSTRIAL CLASSIFICATION (SIC) CODE NUMBER	
4911	

3. DATE THAT EACH PLANT OR OTHER PROPERTY IN CONNECTION WITH WHICH FACILITY IS OR WILL BE USED, COMMENCE OPERATION.

PLANT OR PROPERTY	DATE
A. Plant Crist commenced commercial operation with Unit 1 (now retired)	January 1, 1945
B. Unit 6 commenced commercial operation	May 31, 1970
C.	

SECTION C – DESCRIPTION OF COMMERCIAL PROCESS OR ACTIVITY

4A. IF FACILITY IS OR WILL BE USED IN CONNECTION WITH MORE THAN ONE PLANT OR PROPERTY, AND IF ONE OR MORE OF THE PLANTS OR PROPERTIES IN CONNECTION WITH WHICH THE FACILITY IS OR WILL BE USED WAS NOT IN OPERATION PRIOR TO JANUARY 1, 1976, STATE THE PERCENTAGE OF THE COST OF FACILITY WHICH IS ALLOCABLE TO THE PLANT(S) OR PROPERTY(IES) IN OPERATION PRIOR TO THAT DATE._____%

Not Applicable

4B. DESCRIBE THE REASONING AND FURNISH THE DATA USED TO ARRIVE AT THE PERCENTAGE GIVEN IN RESPONSE TO ITEM 4(A).

Not Applicable

5A. IF FACILITY PERFORMS A FUNCTION OR FUNCTIONS IN ADDITION TO THE ABATEMENT OF POLLUTION, STATE THE PERCENTAGE OF THE COST OF FACILITY ALLOCABLE TO THE ABATEMENT OF POLLUTION. _____%

Not Applicable

5B. DESCRIBE THE REASONING AND FURNISH THE DATA USED TO ARRIVE AT THE PERCENTAGE GIVEN IN RESPONSE TO ITEM 5(A).

Not Applicable

SECTION D - WASTEWATER CHARACTERISTICS (To be completed only in connection with facilities for the control of water pollution)

DESCRIBE THE EFFECT OF POLLUTION CONTROL FACILITY IN TERMS OF QUANTITY AND QUALITY OF EMISSION AND OF WASTES OR BY-PRODUCTS REMOVED, ALTERED, DISPOSED OF, OR PREVENTED. IF FEASIBLE, ATTACH PROCESS FLOW OR SCHEMATIC DIAGRAM WITH MATERIAL BALANCES OF THE WASTE OR WASTEWATER STREAM OR DISCHARGE. REPORT EITHER ON ACTUAL BASIS OR, IF FACILITY IS NOT YET IN OPERATION, ON DESIGN BASIS (Use Standard Units - pounds/gallon, grams/liter, ppm, etc.).

Not Applicable

1. HOURS PLANT OR PROPERTY IS IN OPERATION a. Per Month: Min._____ Max. _____ Avg. _____

b. Per Year: Min._____ Max. _____ Avg. _____

2. WASTEWATER DISCHARGE IN (A) GALLONS PER MINUTE, (B) MILLIONS OF GALLONS	**WITHOUT POLLUTION CONTROL FACILITY**	**WITHOUT POLLUTION CONTROL FACILITY**
	a. Min._____ Max. _____ Avg. _____ b. Min._____ Max. _____ Avg. _____	Min._____ Max. _____ Avg. _____ Min._____ Max. _____ Avg. _____
3. POLLUTANTS OR WASTE PRODUCTS		
3.a	Min._____ Max. _____ Avg. _____	Min._____ Max. _____ Avg. _____
3.b	Min._____ Max. _____ Avg. _____	Min._____ Max. _____ Avg. _____
3.c	Min._____ Max. _____ Avg. _____	Min._____ Max. _____ Avg. _____
3,.d	Min._____ Max. _____ Avg. _____	Min._____ Max. _____ Avg. _____
3.e	Min._____ Max. _____ Avg. _____	Min._____ Max. _____ Avg. _____
3.f	Min._____ Max. _____ Avg. _____	Min._____ Max. _____ Avg. _____
3.g	Min._____ Max. _____ Avg. _____	Min._____ Max. _____ Avg. _____
3.h	Min._____ Max. _____ Avg. _____	Min._____ Max. _____ Avg. _____
3.i	Min._____ Max. _____ Avg. _____	Min._____ Max. _____ Avg. _____
3.j	Min._____ Max. _____ Avg. _____	Min._____ Max. _____ Avg. _____

4. DESCRIBE METHOD (GRAB OR COMPOSITE) AND FREQUENCY OF SAMPLING AND METHODS USED TO DETERMINE QUANTITIES OF POLLUTANTS.

5. IS FACILITY A PRETREATMENT FACILITY TO PREPARE WASTEWATER FOR RECEIPT BY ANOTHER FACILITY, PUBLIC OR PRIVATE, FOR FURTHER TREATMENT? IF "YES", SKIP ITEMS 6, 7 AND 8 AND IDENTIFY RECEIVING FACILITY. [ ] YES [ ] NO

6. IDENTIFY THE BODY OR STREAM OF WATER INTO WHICH WASTEWATER FROM THE PLANT OR PROPERTY, IN CONNECTION WITH WHICH THE FACILITY IS USED, IS OR WILL BE DISCHARGED.

7. DESCRIBE LOCATION OF DISCHARGE OR OUTFALL WITH RESPECT TO RECEIVING WATERS.

8. IS THE RECEIVING BODY OR STREAM OF WATER A NAVIGABLE WATERWAY OF THE UNITED STATES OR A TRIBUTARY THEREOF? [ ] YES [ ] NO IF "NO," PROCEED TO ITEM 9.

A. IF "YES" HAS A U.S. ARMY CORPS OF ENGINEERS DISCHARGE PERMIT BEEN APPLIED FOR? [ ] YES [ ] NO IF "NO," EXPLAIN, THEN PROCEED TO ITEM 9.

B. IF ANSWER TO ITEM 8A IS "YES" HAS A U.S. ARMY CORPS OF ENGINEERS DISCHARGE PERMIT BEEN ISSUED? [ ] YES [ ] NO
(1) IF "YES," ATTACH COPY OR PROVIDE PERMIT NUMBER _____ OMIT ITEM 9.
(2) IF "NO," EXPLAIN, GIVING DATES OF ANY OFFICIAL ACTION WITH RESPECT TO APPLICATION.

IF ITEM 8B HAS NOT BEEN ANSWERED "YES," IDENTIFY STATE AND LOCAL WATER POLLUTION CONTROL REQUIREMENTS AND STANDARDS.

SECTION E - EMISSION CHARACTERISTICS (To be completed only in connection with facilities for the control of air pollution)

DESCRIBE THE EFFECT OF POLLUTION CONTROL FACILITY IN TERMS OF QUANTITY AND QUALITY OF EMISSION AND OF EMISSION AND OF WASTES OR BY-PRODUCTS REMOVED, ALTERED, DISPOSED OF, OR PREVENTED. IF FEASIBLE, ATTACH PROCESS FLOW OR SCHEMATIC DIAGRAM WITH MATERIAL BALANCES OF POLLUTANTS IN THE EMISSION STREAM. REPORT EITHER ON ACTUAL BASIS, OR, IF FACILITY IS NOT YET IN OPERATION, ON DESIGN BASIS.

1. HOURS PLANT OR PROPERTY IS IN OPERATION a. Per Month: Min.____ Max. 744 Avg. ____
b. Per Year: Min.____ Max. 8760 Avg. ____

2. POLLUTANTS TO BE CONTROLLED *(Specify each)*	a. NOx b. c. d.	
3. VOLUMETRIC FLOW RATE OF EMISSION *(actual cubic feet/minute)*	**WITHOUT POLLUTION CONTROL FACILITY** Min.____ Max.___ Avg. _____at __°F	**WITH POLLUTION CONTROL FACILITY** Min.____ Max. __ Avg. ____ at __°F
4. CONCENTRATION *(in volume % of gaseous components)* *Both values are lb/mmBTU*	a. Min.____ Max. 0.50 Avg. 0.50 at __°F b. Min.____ Max. ____ Avg. _at _°F c. Min.____ Max. ____ Avg. ____ at ____°F d. Min.____ Max. ____ Avg. ____ at ____°F	Min.____ Max. 0.15 Avg. 0.07 at ___°F Min.____ Max. ___Avg. at ___°F Min.____ Max. ____ Avg. ____ at ____°F Min.____ Max. ____ Avg. ____ at ____°F
5. CONCENTRATION *(grains/cubic feet of all particulate matter)*	Min.____ Max. ____ Avg. ____ at ____°F	Min.____ Max. ____ Avg. ____ at ____°F
6. CONCENTRATION *(grains/cubic feet of any particulate listed in E-2 above)*	Min.____ Max. ____ Avg. ____ at ____°	Min.____ Max. ____ Avg. ____ at ____°F

7. DESCRIBE METHOD OF DETERMINING RATES, CONCENTRATION AND CHARACTERISTICS OF EMISSIONS.

Based on Design Specifications.

8. IDENTIFY APPLICABLE STATE AND LOCAL AIR POLLUTION CONTROL REQUIREMENTS AND STANDARDS.
For NOx emissions, Crist Units 4 -5-6-7 are required to meet a plant-wide 30-day average of 0.20 lb/mmBtu permit limit.

SECTION F - COST INFORMATION (See Note to instructions for this section

1. IS THERE ANY PRODUCT OR MATERIAL WHICH, WITHOUT THE CONTROL FACILITY, WOULD BE LOST AND WHICH IS RECOVERED THROUGH THE USE OF THE FACILITY? [ ] YES [X] NO

A. IF YES, IDENTIFY

B. INDICATE THE DISPOSITION OF EACH TYPE OF RECOVERED MATERIAL, INCLUDING IF APPLICABLE, THE SALE OR SIMILAR DISPOSITION OF RECLAIMED OR RECOVERED MATERIAL TO INDUSTRIAL WASTE RECOVERY FIRMS OR OTHERS.

2. ANNUAL COST RECOVERY	A. MATERIAL RECOVERED AND SOLD	$
	B. OTHER	$
	C. TOTAL	$
3. TOTAL AVERAGE ANNUAL MAINTENANCE AND OPERATING COSTS *(Not applicable if no cost recovery is reported in Item 2)*		$

Form Approved
OMB No. 158-R0013

ENVIRONMENTAL PROTECTION AGENCY **NOTICE OF STATE CERTIFICATION** (Pursuant to Section 169 of the Internal Revenue Code of 1954, as amended)	STATE WATER OR AIR POLLUTION CONTROL AGENCY OR AUTHORITY - DEPT. OF NATURAL RESOURCES, ENVIRONMENTAL PROTECTION DIVISION, AIR POLLUTION BRANCH

It is hereby certified that the control facility described in the attached application is in conformity with State and local programs and requirements for the control of [ ] water pollution [X] air pollution, as required by section 169 of the Internal Revenue Code of 1954, as amended, and regulations issued thereunder. According to the applicant, this control facility [X] was placed [ ] will be placed in operation on

In the case of control facility not yet in operation, this notice is certification only that the control facility, if constructed and operated in accordance with the application, will be in conformity with State and local programs or requirements for abatement or control of water or air pollution.

1. **NAME OF APPLICANT** Gulf Power Company	2. **PERSON AUTHORIZED TO RECEIVE CERTIFICATION** Michael L. Burroughs
ADDRESS *(Street, City, State, Zip Code)* One Energy Place Pensacola, FL 32520-0100	**TITLE** Vice-President and Senior Production Officer **ADDRESS** *(Street, City, State, Zip Code)* One Energy Place Pensacola, FL 32520-0100

3. DESCRIPTION OF CONTROL FACILITY

• Basic Design Specifications: The SCR system is designed for a NOX conversion efficiency of 85% based on an inlet NOX emissions rate of 0.50 lb/MMBtu.

• Catalyst Design Specifications: Catalyst typically consist of titanium dioxide and molybdenum oxide with vanadium pentoxide as the active component. The catalyst is fabricated by applying ceramic catalyst material to a perforated stainless steel mesh grid plate. The catalyst structure will be a honey-comb or plate type. The operational temperature range is approximately 600° to 800° F. The initial configuration is for a catalyst volume of approximately 460 cubic meters (16,260 cubic feet) divided between three catalyst layers. The design inlet NOX concentration is 0.5 lb/MMBtu and the design output NOX emissions is 0.07 lb/MMBtu.

• Ammonia Storage and Mixing: Anhydrous ammonia will be stored on site in three 20,500 gallon tanks (two tanks are existing, one new tank will be built as part of this project). Ammonia is diluted with air (< 10% by volume) and injected into the SCR inlet duct through the ammonia injection grid (AIG), which is divided into about two dozen zones. Each zone is equipped with a flow indicator and manual control valve for tuning the AIG to match the inlet NOX profile. Effective ammonia distribution and NOX conversion are dependent on the velocity profile entering the AIG. A static mixer installed upstream of the AIG creates flow resistance, flattens the velocity profile, and provides uniform gas flow. Downstream of the AIG, a second static mixer is positioned at the AIG injection points to impart a swirl to the diluted ammonia and promote good mixing with the flue gas. For 85% NOX conversion, the design molar ratio of ammonia-to-NOX is 0.95 at SCR inlet.

Ammonia Control System: The ammonia control system consists of a control loop with a cascaded, feedforward control scheme. Process monitors will provide NOX emission rate data collected at the inlet to and the outlet from the SCR system. The ammonia injection rate is set based on a variety of input data including the measured NOX rates at the SCR inlet/outlet, the outlet NOX set point, the heat input to the boiler, the actual NOX rate measured by the stack monitor, and a scaling factor based on the molecular weights of ammonia and NOX. The system is capable of continually adjusting flow control valves to fine tune the ammonia injection rate based on changing gas stream conditions.

• Ammonia Slip: The design target ammonia slip level is less than 5 ppmv measured at the stack. There are no provisions for continuously monitoring ammonia concentration in the flue gas. When ammonia measurements in the flue gas are required, a wet chemical method will be utilized. These measurements are taken periodically over the operating life of the SCR catalyst. More frequent tracking of ammonia slip will be monitored by measuring the amount of residual ammonia adsorbed by the fly ash. Fly ash samples will be measured periodically using an ion-specific electrode. Ammonia slip may also be estimated from the ammonia injection monitoring system based on the NOX rate at the SCR inlet/outlet and the ammonia injection rate.

• Gas Sampling Grid (GSG): During commissioning and periodically over the life of the system, it will be necessary to tune the AIG to optimize the distribution of ammonia in the SCR inlet duct relative to the NOX distribution to provide optimum NOX conversion with minimum ammonia slip. To facilitate tuning, a manual gas sampling grid (GSG) is installed downstream of the last catalyst layer. The GSG allows a high-resolution traverse of the flue gas stream for composition across the outlet of the SCR, which can be used to precisely adjust the AIG. The GSG is comprised of individual small-bore (~½") heavy-wall pipes extending from outside the SCR to distributed sampling locations below the last catalyst layer. Portable equipment is used to sample and measure gas concentrations using the GSG.

• SCR Bypass: The SCR design incorporates dampers and ductwork to provide the capability of bypassing the SCR system. The bypass is most commonly used to gradually heat or cool the catalyst structure to minimize thermal fatigue during startup and shutdown. During catalyst maintenance and repair, it would also allow access to the SCR reactor without requiring complete shutdown of the Unit 6 boiler.

4. LOCATION OF CONTROL FACILITY *(Street, City, State, Zip Code)*	5. RECEIVING BODY OR STREAM OF WATER, IF ANY
Crist Electric Generating Plant 11999 Pate Street Pensacola, FL 32514	Not Applicable

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OMB No. 158-R0013

6. USE IF THE CONTROL FACILITY CERTIFIED HEREBY IS IN CONFORMITY WITH THE FOLLOWING APPLICABLE STATE PLAN OR REQUIREMENTS FOR THE CONTROL OF [ ] WATER POLLUTION [X] AIR POLLUTION.	
ISSUED THIS 17 DAY OF August, 19 2012	SIGNED (Official of State Agency) Jeffery J. Koerner
STATE CERTIFICATION NUMBER —	TITLE Program Administrator Office of Permitting and Compliance Division of Air Resource Mangement Florida Department of Environmental Protection

Form Approved
OMB No. 158-R0013

U.S. ENVIRONMENTAL PROTECTION AGENCY

NOTICE OF FEDERAL CERTIFICATION
(Pursuant to Section 169 of the Internal Revenue Code of 1954, as amended)

PLEASE TAKE NOTICE that pursuant to section 169 of the Internal Revenue Code of 1954, as amended, and Part 20 of Title 40 of the Code of Federal Regulations, the control facility identified herein

[ ] Is certified

[X] Will, if constructed, reconstructed, acquired, erected, installed and operated in accordance with the accompanying application, be certified

as being in compliance with the applicable regulations of Federal agencies and the general policies of the Untied States for cooperation with the States in the prevention and abatement of [ ] water pollution [X] air pollution under the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251 et seq.) or the Clean Air Act, as amended (42 U.S.C. 1857 et seq.). This certification is based on facts furnished by the applicant, and is valid for purposes of section 169 only to the extent that such facts are complete and accurate.

1. **NAME OF APPLICANT**	**ADDRESS** *(Street, City, State, Zip Code)*
Gulf Power Company 2. **EMPLOYER IDENTIFICATION NUMBER**	One Energy Place Pensacola, FL 32520-0100
PERSON AUTHORIZED TO RECEIVE CERTIFICATION	
NAME Michael L. Burroughs **TITLE** **Vice-President and Senior Production Officer**	**ADDRESS** *(Street, City, State, Zip Code)* One Energy Place Pensacola, FL 32520-0100

4. DESCRIPTION OF CONTROL FACILITY

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OMB No. 158-R0013

5. LOCATION OF CONTROL FACILITY *(Street, City, State, Zip Code)* Crist Electric Generating Plant 11999 Pate Street Pensacola, FL 32514
6. EFFLUENT DISCHARGED TO
7. THE CONTROL FACILITY IDENTIFIED HEREIN [ ] DOES [X] DOES NOT GENERATE PROFITS THROUGH THE RECOVERY AND SALES OR WASTES, OR OTHERWISE.
8. THE CONTROL FACILITY IDENTIFIED HEREIN [X] IS [ ] IS NOT A BUILDING THE ONLY FUNCTION OF WHICH IS THE ABATEMENT OR CONTROL OF POLLUTION, AS DETERMINED IN ACCORDANCE WITH SECTION 1.169-2(2)(l) OF THE INCOME TAX REGULATIONS.
9. [X] A. THE CONTROL FACILITY DETERMINED HEREIN IS USED ONLY IN CONNECTION WITH PLANTS OR PROPERTIES THAT WERE IN SERVICE ON OR BEFORE DECEMBER 31, 1975. [ ] B. _____% OF THE AMORTIZABLE BASIS OF THE FACILITY IS ALLOCABLE TO ITS USE IN CONNECTION WITH PLANTS OR PROPERTIES THAT WERE IN SERVICE ON OR BEFORE DECEMBER 31, 1975.
10.[X] A. THE CONTROL FACILITY PERFORMS NO FUNCTION IN ADDITION TO THE ABATEMENT OR CONTROL OF POLLUTION. [ ] B. _____% OF THE AMORTIZABLE BASIS OF THE FACILITY IS ALLOCABLE TO THE ABATEMENT OR CONTROL OF POLLUTION.

ISSUED THIS _____DAY OF _____, 19_____	**SIGNATURE**
STATE CERTIFICATION NUMBER	**TITLE**