Florida Department of
Environmental Protection

Memorandum

TO: Trina Vielhauer, Chief - Bureau of Air Regulation

THROUGH: Jeff Koerner, New Source Review Section

FROM: Jonathan Holtom, New Source Review Section

DATE: 2/27/08

SUBJECT: Draft Air Construction Permit No. 0050014-013-AC
Gulf Power Company, Smith Electric Generating Plant
SNCR System for Units 1 and 2

Attached for your review are the following items:

- Intent to Issue AC Permit and Public Notice Package;
- Technical Evaluation and Preliminary Determination;
- Draft AC Permit;
- P.E. Certification;

The P.E. certification briefly summarizes the proposed permit project. The Technical Evaluation and Preliminary Determination provide a detailed description of the project, rationale, and conclusion. I recommend your approval of the attached Draft Permit for this project.

Attachments

Florida Department of Environmental Protection

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

Charlie Crist
Governor

Jeff Kottkamp
Lt. Governor

Michael W. Sole
Secretary

February 27, 2008

Mr. G. Dwain Waters, Q.E.P.
Air Quality Programs Supervisor
Gulf Power Company
One Energy Place
Pensacola, Florida 32520

Re: Air Construction Permit No. 0050014-013-AC
Gulf Power Company- Smith Electric Generating Plant
Units 1 and 2 SNCR Project

Dear Mr. Waters:

On January 11, you submitted an application for an air permit to install a selective non-catalytic reduction (SNCR) system on Units 1 and 2 for the purpose of reducing nitrogen oxide (NO_X) emissions as part of the plant's strategy to comply with the requirements of the Clean Air Interstate Rule (CAIR). The equipment will be installed at the Lansing Smith Electric Generating Plant, which is located at 4300 County Road 2300, Lynne Haven, Bay County, Florida. Enclosed are the following documents: "Technical Evaluation and Preliminary Determination", "Draft Permit", "Written Notice of Intent to Issue Air Permit", and "Public Notice of Intent to Issue Air Permit".

The "Technical Evaluation and Preliminary Determination" summarizes the Permitting Authority's technical review of the application and provides the rationale for making the preliminary determination to issue a Draft Permit. The proposed "Draft Permit" includes the specific conditions that regulate the emissions units covered by the proposed project. The "Written Notice of Intent to Issue Air Permit" provides important information regarding: the Permitting Authority's intent to issue an air permit for the proposed project; the requirements for publishing a Public Notice of the Permitting Authority's intent to issue an air permit; the procedures for submitting comments on the Draft Permit; the process for filing a petition for an administrative hearing; and the availability of mediation. The "Public Notice of Intent to Issue Air Permit" is the actual notice that you must have published in the legal advertisement section of a newspaper of general circulation in the area affected by this project.

If you have any questions, please contact the Project Engineer, Jonathan Holtom, P.E., at (850) 921-9531.

Sincerely,

Trina L. Vielhauer, Chief
Bureau of Air Regulation

TLV/jfk/jh

Enclosures

WRITTEN NOTICE OF INTENT TO ISSUE AIR PERMIT

In the Matter of an
Application for Air Permit by:

Mr. G. Dwain Waters, Q.E.P.
Air Quality Programs Supervisor
Gulf Power Company
One Energy Place
Pensacola, Florida 32520

Draft Air Permit No. 0050014-013-AC
Smith Electric Generating Plant
Units 1 & 2 SNCR Project
Bay County, Florida

Facility Location: The applicant operates the existing Lansing Smith Electric Generating Plant, which is located at 4300 County Road 2300, Lynne Haven, Bay County, Florida.

Project: The applicant proposes to install an SNCR system on Units 1 & 2. Details of the project are provided in the application and the enclosed "Technical Evaluation and Preliminary Determination".

Permitting Authority: Applications for air construction permits are subject to review in accordance with the provisions of Chapter 403, Florida Statutes (F.S.) and Chapters 62-4, 62-210, and 62-212 of the Florida Administrative Code (F.A.C.). The proposed project is not exempt from air permitting requirements and an air permit is required to perform the proposed work. The Department of Environmental Protection is the Permitting Authority responsible for making a permit determination for this project. The Permitting Authority's physical address is: 111 S. Magnolia Drive, Tallahassee, Florida 32301. The Permitting Authority's mailing address is: 2600 Blair Stone Road, Mail Station 5505, Tallahassee, Florida 32399-2400. The Permitting Authority's telephone number is 850/488-0114.

Project File: A complete project file is available for public inspection during the normal business hours of 8:00 a.m. to 5:00 p.m., Monday through Friday (except legal holidays), at address indicated above for the Permitting Authority. The complete project file includes the Draft Permit, the Technical Evaluation and Preliminary Determination, the application, and the information submitted by the applicant, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact the Permitting Authority's project review engineer for additional information at the address or phone number listed above. In addition, electronic copies of these documents are available on the following web site: http://www.dep.state.fl.us/air/eproducts/apds/default.asp.

Notice of Intent to Issue Permit: The Permitting Authority gives notice of its intent to issue an air permit to the applicant for the project described above. The applicant has provided reasonable assurance that operation of proposed equipment will not adversely impact air quality and that the project will comply with all appropriate provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297, F.A.C. The Permitting Authority will issue a Final Permit in accordance with the conditions of the proposed Draft Permit unless a timely petition for an administrative hearing is filed under Sections 120.569 and 120.57, F.S. or unless public comment received in accordance with this notice results in a different decision or a significant change of terms or conditions.

Public Notice: Pursuant to Section 403.815, F.S. and Rules 62-110.106 and 62-210.350, F.A.C., you (the applicant) are required to publish at your own expense the enclosed "Public Notice of Intent to Issue Air Permit" (Public Notice). The Public Notice shall be published one time only as soon as possible in the legal advertisement section of a newspaper of general circulation in the area affected by this project. The newspaper used must meet the requirements of Sections 50.011 and 50.031, F.S. in the county where the activity is to take place. If you are uncertain that a newspaper meets these requirements, please contact the Permitting Authority at above address or phone number. Pursuant to Rule 62-110.106(5), F.A.C., the applicant shall provide proof of publication to the Permitting Authority at the above address within seven (7) days of publication. Failure to publish the notice and provide proof of publication may result in the denial of the permit pursuant to Rule 62-110.106(11), F.A.C.

Comments: The Permitting Authority will accept written comments concerning the proposed Draft Permit for a period of fourteen (14) days from the date of publication of the Public Notice. Written comments must be provided to the Permitting Authority at the above address. Any written comments filed will be made available for public inspection. If written comments received result in a significant change to the Draft Permit, the Permitting Authority shall revise the Draft Permit and require, if applicable, another Public Notice.

Petitions: A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative hearing in accordance with Sections 120.569 and 120.57, F.S. The petition must contain the information set forth below and must be filed with (received by) the Department's Agency Clerk in the Office of General Counsel of the Department of Environmental Protection, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000. Petitions filed by the applicant or any of the parties listed below must be filed within 14 days of receipt of this Written Notice of Intent to Issue Air Permit. Petitions filed by any persons other than those entitled to written notice under Section 120.60(3), F.S., must be filed within 14 days of publication of the attached Public Notice or within 14 days of receipt of this Written Notice of Intent to Issue Air Permit, whichever occurs first. Under Section 120.60(3), F.S., however, any person who asked the Permitting Authority for notice of agency action may file a petition within 14 days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above, at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention (in a proceeding initiated by another party) will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205, F.A.C.

A petition that disputes the material facts on which the Permitting Authority's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner; the name, address and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of when and how each petitioner received notice of the agency action or proposed decision; (d) A statement of all disputed issues of material fact. If there are none, the petition must so state; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action including an explanation of how the alleged facts relate to the specific rules or statutes; and, (g) A statement of the relief sought by the petitioner, stating precisely the action the petitioner wishes the agency to take with respect to the agency's proposed action. A petition that does not dispute the material facts upon which the Permitting Authority's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301, F.A.C.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Permitting Authority's final action may be different from the position taken by it in this Written Notice of Intent to Issue Air Permit. Persons whose substantial interests will be affected by any such final decision of the Permitting Authority on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

Mediation: Mediation is not available in this proceeding.

Executed in Tallahassee, Florida.

Trina L. Vielhauer, Chief
Bureau of Air Regulation

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this Notice of Intent to Issue Air Permit package (including the Written Notice of Intent to Issue Air Permit, Public Notice of Intent to Issue Air Permit, the Technical Evaluation and Preliminary Determination, and the Draft Permit) was sent by electronic mail with received receipt requested before the close of business on 2/28/08 to the persons listed below.

G. Dwain Waters, Q.E.P., Gulf Power Company (gdwaters@southernco.com)
Gregory N. Terry, P.E., Gulf Power Company (gnterry@southernco.com)
Rick Bradburn, DEP-NWD (rick.bradburn@dep.state.fl.us)
Jim Little, EPA Region 4 (little.james@epamail.epa.gov)
Katy Forney, EPA Region 4 (forney.kathleen@epa.gov)

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to Section 120.52(7), Florida Statutes, with the designated agency clerk, receipt of which is hereby acknowledged.

(Clerk) 2/28/08 (Date)

PUBLIC NOTICE OF INTENT TO ISSUE AIR PERMIT

Florida Department of Environmental Protection
Bureau of Air Regulation
Draft Air Permit No. 0050014-013-AC
Gulf Power Company – Smith Electric Generating Plant
Bay County

Applicant: The applicant for this project is Gulf Power Company, One Energy Place, Pensacola, Florida 32520. The applicant's authorized representative is G. Dwain Waters, Q.E.P., Air Quality Programs Supervisor.

Facility Location: The applicant operates the existing Lansing Smith Electric Generating Plant, which is located at 4300 County Road 2300, Lynne Haven, Bay County, Florida.

Project: The applicant proposes to install a selective non-catalytic reduction (SNCR) system on Units 1 & 2 for the purpose of reducing nitrogen oxide (NO_X) emissions from the facility as part of the plant's strategy to comply with the requirements of the Clean Air Interstate Rule (CAIR). The project is not expected to result in any significant increases of collateral pollutants.

Permitting Authority: Applications for air construction permits are subject to review in accordance with the provisions of Chapter 403, Florida Statutes (F.S.) and Chapters 62-4, 62-210, and 62-212 of the Florida Administrative Code (F.A.C.). The proposed project is not exempt from air permitting requirements and an air permit is required to perform the proposed work. The Bureau of Air Regulation is the Permitting Authority responsible for making a permit determination regarding this project. The Permitting Authority's physical address is: 111 South Magnolia Drive, Tallahassee, Florida 32301. The Permitting Authority's mailing address is: 2600 Blair Stone Road, Mail Station 5505, Tallahassee, Florida 32399-2400. The Permitting Authority's telephone number is 850/488-0114.

Project File: A complete project file is available for public inspection during the normal business hours of 8:00 a.m. to 5:00 p.m., Monday through Friday (except legal holidays), at address indicated above for the Permitting Authority. The complete project file includes the Draft Permit, the Technical Evaluation and Preliminary Determination, the application, and the information submitted by the applicant, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact the Permitting Authority's project review engineer for additional information at the address or phone number listed above. In addition, electronic copies of these documents are available on the following web site: http://www.dep.state.fl.us/air/eproducts/apds/default.asp.

Notice of Intent to Issue Air Permit: The Permitting Authority gives notice of its intent to issue an air permit to the applicant for the project described above. The applicant has provided reasonable assurance that operation of proposed equipment will not adversely impact air quality and that the project will comply with all appropriate provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297, F.A.C. The Permitting Authority will issue a Final Permit in accordance with the conditions of the proposed Draft Permit unless a timely petition for an administrative hearing is filed under Sections 120.569 and 120.57, F.S. or unless public comment received in accordance with this notice results in a different decision or a significant change of terms or conditions.

Comments: The Permitting Authority will accept written comments concerning the proposed Draft Permit for a period of fourteen (14) days from the date of publication of this Public Notice. Written comments must be provided to the Permitting Authority at the above address. Any written comments filed will be made available for public inspection. If written comments received result in a significant change to the Draft Permit, the Permitting Authority shall revise the Draft Permit and require, if applicable, another Public Notice.

Petitions: A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative hearing in accordance with Sections 120.569 and 120.57, F.S. The petition

must contain the information set forth below and must be filed with (received by) the Department's Agency Clerk in the Office of General Counsel of the Department of Environmental Protection, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000. Petitions filed by the applicant or any of the parties listed below must be filed within 14 days of receipt of this Written Notice of Intent to Issue Air Permit. Petitions filed by any persons other than those entitled to written notice under Section 120.60(3), F.S., must be filed within 14 days of publication of the attached Public Notice or within 14 days of receipt of this Written Notice of Intent to Issue Air Permit, whichever occurs first. Under Section 120.60(3), F.S., however, any person who asked the Permitting Authority for notice of agency action may file a petition within 14 days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above, at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention (in a proceeding initiated by another party) will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205, F.A.C.

A petition that disputes the material facts on which the Permitting Authority's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner; the name, address and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of when and how each petitioner received notice of the agency action or proposed decision; (d) A statement of all disputed issues of material fact. If there are none, the petition must so state; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action including an explanation of how the alleged facts relate to the specific rules or statutes; and, (g) A statement of the relief sought by the petitioner, stating precisely the action the petitioner wishes the agency to take with respect to the agency's proposed action. A petition that does not dispute the material facts upon which the Permitting Authority's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301, F.A.C.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Permitting Authority's final action may be different from the position taken by it in this Written Notice of Intent to Issue Air Permit. Persons whose substantial interests will be affected by any such final decision of the Permitting Authority on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

Mediation: Mediation is not available for this proceeding.

PROFESSIONAL ENGINEER CERTIFICATION STATEMENT

PERMITTEE

Gulf Power Company
One Energy Place
Pensacola, Florida 32520-0328

Draft Air Permit No. 0050014-013-AC
Smith Electric Generating Plant
Units 1 & 2 SNCR Project
Bay County, Florida

PROJECT DESCRIPTION

Project: On January 11, 2008, Gulf Power Company submitted an application requesting authorization to install selective non-catalytic reduction (SNCR) technology on the existing Units 1 and 2 at the Lansing Smith Electric Generating Plant, as part of the plant's strategy to comply with CAIR and CAMR regulations. The SNCR system will be a High Energy Reagent Technology (HERT) system which will inject a fine urea mist into a high energy air stream. The air stream will evaporate the mist and mix it with the combustion flue gas in the boiler for reduction of nitrogen oxides (NO_X).

I HEREBY CERTIFY *that the air pollution control engineering features described in the above referenced application and subject to the proposed permit conditions provide reasonable assurance of compliance with applicable provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Chapters 62-4 and 62-204 through 62-297. However, I have not evaluated and I do not certify aspects of the proposal outside of my area of expertise (including, but not limited to, the electrical, mechanical, structural, hydrological, geological, and meteorological features).*

Jonathan Holtom

2/27/08

Jonathan Holtom, P.E.
Registration Number: 52664

(Date)

TECHNICAL EVALUATION
&
PRELIMINARY DETERMINATION

PROJECT

Draft Air Construction Permit No. 0050014-013-AC
Smith Units 1 & 2 SNCR Project

COUNTY

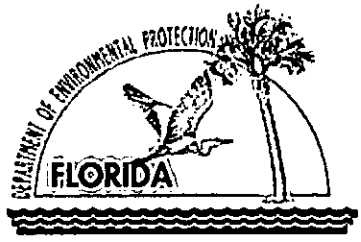
Bay County

APPLICANT

Gulf Power Company
Lansing Smith Electric Generating Plant
ARMS Facility ID No. 0050014

PERMITTING AUTHORITY

Florida Department of Environmental Protection
Division of Air Resources Management
Bureau of Air Regulation
New Source Review Section



February 27, 2008

{Filename: Smith 1&2 SNCR TEPD}

1. GENERAL PROJECT INFORMATION

Applicant Name and Address

Gulf Power Company – Smith Electric Generating Plant
One Energy Place
Pensacola, FL 32520-0329

Authorized Representative:
G. Dwain Waters, Q.E.P.

Processing Schedule

01/11/08 Received the application for a pollution control project.

Facility Description and Location

Gulf Power Company operates the existing Lansing Smith Electric Generating Plant, which is located at 4300 County Road 2300, Lynne Haven, Bay County, Florida. This site is in an area that is currently in attainment (or designated as unclassifiable) for all air pollutants subject to a National Ambient Air Quality Standard (NAAQS).

Standard Industrial Classification Code (SIC)

SIC No. 4911 – Electrical Services

Regulatory Categories

Title III: The existing facility is identified as a major source of hazardous air pollutants (HAP).

Title IV: The existing facility operates units subject to the acid rain provisions of the Clean Air Act.

Title V: The existing facility is a Title V major source of air pollution in accordance with Chapter 213, Florida Administrative Code (F.A.C.)

PSD: The existing facility is a Prevention of Significant Deterioration (PSD)-major source of air pollution in accordance with Rule 62-212.400, F.A.C.

Project Description

On January 11, 2008, Gulf Power Company submitted an application requesting authority to install selective non-catalytic reduction (SNCR) technology on the existing Units 1 and 2 at the Lansing Smith Electric Generating Plant, as part of the plant's strategy to comply with the requirements of the Clean Air Interstate Rule (CAIR) and the Clean Air Mercury Rule (CAMR). The SNCR system will be a High Energy Reagent Technology (HERT) system which will inject a fine urea mist into a high energy air stream. The air stream will evaporate the mist and mix it with the combustion flue gas in the boiler for reduction of nitrogen oxides (NO_X).

2. APPLICABLE REGULATIONS

State Regulations

This project is subject to the applicable environmental laws specified in Section 403 of the Florida Statutes (F.S.). The Florida Statutes authorize the Department of Environmental Protection to establish rules and regulations regarding air quality as part of the Florida Administrative Code. In general, this project is subject to the applicable rules and regulations defined in the following Chapters of the F.A.C.

Chapter	Description
62-4	Permitting Requirements
62-204	Ambient Air Quality Requirements and Federal Regulations Adopted by Reference

62-210 Required Permits, Public Notice, Reports, Circumvention, Excess Emissions, and Forms

62-212 Preconstruction Review

62-213 Operation Permits for Major Sources of Air Pollution

62-296 Emission Limiting Standards

62-297 Testing, Continuous Monitoring, and Alternate Sampling Procedures

The project is not subject to Florida's Power Plant Siting Act because there will be no change in steam-generated electrical capacity.

General PSD Applicability

The Department regulates major air pollution sources in accordance with the Prevention of Significant Deterioration (PSD) program. A PSD review is required only in areas currently in attainment with the National Ambient Air Quality Standard (NAAQS) or areas designated as "unclassifiable" for a given pollutant. A new facility is considered "major" with respect to PSD if it emits or has the potential to emit:

- 250 tons per year or more of any regulated air pollutant, or
- 100 tons per year or more of any regulated air pollutant and the facility belongs to one of the 28 PSD Major Facility Categories (Rule 62-210.200, F.A.C., definitions), or
- 5 tons per year of lead.

For new projects at PSD-major sources, each regulated pollutant is reviewed for PSD applicability based on emissions thresholds known as the Significant Emission Rates listed in Rule 62-210.200, F.A.C. (definitions). Pollutant emissions from the project exceeding these rates are considered "significant". The applicant must employ the Best Available Control Technology (BACT) to minimize emissions of each such pollutant and evaluate the air quality impacts. Although a facility may be "major" with respect to PSD for only one regulated pollutant, it may be required to install BACT controls for several "significant" regulated pollutants.

PSD Applicability for Project

The project is not expected to result in, nor does it authorize, an increase in the capacity utilization of Units 1 and 2; and, uncontrolled representative actual emissions are not expected to be any different than past actual emissions. The Department believes that the proposed NO_X reduction project will be environmentally beneficial and will not result in a significant net increase in projected actual annual emissions of any criteria pollutant. As such, this project is exempt from the requirements of PSD preconstruction review. Nevertheless, an air construction permit is required to conduct the proposed work.

3. APPLICATION REVIEW

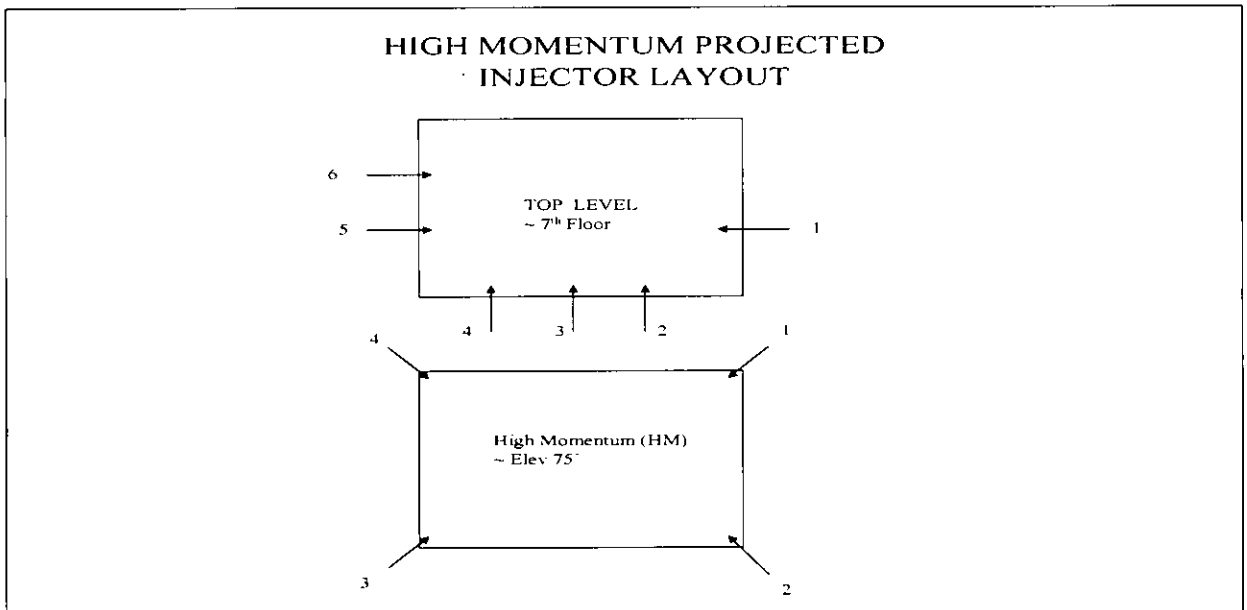
Smith Unit 1 (ARMS Emissions Unit -001) is a 175 megawatt (MW) tangentially-fired, dry bottom boiler. The maximum heat input rate is 1,944.8 MMBtu per hour while combusting the primary fuel of pulverized coal. Distillate oil is also combusted for periods of start-up and flame stabilization. Smith Unit 2 (ARMS Emissions Unit -002) is a 205 MW tangentially fired, dry bottom boiler. The maximum heat input rate is 2,246.2 MMBtu per hour while combusting the primary fuel of pulverized coal. Distillate oil is also combusted for periods of start-up and flame stabilization. Emissions of particulate matter from Units 1 and 2 are currently reduced by Buell hot-side and General Electric cold side electrostatic precipitators. Nitrogen oxides are controlled with low NO_X burners. Units 1 and 2 are equipped with duct-mounted continuous monitors for opacity, stack gas flow, carbon dioxide, nitrogen oxides, and sulfur dioxide. Units 1 and 2 share a common stack that is 18 feet in diameter and 199 feet high. Based on the current Title V air operation permit, Units 1 and 2 are subject to Rule 62-296.405,

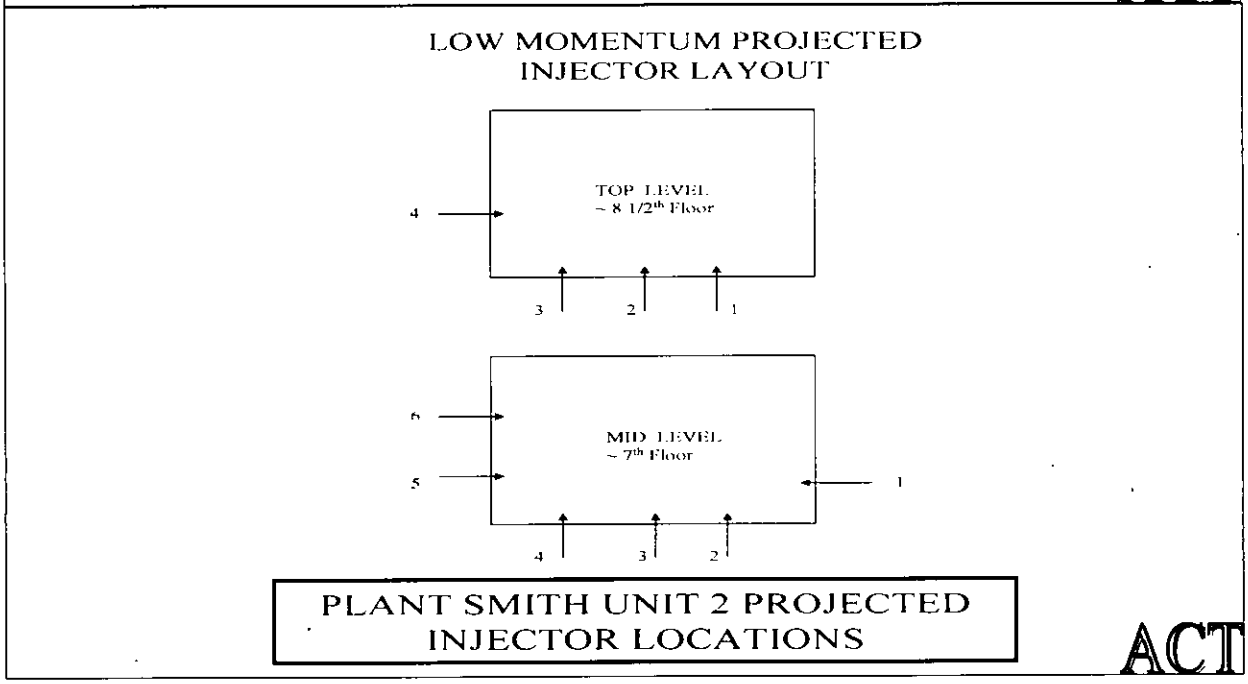
F.A.C. (Fossil Fuel Fired Steam Generators > 250 MMBtu/Hour Heat Input), have not undergone PSD Preconstruction Review, and are regulated under Phase II of the federal Acid Rain Program.

The applicant proposes to perform the following work on Units 1 and 2:

Boiler Parameters

Based on the results of testing authorized by permit number 0050014-012-AC, the projected number and location of injectors to be installed on Units 1 and 2 are shown in the figures below. The final locations will be confirmed upon results from additional model analyses prior to installation.





Selective Non-Catalytic Reduction (SNCR)

Units 1 and 2 currently use low NO_X burners to inhibit the formation of NO_X. Gulf Power Company proposes to add a new HERT SNCR system manufactured by Advanced Combustion Technology (ACT). SNCR is an add-on control technology in which urea is injected into the exhaust gas stream in an area of the duct where the stack gas temperature is in the range of 1,600 – 2,100 °F. The ammonia combines with NO_X in the gas stream to form nitrogen and water. Ammonia that escapes the stack without reacting with NO_X is called "ammonia slip". If a fuel contains significant amounts of sulfur, high levels of ammonia slip can lead to the formation of bisulfates and other particulate matter. To avoid these problems, SNCR systems can be designed with very low levels of ammonia slip (< 5 ppmv) while still achieving control efficiencies in the range of up to 75%. SNCR is a commercially available, demonstrated control technology currently employed on numerous utility boilers and combined cycle gas turbine projects worldwide. Over fired air injection ports will also be added to Unit 1. Unit 2 is already equipped with over fired air technology.

Design Specifications

The following specifications summarize the preliminary design of the proposed new SNCR system.

- *Basic Design Specifications*: The SNCR system is designed and guaranteed for a maximum NO_X conversion efficiency of 50% on Unit 1 and 30% on Unit 2 based on an inlet NO_X emissions rate of 0.47 lb/MMBtu for Unit 1 and 0.36 lb/MMBtu for Unit 2.

- *Urea Storage and Mixing*: Urea will be delivered by truck and stored on site as a 50% aqueous solution in one 45,000 gallon tank. It is expected that the tank will be maintained at about 2/3 capacity to avoid the possibility of an overfill. This will provide enough urea for about 5½ days of operation. The solution will be maintained at a temperature of approximately 90° F by circulating through the SNCR system piping loop heating module.

- *Ammonia Slip*: The SNCR is designed and guaranteed to have 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, a wet chemical method will be utilized. Although not required by this permit, more frequent tracking of ammonia slip will be monitored by measuring the amount of residual ammonia adsorbed by the fly ash. Fly ash samples will be measured periodically using an ion-specific electrode.

- *Urea Injection and Control System:* Using plant service water or other dilution water source, the metering module dilutes the reagent to a predetermined concentration (somewhat less than 30%) and precisely controls the flow of the diluted reagent to distribution modules located near the boiler injection points. 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. At peak load for Unit 1, with 0.47 lb/MMBtu inlet NO_X and 50% reduction, urea injection will be 145 gallons per hour. At peak load for Unit 2, with 0.36 lb/MMBtu inlet NO_X and 30% reduction, urea injection will be 135 gallons per hour. This translates to an ammonia flow of 391 lb/hr for Unit 1 and 364 lb/hr for Unit 2, on a dry basis.

SNCR Operation

The SNCR will operate as needed in order to comply with CAIR and CAMR regulations. During these periods, the SNCR will operate whenever the units are operating at or above the normal low load levels. If the units drop below this level, the SNCR system will automatically stop injection until the units return to their low load level. The SNCR system is not required in order to comply with the facility-wide NO_X emissions cap of 6,666 tons per year (tpy).

Conclusion

While the design specifications will result in NO_X conversion efficiencies lower than can typically be expected for similar SNCR projects, based on the application, the preliminary design appears capable of achieving the minimum guaranteed NO_X conversion efficiencies of 50% for Unit 1 and 30% for Unit 2. Gulf Power believes that this lower level of efficiency will be sufficient to comply with the requirements of CAIR and CAMR. The Department agrees that NO_X emissions will certainly be reduced by the operation of SNCR systems on these units and will provide another strategy for meeting the requirements of CAIR. However, our research has not been able to verify a conclusive relationship between the operation of an SNCR system and an increase in mercury removal efficiencies.

Initial performance testing will be required to demonstrate the operational capabilities of the installed HERT SNCR systems as compared to the design specification to achieve a 50% reduction in the nitrogen oxide emission rate for Unit 1 and 30% for Unit 2. Initial and annual performance testing will be required to demonstrate that the targeted design ammonia slip level of less than 5 ppm is met.

4. PRELIMINARY DETERMINATION

The NO_X reduction project is based on the design and operation of HERT SNCR air pollution control equipment. This type of air pollution control device is operating successfully on numerous coal-fired utility boilers throughout the world.

The Department makes a preliminary determination that the proposed project will result in a decrease in NO_X emissions. This determination is based on a technical review of the application, the preliminary design, reasonable assurances provided by the applicant, and the conditions specified in the draft permit. No air quality modeling analysis is required because the project does not result in a significant increase in emissions. Jonathan Holtom, P.E., is the project engineer responsible for reviewing the application and drafting the permit. Additional details of this analysis may be obtained by contacting the project engineer at the Department's Bureau of Air Regulation at Mail Station #5505, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400.

REFERENCES

1. Data Compiled from the Department's ARMS Database
2. EPA's White Paper, "Selective Non-Catalytic Reduction (SNCR) For Controlling NO_X Emissions", Prepared By: SNCR Committee, Institute Of Clean Air Companies, Inc., May 2000.

(DRAFT)

PERMITTEE

Gulf Power Company
One Energy Place
Pensacola, FL 32520-0328 .

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

Smith Electric Generating Plant
Units 1 & 2 SNCR Project
Facility ID No. 0050014
SIC No. 4911

Air Permit No. 0050014-013-AC
Permit Expires: December 31, 2009

PROJECT AND LOCATION

This permit authorizes installation of a selective non-catalytic reduction system for Units 1 and 2 at the existing Lansing Smith Electric Generating Station, which is located 4300 County Road, Lynne Haven, Bay County, Florida. The map coordinates are: Zone 16; 625.05 km East; and 3349.24 km North.

STATEMENT OF BASIS

This air pollution construction permit is issued under the provisions of Chapter 403, F.S., and Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297, F.A.C. The permittee is authorized to install the proposed equipment in accordance with the conditions of this permit and as described in the application, approved drawings, plans, and other documents on file with the Department. This air construction permit supplements all other valid air construction and operation permits.

CONTENTS

Joseph Kahn, Director
Division of Air Resource Management

(Date)

FACILITY AND PROJECT DESCRIPTION

The existing plant consists of two coal fired steam generators (boilers), two combustion turbines (used to drive two separate peaking generators) driven by a single jet engine, and two gas-fired combined-cycle combustion turbine electrical generators with duct-fired heat recovery steam generators (HRSG). The two boilers are Acid Rain Phase II Units. The two combined-cycle combustion turbines are also Acid Rain units. Pulverized coal is the primary fuel for the boilers. Distillate fuel oil is used to fire the combustion turbine and as a "back-up" fuel for the boilers. The following units are affected by this air construction permit.

ID	Emission Unit Description
-001	Boiler Number 1 - 1,944.8 MMBtu/hour (Phase II Acid Rain Unit)
-002	Boiler Number 2 - 2,246.2 MMBtu/hour (Phase II Acid Rain Unit)

This permit authorizes the installation of High Energy Reagent Technology (HERT) selective non-catalytic reduction (SNCR) systems on Units 1 and 2 to reduce emissions of nitrogen oxides (NO_X) as part of the plant's strategy for complying with the Clean Air Interstate Rule (CAIR). Over fired air injection ports will also be added to Unit 1. Unit 2 is already equipped with over fired air technology.

REGULATORY CLASSIFICATION

Title III: The existing facility is identified as a major source of hazardous air pollutants (HAP).

Title IV: The existing facility operates units subject to the acid rain provisions of the Clean Air Act.

Title V: The existing facility is a Title V major source of air pollution in accordance with Chapter 213, F.A.C.

PSD: The existing facility is a Prevention of Significant Deterioration (PSD)-major source of air pollution in accordance with Rule 62-212.400, F.A.C.

RELEVANT DOCUMENTS

The permit application and additional information received to make it complete are not a part of this permit; however, the information is specifically related to this permitting action and is on file with the Department.

1. Permitting Authority: All documents related to applications for permits to construct, modify, or operate emissions units at this facility shall be submitted to the Bureau of Air Regulation of the Florida Department of Environmental Protection (DEP) at 2600 Blair Stone Road (MS #5505), Tallahassee, Florida 32399-2400. Copies of all permit applications shall also be sent to the Compliance Authority.

2. Compliance Authority: All documents related to compliance activities such as reports, tests, and notifications shall be submitted to the Department's Northwest District Office at 160 Governmental Center, Pensacola, Florida 32501-5794.

3. Appendices: The following Appendices are attached as part of this permit: Appendix CF (Citation Format); Appendix GC (General Conditions); and, Appendix SC (Standard Conditions).

4. Applicable Regulations, Forms and Application Procedures: Unless otherwise indicated in this permit, the construction and operation of the subject emissions units shall be in accordance with the capacities and specifications stated in the application. The facility is subject to all applicable provisions of Chapter 403, F.S. and Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-296, and 62-297, F.A.C. The permittee shall use the applicable forms listed in Rule 62-210.900, F.A.C. and follow the application procedures in Chapter 62-4, F.A.C. Issuance of this permit does not relieve the permittee from compliance with any applicable federal, state, or local permitting or regulations. [Rules 62-4, 62-204.800, 62-210.300 and 62-210.900, F.A.C.]

5. New or Additional Conditions: For good cause shown and after notice and an administrative hearing, if requested, the Department may require the permittee to conform to new or additional conditions. The Department shall allow the permittee a reasonable time to conform to the new or additional conditions, and on application of the permittee, the Department may grant additional time. [Rule 62-4.080, F.A.C.]

6. Construction Approval: No emissions unit or facility subject to this permit shall be constructed or modified without obtaining an air construction permit from the Department. Rule 62-210.200(76), F.A.C. defines *construction* as, "The act of performing on-site fabrication, erection, installation or modification of an emissions unit or facility of a permanent nature, including installation of foundations or building supports; laying of underground pipe work or electrical conduit; and fabrication or installation of permanent storage structures, component parts of an emissions unit or facility, associated support equipment, or utility connections. Land clearing and other site preparation activities are not a part of the construction activities." Such permits shall be obtained prior to beginning construction or modification. [Rules 62-210.300(1) and 62-212.300(1)(a), F.A.C.]

7. Title V Permit: This permit authorizes construction of the permitted emissions units and initial operation to determine compliance with Department rules. A Title V operation permit is required for regular operation of the permitted emissions units. The permittee shall apply for a Title V operation permit (revision) at least 90 days prior to expiration of this permit, but no later than 180 days after commencing operation. To apply for a Title V operation permit, the applicant shall submit the appropriate application form, compliance test results, and such additional information as the Department may by law require. [Rules 62-4.030, 62-4.050, 62-4.220, and Chapter 62-213, F.A.C.]

This section of the permit addresses the following existing emissions units:

ID	Emission Unit Description
001	Boiler No. 1 (Phase II Acid Rain Unit)
002	Boiler No. 2 (Phase II Acid Rain Unit)

Emissions Unit Nos. 001 & 002

Description: Unit 1 is a tangentially fired, dry bottom boiler that began commercial operation on May 12, 1965. Unit 2 is a tangentially fired, dry bottom boiler that began commercial operation on April 9, 1967.

Fuels: Coal, new No. 2 fuel oil and/or on-specification used oil (for start-up and flame stabilization), and occasional on-site generated "oil contaminated soil".

Unit 1 Capacity: 1,944.8 MMBtu/hour when firing pulverized coal, 153 MMBtu/hr when firing oil.

Unit 2 Capacity: 2,246.2 MMBtu/hour when firing pulverized coal, 76 MMBtu/hr when firing oil.

PM Controls: Hot-side and cold-side electrostatic precipitators.

NO_X Controls: Low-NO_X burners and selective non-catalytic reduction (SNCR).

Continuous Monitors: Carbon dioxide (CO_2), NO_X, sulfur dioxide (SO_2), opacity, stack gas flow, and urea injection rate.

Stack Parameters: Units 1 & 2 share a common stack that is 199 feet tall with a diameter of 18 feet. The volumetric flow rate of Units 1 & 2 combined, at permitted capacity, is approximately 1,567,967 acfm.

{Permitting Notes: Based on the current Title V air operation permit, Units 1 & 2: are regulated under Rule 62-296.405, F.A.C. (Fossil Fuel Fired Steam Generators > 250 MMBtu/Hour Heat Input); have not undergone PSD Preconstruction Review; and are regulated under Phase II of the federal Acid Rain Program (40 CFR 75).}

PREVIOUS APPLICABLE REQUIREMENTS

1. Other Permits: The conditions of this permit supplement all previously issued air construction and operation permits for these emissions units. Unless otherwise specified, these conditions are in addition to all other applicable permit conditions and regulations. [Rule 62-4.070, F.A.C.]

EQUIPMENT AND CONSTRUCTION

2. Selective Non-Catalytic Reduction (SNCR) System: The permittee is authorized to construct, tune, operate, and maintain a new HERT SNCR system for Units 1 & 2 to reduce emissions of NO_X as described in the application, approved drawings, plans, and other documents on file with the Department. The minimum manufacturer's guaranteed NO_X conversion efficiency for Unit 1 is 50% and the minimum manufacturers guaranteed NO_X conversion efficiency for Unit 2 is 30%, as measured across the SNCR unit inlet and outlet. The designed target ammonia slip level is 5 ppmv based on a 24-hour average. [Design]

   {Permitting Note: Advanced Combustion Technology, Inc. designed the new HERT SNCR system, which will generally consist of the following:

   - ***UREA Injection System**: Urea will be delivered by truck and stored on site as a 50% aqueous solution in one 45,000 gallon tank. It is expected that the tank will be maintained at about 2/3 capacity to avoid the possibility of an overfill. This will provide enough urea for about 5½ days of operation. The solution will be maintained at a temperature of approximately 90° 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 (somewhat less than 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 in the upper levels of the boiler at locations to be determined by the manufacturer. At peak load, the urea injection rate will be about 145 gallons per hour (gph) for Unit 1 and about 135 gph for Unit 2. This translates to an ammonia flow for Unit 1 of 391 lb/hr and for Unit 2 of 364 lb/hr, on a dry basis.

- ***Ammonia Slip**: The SNCR is designed and guaranteed to have 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, a wet chemical method will be utilized. Although not required, more frequent tracking of ammonia slip will be monitored by measuring the amount of residual ammonia adsorbed by the fly ash. Fly ash samples will be measured periodically using an ion-specific electrode.}*

3. Updated Designs: The permittee shall update the Department with final design specifications and any substantial changes made to the final design specifications during the actual construction phase. [Rule 62-4.070(3), F.A.C.]

PERFORMANCE REQUIREMENTS

{Permitting Note: The use of the SNCR system is not required to comply with the facility-wide NO_X emissions cap of 6,666 tons per year. The SNCR will be operated at the owners discretion as part of the plant's strategy to comply with the requirements of the Clean Air Interstate Rule (CAIR).}

EMISSIONS PERFORMANCE TESTING

4. Nitrogen Oxides, Performance Tests: Within 60 days after completing construction of the SNCR system and bringing Units 1 and 2 back on line, the permittee shall conduct tests to demonstrate the operational capabilities of the installed HERT SNCR system as compared to the design specification to achieve a 50% reduction in the nitrogen oxide emission rate for Unit 1 and 30% for Unit 2. The permittee shall concurrently test the SNCR inlet and SNCR outlet in accordance with EPA Method 7E as adopted by reference in Rule 62-204.800, F.A.C. Data collected from the NO_X CEMS may be used to represent NO_X emissions at the SNCR outlet. The data shall be collected for at least three consecutive hours. The purpose of the tests is to determine the actual installed control capabilities of the SNCR systems. [Rules 62-4.070(3) and 62-297.310(7), F.A.C.]

5. Ammonia Slip, Performance Tests: Within 60 days after completing construction of the SNCR system and bringing Units 1 and 2 back on line, the permittee shall conduct tests to determine the ammonia slip rate in accordance with EPA Method CTM-027 or other methods approved by EPA. Subsequent tests shall be conducted during each federal fiscal year. If tests show ammonia slip emissions are greater than the design target level specified in Condition No. 2 of this subsection, the permittee shall take corrective actions such as repair, addition of urea injectors for better mixing, addition of mixing vanes in the duct, etc. [Rules 62-4.070(3) and 62-297.310(7), F.A.C.]

{Permitting Note: EPA Methods 1 (Traverse Points), 2 (Velocity and Flow Rate), 3 (Gas Analysis), 4 (Moisture Content), and 19 (Calculating Emission Rates, Use of F-Factors) may also be used to supplement the required test methods.}

CONTINUOUS MONITORING REQUIREMENTS

{Permitting Note: In accordance with the federal Acid Rain requirements, the following continuous monitors are installed on these units: SO_2, NO_X, CO_2 and stack gas flow.}

6. SNCR Urea Injection Rate Monitor: In accordance with the manufacturer's specifications, the permittee shall install, calibrate, operate and maintain a flow meter to measure and record the urea injection rate for the SNCR system. [Rules 62-4.070(3) and 62-212.400(5)(c), F.A.C.]

RECORDS AND REPORTS

7. 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. [Rule 62-297.310(8), F.A.C.]

C. Appendix SC – Standard Conditions

Appendix CF - Citation Format;

Appendix GC - General Conditions;

Appendix SC - Standard Conditions

SECTION 4. APPENDIX CF
CITATION FORMATS

The following examples illustrate the format used in the permit to identify applicable permitting actions and regulations.

Old Permit Numbers

Example: Permit No. AC50-123456 or Air Permit No. AO50-123456

Where: "AC" identifies the permit as an Air Construction Permit
"AO" identifies the permit as an Air Operation Permit
"123456" identifies the specific permit project number

New Permit Numbers

Example: Permit Nos. 099-2222-001-AC, 099-2222-001-AF, 099-2222-001-AO, or 099-2222-001-AV

Where: "099" represents the specific county ID number in which the project is located
"2222" represents the specific facility ID number
"001"identifies the specific permit project
"AC" identifies the permit as an air construction permit
"AF" identifies the permit as a minor federally enforceable state operation permit
"AO" identifies the permit as a minor source air operation permit
"AV" identifies the permit as a Title V Major Source Air Operation Permit

PSD Permit Numbers

Example: Permit No. PSD-FL-317

Where: "PSD" means issued pursuant to the Prevention of Significant Deterioration of Air Quality
"FL" means that the permit was issued by the State of Florida
"317" identifies the specific permit project

Florida Administrative Code (F.A.C.)

Example: [Rule 62-213.205, F.A.C.]

Means: Title 62, Chapter 213, Rule 205 of the Florida Administrative Code

Code of Federal Regulations (CFR)

Example: [40 CFR 60.7]

Means: Title 40, Part 60, Section 7

The permittee shall comply with the following general conditions from Rule 62-4.160, F.A.C.

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.

2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.

3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey and vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.

4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.

5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.

6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.

7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:

   a. Have access to and copy and records that must be kept under the conditions of the permit;
   b. Inspect the facility, equipment, practices, or operations regulated or required under this permit, and,
   c. Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

   Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:

   a. A description of and cause of non-compliance; and

   b. The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

   The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.73

and 403.111, Florida Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.

11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 62-4.120 and 62-730.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

12. This permit or a copy thereof shall be kept at the work site of the permitted activity.

13. This permit also constitutes:

    a. Determination of Best Available Control Technology (not applicable to project);
    b. Determination of Prevention of Significant Deterioration (not applicable to project); and
    c. Compliance with New Source Performance Standards (not applicable to project).

14. The permittee shall comply with the following:

    a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.

    b. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application or this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.

    c. Records of monitoring information shall include:

        1) The date, exact place, and time of sampling or measurements;
        2) The person responsible for performing the sampling or measurements;
        3) The dates analyses were performed;
        4) The person responsible for performing the analyses;
        5) The analytical techniques or methods used; and
        6) The results of such analyses.

15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

Unless otherwise specified by permit or rule, the following conditions apply to all emissions units and activities at this facility.

EMISSIONS AND CONTROLS

1. 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. [Rules 62-296.320(2) and 62-210.200(203), F.A.C.]

2. General Visible Emissions: Unless otherwise specified in the permit, 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 percent opacity. [Rule 62-296.320(4)(b)1, F.A.C.]

3. Unconfined Particulate Emissions: During the construction period, unconfined particulate matter emissions shall be minimized by dust suppressing techniques such as covering and/or application of water or chemicals to the affected areas, as necessary. [Rule 62-296.320(4)(c), F.A.C.]

TESTING REQUIREMENTS

4. Required Number of Test Runs: For mass emission limitations, a compliance test shall consist of three complete and separate determinations of the total air pollutant emission rate through the test section of the stack or duct and three complete and separate determinations of any applicable process variables corresponding to the three distinct time periods during which the stack emission rate was measured; provided, however, that three complete and separate determinations shall not be required if the process variables are not subject to variation during a compliance test, or if three determinations are not necessary in order to calculate the unit's emission rate. The three required test runs shall be completed within one consecutive five-day period. In the event that a sample is lost or one of the three runs must be discontinued because of circumstances beyond the control of the owner or operator, and a valid third run cannot be obtained within the five-day period allowed for the test, the Secretary or his or her designee may accept the results of two complete runs as proof of compliance, provided that the arithmetic mean of the two complete runs is at least 20% below the allowable emission limiting standard. [Rule 62-297.310(1), F.A.C.]

5. Operating Rate During Testing: Testing of emissions shall be conducted with the emissions unit operating at permitted capacity. Permitted capacity is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impractical to test at permitted capacity, an emissions unit may be tested at less than the maximum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test rate until a new test is conducted. Once the unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity. [Rule 62-297.310(2), F.A.C.]

6. Calculation of Emission Rate: For each emissions performance test, the indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the three separate test runs unless otherwise specified in a particular test method or applicable rule. [Rule 62-297.310(3), F.A.C.]

7. Test Procedures: Tests shall be conducted in accordance with all applicable requirements of Chapter 62-297, F.A.C.

   a. *Required Sampling Time.* Unless otherwise specified in the applicable rule, the required sampling time for each test run shall be no less than one hour and no greater than four hours, and the sampling time at each sampling point shall be of equal intervals of at least two minutes. The minimum observation period for a visible emissions compliance test shall be thirty (30) minutes. The observation period shall include the period during which the highest opacity can reasonably be expected to occur.

   b. *Minimum Sample Volume.* Unless otherwise specified in the applicable rule or test method, the minimum sample volume per run shall be 25 dry standard cubic feet.

   c. *Calibration of Sampling Equipment.* Calibration of the sampling train equipment shall be conducted in accordance with the schedule shown in Table 297.310-1, F.A.C.

   [Rule 62-297.310(4), F.A.C.]

8. Determination of Process Variables

   a. *Required Equipment.* The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.

   b. *Accuracy of Equipment.* Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value.

   [Rule 62-297.310(5), F.A.C.]

9. Sampling Facilities: The permittee shall install permanent stack sampling ports and provide sampling facilities that meet the requirements of Rule 62-297.310(6), F.A.C.

10. Test Notification: The owner or operator shall notify the Department, at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator. [Rule 62-297.310(7)(a)9, F.A.C.]

11. Special Compliance Tests: When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it shall require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department. [Rule 62-297.310(7)(b), F.A.C.]

12. Test Reports: The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Department on the results of each such test. The required test report shall be filed with the Department as soon as practical but no later than 45 days after the last sampling run of each test is completed. The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Department to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA or DEP Method 9 test, shall provide the following information:

    1. The type, location, and designation of the emissions unit tested.
    2. The facility at which the emissions unit is located.
    3. The owner or operator of the emissions unit.
    4. The normal type and amount of fuels used and materials processed, and the types and amounts of fuels used and material processed during each test run.
    5. The means, raw data and computations used to determine the amount of fuels used and materials processed, if necessary to determine compliance with an applicable emission limiting standard.
    6. The type of air pollution control devices installed on the emissions unit, their general condition, their normal operating parameters (pressure drops, total operating current and GPM scrubber water), and their operating parameters during each test run.
    7. A sketch of the duct within 8 stack diameters upstream and 2 stack diameters downstream of the sampling ports, including the distance to any upstream and downstream bends or other flow disturbances.
    8. The date, starting time and duration of each sampling run.
    9. The test procedures used, including any alternative procedures authorized pursuant to Rule 62-297.620, F.A.C. Where optional procedures are authorized in this chapter, indicate which option was used.
    10. The number of points sampled and configuration and location of the sampling plane.
    11. For each sampling point for each run, the dry gas meter reading, velocity head, pressure drop across the stack, temperatures, average meter temperatures and sample time per point.
    12. The type, manufacturer and configuration of the sampling equipment used.
    13. Data related to the required calibration of the test equipment.

14. Data on the identification, processing and weights of all filters used.
15. Data on the types and amounts of any chemical solutions used.
16. Data on the amount of pollutant collected from each sampling probe, the filters, and the impingers, are reported separately for the compliance test.
17. The names of individuals who furnished the process variable data, conducted the test, analyzed the samples and prepared the report.
18. All measured and calculated data required to be determined by each applicable test procedure for each run.
19. The detailed calculations for one run that relate the collected data to the calculated emission rate.
20. The applicable emission standard, and the resulting maximum allowable emission rate for the emissions unit, plus the test result in the same form and unit of measure.
21. A certification that, to the knowledge of the owner or his authorized agent, all data submitted are true and correct. When a compliance test is conducted for the Department or its agent, the person who conducts the test shall provide the certification with respect to the test procedures used. The owner or his authorized agent shall certify that all data required and provided to the person conducting the test are true and correct to his knowledge.

[Rule 62-297.310(8), F.A.C.]

RECORDS AND REPORTS

13. Records Retention: All measurements, records, and other data required by this permit shall be documented in a permanent, legible format and retained for at least five (5) years following the date on which such measurements, records, or data are recorded. Records shall be made available to the Department upon request. [Rules 62-4.160(14) and 62-213.440(1)(b)2, F.A.C.]

Harvey, Mary

From: Harvey, Mary

Sent: Thursday, February 28, 2008 12:15 PM

To: 'G. Dwain Waters, Q.E.P., Gulf Power Company'; 'Gregory N. Terry, P.E., Gulf Power Company'; Bradburn, Rick; 'Jim Little, EPA Region 4'; 'Katy Forney, EPA Region 4'

Cc: Holtom, Jonathan; Walker, Elizabeth (AIR); Gibson, Victoria

Subject: Draft Air Construction Permit No. 0050014-013 - Gulf Power Company, Smith Electric Generating PlantDear Sir/Madam:

Attachments: Document 0050014-013-AC-DRAFT.pdf; Smith 1 & 2 SNCR Appendix draft - 0050014-013-AC-DRAFT.PDF; Smith 1&2 SNCR Draft Permit - 0050014-013-AC-DRAFT.PDF; Smith 1&2 SNCR Intent - 0050014-013-AC-DRAFT.PDF; Smith 1&2 SNCR TEPD - 0050014-013-AC-DRAFT.PDF

Tracking:

Recipient	Delivery	Read
'G. Dwain Waters, Q.E.P., Gulf Power Company'		
'Gregory N. Terry, P.E., Gulf Power Company'		
Bradburn, Rick	Delivered: 2/28/2008 12:15 PM	Read: 2/28/2008 1:21 PM
'Jim Little, EPA Region 4'		
'Katy Forney, EPA Region 4'		
Holtom, Jonathan	Delivered: 2/28/2008 12:15 PM	Read: 2/28/2008 12:39 PM
Walker, Elizabeth (AIR)	Delivered: 2/28/2008 12:15 PM	
Gibson, Victoria	Delivered: 2/28/2008 12:15 PM	Read: 2/28/2008 12:20 PM

Dear Sir/Madam:

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Thank you,

DEP, Bureau of Air Regulation

Harvey, Mary

From: Forney.Kathleen@epamail.epa.gov
Sent: Thursday, February 28, 2008 4:32 PM
To: Harvey, Mary
Subject: Re: Draft Air Construction Permit No. 0050014-013 - Gulf Power Company, Smith Electric Generating PlantDear Sir/Madam:

thanks

Katy R. Forney
Air Permits Section
EPA - Region 4
61 Forsyth St., SW
Atlanta, GA 30303

Phone: 404-562-9130
Fax: 404-562-9019

"Harvey, Mary" <Mary.Harvey@dep.state.fl.us>

02/28/2008 12:14 PM

To: "G. Dwain Waters, Q.E.P., Gulf Power Company" <gdwaters@southernco.com>, "Gregory N. Terry, P.E., Gulf Power Company" <gnterry@southernco.com>, "Bradburn, Rick" <Rick.Bradburn@dep.state.fl.us>, James Little/R4/USEPA/US@EPA, Kathleen Forney/R4/USEPA/US@EPA

cc: "Holtom, Jonathan" <Jonathan.Holtom@dep.state.fl.us>, "Walker, Elizabeth \(AIR\)" <Elizabeth.Walker@dep.state.fl.us>, "Gibson, Victoria" <Victoria.Gibson@dep.state.fl.us>

Subject: Draft Air Construction Permit No. 0050014-013 - Gulf Power Company, Smith Electric Generating PlantDear Sir/Madam:

Dear Sir/Madam:

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Harvey, Mary

From: Terry, Greg N. [GNTERRY@southernco.com]
To: Harvey, Mary
Sent: Thursday, February 28, 2008 6:06 PM
Subject: Read: Draft Air Construction Permit No. 0050014-013 - Gulf Power Company, Smith Electric Generating PlantDear Sir/Madam:

Your message

To: GNTERRY@southernco.com
Subject:

was read on 2/28/2008 6:06 PM.

Harvey, Mary

From: Waters, G. Dwain [GDWATERS@southernco:com]
Sent: Thursday, February 28, 2008 2:40 PM
To: Harvey, Mary
Subject: RE: Draft Air Construction Permit No. 0050014-013 - Gulf Power Company, Smith Electric Generating PlantDear Sir/Madam:

Gulf Power has received the Draft Air Construction Permit No. 0050014-013 - Smith SNCR. Thanks, Dwain

G. Dwain Waters,Q.E.P.
Special Projects and Environmental Assets Coordinator
Gulf Power Company
One Energy Place
Pensacola, Florida 32520-0328
Phone: (850) 444-6527
Cell: (850) 336-6527
Fax: (850) 444-6217
gdwaters@southernco.com

From: Harvey, Mary [mailto:Mary.Harvey@dep.state.fl.us]
Sent: Thursday, February 28, 2008 11:15 AM
To: Waters, G. Dwain; Terry, Greg N.; Bradburn, Rick; Jim Little, EPA Region 4; Katy Forney, EPA Region 4
Cc: Holtom, Jonathan; Walker, Elizabeth (AIR); Gibson, Victoria
Subject: Draft Air Construction Permit No. 0050014-013 - Gulf Power Company, Smith Electric Generating PlantDear Sir/Madam:

Dear Sir/Madam:

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Harvey, Mary

From: Waters, G. Dwain [GDWATERS@southernco.com]
To: undisclosed-recipients
Sent: Thursday, February 28, 2008 2:19 PM
Subject: Read: Draft Air Construction Permit No. 0050014-013 - Gulf Power Company, Smith Electric Generating PlantDear Sir/Madam:

Your message

To: GDWATERS@southernco.com
Subject:

was read on 2/28/2008 2:19 PM.

Harvey, Mary

From: Bradburn, Rick
To: Harvey, Mary
Sent: Thursday, February 28, 2008 1:21 PM
Subject: Read: Draft Air Construction Permit No. 0050014-013 - Gulf Power Company, Smith Electric Generating PlantDear Sir/Madam:

Your message

To:	'G. Dwain Waters, Q.E.P., Gulf Power Company'; 'Gregory N. Terry, P.E., Gulf Power Company'; Bradburn, Rick; 'Jim Little, EPA Region 4'; 'Katy Forney, EPA Region 4'
Cc:	Holtom, Jonathan; Walker, Elizabeth (AIR); Gibson, Victoria
Subject:	Draft Air Construction Permit No. 0050014-013 - Gulf Power Company, Smith Electric Generating PlantDear Sir/Madam:
Sent:	2/28/2008 12:15 PM

was read on 2/28/2008 1:21 PM.