



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

September 5, 2008

Sent by Electronic Mail – Received Receipt Requested

Mr. Michael Opalinski, V.P. of Technical Services
Seminole Electric Cooperative, Inc.
P.O. Box 272000
Tampa, Florida 33688-2000

Re: Exemption from the Requirement to Obtain an Air Construction Permit
Seminole Electric Cooperative, Inc., Midulla Generating Station
Project No. 0490340-013-AC
Exemption for Temporary Testing, Peaking Units

Dear Mr. Opalinski:

On August 29th, the Department received a request for an exemption for the requirement to obtain an air construction permit to conduct emissions tests on the simple cycle Twin Pac combustion turbines at the higher proposed heat input rates for gas (6% increase) and oil (5% increase). These units are located at the Midulla Generating Station, an existing electrical generating plant (SIC No. 4911) located in Hardee County at 6695 County Road 663 in Bowling Green, Florida. The units will continue to comply with all current permit conditions. Any emissions increases resulting from the tests will be much less than the PSD significant emissions rates.

Determination: A complete review of this project is summarized in the attached Technical Evaluation and Preliminary Determination. Pursuant to Rule 62.4.040(1)(b), F.A.C. and subject to the conditions of this exemption, the Bureau of Air Regulation determines that the activity will not emit air pollutants, "... in sufficient quantity, with respect to its character, quality or content, and the circumstances surrounding its location, use and operation, as to contribute significantly to the pollution problems within the State, so that the regulation thereof is not reasonably justified." Therefore, the project is exempt from the requirement to obtain an air construction permit. This determination may be revoked if the proposed activity is substantially modified or the basis for the exemption is determined to be materially incorrect. A copy of this letter shall be maintained at the site of the proposed activity. This permitting decision is made pursuant to Chapter 403, Florida Statutes.

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 Permitting Authority responsible for making a permit determination for this project is the Bureau of Air Regulation in the Department of Environmental Protection's Division of Air Resource Management. The Permitting Authority's physical address is: 111 South Magnolia Drive, Suite #4, Tallahassee, Florida 32301. The Permitting Authority's mailing address is: 2600 Blair Stone Road, MS #5505, Tallahassee, Florida 32399-2400. The Permitting Authority's telephone number is 850/488-0114.

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 agency clerk in the Office of General

NOTICE OF EXEMPTION FROM AIR CONSTRUCTION PERMITTING

Counsel of the Department of Environmental Protection, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000 (Telephone: 850/245-2241). Petitions must be filed within 21 days of receipt of this written notice of exemption from air permitting requirements. 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. 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.

Effective Date: This permitting decision is final and effective on the date filed with the clerk of the Permitting Authority unless a petition is filed in accordance with the above paragraphs or unless a request for extension of time in which to file a petition is filed within the time specified for filing a petition pursuant to Rule 62-1.10.106, F.A.C., and the petition conforms to the content requirements of Rules 28-106.201 and 28-106.301, F.A.C. Upon timely filing of a petition or a request for extension of time, this action will not be effective until further order of the Permitting Authority.

Judicial Review: Any party to this permitting decision (order) has the right to seek judicial review of it under Section 120.68, F.S., by filing a notice of appeal under Rule 9.110 of the Florida Rules of Appellate Procedure with the clerk of the Department of Environmental Protection in the Office of General Counsel, Mail Station #35, 3900 Commonwealth Boulevard, Tallahassee, Florida, 32399-3000, and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The notice must be filed within 30 days after this order is filed with the clerk of the Department.

Executed in Tallahassee, Florida.



Trina Vielhauer, Chief
Bureau of Air Regulation

NOTICE OF EXEMPTION FROM AIR CONSTRUCTION PERMITTING

TLV/jfk

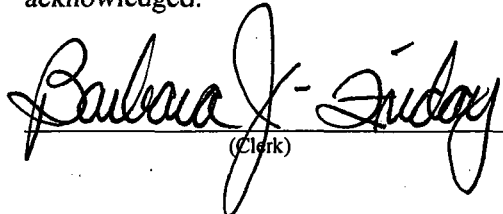
CERTIFICATE OF SERVICE

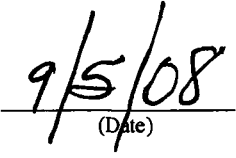
The undersigned duly designated deputy agency clerk hereby certifies that this Notice of Exemption from Air Construction Permitting (including the Technical Evaluation and Preliminary Determination) was sent by electronic mail (or a link to these documents made available electronically on a publicly accessible server) with received receipt requested to the persons listed below.

- Mr. Michael Opalinski, Seminole Electric Cooperative, Inc. (mopalinski@seminole-electric.com)
- Mr. Juan Ramirez, Seminole Electric Cooperative, Inc. (jramirez@seminole-electric.com)
- Mr. Walt Hentze, Seminole Electric Cooperative, Inc. (whentze@seminole-electric.com)
- Mr. Tom Davis, ECT, Inc. (tdavis@ectinc.com)
- Ms. Cindy Zhang-Torres, Southwest District Office (Cindy.Zhang-Torres@dep.state.fl.us)
- Ms. Kathleen 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)


(Date)

CONDITIONS OF EXEMPTION

Subject to the following provisions, the Seminole Electric Cooperative, Inc. (Seminole Electric) is conditionally authorized to operate the Twin Pac simple cycle combustion turbines (EU-005 through EU-009) at the specified higher heat input rates for purposes of conducting emissions testing.

1. For purposes of conducting emissions tests, Seminole Electric may operate each Twin Pac simple cycle combustion turbine at the following maximum heat input rates:
 - a. For gas firing, the maximum permitted heat input rate shall not exceed 676.2 MMBtu/hour at 100% base load given the higher heating value for natural gas and a compressor inlet air temperature of 50° F; and
 - b. For oil firing, the maximum permitted heat input rate shall not exceed 606.6 MMBtu/hour at 100% base load given the higher heating value for distillate oil and a compressor inlet air temperature of 78° F.
2. Other than for purposes of emissions testing, Seminole Electric shall not operate any Twin Pac simple cycle combustion turbine at the higher heat input rates until permanent authorization from the Department is received.
3. Seminole Electric shall comply with all other conditions in Title V Permit No. 0490340-006-AV.
4. This temporary authorization shall expire on December 15, 2008.



**TECHNICAL EVALUATION
&
PRELIMINARY DETERMINATION**

PROJECT

Project No. 0490340-013-AC
Exemption from Air Permitting to Conduct Emissions Tests

COUNTY

Hardee

APPLICANT

Seminole Electric Cooperative, Inc.
Midulla Generating Station
ARMS Facility ID No. 0490340

**PERMITTING
AUTHORITY**

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

September 4, 2008

{Filename: 0490340-013-AC - TEPD.doc}

1. GENERAL PROJECT INFORMATION

Air Pollution Regulations

Projects with the potential to emit air pollution are subject to the applicable environmental laws specified in Section 403 of the Florida Statutes (F.S.). The statutes authorize the Department of Environmental Protection (Department) to establish regulations regarding air quality as part of the Florida Administrative Code (F.A.C.), which includes the following chapters: 62-4 (Permits); 62-204 (Air Pollution Control – General Provisions); 62-210 (Stationary Sources – General Requirements); 62-212 (Stationary Sources – Preconstruction Review); 62-213 (Operation Permits for Major Sources of Air Pollution); 62-296 (Stationary Sources - Emission Standards); and 62-297 (Stationary Sources – Emissions Monitoring). Specifically, air construction permits are required pursuant to Rules 62-4, 62-210 and 62-212, F.A.C.

In addition, the U. S. Environmental Protection Agency (EPA) establishes air quality regulations in Title 40 of the Code of Federal Regulations (CFR). Part 60 specifies New Source Performance Standards (NSPS) for numerous industrial activities. Part 61 specifies National Emission Standards for Hazardous Air Pollutants (NESHAP) based on specific pollutants. Part 63 specifies NESHAP based on the Maximum Achievable Control Technology (MACT) for numerous industrial categories. The Department adopts these federal regulations on a quarterly basis in Rule 62-204.800, F.A.C.

Facility Description and Location

Seminole Electric Cooperative, Inc. operates the Midulla Generating Station, which is an existing electrical generating plant (SIC No. 4911) located in Hardee County at 6695 County Road 663 in Bowling Green, Florida. The UTM coordinates are Zone 17, 405 km East and 3057.7 km North. This station was formerly known as the Payne Creek Generating Station. The existing facility consists of two combined cycle combustion turbines (488 MW, total), ten simple cycle combustion turbines (300 MW, total) and miscellaneous ancillary support equipment. The combined cycle units are base loaded units and the simple cycle combustion turbines are used during peak periods of electrical power demand.

Combined Cycle Units

The combined cycle system consists of two combustion turbines, two heat recovery steam generators (HRSG), two exhaust stacks and common steam turbine-electrical generator. Without a bypass stack, each combustion turbine operates in combined cycle mode to generate 157.5 megawatts (MW) of direct power. Each HRSG recovers energy from the combustion turbine exhaust to provide steam to the shared steam turbine-electrical generator and produce an additional 173 MW of steam-generated power. The combined cycle combustion turbines are base loaded units. Emissions of particulate matter (PM), sulfur dioxide (SO₂) and sulfuric acid mist (SAM) are minimized by the firing of natural gas as the primary fuel and low sulfur distillate oil as a backup fuel. To control carbon monoxide (CO) and volatile organic compound (VOC) emissions, each unit is equipped with a catalytic oxidation system. To control nitrogen oxides (NO_x) emissions, each unit is equipped with dry low-NO_x combustion technology and selective catalytic reduction (SCR) for firing natural gas, and wet injection for firing distillate oil. The water-to-fuel ratio is continuously monitored and recorded for each unit. Pursuant to the federal Acid Rain program, each unit monitors NO_x emissions with a continuous emissions monitoring system (CEMS).

Simple Cycle Units

Each simple cycle system is known as a Twin Pac and consists of two combustion turbines, two exhaust stacks and common electrical generator. Each of the five Twin Pac systems is rated at 60 MW of direct power. The simple cycle units are used during periods of peak electrical demand. All units fire natural gas as the primary fuel and may fire low sulfur distillate oil as a backup fuel. To control CO and VOC emissions, all combustion turbines are equipped with catalytic oxidation systems. To control NO_x emissions for both natural gas and distillate oil firing, all units are equipped with water injection. The water-to-fuel ratio is continuously monitored and recorded for each unit. A NO_x CEMS is installed on one of the ten combustion turbines.

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

Regulatory Categories

- The facility is a synthetic minor source of hazardous air pollutants.
- The facility operates units subject to the acid rain provisions of the Clean Air Act.
- The facility is a Title V major source of air pollution in accordance with Chapter 213, Florida Administrative Code (F.A.C.).
- The facility is a major stationary source in accordance with Rule 62-212.400, F.A.C. for the Prevention of Significant Deterioration (PSD) of Air Quality.

Project Description

On August 13th, the Department received a request to modify original air construction Permit No. PSD-FL-344 for the five simple cycle Twin Pac combustion turbine sets and a concurrent revision of the existing Title V air operation Permit No. 0490340-006-AV. This request is part of Project No. 0490340-012-AC, which is currently pending. Based on initial performance, Pratt & Whitney indicates that the installed units are capable of higher maximum heat input rates on gas and oil. For Project No. 0490340-012-AC, the applicant specifically requests:

- Gas Firing: Increase the maximum permitted heat input rate from 635.6 MMBtu/hour to 676.2 MMBtu/hour (6% increase) at 100% base load, a higher heating value (HHV) for natural gas and a compressor inlet air temperature of 50° F; and
- Oil Firing: Increase the maximum permitted heat input rate from 576.8 MMBtu/hour to 606.6 MMBtu/hour (5% increase) at 100% base load, a HHV for distillate oil and a compressor inlet air temperature of 78° F.

On August 26, 2008, the Department met with the applicant and discussed the pending projects. The applicant indicated that compliance tests must be completed before the end of the federal fiscal year (September 30th). If the Twin Pac units could be tested at the higher heat input rates for the upcoming tests, the information could be used in processing the request to increase the maximum permitted heat input rates. It would also save the applicant several thousands of dollars if these tests did not have to be repeated after issuance of the final permit.

On August 29th, the Department received a request (by e-mail) for an exemption for the requirement to obtain an air construction permit to conduct annual emissions tests on the simple cycle Twin Pac combustion turbines at the higher proposed heat input rates for gas and oil. This request is Project No. 0490340-013-AC. The applicant indicates that the units will comply with the current permit limits. Emissions of each pollutant may increase by 6% for gas and 5% for oil. The following table summarizes the maximum actual emissions based on the initial performance tests and estimates the expected emissions increase from the additional heat input fired.

Table 1A. Emissions Estimates from Project

Pollutant	Gas Firing			Oil Firing			Project
	Actual	Actual + 6%	Permit	Actual	Actual + 5%	Permit	Increase
	lb/hour	lb/hour	lb/hour	lb/hour	lb/hour	lb/hour	tons/year*
CO	6.5	6.9	13.2	1.1	1.2	2.7	0.01
NOx	48	50.9	51	85.7	90	102.4	0.15
VOC	14.2	15.1	16.1	1.1	1.2	9.2	0.02

* Estimated emissions increases are based on ten units operating for four hours while being tested on gas and four hours while being tested on oil.

As shown, based on previous test data, the units are expected to comply with the current emissions standards at the higher heat input levels.

2. PSD APPLICABILITY

General PSD Applicability

The Department regulates major stationary sources of air pollution in accordance with Florida's PSD preconstruction review program as defined in Rule 62-212.400, F.A.C. A PSD applicability review is required in areas currently in attainment with the state and federal AAQS or areas otherwise designated as "unclassifiable". A facility is considered a major stationary source with respect to PSD if it emits or has the potential to emit: 250 tons per year or more of any regulated air pollutant; 100 tons per year or more of any regulated air pollutant and the facility belongs to one of the 28 PSD major facility categories defined in Rule 62-210.200, F.A.C. for major stationary sources; or 5 tons per year of lead. Projects at existing or new major stationary sources are subject to PSD preconstruction review. In addition, proposed projects at existing minor sources are subject to PSD preconstruction review if potential emissions *from the proposed project* will exceed the PSD major stationary source thresholds.

Once a project becomes subject to PSD preconstruction review, each PSD pollutant is reviewed for PSD applicability based on emissions thresholds known as the "significant emission rates" defined in Rule 62-210.200, F.A.C. Pollutant emissions from the project exceeding these rates are considered "significant" and 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 or project 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

As shown in Table 1A, the total additional emissions increases will be much less than the PSD significant emissions rates of 100 tons/year for CO and 40 tons/year for NO_x and VOC. Mass emissions rates of PM/PM₁₀ and SO₂ are not regulated by permit, but emissions increases are expected to be less than 0.04 tons/year and well below the PSD significant emissions rates of 15/25 tons/year for PM/PM₁₀ and 40 tons/year for SO₂. Therefore, the project is not subject to PSD preconstruction review.

3. DETERMINATION

Pursuant to Rule 62.4.040(1)(b), F.A.C., the Bureau of Air Regulation determines that the activity will not emit air pollutants, "... in sufficient quantity, with respect to its character, quality or content, and the circumstances surrounding its location, use and operation, as to contribute significantly to the pollution problems within the State, so that the regulation thereof is not reasonably justified." Therefore, the project is exempt from the requirement to obtain an air construction permit. This determination may be revoked if the proposed activity is substantially modified or the basis for the exemption is determined to be materially incorrect. A copy of this letter shall be maintained at the site of the proposed activity.

The exemption letter will temporarily authorize operation of the simple cycle Twin Pac units at the proposed higher heat input rates on gas and oil for purposes of conducting tests. Emissions from each unit will continue to comply with all current permits standards. Results of the tests will be used as additional information in Project No. 0490340-012-AC, which is the request to permanently increase the heat input rates.

Jeff Koerner 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.