Gulf Power Company

Crist Electric Generating Plant

Facility ID No. 0330045
Escambia County

Title V Air Operation Permit Revision

Draft/Proposed Permit No. 0330045-035-AV
(2st Revision to Permit No. 0330045-025-AV)

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Title V Air Operation Permit Revision

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Permit Revision No. 0330045-035-AV
Facility ID No. 0330045
Crist Electric Generating Plant
SIC Nos.: 49, 4911
Project: Title V Air Operation Permit Revision

This project is for a revision to Title V air operation permit No. 0330045-025-AV, to incorporate a revised Phase II NO_X Averaging Plan for the existing Crist Electric Generating Station, which is located in Escambia County on Pate Road, off of 10 Mile Road on Governors Bayou, North of Pensacola, Florida. UTM Coordinates are: Zone 16; 478.5 Kilometer (km) East, 3381.44 km North. Latitude is: 30° 34' 0.6552" North; and, Longitude is: 87° 13' 35.1261" West.

The Title V air operation permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210, 62-213 and 62-214. The above named permittee is hereby authorized to operate the facility in accordance with the terms and conditions of this permit.

0330045-025-AV Effective Date: January 1, 2010
0330045-031-AV 1st Revision Effective Date: November 2, 2010
0330045-035-AV 2nd Revision Effective Date: (Day 55)
Optional Renewal Application Due Date: May 20, 2013
Renewal Application Due Date: May 20, 2014
Expiration Date: December 31, 2014

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Jeffery F. Koerner, Program Administrator
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Subsection A. Facility Description.

This existing facility consists of four active fossil fuel fired steam generators (boilers) and two fly ash silos. Boilers 4 and 5 were Acid Rain Phase I substitution Units. Boilers 6 and 7 were Acid Rain Phase I Units. All four boilers are subject to the Acid Rain Phase II and CAIR requirements. Pulverized coal is the primary fuel for boilers 4, 5, 6 and 7. Natural gas, fuel oil and on-specification used oil are used as supplemental fuels in all four of the Boilers.

Also included in this permit are miscellaneous unregulated/insignificant emissions units and/or activities.

Subsection B. Summary of Emissions Units.

EU No.	Brief Description
Regulated Emissions Units	
-004	Boiler Number 4 - 1,096.7 MMBtu/hour (Substitution Acid Rain Phase I & CAIR Unit)
-005	Boiler Number 5 - 1,096.7 MMBtu/hour (Substitution for Acid Rain Phase I & CAIR Unit)
-006	Boiler Number 6 - 3,704.8 MMBtu/hour (Acid Rain & CAIR Unit)
-007	Boiler Number 7 - 6,406.4 MMBtu/hour (Acid Rain & CAIR Unit)
-008	Fly Ash Silos (3)
-014	Unit -007, Mechanical Draft Cooling Tower with a maximum circulation rate of 190,000 GPM
-015	Limestone Handling Equipment, Including 2 Silos
Unregulated Emissions Units and Activities (See Appendix U)	
-009	Material Handling of Coal and Ash
-010	Fugitive PM Sources - On-site Vehicles
-011	General Purpose Internal Combustion Engines
-012	Cooling Towers (2), one shared by Units -004 and -005 and other for Unit -006
-013	Fugitive PM Sources - sandblasting operations
-016	Gypsum Handling Equipment

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Subsection C. Applicable Regulations.

Based on the Title V air operation permit revision application received June 9, 2010, this facility is a major source of hazardous air pollutants (HAP). The existing facility is a Prevention of Significant Deterioration (PSD) major source of air pollutants in accordance with Rule 62-212.400, F.A.C. A summary of applicable regulations are shown in the following table.

Applicable Regulations	EU No(s).
Federal Rule Citations	
40 CFR 60, Subpart A, NSPS General Provisions	011
40 CFR 60, Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines	011
40 CFR 63, Subpart ZZZZ, National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines	011
40 CFR 75 Acid Rain Monitoring Provisions	004, 005, 006, 007
State Rule Citations	
Rule 62-204, F.A.C. (Ambient Air Quality Requirements, PSD Increments, and Federal Regulations Adopted by Reference)	004, 005, 006, 007, 008
Rule 62-210, F.A.C. (Permits Required, Public Notice, Reports, Stack Height Policy, Circumvention, Excess Emissions, and Forms)	004, 005, 006, 007, 008, 014, 015
Rule 62-214, F.A.C. (Requirements For Sources Subject To The Federal Acid Rain Program) Federal Acid Rain Program, Phase II	004, 005, 006, 007
Rule 62-296, F.A.C. (Emission Limiting Standards)	004, 005, 006, 007, 008, 015
Rule 62-296.470, F.A.C. (Implementation of Federal Clean Air Interstate Rule)	004, 005, 006, 007
Rule 62-297, F.A.C. (Stationary Sources - Emissions Monitoring)	004, 005, 006, 007, 008, 015

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The following conditions apply facility-wide to all emission units and activities:

FW1. Appendices. The permittee shall comply with all documents identified in Section VI, Appendices, listed in the Table of Contents. Each document is an enforceable part of this permit unless otherwise indicated. [Rule 62-213.440, F.A.C.]

Emissions and Controls

FW2. Not federally Enforceable. Objectionable Odor Prohibited. No person shall cause, suffer, allow or permit the discharge of air pollutants, which cause or contribute to an objectionable odor. An "objectionable odor" means any odor present in the outdoor atmosphere which by itself or in combination with other odors, is or may be harmful or injurious to human health or welfare, which unreasonably interferes with the comfortable use and enjoyment of life or property, or which creates a nuisance. [Rule 62-296.320(2) and 62-210.200(Definitions), F.A.C.]

FW3. General Volatile Organic Compounds (VOC) Emissions or Organic Solvents (OS) Emissions. The permittee shall allow no person to store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds or organic solvents without applying known and existing vapor emission control devices or systems deemed-necessary and ordered by the Department. Nothing is deemed necessary and ordered at this time. [Rule 62-296.320(1), F.A.C.]

FW4. General Visible Emissions. No person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity equal to or greater than 20% opacity. EPA Method 9 is the method of compliance pursuant to Chapter 62-297, F.A.C. This regulation does not impose a specific testing requirement. [Rule 62-296.320(4)(b)1., F.A.C.]

FW5. Unconfined Particulate Matter. No person shall cause, let, permit, suffer or allow the emissions of unconfined particulate matter from any activity, including vehicular movement; transportation of materials; construction; alteration; demolition or wrecking; or industrially related activities such as loading, unloading, storing or handling; without taking reasonable precautions to prevent such emissions. Reasonable precautions to prevent emissions of unconfined particulate matter at this facility include:

a. Ash and gypsum leaving the facility will be hauled in closed container trucks or barges. Ash and gypsum being disposed of on plant property will be mixed with water as needed as it is being loaded into the trucks for transport to the landfill.
b. The plant ash and gypsum haul roads will be watered as necessary to control any unconfined particulate matter.
c. Grassing over each section of the ash and gypsum landfill as it reaches its capacity to prevent any particulate matter being lift into the wind.
d. Regular packing of the coal pile to reduce blowing dust and aid in the prevention of coal fires.
e. Application of a dust suppressant to the coal, limestone and gypsum on the conveyor belts as necessary.
f. Biomass Fugitive Dust Emissions: The permittee shall minimize unconfined particulate matter emissions from the storage and handling of carbonaceous fuels by using dust suppressing techniques such as covering, confining, or applying water to the affected areas, as necessary.

[Rule 62-296.320(4)(c), F.A.C. and Permit No. 0330045-023-AC]

Annual Reports and Fees

See Appendix RR, Facility-wide Reporting Requirements for additional details.

FW6. Annual Operating Report. The permittee shall submit an annual report that summarizes the actual operating rates and emissions from this facility. Annual operating reports shall be submitted to the Compliance Authority by April 1st of each year. [Rule 62-210.370(3), F.A.C.]

FW7. Annual Emissions Fee Form and Fee. The annual Title V emissions fees are due (postmarked) by March 1st of each year. The completed form and calculated fee shall be submitted to: Major Air Pollution Source Annual Emissions Fee, P.O. Box 3070, Tallahassee, Florida 32315-3070. The forms are available for

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download by accessing the Title V Annual Emissions Fee On-line Information Center at the following Internet web site: http://www.dep.state.fl.us/air/emission/tvfee.htm. [Rule 62-213.205, F.A.C.]

FW8. Annual Statement of Compliance. The permittee shall submit an annual statement of compliance to the compliance authority at the address shown on the cover of this permit within 60 days after the end of each calendar year during which the Title V permit was effective. [Rules 62-213.440(3)(a)2., 3. and (b), F.A.C.]

FW9. Prevention of Accidental Releases (Section 112(r) of CAA). If, and when, the facility becomes subject to 112(r), the permittee shall:

a. Submit its Risk Management Plan (RMP) to the Chemical Emergency Preparedness and Prevention Office (CEPPO) RMP Reporting Center. Any Risk Management Plans, original submittals, revisions or updates to submittals, should be sent to: RMP Reporting Center, Post Office Box 10162, Fairfax, VA 22038, Telephone: (703) 227-7650.

b. Submit to the permitting authority Title V certification forms or a compliance schedule in accordance with Rule 62-213.440(2), F.A.C. [40 CFR 68]

FW10. In lieu of Condition TV15. of Appendix TV, Title V General Conditions, the following condition applies: Permit Shield. Except as provided in Chapter 62-213, F.A.C., compliance with the terms and conditions of a permit issued pursuant to Chapter 62-213, F.A.C., shall, as of the effective date of the permit, be deemed compliance with any applicable requirements in effect, provided that the source included such applicable requirements in the permit application. Nothing in Rule 62-213.460, F.A.C., or in any permit shall alter or affect the ability of EPA or the Department to deal with an emergency, the liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance, or the requirements of the Federal Acid Rain Program. [Rule 62-213.460, F.A.C.]

In addition, this permit shield does not currently encompass major or minor source construction permit requirements that are deemed applicable to the source by a court of competent jurisdiction. The source shall not be shielded from any such requirements found, after the exhaustion of appeals, to be applicable by such court, and in the event that such a finding is made and the appeals therefrom are exhausted, this will provide a basis for reopening the permit to establish a schedule for complying with these requirements. Until such time as a final decision is reached after the exhaustion of appeals, no compliance schedule shall be necessary or required. Furthermore, the annual compliance certification shall not be required to address such matters until a final decision is reached. It is specifically recognized that this exception to the permit shield applies to a determination by such court, after exhaustion of appeals, that major or minor new source construction permit requirements apply to the source. Nothing in the permit has made any specific finding of non-applicability of any PSD, NSPS, or SIP minor source review requirements for any modifications to which these requirements should have applied.

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Subsection A. Emissions Units -004, -005, -006, -007 and -015

The specific conditions in this section apply to the following emissions units:

EU No.	Brief Description	
-004	Boiler Number 4 - 1,096.7 MMBtu/hour (Substitution Phase I Acid Rain Unit)	All four boilers are subject to Acid Rain Phase II and CAIR requirements
-005	Boiler Number 5 - 1,096.7 MMBtu/hour (Substitution Phase I Acid Rain Unit)	
-006	Boiler Number 6 - 3,704.8 MMBtu/hour (Phase I Acid Rain Unit)	
-007	Boiler Number 7 - 6,406.4 MMBtu/hour (Phase I Acid Rain Unit)	
-015	Limestone Handling Equipment, Including 2 Silos	

Emissions unit number -004 is a tangentially fired, dry bottom boiler designated as "Boiler Number 4" manufactured by Combustion Engineering. It is rated at a maximum heat input of 1,096.7 MMBtu/hour when firing pulverized coal, natural gas, No. 2 fuel oil, or on-specification used oil. Emissions unit number -005 is a tangentially fired, dry bottom boiler designated as "Boiler Number 5" manufactured by Combustion Engineering. It is rated at a maximum heat input of 1,096.7 MMBtu/hour when firing pulverized coal, natural gas, No. 2 fuel oil, or on-specification used oil. Units -004 and -005 can burn Biomass up to 40.2 MMBtu/hour. Units -004 and -005 were Phase I substitution units and are Phase II Acid Rain units. Gulf Power operates a temporary mercury research center using a slipstream of flu gas from unit -005 (Permit No. 0330045-011-AC) for evaluating mercury (Hg) emission reduction techniques.

Emissions unit number -006 is a front wall fired, dry bottom boiler designated as "Boiler Number 6" manufactured by Foster Wheeler. It is rated at a maximum heat input of 3,704.8 MMBtu/hour when firing pulverized coal or natural gas, and 714.8 MMBtu/hr when firing No. 2 fuel oil or on-specification used oil. Emissions unit number -007 is a front and rear wall fired, dry bottom boiler designated as "Boiler Number 7" manufactured by Foster Wheeler. It is rated at a maximum heat input of 6,406.4 MMBtu/hour when firing pulverized coal or natural gas, and 1,282 MMBtu/hour when firing No. 2 fuel oil or on-specification used oil. Fuel oil is used as a back-up fuel in both units and for periods of start-up and flame stabilization.

These emissions units are regulated under Acid Rain, Phase II and they are subject to the standards and requirements contained in the Acid Rain Part of this permit (see Section IV). These emissions units pre-date Prevention of Significant Deterioration (PSD) regulations and are regulated under Rule 62-296.405, F.A.C., Fossil Fuel Fired Steam Generators with more than 250 million Btu per Hour Heat Input.

Emissions unit number -015 is a limestone handling system for the receipt, storage, and sluicing of limestone. The system consists of a powdered limestone unloading station, two closed silos, two limestone slurry mix tanks, and associated pumps, valves, instrumentation and piping. The permittee shall maintain and operate a baghouse on each silo designed to meet a particulate matter emissions specification of 0.01 grains per actual standard cubic feet. When needed, replacement bags shall be selected that meet this equipment specification. The baghouse vents are located at the top of the limestone storage silos. The limestone handling system shall be maintained and operated to minimize emissions of fugitive particulate matter by confining, enclosing or wetting (as necessary). [Permit No. 0330045-023-AC, Rule 62-4.070, F.A.C.]

{Permitting Notes: PM emissions from units -004 and -005 are controlled by hot side electrostatic precipitators (ESP) manufactured by Buell, updated with GE ENERGY ESP-3 plates with RDE-1 rigid discharge electrodes, and cold side ESP manufactured by Buell, Model 1.1x48k33-1p. Nitrogen Oxides (NO_X) emissions from units -004 and -005 are controlled by low-NO_X burner tips and selective non-catalytic reduction (SNCR). The SNCR system is designed for a target NO_X reduction of 25% as measured across the SNCR unit inlet and outlet. The designed target ammonia slip level is 5 parts per million per volume (ppmv) corrected to 3% oxygen (O_2) based on a 24-hour average. Unit -004 began commercial operation on July 1, 1959. Unit -005 began commercial operation on June 1, 1961. The generator nameplate rating for unit -004 is 93 MW. The generator nameplate rating for unit -005 is 93 MW. PM emissions from unit -006 are controlled by a cold side electrostatic precipitator (Wheelabrator Model # HaRDE). PM emissions from unit -007 are controlled by cold side

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electrostatic precipitators designed by Alstom Power Inc. NO_X emissions from units -006 are controlled by Foster Wheeler Low NO_X Burners and by a Selective Non-Catalytic Reduction (SNCR) system designed to achieve no less than a 20% reduction in NO_X emissions as measured across the SNCR unit inlet and outlet. The designed target ammonia slip level is 5 ppmv corrected to 3% O_2 based on a 24-hour average. NO_X emissions from unit -007 are controlled by Foster Wheeler Low NO_X Burners and by a Selective Catalytic Reduction (SCR) system designed to achieve no less than an 85% reduction in NO_X emissions as measured across the SCR unit inlet and outlet. The designed target ammonia slip level is 5 ppmv based on a 24-hour average. Unit -006 began commercial operation on May 1, 1970. Unit -007 began commercial operation on August 1, 1973. The permittee operates a wet FGD system to control SO_2 emissions from Units 4 - 7. Units 4 - 7 share a common stack under normal conditions with the wet FGD system in operation. Common stack height = 490 feet, exit diameter = 35 feet, exit temperature = 131° F; actual volumetric flow rate = 3,282,000 acfm. The two existing stacks for Units 4/5 and Units 6/7 will remain as bypass stacks for: periods of startup and shutdown of Units 4 - 7; malfunction of Units 4 - 7 (any or all) or the wet FGD system; or, repair or scheduled maintenance of the wet FGD system. Under normal operating conditions, the existing stack for Units 4/5 will be used to provide makeup air to the system. Units -004 and -005 common bypass stack height = 450 feet, exit diameter = 18.0 feet, exit temperature = 290 ºF, actual volumetric flow rate = 596,012 actual cubic feet per minute (acfm). Units -006 and -007 common bypass stack height = 450 feet, exit diameter = 23.2 feet, exit temperature = 320 ºF, actual volumetric flow rate = 2,975,540 acfm. }

{Permitting Note: In addition to the requirements listed below, these emissions units are also subject to the standards and requirements contained in the Acid Rain Part of this permit (see Section IV).}

The following specific conditions apply to the emissions units listed above:

Essential Potential to Emit (PTE) Parameters

A.1. Permitted Capacity. The maximum allowable heat input rate is as follows:

EU No.	MMBtu/hr Heat Input	Fuel Type
-004	1,096.7	Coal
	1,096.7	Natural Gas
	1,096.7	No. 2 Fuel Oil
	1,096.7	On-Specification Used Oil
	40.2	Biomass
-005	1,096.7	Coal
	1,096.7	Natural Gas
	1,096.7	No. 2 Fuel Oil
	1,096.7	On-Specification Used Oil
	40.2	Biomass
-006	3,704.8	Coal
	3,704.8	Natural Gas
	714.8	No. 2 Fuel Oil (for start-up and as needed for flame stabilization)
	714.8	On-Specification Used Oil
-007	6,406.4	Coal
	6,406.4	Natural Gas
	1,282	No. 2 Fuel Oil (for start-up and as needed for flame stabilization)
	1,282	On-Specification Used Oil
-015	N/A	Limestone Handling Equipment, Including 2 Silos

[Rules 62-4.160(2), 62-204.800, 62-210.200(PTE), 62-214.330, and 62-296.405, F.A.C., Permit Nos. AC17-2126, AC17-2127, 0330045-010-AC and 0330045-013-AC]

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A.2. Emissions Unit Operating Rate Limitation After Testing. See the related testing provisions in Appendix TR, Facility-wide Testing Requirements. [Rule 62-297.310(2), F.A.C.]

A.3. Methods of Operation.

a. *Fuels.* The fuels that are allowed to be burned in these boilers are coal, natural gas, new No. 2 fuel oil, and/or on-specification used oil (see Specific Condition **A.52.**). For Units 006 and 007 the No. 2 Fuel oil is only used for periods of start-up and as needed for flame stabilization. Units -004 and -005 may also fire carbonaceous fuel (Biomass). In addition, on-site generated "oil contaminated soil" is periodically combusted for energy recovery purposes.

b. *Other.*

(1) Supplemental injection of "GAM 60" for purposes of maintaining boiler tube temperatures for Units -004, -005, -006 and -007.

(2) Supplemental injection of sodium carbonate or sodium sulfate at a rate of 440 pounds per hour as necessary to enhance the operation of the particulate control devices for Units -004 and -005.

(3) Supplemental injection of ammonia at a rate of 25 to 40 pounds per hour for Units -006 and -007.

(4) Supplemental injection of sulfur trioxide at a rate of 4 to 20 ppm for Units -006 and -007.

c. *Mercury Research Center*. The permittee is authorized to operate a temporary research center for evaluating mercury (Hg) emission reduction techniques. The research center uses a slip stream of flue gas from Unit -005. To avoid compromising test results from the research center, the SNCR may not be operated while research is being conducted by the facility. Unit -005 stack emissions shall not exceed any limit within this permit. Testing shall cease as soon as possible if the boiler operations are not in accordance with conditions in this permit. Testing by the research center shall not resume until appropriate measures to correct the problem(s) have been implemented. See Specific Conditions **A.54. - A.62.**

d. *Biomass Fuels*. Subject to the conditions of this permit, only units -004 and -005 may also fire carbonaceous fuel consisting of the following untreated materials: wood chips, switch grass, sawdust, and sander dust in addition to the authorized fuels listed above. These materials shall be substantially free of plastics, metals, paint or other chemicals. Heat input rate from biomass fuels shall not exceed 40.2 MMBtu per hour for each unit. The maximum hourly firing rates of carbonaceous fuels for each unit are: 4.7 tons of wood chips per hour, 2.9 tons of switch grass per hour, 3.7 tons of sawdust per hour, and 3.7 tons of sander dust per hour. The above limits are not cumulative and only one carbonaceous fuel type may be fired at a time.

[Rule 62-213.410, F.A.C., Permit Nos. 0330045-011-AC and 0330045-013-AC]

A.4. Hours of Operation. These emissions units may operate continuously, i.e. 8,760 hours/year. For each emissions unit, the permittee shall maintain a daily operations log available for Department inspection that documents the total hours of annual operation, including an account of the hours operated on each of the allowable fuels. [Rules 62-213.440, 62-210.200(PTE), F.A.C. and Applicant's request in Title V permit renewal application received May 18, 2009]

Control Technology

A.5. Selective Non-Catalytic Reduction (SNCR) System. Fuel Tech, Inc. designed the SNCR systems for Units 4, 5 and 6 to be used on an "as needed" basis to meet the plant-wide NO_X limit in Specific Condition **A.15.** Urea is delivered by truck (or possibly rail) and stored on site as a 40% aqueous solution in one 45,000 gallon tank. When operated at peak load, this provides approximately 7 days of operating inventory. The solution will be maintained at a temperature of approximately 40° F by circulating through the SNCR system piping loop heating module. Using plant service water or other dilution water source, the metering module dilutes the reagent to a predetermined concentration (approximately 30%) and precisely controls the flow of the diluted reagent to distribution modules located near the boiler injection point. The distribution modules provide the final control of diluted reagent and atomizing/cooling (plant) air being delivered to each injector. The diluted reagent is injected into the boiler via wall-mounted air atomizing lances, which will be installed across the face of the boiler at an elevation of 159'-0" for each unit. At peak load for Unit -004, with 0.36

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lb/MMBtu inlet NO_X and 25% reduction, urea injection would be 233 lb/hr on a dry basis. This translates to an ammonia flow of 132 lb/hr. At peak load for Unit -005, with 0.36 lb/MMBtu inlet NO_X and 25% reduction, urea injection would be 238 lb/hr on a dry basis. This translates to an ammonia flow of 135 lb/hr. At peak load for Unit -006, with 0.35 lb/MMBtu inlet NO_X and 20% reduction, urea injection would be 741 lb/hr on a dry basis. This translates to an ammonia flow of 333.8 lb/hr. The SNCR is designed with a maximum ammonia slip concentration of 5 ppmvd corrected to 3% O_2 (24 hour basis) in the duct cross-sectional area for all boiler loads. There are no provisions for continuously monitoring ammonia concentration in the flue gas. When ammonia measurements in the flue gas are required, EPA Method CTM-027 or other methods approved by EPA such as Method 320, which incorporates Fourier transform Infrared Spectroscopy (FTIR) will be used. [0330045-012-AC and 0330045-013-AC]

A.6. Selective Catalytic Reduction (SCR) System. Southern Company Services Inc. designed the SCR system for Unit -007, which generally consists of the following:

a. *Catalyst Structure.* Arranged in four layers, the catalyst is a plate-type structure fabricated by applying ceramic catalyst material to a perforated stainless steel mesh grid plate. The active catalyst component is vanadium pentoxide. The system has an operational temperature range between 600° to 800° F (optimum temperature > 680° F). The initial configuration had a catalyst volume of approximately 26,000 cubic feet in 2½ layers. As the catalyst gradually deactivates through use, the remaining layers will be filled and old layers replaced. With all four potential layers in place, the catalyst volume is approximately 41,600 cubic feet.

b. *Ammonia Injection System.* Anhydrous ammonia is delivered by truck or rail and stored on site in two 20,500 gallons tanks. Ammonia is distributed 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 NO_X profile. A static mixer installed upstream of the AIG creates flow resistance, flattens this profile, and makes gas flow uniform. A second static mixer is installed downstream of the AIG. The elements of this mixer are precisely oriented with the AIG injection points to impart a swirl to the diluted ammonia and promote good mixing with the flue gas. A manual gas sampling grid (GSG) is installed downstream of the last catalyst layer, which allows a high-resolution traverse of the flue gas stream. Gas composition data collected from the GSG is used to precisely adjust and tune the AIG. The preliminary design was based on a 0.95 molar ratio of ammonia-to-NO_X.

c. *Ammonia Control System.* The ammonia control system consists of a control loop with a cascaded, feed-forward control scheme. Process monitors will provide NO_X 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 NO_X rates at the SCR inlet/outlet, the outlet NO_X set point, the heat input to the boiler, the actual NO_X rate measured by the stack monitor, and a scaling factor based on the molecular weights of ammonia and NO_X. The system is capable of continually adjusting flow control valves to fine-tune the ammonia injection rate based on changing gas stream conditions.

d. *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 -007 boiler.

[0330045-005-AC]

A.7. Operation of NO_X Control Devices.

a. *SNCR Systems For Units -004 and-005.* The permittee shall maintain and operate SNCR systems for Units -004 and -005 to reduce emissions of nitrogen oxides (NO_X), as needed, in order to comply with the plant-wide nitrogen oxides (NO_X) Limit in Specific Condition **A.15.** The SNCR systems for Units -004 and -005 were designed to achieve no less than a 25% reduction in NO_X emissions as measured across the SNCR unit inlet and outlet. Both systems shall be maintained to operate as designed. The designed target ammonia slip level is 5 ppmv corrected to 3% O_2 based on a 24-hour average. The storage of urea

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shall comply with all applicable requirements of the Chemical Accident Prevention Provisions in 40 CFR 68.

b. *SNCR System for Unit -006.* The permittee shall maintain and operate an SNCR system for Unit -006 to reduce emissions of nitrogen oxides (NO_X), in order to comply with the plant-wide nitrogen oxides (NO_X) Limit in Specific Condition **A.15.** The SNCR system for Unit -006 was designed to achieve no less than a 20% reduction in NO_X emissions as measured across the SNCR unit inlet and outlet. The SNCR system shall be maintained to operate as designed. The designed target ammonia slip level is 5 ppmv corrected to 3% O_2 based on a 24-hour average. The storage of urea shall comply with all applicable requirements of the Chemical Accident Prevention Provisions in 40 CFR 68.

c. *SCR System For Unit -007*. The permittee shall operate and maintain an SCR system for Unit -007 to reduce emissions of nitrogen oxides (NO_X). The SCR system was designed to achieve no less than an 85% reduction in NO_X emissions as measured across the SCR unit inlet and outlet. The SCR system shall be maintained to operate as designed. The designed target ammonia slip level is 5 ppmv based on a 24-hour average. The storage of ammonia shall comply with all applicable requirements of the Chemical Accident Prevention Provisions in 40 CFR 68.

[Permit Nos. 0330045-005-AC, 0330045-012-AC and 0330045-013-AC]

A.8. SCR Bypass, Startup/Shutdown. During Unit -007 startup and shutdown, the SCR system may be bypassed in accordance with manufacturer's recommended procedures to allow for controlled catalyst heating and cooling. During startup, the SCR system shall be on line and functioning when the minimum operating temperature of the catalyst is achieved (≥ 600° F). During shutdown, the SCR system may be removed from service when the catalyst temperature drops below 600° F. [Rule 62-210.700, F.A.C. and Permit No. 0330045-005-AC]

A.9. SCR Bypass, Catalyst Maintenance and Repair. The permittee may bypass the SCR system to perform maintenance and repair for up to 360 hours per consecutive 12 months during non-ozone events. During such allowable bypass periods, the uncontrolled NO_X emissions from Unit -007 shall not exceed 0.35 lb/MMBtu based on a 24-hour average. The daily NO_X emission rates for these periods may be excluded from the plant-wide 30-day NO_X standard specified in Specific Condition **A.15.** The permittee shall notify the Compliance Authority in advance of the purpose of the SCR bypass, the expected dates of SCR bypass, and the expected duration of SCR bypass. To the extent practical, the permittee shall schedule regular maintenance of the SCR system for the non-ozone season. [Rules 62-210.700, 62-4.070(3), F.A.C., Permit Nos. 0330045-005-AC and 0330045-017-AC]

{Permitting Note: The ozone season is defined as May 1st through September 15th. An Ozone event is defined as any level on the Air Quality Index for Ozone greater than good or moderate (green or yellow).}

A.10. Operation of Sulfur Dioxide (SO_2) Control Devices. The permittee shall operate a wet flue gas desulfurization (FGD) system to control SO_2 emissions from Units 4 - 7. The system consists of a large scrubber vessel as well as a number of subsystems for transport and processing flue gas exhaust, limestone, gypsum, other solids, and water. All four boiler exhausts are directed to the single scrubber reactor where a limestone slurry is injected to chemically react with SO_2 in the scrubber vessel for removal as gypsum. The wet FGD system shall be tuned, operated, and maintained as described in the application, approved drawings, plans, and other documents on file with the Department. A FGD Scrubber operational day shall be defined as a calendar day during which one or more of the boilers operated for at least 18 hours and the FGD scrubber was operational or only being bypassed for purposes of short-term maintenance as described below.

a. For normal operations, SO_2 emissions shall be determined by CEMS emissions data. The SO_2 mass emissions rates shall be calculated in terms of "pounds per day" for each calendar day of operation by summing the hourly mass emissions rates (lb/hour) determined from the actual heat input rates (MMBtu/hour) and the monitored emissions levels (lb/MMBtu). Initially, the actual heat input rates will be determined by fuel firing rates and heating values. The permittee shall conduct a study to determine the accuracy of the stack flow monitors and provide a written report to the Bureau of Air Regulation and the Compliance Authority. Based on the results of the study, the permittee may use the stack flow

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monitors to determine the actual heat input rates after providing written notification of this decision to the Bureau of Air Regulation and the Compliance Authority. Thereafter, the permittee shall use the fuel-based method as a backup method for determining the actual heat input rates.
{Permitting Note: At the time of application for revision project No. 0330045-031-AV, the results of the required stack flow monitor study were not conclusive enough for Gulf Power to feel comfortable relying on the results to demonstrate compliance with the heat input limitation. Therefore, they have not yet provided the written notice required in the above condition and will continue to use the fuel based method for determining the actual heat input rates and will continue working on the flow rate monitor study.}

b. For FGD scrubber bypass operation, SO_2 emissions shall be monitored and determined in accordance with the "Crist Alternative Monitoring Plan" (File No. 07-D-AP). The permittee is authorized to bypass the FGD scrubber in accordance with the following conditions.
   1. *Startup and Shutdown*. The permittee is authorized to bypass the FGD scrubber during the startup and shutdown of each emissions unit. The permittee may exclude SO_2 emissions collected during startup and shutdown from the 30-day rolling compliance total. Although not limited, such periods of bypass are estimated to be less than 96 hours per year per unit.
   2. *Short-Term Maintenance*. The permittee is authorized to bypass the FGD scrubber to conduct short-term maintenance to correct problems with limestone-gypsum management and operational problems with the FGD system. During such periods, the permittee shall include representative SO_2 emissions rates in the 30-day rolling compliance total. Such short-term maintenance periods are not considered part of long-term maintenance (annual routine maintenance, periodic pre-planned maintenance or repair for force majeure scrubber outages).
   3. *Long-Term Maintenance*. The permittee is authorized to bypass the FGD scrubber to conduct annual routine maintenance of the FGD scrubber system. For such periods, the permittee may exclude up to 360 hours per calendar year from the 30-day rolling compliance total. The permittee is authorized to bypass the FGD scrubber to conduct periodic pre-planned scrubber maintenance (based on best practices) and scrubber repairs due to force majeure outages. For such periods, the permittee may exclude up to an additional 360 hours per calendar year from the 30-day rolling compliance total.

   The permittee shall use the protocol in 40 CFR 75 to calculate the initial representative SO_2 emissions for bypass operations. If this initial conservative estimate indicates a compliance issue, the permittee shall recalculate and determine compliance using the representative SO_2 emissions based on the actual fuel sulfur content and fuel firing rate. During a FGD scrubber bypass, each unit shall remain in compliance with all other valid SO_2 emissions standards.

[Rule 62-4.080(1), F.A.C. and Permit No.0330045-023-AC]

A.11. <u>Operation of FGD Subsystems</u>. The subsystems used to support the FGD system consist of the following:

a. *Flue Gas Handling*. The FGD exhausts to a common stack for Units 4 – 7, which is the point of emissions under normal conditions while the wet FGD system is in operation. The two existing stacks for Units 4/5 and Units 6/7 remain as bypass stacks for: periods of startup and shutdown of Units 4 - 7; malfunction of Units 4 - 7 (any or all) or the wet FGD system; or, repair or scheduled maintenance of the wet FGD system. Under normal operating conditions, the existing stack for Units 4/5 will be used to provide makeup air to the system.
b. *Limestone Handling*. A limestone handling system is operated for the receipt, storage, and sluicing of limestone. The system consists of a powdered limestone unloading station, two closed silos, two limestone slurry mix tanks, and associated pumps, valves, instrumentation and piping. The permittee shall maintain and operate a baghouse on each silo designed to meet a particulate matter emissions specification of 0.01 grains per actual standard cubic feet. New and replacement bags shall be selected that meet this equipment specification. The limestone handling system shall be maintained and operated to minimize emissions of fugitive particulate matter by confining, enclosing or wetting (as necessary).
c. *Gypsum Handling*. A gypsum handling system is operated to transport, store, dewater, and load for shipment the gypsum produced in the scrubber vessel. The equipment includes tanks, pumps, piping, valves, instrumentation, hydrocyclones, vacuum filters, and conveyors. There are two vacuum filters with

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accessories to serve units 4 - 7. To the extent practicable, conveyors transporting dewatered gypsum must be enclosed. The remainder of the gypsum handling system shall be maintained and operated to minimize emissions of fugitive particulate matter by confining, enclosing or wetting (as necessary).

[0330045-015-AC and 0330045-023-AC]

{Permitting Note: The wet FGD system is based on the Model CT-121 wet FGD process licensed by Southern Company from Chiyoda Corporation. The preliminary design is for removal of approximately 95% of the SO_2 emissions. In addition, the wet FGD system is expected to: remove an estimated 50% to 70% of the particulate matter emissions; remove an estimated 95% of the hydrogen chloride and hydrogen fluoride emissions; and capture an estimated 80% of the oxidized mercury.}

Emission Limitations and Standards

{Permitting Note: The attached Table 1, Summary of Air Pollutant Standards, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

Unless otherwise specified, the averaging times for Specific Conditions **A.12. - A.17.** are based on the specified averaging time of the applicable test method.

A.12. Visible Emissions.

a. As measured by the individual COMS, ~~V~~visible emissions for units -004 and -005 shall not exceed 40 percent opacity. Because units -004 and -005 share a common stack when the NO_X and/or SO_2 controls are operating in bypass mode, visible emissions violations from the stack will be attributed to both units unless opacity meter results show the specific unit causing the violation.

b. As measured by the individual COMS, visible emissions from unit -006 shall not exceed 40 percent opacity, visible emissions from unit -007 shall not exceed 20% based on a 6-minute block average, except for one 6-minute block per hour that shall not exceed 27%. Because units -006 and -007 share a common stack when the NO_X and/or SO_2 controls are operating in bypass mode, visible emissions violations from the stack will be attributed to both units unless opacity meter results show the specific unit causing the violation.

c. Visible emissions from unit -015 limestone storage silo baghouses shall not exceed 5% opacity, as demonstrated by annual EPA Method 9 compliance tests.

[Rule 62-296.405(1)(a), F.A.C., Secretarial ORDER(s) signed October 18, 1985, January 3, 1986, May 12, 1988 & June 24, 1988; and, Permit Nos. AO17-211303, Specific Condition 10, AC17-2234016, Specific Condition 14, AO17- 171806, Specific Condition 23, 0330045-005-AC and 0330045-023-AC]

A.13. Visible Emissions (VE) - Soot Blowing and Load Change. Visible emissions shall not exceed 60 percent opacity during the 3-hours in any 24-hour period of excess emissions allowed for boiler cleaning (soot blowing) and load change. A load change occurs when the operational capacity of a unit is in the 10 percent to 100 percent capacity range, other than startup or shutdown, which exceeds 10 percent of the unit's rated capacity and which occurs at a rate of 0.5 percent per minute or more. Visible emissions above 60 percent opacity shall be allowed for not more than 4, six (6)-minute periods, during the 3-hour period of excess emissions allowed for boiler cleaning and load changes, at units which have installed continuous opacity monitors. [Rule 62-210.700(3), F.A.C.]

{Permitting Note: Load changes may be demonstrated by monitoring megawatt output.}

A.14. Sulfur Dioxide (SO_2).

a. *All Fuels*. Sulfur dioxide emissions shall not exceed 2.40 pounds per million Btu heat input, as measured by applicable compliance methods. [Permit Nos. 0330045-008-AC and 0330045-010-AC]

b. *Solid Fuel*. When burning solid fuel, sulfur dioxide emissions from unit -006 shall not exceed 38,945 tons per year. [Permit No. 0330045-008-AC]

c. *Liquid Fuel Sulfur Content*. In order to ensure continuous compliance with the sulfur dioxide limit for liquid fuels, the liquid fuel sulfur content shall not exceed 2.18 percent, by weight, as measured by applicable test methods. [Rule 62-213.440, F.A.C.]

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d. *Sulfur Dioxide (SO_2) Limit*. The SO_2 emissions from the combined operation of Units 4, 5, 6 and 7 shall not exceed 886.0 tons during any 30-day rolling total of FGD scrubber operational days (see Specific Condition **A.10.**). [Permit No. 0330045-023-AC]

A.15. Plant-Wide Nitrogen Oxides (NO_X) Limit. Emissions of nitrogen oxides (NO_X) from the combined operation of Units -004, -005, -006, and -007 shall not exceed 0.2 lb/MMBtu heat input based on a 30-day rolling average except for periods when Unit -007 is shutdown. The plant-wide daily NO_X emission rate shall be determined by the following equation:

$$\text{Plant-Wide Daily MMBtu-Weighted } \mathbf{NO_X} \text{ Emission Rate} = \frac{\sum_{\text{Units 4, 5, 6, 7}} [(\text{Unit \# daily MMBtu}) \times (\text{Unit \# daily } NO_X \text{ CEMS Rate})]}{\sum_{\text{Units 4, 5, 6, 7}} (\text{Unit \# daily MMBtu})}$$

The "Unit # daily MMBtu" shall be determined by the daily as-burned fuel analysis and the fuel fired for each unit. The "Unit # daily NO_X CEMS Rate" shall be determined by the daily average of NO_X CEMS data for each unit and reported in terms of "lb/MMBtu heat input". The plant-wide daily NO_X emissions rate shall be determined each day regardless of the operating status for Unit -007. The plant-wide 30-day rolling NO_X average shall be determined for each 30 sequential Unit -007 operating days, which need not be consecutive. A Unit -007 operating day means any calendar day that Unit -007 operates a minimum of 18 hours. The Unit -007 daily NO_X CEMS rate may consist of less than 18 hours of data if this is due to CEMS malfunction or invalid CEMS data. When the catalyst temperature is below 600° F during a startup or shutdown, NO_X emissions data collected during such periods may be excluded from the daily NO_X average. In accordance with Specific Condition **A.9.**, limited NO_X emissions data collected during SCR bypass during the non-ozone season may be excluded from the daily NO_X average. The plant-wide NO_X emission standard shall be achieved by utilizing the SCR system for Unit -007 and the SNCR systems for Units -004, -005 and -006. [Permit No. 0330045-005-AC and 0330045-012-AC]

A.16. Particulate Matter (PM). Particulate matter emissions shall not exceed 0.1 pound per million Btu heat input, as measured by applicable compliance methods. In addition, articulate matter emissions from unit -006 shall not exceed 1,475 tons per year. [Rule 62-296.405(1)(b), F.A.C. and Permit No. AC17-234016]

A.17. Particulate Matter - Soot Blowing and Load Change. Particulate matter emissions shall not exceed an average of 0.3 pound per million Btu heat input during the 3-hours in any 24-hour period of excess emissions allowed for boiler cleaning (soot blowing) and load change. [Rule 62-210.700(3), F.A.C.]

Excess Emissions

Rule 62-210.700 (Excess Emissions), F.A.C. cannot vary any requirement of an NSPS, NESHAP or Acid Rain program provision.

A.18. Excess Emissions Allowed - Malfunction. Excess emissions resulting from malfunction shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700(1), F.A.C.]

A.19. Excess Emissions Allowed - Startup or Shutdown. Excess emissions resulting from startup or shutdown shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized. [Rule 62-210.700(2), F.A.C.]

A.20. Excess Emissions Prohibited. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown or malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C.]

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Monitoring of Operations

A.21. CAM Plan. These emissions units are subject to the Compliance Assurance Monitoring (CAM) requirements contained in the attached Appendix CAM. Failure to adhere to the monitoring requirements specified does not necessarily indicate an exceedance of a specific emissions limitation; however, it may constitute good reason to require compliance testing pursuant to Rule 62-297.310(7)(b), F.A.C. [40 CFR 64, Rules 62-204.800 and 62-213.440(1)(b)1.a., F.A.C.]

Continuous Monitoring Requirements

{Permitting Note: In accordance with the federal Acid Rain Phase II requirements and Permit No. 0050014-013-AC, the following continuous monitors are installed on these units: SO_2, NO_X, CO_2, opacity, urea injection rate and stack gas flow.}

A.22. Continuous Monitors. For these emissions units, the permittee shall calibrate, operate and maintain continuous monitoring systems (CEMS) for monitoring opacity, Sulfur dioxide (SO_2), Nitrogen Oxides (NO_X) and Carbon Dioxide (CO_2). [Rule 62-296.405(1)(f)1., F.A.C., Permit Nos. AC17-234016, AO17-171806, 0330045-005-AC, 0330045-012-AC and 0330045-013-AC]

A.23. SO_2 Averaging Time. Continuous SO_2 emission monitoring 24-hour averages are required to demonstrate compliance with the standards of the Department (see Specific Condition **A.14.**). 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_2 emissions 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_2 emissions compliance by the temporary use of a spare SO_2 emissions monitor. The spare SO_2 emissions monitor must be installed and collecting data in the same time frame as required above for as fired fuel sampling. Maintain a QC program. At a minimum, the QC program must include written procedures which shall describe in detail complete, step-by-step procedures and operations for each of the following activities:

1. Calibration of CEMS.
2. Calibration Drift (CD) determination and adjustment of CEMS.
3. Preventative 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.

[Rules 62-213.440, 62-204.800(7)(e)5, 62-296.405(1)(f)1.b., F.A.C., Permit Nos. AC17-234016, AO17-171806 and AO17-211303]

A.24. Continuous Monitor Performance Specifications. If continuous monitoring systems are required by rule or are elected by the permittee to be used for demonstrating compliance with the standards of the Department, they must be installed, maintained and calibrated, either:

a. in accordance with the EPA performance specifications listed below. These Performance Specifications are contained in 40 CFR 60, Appendix B, and are adopted by reference in Rule 62-204.800, F.A.C.
   (1) Performance Specification 1--Specifications and Test Procedures for Opacity Continuous Emission Monitoring Systems in Stationary Sources.
   (2) Performance Specification 2--Specifications and Test Procedures for SO_2 and NO_X Continuous Emission Monitoring Systems in Stationary Sources.
   (3) Performance Specification 3--Specifications and Test Procedures for CO_2 Continuous Emission Monitoring Systems in Stationary Sources. Or,
b. in accordance with the applicable requirements of 40 CFR 75, Subparts B and C. Excess emissions pursuant to Rule 62-210.700, F.A.C., shall be determined using the 40 CFR part 75 CEMS.

[Rule 62-297.520, F.A.C., 40 CFR 75; and Applicant request]

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A.25. COMS. The permittee shall, operate and maintain a continuous opacity monitoring system (COMS) to demonstrate compliance with the stack opacity standard for Unit -007. The COMS shall monitor and record data during all periods of Unit -007 operation including startup, shutdown, malfunction or emergency conditions, but not including continuous monitoring system breakdowns, repairs, or calibration checks. [Permit No. 0330045-005-AC]

*{Permitting Note: The existing COMS required by the Acid Rain program and Specific Condition **A.22.** satisfies this requirement.}*

A.26. NO_X CEMS. To demonstrate compliance with the emissions standards, the permittee shall calibrate, operate and maintain continuous emissions monitoring systems (CEMS) to continuously monitor and record the emissions of nitrogen oxides and an appropriate diluent gas (carbon dioxide or oxygen). The CEMS shall monitor and record data during all periods of Units -004, -005, -006 & -007 operation including startup, shutdown, malfunction or emergency conditions, but not including continuous monitoring system breakdowns, repairs, calibration checks, or zero and span adjustments. For each calendar quarter, monitor availability shall be 95% or greater. If unable to achieve this level, the permittee shall submit a report identifying the problems in achieving 95% monitor availability and a plan of corrective actions. The permittee shall implement the reported corrective actions within the next calendar quarter. [Permit Nos. 0330045-005-AC, 0330045-012-AC and 0330045-013-AC]

{Permitting Note: The existing NO_X CEMS required by the Acid Rain program satisfies this requirement.}

A.27. SNCR Urea Injection Flow Monitors. In accordance with the manufacturer's specifications, the permittee shall have installed, shall keep calibrated, and shall operate and maintain flow meters to measure and record the urea injection rate for the SNCR systems on Units -004, -005 and -006. The permittee shall document the general range of urea flow rates required to meet the NO_X standard over the range of load conditions by comparing NO_X emissions with urea flow rates. During NO_X monitor downtimes or malfunctions, the permittee shall operate at a urea flow rate that is consistent with the documented flow rate for the given load condition. [Permit Nos. 0330045-012-AC and 0330045-013-AC]

A.28. Continuous Monitoring. Existing Units 4 - 7 are subject to the federal Acid Rain monitoring requirements for opacity, stack gas flow rates, and emissions of CO_2, NO_X and SO_2. The permittee shall install, calibrate, operate and maintain continuous emissions monitoring systems in the new common stack to monitor and record the stack gas flow rate and emissions of CO_2, NO_X and SO_2. The new equipment shall be certified within 60 days of startup of the new wet FGD system. If the continuous opacity monitoring systems (COMS) located in the ductwork of each unit are able to record opacity during periods of normal and bypass operation, the COMS may be retained; otherwise, a new COMS shall be installed in the common scrubber stack. [Rules 62-4.070 and 62-214, F.A.C.; and, Permit Nos. 0330045-015-AC and 0330045-023-AC]

Test Methods and Procedures

{Permitting Note: The attached Table 2, Summary of Compliance Requirements, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

A.29. Test Methods. Required tests shall be performed in accordance with the following reference methods:

Method	Description of Method and Comments
1-4	Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content
3 and or 3A	Determination of Oxygen and Carbon Dioxide Concentrations in Emissions from Stationary Sources
17, 5, 5B or 5F	Method for Determining Particulate Matter Emissions (All PM is assumed to be PM_{10}.)
7E	Determination of Nitrogen Oxide Emissions from Stationary Sources

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Method	Description of Method and Comments
9	Visual Determination of the Opacity of Emissions from Stationary Sources
10	Determination of Carbon Monoxide Emissions from Stationary Sources {Note: The method shall be based on a continuous sampling train.}
18	Measurement of Gaseous Organic Compound Emissions by Gas Chromatography
25 and or 25A	Method for Determining Gaseous Organic Concentrations (Flame Ionization)
6, 6A, 6B or 6C	Determination of Sulfur Dioxide
CTM-027	Conditional EPA Test Method 027, Measurement of Ammonia Slip (or equivalent method)

The above methods are described in 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from the Department. [Rule 62-297.401, F.A.C. and Permit No. 0330045-005-AC]

A.30. Common Testing Requirements. Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. [Rule 62-297.310, F.A.C.]

A.31. Annual Compliance Tests Required. During each federal fiscal year (October 1st to September 30th), in accordance with the requirements listed below and to demonstrate compliance with the emission limits in Specific Conditions **A.12. - A.17.**: Units -004, -005 and -006 shall be tested for VE, SO_2 and PM; Unit -007 shall be tested for VE, NO_X, SO_2, PM and ammonia slip; and, Unit -015 shall be tested for VE. [Rule 62-297.310(7)(a)4., F.A.C., Permit Nos. 0330045-005-AC and 0330045-023-AC]

{Permitting Note: The annual SO_2 and NO_X tests that are required by Rule 62-297.310(7), F.A.C., can be done during the annual RATAs as satisfaction of this requirement, provided all other testing requirements specified in the permit are met. Once CEMS are installed and operational in the bypass stacks and continuous compliance can be demonstrated, completion of the annual RATAs will replace the need for SO_2 or NO_X stack tests.}

A.32. Compliance Tests Prior To Renewal. The annual compliance tests required in Specific Condition **A.31.** satisfy the requirements contained in Rule 62-297.310(7)(a)3., F.A.C. for testing prior to renewal. [Rules 62-210.300(2)(a) and 62-297.310(7)(a), F.A.C.]

A.33. Testing While Injecting Additives. The owner or operator shall conduct all emissions tests while injecting additives consistent with normal operating practices approved by the Department. [Rule 62-213.440, F.A.C.]

A.34. Visible Emissions. The test method for visible emissions shall be DEP Method 9, incorporated in Chapter 62-297, F.A.C. A transmissometer may be used and calibrated according to Rule 62-297.520, F.A.C. **The permittee has elected to utilize a transmissometer (opacity meter) for demonstrating compliance with the visible emissions limit**. As long as the transmissometer is calibrated, maintained, and operated in accordance with Performance Specification 1 of 40 CFR 60, Appendix B, the annual test for visible emissions is not required. [Rules 62-213.440 and 62-296.405(1)(e)1, F.A.C., and Applicant's request in Title V permit renewal application received May 14, 2009]

{Permitting Note: A transmissometer used to demonstrate compliance should record sufficient data so as to be equivalent to a Method 9 test. Method 9 requires determining an average based on 24 readings at 15-second intervals, thus, a six-minute average. The transmissometers in use at this facility make a permanent recording every six-minutes based on an average of readings taken every 15 seconds. After the 6-minute average is recorded, the individual readings are erased and a new 6-minute average is determined based on

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the next set of 24 individual readings. This 6-minute block recording is consistent with the requirements of Method 9.}

A.35. DEP Method 9. The provisions of EPA Method 9 (40 CFR 60, Appendix A) are adopted by reference with the following exceptions:

a. *EPA Method 9, Section 2.4, Recording Observations*. Opacity observations shall be made and recorded by a certified observer at sequential fifteen second intervals during the required period of observation.

b. *EPA Method 9, Section 2.5, Data Reduction*. For a set of observations to be acceptable, the observer shall have made and recorded, or verified the recording of, at least 90 percent of the possible individual observations during the required observation period. For single-valued opacity standards (e.g., 20 percent opacity), the test result shall be the highest valid six-minute average for the set of observations taken. For multiple-valued opacity standards (e.g., 20 percent opacity, except that an opacity of 40 percent is permissible for not more than two minutes per hour) opacity shall be computed as follows:

(1) For the basic part of the standard (i.e., 20 percent opacity) the opacity shall be determined as specified above for a single-valued opacity standard.

(2) For the short-term average part of the standard, opacity shall be the highest valid short-term average (i.e., two-minute, three-minute average) for the set of observations taken.

In order to be valid, any required average (i.e., a six-minute or two-minute average) shall be based on all of the valid observations in the sequential subset of observations selected, and the selected subset shall contain at least 90 percent of the observations possible for the required averaging time. Each required average shall be calculated by summing the opacity value of each of the valid observations in the appropriate subset, dividing this sum by the number of valid observations in the subset, and rounding the result to the nearest whole number. The number of missing observations in the subset shall be indicated in parenthesis after the subset average value. [Rules 62-297.310 and 62-297.401, F.A.C.]

A.36. Particulate Matter. The test methods for particulate matter emissions shall be EPA Methods 17, 5, 5B, or 5F, incorporated by reference in Chapter 62-297, F.A.C. The minimum sample volume shall be 30 dry standard cubic feet. EPA Method 5 may be used with filter temperature no more than 320 degrees Fahrenheit. For EPA Method 17, stack temperature shall be less than 375 degrees Fahrenheit. The owner or operator may use EPA Method 5 to demonstrate compliance. EPA Method 3 or 3A with Orsat analysis shall be used when the oxygen based F-factor, computed according to EPA Method 19, is used in lieu of heat input. Acetone wash shall be used with EPA Method 5 or 17. [Rules 62-213.440, 62-296.405(1)(e)2., 62-297.310, and 62-297.401, F.A.C.]

A.37. Sulfur Dioxide. The test methods for sulfur dioxide emissions shall be EPA Methods 6, 6A, 6B or 6C, incorporated by reference in Chapter 62-297, F.A.C. Fuel sampling and analysis may be used as an alternate sampling procedure if such a procedure is incorporated into the operation permit for the emissions unit. If the emissions unit obtains an alternate procedure under the provisions of Rule 62-297.620, F.A.C., the procedure shall become a condition of the emissions unit's permit. The Department will retain the authority to require EPA Method 6 or 6C if it has reason to believe that exceedences of the sulfur dioxide emissions limiting standard are occurring. Results of an approved fuel sampling and analysis program shall have the same effect as EPA Method 6 test results for purposes of demonstrating compliance or noncompliance with sulfur dioxide standards. [Rules 62-213.440, 62-296.405(1)(e)3., 62-297.310, 62-297.401, F.A.C.; and, Permit Nos. AC17-234016, AO17-171806 and AO17-211303.]

{Permitting Note: The permittee has elected to demonstrate compliance by means of a continuous emissions monitoring system (CEMS). In addition to any other requirements associated with the operation and maintenance of these CEMS (i.e., Acid Rain requirements), operation of the CEMS shall be in accordance with the requirements listed below. The annual calibration RATA associated with these CEMS may be used in lieu of the required annual EPA Reference Method 6, as long as all of the requirements of Rule 62-297.310, F.A.C., are met (i.e., prior test notification, proper test result submittal, etc.)}

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A.38. Nitrogen Oxides, Compliance Tests. During each federal fiscal year (October 1st to September 30th), the permittee shall conduct tests on Unit -007 in order to demonstrate that the SCR system continues to operate at the designed level of operation (i.e., 85% reduction from the baseline emissions rate of 0.70 lb/MMBtu). The permittee shall concurrently test the SCR inlet and SCR outlet in accordance with EPA Method 7E as adopted by reference in Rule 62-204.800, F.A.C. Data collected during the annual NO_X RATA testing may be used to represent NO_X emissions at the SCR outlet. Alternatively, the permittee may submit data collected from the NO_X rate process monitors at the SCR inlet and SCR outlet, which are part of the ammonia injection system. The data shall be collected for at least three consecutive hours. [Rules 62-4.070(3), 62-297.310(7), F.A.C.; and, Permit Nos. 0330045-005-AC and 0330045-015-AC]

*{Permitting Note: There is not a unit specific emissions limit for NO_X for Unit -007. However, it is subject to the facility-wide emissions limit contained in Specific Condition **A.15.**}*

A.39. Ammonia Slip, Performance Tests. During each federal fiscal year, the permittee shall conduct tests to determine the ammonia slip rate (from Unit -007) in accordance with EPA Method CTM-027 or other methods approved by EPA (such as Method 320, which incorporates FTIR). If tests show ammonia slip emissions are greater than the design target level specified in Specific Condition **A.7.** of this subsection, the permittee shall take corrective actions such as repair, addition of catalyst, replacement of catalyst, etc. [Rules 62-4.070(3), 62-297.310(7), F.A.C. and Permit No. 0330045-005-AC]

A.40. Fuel Sampling and Analysis. The following fuel sampling and analysis protocol shall be used as an alternate sampling procedure authorized by permit to demonstrate compliance with the sulfur dioxide standard in the event that the SO_2 continuous emissions monitor is not able to capture valid data:

a. Determine and record the as-fired fuel sulfur content, percent by weight, for liquid fuels using either ASTM D2622-92, ASTM D4294-90, both ASTM D4057-88 and ASTM D129-91, or the latest edition, to analyze a representative sample of the blended fuel following each fuel delivery.
b. Determine and record the as-fired fuel sulfur content, percent by weight, for coal using ASTM D2013-72 and either ASTM D3177-75 or ASTM D4239-85, or the latest edition, to analyze a representative sample of the blended as-fired pulverized coal.
c. Determine and record the density (using ASTM D 1298-80, or equivalent) and the calorific heat value in Btu per pound (using ASTM D 240-76, or the latest edition) of the fuel oil combusted.
d. Determine and record the calorific heat value in Btu per pound of the blended, as-fired pulverized coal using ASTM D2013-72 and either ASTM D2015-77 or D3286-(latest version), or the latest edition.
e. Record daily the amount of each fuel fired, the density of the fuel oil, the heating value of each fuel fired, and the percent sulfur content, by weight, of each fuel fired.
f. Utilize the information in a., b., c., d. and e., above, to calculate the SO_2 emission rate to ensure compliance at all times.

[Rules 62-213.440, 62-296.405(1)(e)3., 62-296.405(1)(f)1.b. and 62-297.440, F.A.C.]

A.41. Heat Input. Compliance with the heat input limitations specified in Specific Condition **A.1.** shall be demonstrated solely through the use of the composite fuel samples taken by on-site personnel (following the testing requirements contained in Specific Condition **A.40.c. & d.**) (see Specific Condition **A.48.**). The permittee may use vendor supplied data to determine the heat content of the natural gas. Records of the composite samples (typically taken daily as-fired for solid fuel and per shipment (after blending) for liquid fuel) and the natural gas vendor's information shall be maintained on-site for a period of five years and shall be made available for Department inspection upon request. [Permit No. 0330045-010-AC]

{Permitting Note: The permittee and the Department agree that the CEMS used for the federal Acid Rain Program conservatively overestimates the heat input for this unit. The monitoring data for heat input is therefore not appropriate for purposes of compliance, including annual compliance certification.}

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Recordkeeping and Reporting Requirements

A.42. Reporting Schedule. The following reports and notifications shall be submitted to the Compliance Authority:

Report	Reporting Deadline	Related Condition(s)
Excess Emissions	Quarterly	**A.44.**
Test Reports	Annually	**A.45.**
Unit 7 Summary Report	Quarterly	**A.46.**

A.43. Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements.

A.44. Excess Emission Reports. Submit to the Department a written report of emissions in excess of emission limiting standards as set forth in Rule 62-296.405(1), F.A.C., for each calendar quarter. The nature and cause of the excess emissions shall be explained. This report does not relieve the owner or operator of the legal liability for violations. All recorded data shall be maintained on file by the Source for a period of five years. [Rules 62-213.440 and 62-296.405(1)(g), F.A.C.]

A.45. Test Reports. The permittee shall prepare and submit reports for all required tests in accordance with the provisions of Rule 62-297.310(8), F.A.C. For each required test run, the report shall indicate the actual heat input rate (MMBtu/hour), the NO_X emission rate (lb/MMBtu) as recorded by the CEMS, and the urea injection rate (lb/hour). The report shall also include copies of the continuous monitoring records for the NO_X emissions. (See also Appendix TR8.) [Rule 62-297.310(8), F.A.C. and Permit No. 0330045-011-AC]

A.46. Unit -007 Summary Report.

a. *NO_X Summary.* For each calendar day during the reporting quarter, the permittee shall report the following information related to the NO_X CEMS for Unit -007:
(1) Hours of operation for Unit -007,
(2) Daily average NO_X emission rate, lb/MMBtu,
(3) 30-day average NO_X emission rate, lb/MMBtu, and
(4) Whether or not the day included a startup, shutdown, malfunction or bypass of the SCR.
Identify the "F" factor used for any calculations, the method of determination, and type of fuel combusted. For each day that CEMS data was not obtained for at least 18 hours of Unit 7 operation, provide a justification for not obtaining sufficient data and describe the corrective actions taken to prevent this in the future. Identify any emissions data excluded from the calculation of emission rates due to startup, shutdown, or malfunction.

b. *Opacity Summary.* For each calendar day during the reporting quarter, the permittee shall report each 6-minute period in excess of the opacity standard.

c. *Gas Sampling Grid (GSG).* The permittee shall summarize any tests using the GSG that were conducted during the calendar quarter.

Each quarterly report is due within 30 days of the calendar quarter being reported. [Permit No. 0330045-005-AC]

A.47. Hours of Operation Log. For each emissions unit, the permittee shall maintain an operation log available for Department inspection that documents the total hours of annual operation, including a detailed account of the hours operated on each of the allowable fuels. [Rule 62-213.440, F.A.C.]

A.48. Fuel Consumption Log. The owner or operator shall maintain daily records of fuel consumption and each analysis that provides the heating value and sulfur content for all fuels fired. These records must be of sufficient detail to determine compliance with the allowable sulfur dioxide emission limitations. [Rules 62-213.440 & 62-4.070(3), F.A.C.]

{Permitting Note: Daily records of fuel consumption are maintained on a 24-hour block (midnight to midnight) basis. Gulf Power will meet greater than a 95% daily sampling rate.}

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A.49. CEMS Maintenance Log. A maintenance log of the continuous monitoring systems shall be kept showing:
a. Time out of service.
b. Calibration and adjustments.
[Rule 62-213.440, F.A.C. and AO17-211303, Specific Condition 16]

A.50. Notifications for Long-Term Scrubber Bypass. For periods of FGD scrubber bypass due to annual routine maintenance and pre-planned scrubber maintenance based on best practices, the permittee shall notify the Compliance Authority at least three days prior to commencing the scheduled activity. For periods of repair due to force majeure FGD scrubber outages, the permittee shall notify the Compliance Authority as soon as possible, but no later than 24 hours of beginning a FGD scrubber outage. Notification may be made by letter, telephone, facsimile or e-mail. Each notification shall include the following information: the purpose of the wet FGD bypass, the expected dates of wet FGD bypass, and the expected duration of wet FGD bypass. During all such bypass periods, each unit shall continue to comply with the current permit standards and conditions related to excess emissions. No advance notice is required for scrubber bypass due to startup, shutdown or short-term maintenance of any of Units 4 - 7; however, the permittee shall record and maintain on-site records of all scrubber bypasses. [Rule 62-4.070(3), F.A.C. and Permit No. 0330045-023-AC]

A.51. Scrubber Bypass Records. For each incident of scrubber bypass operation, the permittee shall record the time the bypass was initiated, the reason for the bypass, the duration of the bypass, the average SO_2 emissions (lb/hour and lb/MMBtu) during the bypass, and the corrective actions taken to return the wet FGD system to service. The permittee shall identify and summarize each incident and duration of scrubber bypass on the quarterly excess emissions report. [Rule 62-4.070(3), F.A.C. and Permit No. 0330045-023-AC]

Miscellaneous Conditions

A.52. Used Oil. Burning of on-specification used oil is allowed in this emissions unit in accordance with all other conditions of this permit and the following conditions:
a. *On-specification Used Oil Emissions Limitation*. This emissions unit is permitted to burn on-specification used oil, which contains a Polychlorinated Biphenyl (PCB) concentration of less than 50 part per million (ppm). On-specification used oil is defined as used oil that meets the specifications of 40 CFR 279 - Standards for the Management of Used Oil, listed below. "Off-specification" used oil shall not be burned. Used oil, which fails to comply with any of these specification levels is considered "off-specification" used oil.

CONSTITUENT/PROPERTY	ALLOWABLE LEVEL
Arsenic	5 ppm maximum
Cadmium	2 ppm maximum
Chromium	10 ppm maximum
Lead	100 ppm maximum
Total Halogens	1000 ppm maximum
Flash point	100 degrees F minimum

b. *Quantity Limitation*. This emissions unit is permitted to burn "on-specification" used oil that is generated by Gulf Power Company, not to exceed 50,000 gallons per calendar year in each boiler (-004, -005, -006 and -007).
c. *PCB Limitation*. Used oil containing a PCB concentration of 50 or more ppm shall not be burned at this facility. Used oil shall not be blended to meet this requirement.
d. *Operational Requirement.* On-specification used oil with a PCB concentration of 2 to less than 50 ppm shall be burned only at normal source operating temperatures. On-specification used oil with a PCB concentration of 2 to less than 50 ppm shall not be burned during periods of startup or shutdown.
e. *Testing Requirements*. For each batch of used oil to be burned, the owner or operator must be able to demonstrate that the used oil qualifies as on-specification used oil and that the PCB content is less than 50 ppm.

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The requirements of this demonstration are governed by the following federal regulations:
Analysis of used oil fuel: A generator, transporter, processor/re-refiner, or burner may determine that used oil that is to be burned for energy recovery meets the fuel specifications of Sec. 279.11 by performing analyses or obtaining copies of analyses or other information documenting that the used oil fuel meets the specifications. [40 CFR 279.72(a)]
Testing of used oil fuel*:* Used oil to be burned for energy recovery is presumed to contain quantifiable levels (2 ppm) of PCB unless the marketer obtains analyses (testing) or other information that the used oil fuel does not contain quantifiable levels of PCBs.

(1) The person who first claims that a used oil fuel does not contain quantifiable level (2 ppm) PCB must obtain analyses or other information to support that claim.
(2) Testing to determine the PCB concentration in used oil may be conducted on individual samples, or in accordance with the testing procedures described in Sec. 761.60(g)(2). However, for purposes of this part, if any PCBs at a concentration of 50 ppm or greater have been added to the container or equipment, then the total container contents must be considered as having a PCB concentration of 50 ppm or greater for purposes of complying with the disposal requirements of this part.
(3) Other information documenting that the used oil fuel does not contain quantifiable levels (2 ppm) of PCBs may consist of either personal, special knowledge of the source and composition of the used oil, or a certification from the person generating the used oil claiming that the oil contains no detectable PCBs. [40 CFR 761.20(e)(2)]

When testing is required, the owner or operator shall sample and analyze each batch of used oil to be burned for the following parameters:

Arsenic, cadmium, chromium, lead, total halogens, flash point and PCBs.

Testing (sampling, extraction and analysis) shall be performed using approved methods specified in EPA Publication SW-846 (Test Methods for Evaluating Solid Waste, Physical/Chemical Methods).

Additionally, the owner or operator shall sample and analyze each batch of used oil to be burned for the sulfur content (by weight), density and heat content in accordance with applicable test methods (see Specific Conditions **A.40.** and **A.41.**).

f. *Record Keeping Requirement*. The owner or operator shall obtain, make, and keep the following records related to the use of used oil in a form suitable for inspection at the facility by the Department:
(1) The gallons of on-specification used oil placed into inventory to be burned and the gallons of on-specification used oil burned each month, and
(2) For each deposit of used oil, results of the analyses as required by the above conditions, or
(3) Other information, besides testing, used to make a claim that the used oil meets the requirements of on-specification used oil or that the used oil contains less than 50 ppm of PCBs.
[40 CFR 279.72(b), 40 CFR 279.74(b) and 40 CFR 761.20(e)]

g. *Reporting Requirements*. The owner or operator shall submit, with the Annual Operation Report form, the analytical results required above and the total amount of on-specification used oil placed into inventory to be burned and the total amount of on-specification used oil burned during the previous calendar year. [Rules 62-4.070(3), 62-213.440, F.A.C., 40 CFR 279 and 40 CFR 761, unless otherwise noted]

A.53. Ambient Monitoring Requirements. Owners of fossil fuel steam generators shall monitor their emissions and the effects of the emissions on ambient concentrations of sulfur dioxide, in a manner, frequency, and locations approved, and deemed necessary and ordered by the Department. [Rule 62-296.405(1)(c)3., F.A.C.]

{Permitting Note: No ambient monitoring stations are deemed necessary nor ordered by the Department at this time.}

Mercury Research Center Conditions

A.54. Scope of Work. For the duration of the project, once the permittee has established any test program (or granted a 3rd party the rights to do such test program) a Scope of Work shall be sent by fax to the DEP Northwest District Office as soon as possible and in advance of the planned commencement of the test

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program. This Scope of Work will give *general* descriptions of processes, work planned, dates of the tests and general objectives of the tests. Proprietary or confidential data, documents or information submitted or disclosed to FDEP shall be identified as such by the Permittee and shall be maintained as such pursuant to applicable Florida law. [Permit No. 0330045-011-AC]

A.55. Semi-Annual Summary Reports. The permittee shall be responsible for submitting semi-annual summary reports. These reports will outline each test program conducted and outline each test program results. Proprietary or confidential data, documents or information submitted or disclosed to FDEP shall be identified as such by the Permittee and shall be maintained as such pursuant to applicable Florida law. The semi-annual summary reports will be sent to the DEP Northwest District Office and the Bureau of Air Regulation. The first summary was due June 30, 2006 and covered all tests and the results from such tests conducted between July 1, 2005 and December 31, 2005. In a like manner, a similar summary shall be submitted for each 180 day period thereafter. [Permit No. 0330045-011-AC]

A.56. Annual Report. At the end of each calendar year, the permittee shall include on the Annual Operating Report (AOR) a calculation of Crist Unit 5 emission increases/decreases as a result of the slipstream. Any deviation from the permittee's original estimates (that no PSD Significant Emission Rate thresholds will be crossed) shall be brought to the Department's attention immediately. [Permit No. 0330045-011-AC]

A.57. Stack Emissions. Stack emissions shall not exceed any limit within existing permits. [Permit No. 0330045-011-AC]

A.58. Stack Tests. All stack performance tests shall be conducted using EPA Reference Methods, as contained in 40 CFR 60 (Standards of Performance for New Stationary Sources), 40 CFR 61 (National Emission Standards for Hazardous Air Pollutants), and 40 CFR 266, Appendix IX (Multi-metals), or any other method approved by the Department, in writing, in accordance with Chapter 62-297, F.A.C. [Permit No. 0330045-011-AC]

{Note: this permit condition is only applicable to any stack testing conducted on Crist Unit 5 pursuant to and during the test programs.}.

A.59. Daily records. Daily records of the slipstream operation (i.e. insertion of and/or removal of equipment from service as well as records of tests performed) shall be maintained on site and available for Department inspection. [Permit No. 0330045-011-AC]

A.60. Objectionable Odors. The project shall not result in the release of objectionable odors pursuant to Rule 62-296.320(2). F.A.C. [Permit No. 0330045-011-AC]

A.61. Cessation of Testing. Performance testing shall cease as soon as possible if the boiler operations are not in accordance with the conditions within existing permits, or this authorization protocol. Performance testing shall not resume until appropriate measures to correct the problem(s) have been implemented. [Permit No. 0330045-011-AC]

A.62. Final Notification and Removal. Notification shall occur within 45 days, in writing, upon completion of the final test. Prior to December 31, 2009 the permittee shall have provided the DEP Northwest District Office and the Bureau of Air Regulation with its plans to disassemble and remove all slipstream components, returning the unit back to its original condition. Such plans shall be completely executed by April 1, 2010. [Permit No. 0330045-011-AC]

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Subsection B. Emissions Unit -008

The specific conditions in this section apply to the following emissions unit:

EU No.	Brief Description
-008	Fly Ash Storage Silo A - Northern Most Vent Fly Ash Storage Silo B - Southern Most Vent Fly Ash Storage Silo C (Associated with Unit -007 SCR)

This emissions unit consists of two Fly Ash Storage Silos, A-Northern most vent and B-Southern most vent. The fly ash collection systems from the precipitators on boiler numbers 4, 5, 6 and 7, which deliver fly ash to the three transfer tanks, are totally enclosed (i.e. no emission points). Three blowers pneumatically convey dry fly ash to 2 silos at a maximum solids rate of 150 tons per hour to either silo or to both. The majority of the solids (99.4%) settles by gravity upon entering the silo and the residua1 particulates are controlled by a baghouse on each silo. Each baghouse is a Pulse Jet Fabric Filter - model #100 - WMWC - 420 (IIG) manufactured by Flex-Kleen. Dry fly ash will be transported off-site in closed tanker trucks (approximately 20% sold annually) or conditioned fly ash (12-15% water added) will be transported to an approved landfill area on-site.

Silo C is used for temporary storage of SCR ash. This is primarily ash that would be caught by the precipitator but falls out due to the tall vertical duct at the SCR inlet. Also, economizer ash, which is a large coarse gravel-like ash (more like bottom ash than fly ash), is transported to the C silo for unit 7 only. Air locks are used to drop the ash into piping where it is blown to the C silo, which is equipped with a small vented bag house. This silo holds the ash until it can be loaded into a truck for transportation to either off-site use or to the plant's landfill. Note this silo receives approximately 1% or less of the Unit -007 ash and more of that ash gravity settles due to the large size.

{Permitting notes: This emissions unit is regulated under Rule 62-210.300, F.A.C., Permits Required, and Rule 62-296.320, F.A.C., General Pollutant Emission Limiting Standards. There is one baghouse on each silo. Each silo has two vents. Stack height = 124.5 feet, exit dimensions = 18" x 24" rectangle, exit temperature = 100 ºF, actual volumetric flow rate = 5,452 acfm per vent, velocity = 30 feet per second. The two silos were built between October 27, 1981 and June 1, 1983.}

The following specific conditions apply to the emissions units listed above:

Essential Potential to Emit (PTE) Parameters

B.1. Permitted Capacity. The maximum operating rate for unit -008 is 150 tons per hour of fly ash transported to either or both silos. [Rules 62-4.160(2), 62-210.200(PTE), F.A.C. and Permit No. AC17-47675]

B.2. Emissions Unit Operating Rate Limitation After Testing. See the related testing provisions in Appendix TR, Facility-wide Testing Requirements and Specific Condition **B.12.** [Rule 62-297.310(2), F.A.C.]

B.3. Hours of Operation. These emissions units may operate continuously (8,760 hours/year). [Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.]

Emission Limitations and Standards

{Permitting Note: The attached Table 1, Summary of Air Pollutant Standards, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

Unless otherwise specified, the averaging time for Specific Condition **B.4.** is based on the specified averaging time of the applicable test method.

B.4. Visible Emissions. Visible emissions from each baghouse vent (2 on each baghouse) shall be less than 20 percent opacity. [Rule 62-296.320(4)(b)1., F.A.C. and Permit No. AC17-47675]

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Excess Emissions

Rule 62-210.700 (Excess Emissions), F.A.C. cannot vary any requirement of an NSPS, NESHAP or Acid Rain program provision.

B.5. Excess Emissions Allowed. Excess emissions from this emissions unit resulting from startup, shutdown or malfunction shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. [Rules 62-210.700(1), F.A.C.]

B.6. Excess Emissions Prohibited. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown or malfunction shall be prohibited. [Rules 62-210.700(4), F.A.C.]

Test Methods and Procedures

{Permitting Note: The attached Table 2, Summary of Compliance Requirements, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

B.7. Test Methods. Required tests shall be performed in accordance with the following reference methods:

Method	Description of Method and Comments
9	Visual Determination of the Opacity of Emissions from Stationary Sources

The above methods are described in 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from the Department. [Rule 62-297.401, F.A.C. and Permit No. 0330045-005-AC]

B.8. Common Testing Requirements. Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. [Rule 62-297.310, F.A.C.]

B.9. Annual Compliance Tests Required. During each federal fiscal year (October 1st to September 30th), emissions unit -008 shall be tested to demonstrate compliance with the emissions standards for visible emissions (VE). [Rule 62-297.310(7), F.A.C.]

B.10. Compliance Tests Prior To Renewal. Compliance tests shall be performed for VE once every 5 years. The tests shall occur prior to obtaining a renewed operating permit to demonstrate compliance with the emission limits in Specific Conditions **B.4.** [Rules 62-210.300(2)(a) and 62-297.310(7)(a), F.A.C.]

B.11. Visible emissions. The test method for visible emissions shall be EPA Method 9, adopted and incorporated by reference in Rule 62-204.800, F.A.C., and referenced in Chapter 62-297, F.A.C. [Rules 62-204.800, 62-296.320(4)(b)4.a. and 62-297.401, F.A.C.]

B.12. **Not federally enforceable.** Operating Rate During Testing. Compliance shall be demonstrated at an operating rate which typifies normal operation of the fly ash system. This operating rate may be lower than the maximum allowable operating rate. Should the Department feel that test results do not provide reasonable assurance that the source is capable of compliance at the permitted maximum operating rate, the Department may request that a visible emissions test be conducted at a higher operating rate up to the maximum allowable operating rate. [January 16, 1984 letter modifying Permit No. AO17-70422, Specific Condition 15]

Recordkeeping and Reporting Requirements

B.13. Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for reporting requirements. [62-213.440, F.A.C.]

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Subsection C. Emissions Unit -014

E.U. ID No.	Brief Description
-014	Mechanical Draft Cooling Tower with a maximum circulation rate of 190,000 GPM.

The mechanical draft cooling tower (EU-014) for Unit -007 is comprised of 14 cells. It has a width of 105', a length of 367.5', a height of 68', includes drift eliminators rated at 0.0005%, and operates at a maximum brackish-water flow rate of 190,000 gallons per minute for all cells combined. Brackish water is sprayed through the tower where fan induced air flow causes evaporative cooling. Water vapor, saltwater droplets (drift) and salt particles are emitted. Drift emissions are controlled by drift eliminators.

The following specific conditions apply to the emissions unit listed above:

Emissions And Performance Requirements

C.1. Hours of Operation. The new cooling tower shall be allowed to operate 8,760 hours per year. [Rule 62-210.200 (PTE), F.A.C. and Permit No. 0330045-019-AC]

C.2. Cooling Tower Design. The cooling tower was designed and shall be maintained to achieve a drift rate of no more than 0.0005% of the circulating water flow. [Permit No. 0330045-019-AC]

{Note: This equates to an estimated average emission rate of particulate matter (PM) from the cooling tower at 0.87 pounds per hour and 3.82 tpy, based on an average TDS rate of 1,935 ppm. The PM_{10} emissions are estimated to be approximately 60% of the estimated particulate matter emission rate.}

C.3. Circulating Water Flow Rate. Upon request, the applicant shall provide a means for determining the circulating water flow rate through the new cooling tower. [Rule 62-4.070, F.A.C.]

{Note: This emissions unit is not subject to a visible emissions limitation. Emissions from this emissions unit include water droplets, so visible emission testing is not possible.}

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Operated by: Gulf Power Company
Plant: Crist Electric Generating Plant
ORIS Code: 0641.

The emissions units listed below are regulated under Acid Rain, Phase II.

E.U. ID No.	Brief Description	
004	Boiler Number 4 - 1,096.7 MMBtu/hour	Boilers 4 and 5 became Acid Rain affected units under Phase I when they were used as substitution units for Unit 7. All four boilers are subject to Acid Rain Phase II.
005	Boiler Number 5 - 1,096.7 MMBtu/hour	
006	Boiler Number 6 - 3,704.8 MMBtu/hour	
007	Boiler Number 7 - 6,406.4 MMBtu/hour	

A.1. The Phase II Acid Rain Part application submitted for this facility, as approved by the Department, is a part of this permit. The owners and operators of these Phase II acid rain units must comply with the standard requirements and special provisions set forth in the applications listed below:
a. DEP Form No. 62-210.900(1)(a), dated ~~05/05/09~~ 10/01/12, received ~~05/26/09~~ 10/01/12
b. DEP Form No. 62-210.900(1)(a)4, dated 05/05/09, received 05/26/09
c. DEP Form 62-210.900(1)(a)1, dated ~~07/15/08~~ 09/24/12, received ~~05/26/09~~ 10/01/12
[Chapter 62-213, F.A.C. and Rule 62-214.320, F.A.C.]

A.2. Nitrogen oxide (NO_X) requirements for each Acid Rain Phase II unit are as follows:

E.U. ID No.	EPA ID	NO_X Limit
-004	**ID No. 4 Boiler 4**	Pursuant to 40 CFR 76.11, the Florida Department of Environmental Protection approves four NO_X emissions averaging plans for this unit. Each plan is effective for one calendar year for the years ~~2010, 2011, 2012~~ 2013, 2014, 2015, 2016 and ~~2013~~ 2017. Under each plan, this unit's NO_X emissions shall not exceed the annual average alternative contemporaneous emission limitation of **0.52** lb/MMBtu. In addition, this unit shall not have an annual heat input **greater than ~~5,306,563~~ 5,152,003** MMBtu.
		~~The Florida Department of Environmental Protection approves a NO_X compliance plan for this unit effective for calendar year 2014.~~ ~~This unit's applicable emission limitation for each year of the plan, is 0.45 lb/MMBtu from 40 CFR 76.5(a)(2) for tangentially fired, dry bottom boiler.~~
-005	**ID No. 5 Boiler 5**	Pursuant to 40 CFR 76.11, the Florida Department of Environmental Protection approves four NO_X emissions averaging plans for this unit. Each plan is effective for one calendar year for the years ~~2010, 2011, 2012~~ 2013, 2014, 2015, 2016 and ~~2013~~ 2017. Under each plan, this unit's NO_X emissions shall not exceed the annual average alternative contemporaneous emission limitation of **0.60** lb/MMBtu. In addition, this unit shall not have an annual heat input **greater than ~~5,321,833~~ 5,166,828** MMBtu.
		~~The Florida Department of Environmental Protection approves a NO_X compliance plan for this unit effective for calendar year 2014.~~ ~~This unit's applicable emission limitation for each year of the plan, is 0.45 lb/MMBtu from 40 CFR 76.5(a)(2) for tangentially fired, dry bottom boiler.~~

Draft/Proposed

E.U. ID No.	EPA ID	NO_X Limit
-006	**ID No. 6 Boiler 6**	Pursuant to 40 CFR 76.11, the Florida Department of Environmental Protection approves four NO_X emissions averaging plans for this unit. Each plan is effective for one calendar year for the years ~~2010, 2011, 2012~~ 2013, 2014, 2015, 2016 and ~~2013~~ 2017. Under each plan, this unit's NO_X emissions shall not exceed the annual average alternative contemporaneous emission limitation of **0.45** lb/MMBtu. In addition, this unit shall not have an annual heat input **greater than ~~22,068,817~~ 22,730,882** MMBtu.
		~~The Florida Department of Environmental Protection approves a NO_X compliance plan for this unit effective for calendar year 2014.~~ ~~This unit's applicable emission limitation for each year of the plan, is 0.50 lb/MMBtu from 40 CFR 76.5(a)(2) for front wall fired, dry bottom boiler.~~
-007	**ID No. 7 Boiler 7**	Pursuant to 40 CFR 76.11, the Florida Department of Environmental Protection approves four NO_X emissions averaging plans for this unit. Each plan is effective for one calendar year for the years ~~2010, 2011, 2012~~ 2013, 2014, 2015, 2016 and ~~2013~~ 2017. Under each plan, this unit's NO_X emissions shall not exceed the annual average alternative contemporaneous emission limitation of **0.45** lb/MMBtu. In addition, this unit shall not have an annual heat input **greater than ~~36,700,987~~ 37,802,017** MMBtu.
		~~The Florida Department of Environmental Protection approves a NO_X compliance plan for this unit effective for calendar year 2014.~~ ~~This unit's applicable emission limitation for each year of the plan, is 0.50 lb/MMBtu from 40 CFR 76.5(a)(2) for front wall fired, dry bottom boiler.~~

Additional Requirements

a. Under the plan (NO_X Phase II averaging plan), the actual Btu-weighted annual average NO_X emission rate for the units in the plan shall be less than or equal to the Btu-weighted annual average NO_X emission rate for the same units had they each been operated, during the same period of time, in compliance with the applicable emission limitations under 40 CFR 76.5, 76.6, or 76.7, except that for any early election units, the applicable emission limitations shall be under 40 CFR 76.7. If the designated representative demonstrates that the requirement of the prior sentence (as set forth in 40 CFR 76.11(d)(1)(ii)(A)) is met for a year under the plan, then this unit shall be deemed to be in compliance for that year with its alternative contemporaneous annual emission limitation and annual heat input limit.

b. In addition to the described NO_X compliance plan, this unit shall comply with all other applicable requirements of 40 CFR part 76, including the duty to reapply for a NO_X compliance plan and requirements covering excess emissions.

A.3. Sulfur Dioxide (SO_2) Emission Allowances. SO_2 emissions from sources subject to the Federal Acid Rain Program (Title IV) shall not exceed any allowances that the source lawfully holds under the Federal Acid Rain Program. Allowances shall not be used to demonstrate compliance with a non-Title IV applicable requirement of the Act.

a. No permit revision shall be required for increases in emissions that are authorized by allowances acquired pursuant to the Federal Acid Rain Program, provided that such increases do not require a permit revision pursuant to Rule 62-213.400(3), F.A.C.

b. No limit shall be placed on the number of allowances held by the source under the Federal Acid Rain Program.

c. Allowances shall be accounted for under the Federal Acid Rain Program.

[Rule 62-213.440(1)(c)1., 2. and 3., F.A.C.]

Draft/Proposed

A.4. Comments, notes, and justifications: None.

A.5. Demonstration of Compliance With the Phase II NO_X Averaging Plan. The Designated Representative shall provide a copy of the demonstration of compliance, prepared in accordance with 40 CFR 76.11(d), to the Department within 60 days after the end of the calendar year. [Rule 62-213.440, F.A.C.]

Draft/Proposed

Acid Rain Part Application

For more information, see instructions and refer to 40 CFR 72.30, 72.31, and 74; and Chapter 62-214, F.A.C.

This submission is: ☐ New ☒ Revised ☐ Renewal

STEP 1

Identify the source by plant name, state, and ORIS or plant code.

Plant name	State	ORIS/Plant Code
CRIST ELECTRIC GENERATING PLANT	**FL**	**641**

STEP 2
Enter the unit ID# for every Acid Rain unit at the Acid Rain source in column "a."

If unit a SO_2 Opt-in unit, enter "yes" in column "b".

For new units or SO_2 Opt-in units, enter the requested information in columns "d" and "e."

a	b	c	d	e
Unit ID#	SO_2 Opt-in Unit? (Yes or No)	Unit will hold allowances in accordance with 40 CFR 72.9(c)(1)	New or SO_2 Opt-in Units Commence Operation Date	New or SO_2 Opt-in Units Monitor Certification Deadline
004		Yes		
005		Yes		
006		Yes		
007		Yes		
		Yes		
		Yes		
		Yes		
		Yes		
		Yes		
		Yes		
		Yes		
		Yes		
		Yes		

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CRIST ELECTRIC GENERATING PLANT
Plant Name (from STEP 1)

STEP 3

Read the standard requirements.

Acid Rain Part Requirements.

(1) The designated representative of each Acid Rain source and each Acid Rain unit at the source shall:
(i) Submit a complete Acid Rain Part application (including a compliance plan) under 40 CFR Part 72 and Rules 62-214.320 and 330, F.A.C., in accordance with the deadlines specified in Rule 62-214.320, F.A.C.; and
(ii) Submit in a timely manner any supplemental information that the DEP determines is necessary in order to review an Acid Rain Part application and issue or deny an Acid Rain Part;
(2) The owners and operators of each Acid Rain source and each Acid Rain unit at the source shall:
(i) Operate the unit in compliance with a complete Acid Rain Part application or a superseding Acid Rain Part issued by the DEP; and
(ii) Have an Acid Rain Part.

Monitoring Requirements.

(1) The owners and operators and, to the extent applicable, designated representative of each Acid Rain source and each Acid Rain unit at the source shall comply with the monitoring requirements as provided in 40 CFR Part 75, and Rule 62-214.420, F.A.C.
(2) The emissions measurements recorded and reported in accordance with 40 CFR Part 75 shall be used to determine compliance by the unit with the Acid Rain emissions limitations and emissions reduction requirements for sulfur dioxide and nitrogen oxides under the Acid Rain Program.
(3) The requirements of 40 CFR Part 75 shall not affect the responsibility of the owners and operators to monitor emissions of other pollutants or other emissions characteristics at the unit under other applicable requirements of the Act and other provisions of the operating permit for the source.
(4) For applications including a SO_2 Opt-in unit, a monitoring plan for each SO_2 Opt-in unit must be submitted with this application pursuant to 40 CFR 74.14(a). For renewal applications for SO_2 Opt-in units include an updated monitoring plan if applicable under 40 CFR 75.53(b).

Sulfur Dioxide Requirements.

(1) The owners and operators of each source and each Acid Rain unit at the source shall:
(i) Hold allowances, as of the allowance transfer deadline, in the unit's compliance subaccount (after deductions under 40 CFR 73.34(c)), or in the compliance subaccount of another Acid Rain unit at the same source to the extent provided in 40 CFR 73.35(b)(3), not less than the total annual emissions of sulfur dioxide for the previous calendar year from the unit; and
(ii) Comply with the applicable Acid Rain emissions limitations for sulfur dioxide.
(2) Each ton of sulfur dioxide emitted in excess of the Acid Rain emissions limitations for sulfur dioxide shall constitute a separate violation of the Act.
(3) An Acid Rain unit shall be subject to the requirements under paragraph (1) of the sulfur dioxide requirements as follows:
(i) Starting January 1, 2000, an Acid Rain unit under 40 CFR 72.6(a)(2); or
(ii) Starting on the later of January 1, 2000, or the deadline for monitor certification under 40 CFR Part 75, an Acid Rain unit under 40 CFR 72.6(a)(3).
(4) Allowances shall be held in, deducted from, or transferred among Allowance Tracking System accounts in accordance with the Acid Rain Program.
(5) An allowance shall not be deducted in order to comply with the requirements under paragraph (1) of the sulfur dioxide requirements prior to the calendar year for which the allowance was allocated.
(6) An allowance allocated by the Administrator under the Acid Rain Program is a limited authorization to emit sulfur dioxide in accordance with the Acid Rain Program. No provision of the Acid Rain Program, the Acid Rain Part application, the Acid Rain Part, or an exemption under 40 CFR 72.7 or 72.8 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.
(7) An allowance allocated by the Administrator under the Acid Rain Program does not constitute a property right.

Nitrogen Oxides Requirements. The owners and operators of the source and each Acid Rain unit at the source shall comply with the applicable Acid Rain emissions limitation for nitrogen oxides.

Excess Emissions Requirements.

(1) The designated representative of an Acid Rain unit that has excess emissions in any calendar year shall submit a proposed offset plan, as required under 40 CFR Part 77.
(2) The owners and operators of an Acid Rain unit that has excess emissions in any calendar year shall:
(i) Pay without demand the penalty required, and pay upon demand the interest on that penalty, as required by 40 CFR Part 77; and
(ii) Comply with the terms of an approved offset plan, as required by 40 CFR Part 77.

Recordkeeping and Reporting Requirements.

(1) Unless otherwise provided, the owners and operators of the source and each Acid Rain unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time prior to the end of 5 years, in writing by the EPA or the DEP:
(i) The certificate of representation for the designated representative for the source and each Acid Rain unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation, in accordance with Rule 62-214.350, F.A.C.; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation changing the designated representative;
(ii) All emissions monitoring information, in accordance with 40 CFR Part 75, provided that to the extent that 40 CFR Part 75 provides for a 3-year period for recordkeeping, the 3-year period shall apply;
(iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the Acid Rain Program; and,

CRIST ELECTRIC GENERATING PLANT
Plant Name (from STEP 1)

STEP 3, Continued.

Recordkeeping and Reporting Requirements (cont)

(iv) Copies of all documents used to complete an Acid Rain Part application and any other submission under the Acid Rain Program or to demonstrate compliance with the requirements of the Acid Rain Program.

(2) The designated representative of an Acid Rain source and each Acid Rain unit at the source shall submit the reports and compliance certifications required under the Acid Rain Program, including those under 40 CFR Part 72, Subpart I, and 40 CFR Part 75.

Liability.

(1) Any person who knowingly violates any requirement or prohibition of the Acid Rain Program, a complete Acid Rain Part application, an Acid Rain Part, or an exemption under 40 CFR 72.7 or 72.8, including any requirement for the payment of any penalty owed to the United States, shall be subject to enforcement pursuant to section 113(c) of the Act.
(2) Any person who knowingly makes a false, material statement in any record, submission, or report under the Acid Rain Program shall be subject to criminal enforcement pursuant to section 113(c) of the Act and 18 U.S.C. 1001.
(3) No permit revision shall excuse any violation of the requirements of the Acid Rain Program that occurs prior to the date that the revision takes effect.
(4) Each Acid Rain source and each Acid Rain unit shall meet the requirements of the Acid Rain Program.
(5) Any provision of the Acid Rain Program that applies to an Acid Rain source (including a provision applicable to the designated representative of an Acid Rain source) shall also apply to the owners and operators of such source and of the Acid Rain units at the source.
(6) Any provision of the Acid Rain Program that applies to an Acid Rain unit (including a provision applicable to the designated representative of an Acid Rain unit) shall also apply to the owners and operators of such unit. Except as provided under 40 CFR 72.44 (Phase II repowering extension plans) and 40 CFR 76.11 (NO_x averaging plans), and except with regard to the requirements applicable to units with a common stack under 40 CFR Part 75 (including 40 CFR 75.16, 75.17, and 75.18), the owners and operators and the designated representative of one Acid Rain unit shall not be liable for any violation by any other Acid Rain unit of which they are not owners or operators or the designated representative and that is located at a source of which they are not owners or operators or the designated representative.
(7) Each violation of a provision of 40 CFR Parts 72, 73, 74, 75, 76, 77, and 78 by an Acid Rain source or Acid Rain unit, or by an owner or operator or designated representative of such source or unit, shall be a separate violation of the Act.

Effect on Other Authorities.

No provision of the Acid Rain Program, an Acid Rain Part application, an Acid Rain Part, or an exemption under 40 CFR 72.7or 72.8 shall be construed as:
(1) Except as expressly provided in title IV of the Act, exempting or excluding the owners and operators and, to the extent applicable, the designated representative of an Acid Rain source or Acid Rain unit from compliance with any other provision of the Act, including the provisions of title I of the Act relating to applicable National Ambient Air Quality Standards or State Implementation Plans;
(2) Limiting the number of allowances a unit can hold; *provided*, that the number of allowances held by the unit shall not affect the source's obligation to comply with any other provisions of the Act;
(3) Requiring a change of any kind in any state law regulating electric utility rates and charges, affecting any state law regarding such state regulation, or limiting such state regulation, including any prudence review requirements under such state law;
(4) Modifying the Federal Power Act or affecting the authority of the Federal Energy Regulatory Commission under the Federal Power Act; or,
(5) Interfering with or impairing any program for competitive bidding for power supply in a state in which such program is established.

STEP 4
For SO_2 Opt-in units only.

In column "f" enter the unit ID# for every SO_2 Opt-in unit identified in column "a" of STEP 2.

For column "g" describe the combustion unit and attach information and diagrams on the combustion unit's configuration.

In column "h" enter the hours.

f	g	h (not required for renewal application)
Unit ID#	Description of the combustion unit	Number of hours unit operated in the six months preceding initial application

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CRIST ELECTRIC GENERATING PLANT
Plant Name (from STEP 1)

STEP 5

For SO_2 Opt-in units only.
(Not required for SO_2 Opt-in renewal applications.)

In column "i" enter the unit ID# for every SO_2 Opt-in unit identified in column "a" (and in column "f").

For columns "j" through "n," enter the information required under 40 CFR 74.20-74.25 and attach all supporting documentation required by 40 CFR 74.20-74.25.

i	J	k	l	m	n
Unit ID#	Baseline or Alternative Baseline under 40 CFR 74.20 (mmBtu)	Actual SO_2 Emissions Rate under 40 CFR 74.22 (lbs/mmBtu)	Allowable 1985 SO_2 Emissions Rate under 40 CFR 74.23 (lbs/mmBtu)	Current Allowable SO_2 Emissions Rate under 40 CFR 74.24 (lbs/mmBtu)	Current Promulgated SO_2 Emissions Rate under 40 CFR 74.25 (lbs/mmBtu)

STEP 6

For SO_2 Opt-in units only.

Attach additional requirements, certify and sign.

A. If the combustion source seeks to qualify for a transfer of allowances from the replacement of thermal energy, a thermal energy plan as provided in 40 CFR 74.47 for combustion sources must be attached.
B. A statement whether the combustion unit was previously an affected unit under 40 CFR 74.
C. A statement that the combustion unit is not an affected unit under 40 CFR 72.6 and does not have an exemption under 40 CFR 72.7, 72.8, or 72.14.
D. Attach a complete compliance plan for SO_2 under 40 CFR 72.40.
E. The designated representative of the combustion unit shall submit a monitoring plan in accordance with 40 CFR 74.61. For renewal application, submit an updated monitoring plan if applicable under 40 CFR 75.53(b).
F. The following statement must be signed by the designated representative or alternate designated representative of the combustion source: "I certify that the data submitted under 40 CFR Part 74, Subpart C, reflects actual operations of the combustion source and has not been adjusted in any way."

Signature	Date

STEP 7

Read the certification statement; provide name, title, owner company name, phone, and e-mail address; sign, and date.

Certification (for designated representative or alternate designated representative only)

I am authorized to make this submission on behalf of the owners and operators of the Acid Rain source or Acid Rain units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

Name **JAMES O. VICK**	Title **Director, Environmental Affairs**
Owner Company Name **Gulf Power Company**	
Phone **(850) 444- 6311**	E-mail address **jovick@southernco.com**
Signature James O Vick	Date 10/1/12

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Page 1

Florida Department of Environmental Protection

Phase II NO_X Compliance Plan

For more information, see instructions and refer to 40 CFR 76.9

This submission is: ☐ New ☒ Revised

Page _1_ of _2_

STEP 1 Indicate plant name, state, and ORIS code from NADB, if applicable.	Plant Name: **Crist Electric Generating Plant**	State: **FL**	ORIS Code: **641**
STEP 2	Identify each affected Group 1 and Group 2 boiler using the boiler ID# from NADB, if applicable. Indicate boiler type: "CB" for cell burner, "CY" for cyclone, "DBW" for dry bottom wall-fired, "T" for tangentially fired, "V" for vertically fired, and"WB" for wet bottom. Indicate the compliance option selected for each unit.		

	ID# **004**	ID# **005**	ID# **006**	ID# **007**	ID#	ID#
	Type **T**	Type **T**	Type **DBW**	Type **DBW**	Type	Type
(a) Standard annual average emission limitation of 0.50 lb/mmBtu (for Phase I dry bottom wall-fired boilers)	☐	☐	☐	☐	☐	☐
(b) Standard annual average emission limitation of 0.45 lb/mmBtu (for Phase I tangentially fired boilers)	☐	☐	☐	☐	☐	☐
(c) EPA-approved early election plan under 40 CFR 76.8 through 12/31/07 (also indicate above emission limit specified in plan)	☐	☐	☐	☐	☐	☐
(d) Standard annual average emission limitation of 0.46 lb/mmBtu (for Phase II dry bottom wall-fired boilers)	☐	☐	☐	☐	☐	☐
(e) Standard annual average emission limitation of 0.40 lb/mmBtu (for Phase II tangentially fired boilers)	☐	☐	☐	☐	☐	☐
(f) Standard annual average emission limitation of 0.68 lb/mmBtu (for cell burner boilers)	☐	☐	☐	☐	☐	☐
(g) Standard annual average emission limitation of 0.86 lb/mmBtu (for cyclone boilers)	☐	☐	☐	☐	☐	☐
(h) Standard annual average emission limitation of 0.80 lb/mmBtu (for vertically fired boilers)	☐	☐	☐	☐	☐	☐
(i) Standard annual average emission limitation of 0.84 lb/mmBtu (for wet bottom boilers)	☐	☐	☐	☐	☐	☐
(j) NO_x Averaging Plan (include NO_x Averaging form)	☒	☒	☒	☒	☐	☐
(k) Common stack pursuant to 40 CFR 75.17(a)(2)(i)(A) (check the standard emission limitation box above for most stringent limitation applicable to any unit utilizing stack)	☐	☐	☐	☐	☐	☐

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Page 2

CRIST ELECTRIC GENERATING PLANT Plant Name (from Step 1)

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STEP 2, cont'd.

	ID# 004	ID# 005	ID# 006	ID# 007	ID#	ID#
	Type T	Type T	Type DBW	Type DBW	Type	Type
(l) Common stack pursuant to 40 CFR 75.17(a)(2)(i)(B) with NO_x Averaging (check the NO_x Averaging Plan box and include NO_x Averaging Form)	☐	☐	☐	☐	☐	☐
(m) EPA-approved common stack apportionment method pursuant to 40 CFR 75.17 (a)(2)(i)(C), (a)(2)(iii)(B), or (b)(2)	☐	☐	☐	☐	☐	☐
(n) AEL (include Phase II AEL Demonstration Period, Final AEL Petition, or AEL Renewal form as appropriate)	☐	☐	☐	☐	☐	☐
(o) Petition for AEL demonstration period or final AEL under review by U.S. EPA or demonstration period ongoing	☐	☐	☐	☐	☐	☐
(p) Repowering extension plan approved or under review	☐	☐	☐	☐	☐	☐

STEP 3
Read the standard requirements and certification, enter the name of the designated representative, sign and date.

Standard Requirements
General. This source is subject to the standard requirements in 40 CFR 72.9 (consistent with 40 CFR 76.8(e)(1)(i)). These requirements are listed in this source's Acid Rain Part of its Title V permit.

Special Provisions for Early Election Units

Nitrogen Oxides. A unit that is governed by an approved early election plan shall be subject to an emissions limitation for NO_x as provided under 40 CFR 76.8(a)(2) except as provided under 40 CFR 76.8(e)(3)(iii).

Liability. The owners and operators of a unit governed by an approved early election plan shall be liable for any violation of the plan or 40 CFR 76.8 at that unit. The owners and operators shall be liable, beginning January 1, 2000, for fulfilling the obligations specified in 40 CFR Part 77.

Termination. An approved early election plan shall be in effect only until the earlier of January 1, 2008 or January 1 of the calendar year for which a termination of the plan takes effect. If the designated representative of the unit under an approved early election plan fails to demonstrate compliance with the applicable emissions limitation under 40 CFR 76.5 for any year during the period beginning January 1 of the first year the early election takes effect and ending December 31, 2007, the permitting authority will terminate the plan. The termination will take effect beginning January 1 of the year after the year for which there is a failure to demonstrate compliance, and the designated representative may not submit a new early election plan. The designated representative of the unit under an approved early election plan may terminate the plan any year prior to 2008 but may not submit a new early election plan. In order to terminate the plan, the designated representative must submit a notice under 40 CFR 72.40(d) by January 1 of the year for which the termination is to take effect. If an early election plan is terminated any year prior to 2000, the unit shall meet, beginning January 1, 2000, the applicable emissions limitation for NO_x for Phase II units with Group 1 boilers under 40 CFR 76.7. If an early election plan is terminated on or after 2000, the unit shall meet, beginning on the effective date of the termination, the applicable emissions limitation for NO_x for Phase II units with Group 1 boilers under 40 CFR 76.7.

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STEP 3, cont'd.

Certification

I am authorized to make this submission on behalf of the owners and operators of the affected source or affected units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

Name **James O. Vick**	
Signature James O Vick	Date 5/5/09

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Florida Department of Environmental Protection

Phase II NO_x Averaging Plan

For more information, refer to 40 CFR 76.11

This submission is: ☐ New ☒ Revised

STEP 1

Identify the units participating in this averaging plan by plant name, state, and boiler ID# from NADB. In column (a), fill in each unit's applicable emission limitation from 40 CFR 76.5, 76.6, or 76.7. In column (b), assign an alternative contemporaneous annual emissions limitation in lb/mmBtu to each unit. In column (c), assign an annual heat input limitation in mmBtu to each unit. Continue to page 3 if necessary.

Plant Name	State	ID#	(a) Emission Limitation	(b) Alt. Contemp. Emission Limitation	(c) Annual Heat Input Limit
See Page 3.					

STEP 2

Use the formula to enter the Btu-weighted annual emission rate averaged over the units if they are operated in accordance with the proposed averaging plan and the Btu-weighted annual average emission rate for the same units if they are operated in compliance with 40 CFR 76.5, 76.6, or 76.7. The former must be less than or equal to the latter.

Btu-weighted annual emission rate averaged over the units if they are operated in accordance with the proposed averaging plan		Btu-weighted annual average emission rate for same units operated in compliance with 40 CFR 76.5, 76.6 or 76.7
0.46	≤	0.46

$$\frac{\sum_{i=1}^{n} (R_{Li} \, x \, HI_i)}{\sum_{i=1}^{n} HI_i} \leq \frac{\sum_{i=1}^{n} [R_{li} \, x \, HI_i]}{\sum_{i=1}^{n} HI_i}$$

Where,

R_{Li} = Alternative contemporaneous annual emissions limitation for unit i, in 16/mmBtu, as specified in column (b) of Step 1;

R_{li} = Applicable emission limitation for unit i, in lb/mmBtu, as specified in column (a) of Step 1;

HI_i = Annual heat input for unit i, in mmBtu, as specified in column (c) of Step 1;

n = Number of units in the averaging plan

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Participating Plants
Plant Name (from Step 1)

STEP 3

Mark one of the two options and enter dates.

☐ This plan is effective for calendar year _____ through calendar year _____ unless notification to terminate the plan is given.

[X] Treat this plan as [5] identical plans, each effective for one calendar year for the following calendar years: 2013, 2014, 2015, 2016, and 2017 unless notification to terminate one or more of these plans is given.

STEP 4

Read the special provisions and certification, enter the name of the designated representative, and sign and date.

Special Provisions

Emission Limitations

Each affected unit in an approved averaging plan is in compliance with the Acid Rain emission limitation for NO_x under the plan only if the following requirements are met:

(i) For each unit, the unit's actual annual average emission rate for the calendar year, in lb/mmBtu, is less than or equal to its alternative contemporaneous annual emission limitation in the averaging plan, and
(a) For each unit with an alternative contemporaneous emission limitation less stringent than the applicable emission limitation in 40 CFR 76.5, 76.6, or 76.7, the actual annual heat input for the calendar year does not exceed the annual heat input limit in the averaging plan,
(b) For each unit with an alternative contemporaneous emission limitation more stringent than the applicable emission limitation in 40 CFR 76.5, 76.6, or 76.7, the actual annual heat input for the calendar year is not less than the annual heat input limit in the averaging plan, or
(ii) If one or more of the units does not meet the requirements of (i), the designated representative shall demonstrate, in accordance with 40 CFR 76.11(d)(1)(ii)(A) and (B), that the actual Btu-weighted annual average emission rate for the units in the plan is less than or equal to the Btu-weighted annual average rate for the same units had they each been operated, during the same period of time, in compliance with the applicable emission limitations in 40 CFR 76.5, 76.6, or 76.7.
(iii) If there is a successful group showing of compliance under 40 CFR 76.11(d)(1)(ii)(A) and (B) for a calendar year, then all units in the averaging plan shall be deemed to be in compliance for that year with their alternative contemporaneous emission limitations and annual heat input limits under (i).

Liability

The owners and operators of a unit governed by an approved averaging plan shall be liable for any violation of the plan or this section at that unit or any other unit in the plan, including liability for fulfilling the obligations specified in part 77 of this chapter and sections 113 and 411 of the Act.

Termination

The designated representative may submit a notification to terminate an approved averaging plan, in accordance with 40 CFR 72.40(d), no later than October 1 of the calendar year for which the plan is to be terminated.

Certification

I am authorized to make this submission on behalf of the owners and operators of the affected source or affected units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

Name Chris M. Hobson	
Signature CMHobson	Date 9/24/12

DEP Form No. 62-210.900(1)(a)1.
Effective: 3/16/08

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Southern Company Averaging Plan
Participating Plants

Plant Name (from Step 1)

STEP 1

Continue the identification of units from Step 1, page 1, here.

Plant Name	State	ID#	(a) Emission Limitation	(b) Alt. Contemp. Emission Limitation	(c) Annual Heat Input Limit
Barry	AL	1	0.40	0.57	9,573,262
Barry	AL	2	0.40	0.57	8,444,579
Barry	AL	3	0.40	0.57	14,942,231
Barry	AL	4	0.40	0.45	25,805,532
Barry	AL	5	0.40	0.45	40,593,564
Bowen	GA	1	0.45	0.42	45,172,982
Bowen	GA	2	0.45	0.43	53,594,364
Bowen	GA	3	0.45	0.43	62,569,415
Bowen	GA	4	0.45	0.43	62,052,526
Branch	GA	1	0.68	0.99	15,439,840
Branch	GA	2	0.50	0.72	20,343,750
Branch	GA	3	0.68	0.84	33,478,822
Branch	GA	4	0.68	0.84	29,022,426
Crist	FL	4	0.45	0.52	5,152,003
Crist	FL	5	0.45	0.60	5,166,828
Crist	FL	6	0.50	0.45	22,730,882
Crist	FL	7	0.50	0.45	37,802,017
Daniel	MS	1	0.45	0.33	42,016,226
Daniel	MS	2	0.45	0.33	35,236,767
Gadsden	AL	1	0.45	0.75	2,493,711
Gadsden	AL	2	0.45	0.75	2,994,848
Gaston	AL	1	0.50	0.52	15,024,772
Gaston	AL	2	0.50	0.52	12,841,184
Gaston	AL	3	0.50	0.52	16,760,315
Gaston	AL	4	0.50	0.52	16,256,383
Gaston	AL	5	0.45	0.48	54,734,917
Gorgas	AL	6	0.46	0.55	5,532,199
Gorgas	AL	7	0.46	0.55	5,961,385
Gorgas	AL	8	0.40	0.52	12,802,318
Gorgas	AL	9	0.40	0.52	14,142,803
Gorgas	AL	10	0.40	0.52	53,551,197

DEP Form No. 62-210.900(1)(a)1.
Effective: 3/16/08

3

Southern Company Averaging Plan
Participating Plants

Plant Name (from Step 1)

STEP 1

Continue the identification of units from Step 1, page 1, here.

Plant Name	State	ID#	(a) Emission Limitation	(b) Alt. Contemp. Emission Limitation	(c) Annual Heat Input Limit
Greene Co	AL	1	0.68	0.60	17,188,813
Greene Co	AL	2	0.46	0.60	19,335,661
Hammond	GA	1	0.50	0.83	6,507,399
Hammond	GA	2	0.50	0.83	7,473,271
Hammond	GA	3	0.50	0.83	6,418,029
Hammond	GA	4	0.50	0.45	29,877,962
Kraft	GA	1	0.45	0.58	3,102,564
Kraft	GA	2	0.45	0.58	2,903,977
Kraft	GA	3	0.45	0.58	5,763,920
L. Smith	FL	1	0.40	0.62	13,246,415
L. Smith	FL	2	0.40	0.44	14,354,271
McIntosh	GA	1	0.50	0.86	8,947,363
Miller	AL	1	0.46	0.37	55,901,155
Miller	AL	2	0.46	0.37	54,571,268
Miller	AL	3	0.46	0.28	59,761,399
Miller	AL	4	0.46	0.28	58,617,301
Mitchell	GA	3	0.45	0.62	5,826,708
Scherer	GA	1	0.40	0.50	73,945,647
Scherer	GA	2	0.40	0.50	73,618,266
Scherer	GA	3	0.45	0.29	54,991,840
Scherer	GA	4	0.40	0.30	54,991,840
Scholz	FL	1	0.50	0.68	2,022,943
Scholz	FL	2	0.50	0.77	2,056,474
Wansley	GA	1	0.45	0.41	65,813,417
Wansley	GA	2	0.45	0.42	58,305,654
Watson	MS	4	0.50	0.50	13,070,990
Watson	MS	5	0.50	0.65	34,351,664
Yates	GA	1	0.45	0.48	5,317,858
Yates	GA	2	0.45	0.48	4,737,232
Yates	GA	3	0.45	0.48	4,689,751
Yates	GA	4	0.45	0.40	8,272,959
Yates	GA	5	0.45	0.40	7,457,836
Yates	GA	6	0.45	0.33	22,590,915
Yates	GA	7	0.45	0.30	20,429,275

DEP Form No. 62-210.900(1)(a)1.
Effective: 3/16/08

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Clean Air Interstate Rule (CAIR).

Operated by: Gulf Power Company
Plant: Crist Electric Generating Plant
ORIS Code: 0641

The emissions units below are regulated under the Clean Air Interstate Rule.

EU No.	EPA Unit ID#	Brief Description
004	4	Boiler Number 4 - 1,096.7 MMBtu/hour
005	5	Boiler Number 5 - 1,096.7 MMBtu/hour
006	6	Boiler Number 6 - 3,704.8 MMBtu/hour
007	7	Boiler Number 7 - 6,406.4 MMBtu/hour

1. Clean Air Interstate Rule Application. The Clean Air Interstate Rule Part Form submitted for this facility is a part of this permit. The owners and operators of these CAIR units as identified in this form must comply with the standard requirements and special provisions set forth in the CAIR Part Form (DEP Form No. 62-210.900(1)(b)) dated May,5 2009, which is attached at the end of this section. [Chapter 62-213, F.A.C. and Rule 62-210.200, F.A.C.]

Draft/Proposed

Clean Air Interstate Rule (CAIR) Part

For more information, see instructions and refer to 40 CFR 96.121, 96.122, 96.221, 96.222, 96.321 and 96.322; and Rule 62-296.470, F.A.C.

This submission is: ☐ New ☐ Revised ☒ Renewal

STEP 1

Identify the source by plant name and ORIS or EIA plant code

Plant Name:	State:	ORIS or EIA Plant Code:
Crist Electric Generating Plant	Florida	641

STEP 2

In column "a" enter the unit ID# for every CAIR unit at the CAIR source.

In columns "b," "c," and "d," indicate to which CAIR program(s) each unit is subject by placing an "X" in the column(s).

For new units, enter the requested information in columns "e" and "f.

a	b	c	d	e	f
Unit ID#	Unit will hold nitrogen oxides (NO_X) allowances in accordance with 40 CFR 96.106(c)(1)	Unit will hold sulfur dioxide (SO_2) allowances in accordance with 40 CFR 96.206(c)(1)	Unit will hold NO_X Ozone Season allowances in accordance with 40 CFR 96.306(c)(1)	New Units Expected Commence Commercial Operation Date	New Units Expected Monitor Certification Deadline
004	X	X	X		
005	X	X	X		
006	X	X	X		
007	X	X	X		

DEP Form No. 62-210.900(1)(b) – Form
Effective: 3/16/08

1

Plant Name (from STEP 1)	Crist Electric Generating Plant

STEP 3

Read the standard requirements.

CAIR NO_X ANNUAL TRADING PROGRAM

CAIR Part Requirements.

(1) The CAIR designated representative of each CAIR NO_X source and each CAIR NO_X unit at the source shall:
(i) Submit to the DEP a complete and certified CAIR Part form under 40 CFR 96.122 and Rule 62-296.470, F.A.C., in accordance with the deadlines specified in Rule 62-213.420, F.A.C.; and
(ii) [Reserved];
(2) The owners and operators of each CAIR NO_X source and each CAIR NO_X unit at the source shall have a CAIR Part included in the Title V operating permit issued by the DEP under 40 CFR Part 96, Subpart CC, and operate the source and the unit in compliance with such CAIR Part.

Monitoring, Reporting, and Recordkeeping Requirements.

(1) The owners and operators, and the CAIR designated representative, of each CAIR NO_X source and each CAIR NO_X unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of 40 CFR Part 96, Subpart HH, and Rule 62-296.470, F.A.C.
(2) The emissions measurements recorded and reported in accordance with 40 CFR Part 96, Subpart HH, shall be used to determine compliance by each CAIR NO_X source with the following CAIR NO_X Emissions Requirements.

NO_X Emission Requirements.

(1) As of the allowance transfer deadline for a control period, the owners and operators of each CAIR NO_X source and each CAIR NO_X unit at the source shall hold, in the source's compliance account, CAIR NO_X allowances available for compliance deductions for the control period under 40 CFR 96.154(a) in an amount not less than the tons of total NO_X emissions for the control period from all CAIR NO_X units at the source, as determined in accordance with 40 CFR Part 96, Subpart HH.
(2) A CAIR NO_X unit shall be subject to the requirements under paragraph (1) of the NO_X Requirements starting on the later of January 1, 2009, or the deadline for meeting the unit's monitor certification requirements under 40 CFR 96.170(b)(1) or (2) and for each control period thereafter.
(3) A CAIR NO_X allowance shall not be deducted, for compliance with the requirements under paragraph (1) of the NO_X Requirements, for a control period in a calendar year before the year for which the CAIR NO_X allowance was allocated.
(4) CAIR NO_X allowances shall be held in, deducted from, or transferred into or among CAIR NO_X Allowance Tracking System accounts in accordance with 40 CFR Part 96, Subparts FF and GG.
(5) A CAIR NO_X allowance is a limited authorization to emit one ton of NO_X in accordance with the CAIR NO_X Annual Trading Program. No provision of the CAIR NO_X Annual Trading Program, the CAIR Part, or an exemption under 40 CFR 96.105 and no provision of law shall be construed to limit the authority of the state or the United States to terminate or limit such authorization.
(6) A CAIR NO_X allowance does not constitute a property right.
(7) Upon recordation by the Administrator under 40 CFR Part 96, Subpart EE, FF, or GG, every allocation, transfer, or deduction of a CAIR NO_X allowance to or from a CAIR NO_X unit's compliance account is incorporated automatically in any CAIR Part of the source that includes the CAIR NO_X unit.

Excess Emissions Requirements.

If a CAIR NO_X source emits NO_X during any control period in excess of the CAIR NO_X emissions limitation, then:
(1) The owners and operators of the source and each CAIR NO_X unit at the source shall surrender the CAIR NO_X allowances required for deduction under 40 CFR 96.154(d)(1) and pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act or applicable state law; and
(2) Each ton of such excess emissions and each day of such control period shall constitute a separate violation of 40 CFR Part 96, Subpart AA, the Clean Air Act, and applicable state law.

Recordkeeping and Reporting Requirements.

(1) Unless otherwise provided, the owners and operators of the CAIR NO_X source and each CAIR NO_X unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the DEP or the Administrator.
(i) The certificate of representation under 40 CFR 96.113 for the CAIR designated representative for the source and each CAIR NO_X unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation under 40 CFR 96.113 changing the CAIR designated representative.
(ii) All emissions monitoring information, in accordance with 40 CFR Part 96, Subpart HH, of this part, provided that to the extent that 40 CFR Part 96, Subpart HH, provides for a 3-year period for recordkeeping, the 3-year period shall apply.
(iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the CAIR NO_X Annual Trading Program.
(iv) Copies of all documents used to complete a CAIR Part form and any other submission under the CAIR NO_X Annual Trading Program or to demonstrate compliance with the requirements of the CAIR NO_X Annual Trading Program.
(2) The CAIR designated representative of a CAIR NO_X source and each CAIR NO_X unit at the source shall submit the reports required under the CAIR NO_X Annual Trading Program, including those under 40 CFR Part 96, Subpart HH.

Plant Name (from STEP 1)	Crist Electric Generating Plant

STEP 3, Continued

Liability.

(1) Each CAIR NO_X source and each CAIR NO_X unit shall meet the requirements of the CAIR NO_X Annual Trading Program.
(2) Any provision of the CAIR NO_X Annual Trading Program that applies to a CAIR NO_X source or the CAIR designated representative of a CAIR NO_X source shall also apply to the owners and operators of such source and of the CAIR NO_X units at the source.
(3) Any provision of the CAIR NO_X Annual Trading Program that applies to a CAIR NO_X unit or the CAIR designated representative of a CAIR NO_X unit shall also apply to the owners and operators of such unit.

Effect on Other Authorities.

No provision of the CAIR NO_X Annual Trading Program, a CAIR Part, or an exemption under 40 CFR 96.105 shall be construed as exempting or excluding the owners and operators, and the CAIR designated representative, of a CAIR NO_X source or CAIR NO_X unit from compliance with any other provision of the applicable, approved State Implementation Plan, a federally enforceable permit, or the Clean Air Act.

CAIR SO_2 TRADING PROGRAM

CAIR Part Requirements.

(1) The CAIR designated representative of each CAIR SO_2 source and each CAIR SO_2 unit at the source shall:
(i) Submit to the DEP a complete and certified CAIR Part form under 40 CFR 96.222 and Rule 62-296.470, F.A.C., in accordance with the deadlines specified in Rule 62-213.420, F.A.C.; and
(ii) [Reserved];
(2) The owners and operators of each CAIR SO_2 source and each CAIR SO_2 unit at the source shall have a CAIR Part included in the Title V operating permit issued by the DEP under 40 CFR Part 96, Subpart CCC, for the source and operate the source and each CAIR unit in compliance with such CAIR Part.

Monitoring, Reporting, and Recordkeeping Requirements.

(1) The owners and operators, and the CAIR designated representative, of each CAIR SO_2 source and each SO_2 CAIR unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of 40 CFR Part 96 ,Subpart HHH, and Rule 62-296.470, F.A.C.
(2) The emissions measurements recorded and reported in accordance with 40 CFR Part 96, Subpart HHH, shall be used to determine compliance by each CAIR SO_2 source with the following CAIR SO_2 Emission Requirements.

SO_2 Emission Requirements.

(1) As of the allowance transfer deadline for a control period, the owners and operators of each CAIR SO_2 source and each CAIR SO_2 unit at the source shall hold, in the source's compliance account, a tonnage equivalent in CAIR SO_2 allowances available for compliance deductions for the control period, as determined in accordance with 40 CFR 96.254(a) and (b), not less than the tons of total sulfur dioxide emissions for the control period from all CAIR SO_2 units at the source, as determined in accordance with 40 CFR Part 96, Subpart HHH.
(2) A CAIR SO_2 unit shall be subject to the requirements under paragraph (1) of the Sulfur Dioxide Emission Requirements starting on the later of January 1, 2010 or the deadline for meeting the unit's monitor certification requirements under 40 CFR 96.270(b)(1) or (2) and for each control period thereafter.
(3) A CAIR SO_2 allowance shall not be deducted, for compliance with the requirements under paragraph (1) of the SO_2 Emission Requirements, for a control period in a calendar year before the year for which the CAIR SO_2 allowance was allocated.
(4) CAIR SO_2 allowances shall be held in, deducted from, or transferred into or among CAIR SO_2 Allowance Tracking System accounts in accordance with 40 CFR Part 96, Subparts FFF and GGG.
(5) A CAIR SO_2 allowance is a limited authorization to emit sulfur dioxide in accordance with the CAIR SO_2 Trading Program. No provision of the CAIR SO_2 Trading Program, the CAIR Part, or an exemption under 40 CFR 96.205 and no provision of law shall be construed to limit the authority of the state or the United States to terminate or limit such authorization.
(6) A CAIR SO_2 allowance does not constitute a property right.
(7) Upon recordation by the Administrator under 40 CFR Part 96, Subpart FFF or GGG, every allocation, transfer, or deduction of a CAIR SO_2 allowance to or from a CAIR SO_2 unit's compliance account is incorporated automatically in any CAIR Part of the source that includes the CAIR SO_2 unit.

Excess Emissions Requirements.

If a CAIR SO_2 source emits SO_2 during any control period in excess of the CAIR SO_2 emissions limitation, then:
(1) The owners and operators of the source and each CAIR SO_2 unit at the source shall surrender the CAIR SO_2 allowances required for deduction under 40 CFR 96.254(d)(1) and pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act or applicable state law; and
(2) Each ton of such excess emissions and each day of such control period shall constitute a separate violation of 40 CFR Part 96, Subpart AAA, the Clean Air Act, and applicable state law.

Plant Name (from STEP 1)	Crist Electric Generating Plant

STEP 3, Continued

Recordkeeping and Reporting Requirements.

(1) Unless otherwise provided, the owners and operators of the CAIR SO_2 source and each CAIR SO_2 unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the Department or the Administrator.

(i) The certificate of representation under 40 CFR 96.213 for the CAIR designated representative for the source and each CAIR SO_2 unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation under 40 CFR 96.213 changing the CAIR designated representative.

(ii) All emissions monitoring information, in accordance with 40 CFR Part 96, Subpart HHH, of this part, provided that to the extent that 40 CFR Part 96, Subpart HHH, provides for a 3-year period for recordkeeping, the 3-year period shall apply.

(iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the CAIR SO_2 Trading Program.

(iv) Copies of all documents used to complete a CAIR Part form and any other submission under the CAIR SO_2 Trading Program or to demonstrate compliance with the requirements of the CAIR SO_2 Trading Program.

(2) The CAIR designated representative of a CAIR SO_2 source and each CAIR SO_2 unit at the source shall submit the reports required under the CAIR SO_2 Trading Program, including those under 40 CFR Part 96, Subpart HHH.

Liability.

(1) Each CAIR SO_2 source and each CAIR SO_2 unit shall meet the requirements of the CAIR SO_2 Trading Program.

(2) Any provision of the CAIR SO_2 Trading Program that applies to a CAIR SO_2 source or the CAIR designated representative of a CAIR SO_2 source shall also apply to the owners and operators of such source and of the CAIR SO_2 units at the source.

(3) Any provision of the CAIR SO_2 Trading Program that applies to a CAIR SO_2 unit or the CAIR designated representative of a CAIR SO_2 unit shall also apply to the owners and operators of such unit.

Effect on Other Authorities.

No provision of the CAIR SO_2 Trading Program, a CAIR Part, or an exemption under 40 CFR 96.205 shall be construed as exempting or excluding the owners and operators, and the CAIR designated representative, of a CAIR SO_2 source or CAIR SO_2 unit from compliance with any other provision of the applicable, approved State Implementation Plan, a federally enforceable permit, or the Clean Air Act.

CAIR NO_x OZONE SEASON TRADING PROGRAM

CAIR Part Requirements.

(1) The CAIR designated representative of each CAIR NO_x Ozone Season source and each CAIR NO_x Ozone Season unit at the source shall:

(i) Submit to the DEP a complete and certified CAIR Part form under 40 CFR 96.322 and Rule 62-296.470, F.A.C., in accordance with the deadlines specified in Rule 62-213.420, F.A.C.; and

(ii) [Reserved];

(2) The owners and operators of each CAIR NO_x Ozone Season source required to have a Title V operating permit or air construction permit, and each CAIR NO_x Ozone Season unit required to have a Title V operating permit or air construction permit at the source shall have a CAIR Part included in the Title V operating permit or air construction permit issued by the DEP under 40 CFR Part 96, Subpart CCCC, for the source and operate the source and the unit in compliance with such CAIR Part.

Monitoring, Reporting, and Recordkeeping Requirements.

(1) The owners and operators, and the CAIR designated representative, of each CAIR NO_x Ozone Season source and each CAIR NO_x Ozone Season unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of 40 CFR Part 96, Subpart HHHH, and Rule 62-296.470, F.A.C.

(2) The emissions measurements recorded and reported in accordance with 40 CFR Part 96, Subpart HHHH, shall be used to determine compliance by each CAIR NO_x Ozone Season source with the following CAIR NO_x Ozone Season Emissions Requirements.

NO_x Ozone Season Emission Requirements.

(1) As of the allowance transfer deadline for a control period, the owners and operators of each CAIR NO_x Ozone Season source and each CAIR NO_x Ozone Season unit at the source shall hold, in the source's compliance account, CAIR NO_x Ozone Season allowances available for compliance deductions for the control period under 40 CFR 96.354(a) in an amount not less than the tons of total NO_x emissions for the control period from all CAIR NO_x Ozone Season units at the source, as determined in accordance with 40 CFR Part 96, Subpart HHHH.

(2) A CAIR NO_x Ozone Season unit shall be subject to the requirements under paragraph (1) of the NO_x Ozone Season Emission Requirements starting on the later of May 1, 2009 or the deadline for meeting the unit's monitor certification requirements under 40 CFR 96.370(b)(1),(2), or (3) and for each control period thereafter.

(3) A CAIR NO_x Ozone Season allowance shall not be deducted, for compliance with the requirements under paragraph (1) of the NO_x Ozone Season Emission Requirements, for a control period in a calendar year before the year for which the CAIR NO_x Ozone Season allowance was allocated.

(4) CAIR NO_x Ozone Season allowances shall be held in, deducted from, or transferred into or among CAIR NO_x Ozone Season Allowance Tracking System accounts in accordance with 40 CFR Part 96, Subparts FFFF and GGGG.

(5) A CAIR NO_x Ozone Season allowance is a limited authorization to emit one ton of NO_x in accordance with the CAIR NO_x Ozone Season Trading Program. No provision of the CAIR NO_x Ozone Season Trading Program, the CAIR Part, or an exemption under 40 CFR 96.305 and no provision of law shall be construed to limit the authority of the state or the United States to terminate or limit such authorization.

(6) A CAIR NO_x Ozone Season allowance does not constitute a property right.

(7) Upon recordation by the Administrator under 40 CFR Part 96, Subpart EEEE, FFFF or GGGG, every allocation, transfer, or deduction of a CAIR NO_x Ozone Season allowance to or from a CAIR NO_x Ozone Season unit's compliance account is incorporated automatically in any CAIR Part of the source that includes the CAIR NO_x Ozone Season unit.

Plant Name (from STEP 1)	Crist Electric Generating Plant

STEP 3, Continued

Excess Emissions Requirements.

If a CAIR NO_X Ozone Season source emits NO_X during any control period in excess of the CAIR NO_X Ozone Season emissions limitation, then:
(1) The owners and operators of the source and each CAIR NO_X Ozone Season unit at the source shall surrender the CAIR NO_X Ozone Season allowances required for deduction under 40 CFR 96.354(d)(1) and pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act or applicable state law; and
(2) Each ton of such excess emissions and each day of such control period shall constitute a separate violation of 40 CFR Part 96, Subpart AAAA, the Clean Air Act, and applicable state law.

Recordkeeping and Reporting Requirements.

(1) Unless otherwise provided, the owners and operators of the CAIR NO_X Ozone Season source and each CAIR NO_X Ozone Season unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the DEP or the Administrator.
(i) The certificate of representation under 40 CFR 96.313 for the CAIR designated representative for the source and each CAIR NO_X Ozone Season unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation under 40 CFR 96.113 changing the CAIR designated representative.
(ii) All emissions monitoring information, in accordance with 40 CFR Part 96, Subpart HHHH, of this part, provided that to the extent that 40 CFR Part 96, Subpart HHHH, provides for a 3-year period for recordkeeping, the 3-year period shall apply.
(iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the CAIR NO_X Ozone Season Trading Program.
(iv) Copies of all documents used to complete a CAIR Part form and any other submission under the CAIR NO_X Ozone Season Trading Program or to demonstrate compliance with the requirements of the CAIR NO_X Ozone Season Trading Program.
(2) The CAIR designated representative of a CAIR NO_X Ozone Season source and each CAIR NO_X Ozone Season unit at the source shall submit the reports required under the CAIR NO_X Ozone Season Trading Program, including those under 40 CFR Part 96, Subpart HHHH.

Liability.

(1) Each CAIR NO_X Ozone Season source and each CAIR NO_X Ozone Season unit shall meet the requirements of the CAIR NO_X Ozone Season Trading Program.
(2) Any provision of the CAIR NO_X Ozone Season Trading Program that applies to a CAIR NO_X Ozone Season source or the CAIR designated representative of a CAIR NO_X Ozone Season source shall also apply to the owners and operators of such source and of the CAIR NO_X Ozone Season units at the source.
(3) Any provision of the CAIR NO_X Ozone Season Trading Program that applies to a CAIR NO_X Ozone Season unit or the CAIR designated representative of a CAIR NO_X Ozone Season unit shall also apply to the owners and operators of such unit.

Effect on Other Authorities.

No provision of the CAIR NO_X Ozone Season Trading Program, a CAIR Part, or an exemption under 40 CFR 96.305 shall be construed as exempting or excluding the owners and operators, and the CAIR designated representative, of a CAIR NO_X Ozone Season source or CAIR NO_X Ozone Season unit from compliance with any other provision of the applicable, approved State Implementation Plan, a federally enforceable permit, or the Clean Air Act.

STEP 4

Read the certification statement; provide name, title, owner company name, phone, and e-mail address; sign, and date.

Certification (for designated representative or alternate designated representative only)

I am authorized to make this submission on behalf of the owners and operators of the CAIR source or CAIR units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

Name	James O. Vick	Title	Director, Environmental Affairs
Company Owner Name	Gulf Power Company		
Phone	(850) 444-6311	E-mail Address	jovick@southernco.com
Signature	James O Vick	Date	5/5/09

DEP Form No. 62-210.900(1)(b) – Form
Effective: 3/16/08

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SECTION VI. APPENDICES.

The Following Appendices Are Enforceable Parts of This Permit:

Appendix A, Glossary.
Appendix ASP, ASP Number 97-B-01 (With Scrivener's Order Dated July 9, 1997).
Appendix CAM, Compliance Assurance Monitoring Plan.
Appendix I, List of Insignificant Emissions Units and/or Activities.
Appendix ICE, Requirements For Internal Combustion Engines.
Appendix NESHAP A, 40 CFR 63, Subpart A - Standardized General Provisions.
Appendix NESHAP ZZZZ, 40 CFR 63, Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.
Appendix NSPS A, 40 CFR 60, Subpart A - General Provisions.
Appendix NSPS IIII, 40 CFR 60, Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines.
Appendix RR, Facility-wide Reporting Requirements.
Appendix SO, Secretarial Order(s).
Appendix TR, Facility-wide Testing Requirements.
Appendix TV, Title V General Conditions.
Appendix U, List of Unregulated Emissions Units and/or Activities.

Draft/Proposed