



# 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

August 29, 2008

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

Re: Draft Permit No. PSD-FL-344A  
Project No. 0490340-012-AC  
Seminole Electric Cooperative, Inc., Midulla Generating Station  
CO Inlet Testing Revision

Dear Mr. Opalinski:

On June 9, 2008, you submitted an application requesting a revision of Permit No. PSD-FL-344 to remove the requirement to conduct carbon monoxide emissions tests prior to the oxidation catalyst on the new combustion turbine peaking units at the Midulla Generating Station. This facility is an existing electrical power plant located in Hardee County at 6695 County Road 663 in Bowling Green, Florida. This plant was formerly known as the Payne Creek Generating Station. Enclosed are the following documents:

- Technical Evaluation and Preliminary Determination;
- Draft Permit Revision;
- Written Notice of Intent to Issue Air Permit; and
- Public Notice of Intent to Issue Air Permit.

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, Jeff Koerner, at 850/921-9536.

Sincerely,

Trina Vielhauer, Chief  
Bureau of Air Regulation

TLV/jfk

Enclosures

## WRITTEN NOTICE OF INTENT TO ISSUE AIR PERMIT

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*In the Matter of an  
Application for Air Permit by:*

Seminole Electric Cooperative, Inc.  
P.O. Box 272000  
Tampa, Florida 33688-2000

Permit No. PSD-FL-344A  
Project No. 0490340-012-AC  
Midulla Generating Station  
Facility ID No. 0490340  
CO Inlet Testing Revision  
Hardee County, Florida

*Authorized Representative:*

Michael Opalinski, V.P. of Technical Services

**Facility Location:** The Seminole Electric Cooperative, Inc. operates the existing Midulla Generating Station, which is an existing electrical power plant located in Hardee County at 6695 County Road 663 in Bowling Green, Florida. This plant 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.

**Project:** Currently, Permit No. PSD-FL-344 requires testing for carbon monoxide (CO) emissions prior to and after the oxidation catalyst (an air pollution control device) on the new simple cycle combustion turbine peaking units. Initial tests demonstrating compliance were conducted in accordance with this requirement. However, testing prior to the oxidation catalyst is difficult because of limited space. The draft permit replaces the requirement to conduct subsequent periodic CO tests prior to the oxidation catalyst with requirements to test, monitor and report the catalyst reactivity. Tests are still required after the oxidation catalyst to determine compliance with the CO emissions standards. This project results in a minor permit revision. 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 Bureau of Air Regulation is the Permitting Authority responsible for making a permit determination for this project. The Permitting Authority's physical address is: 111 South Magnolia Drive, Suite #4, Tallahassee, Florida. 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.

**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.

**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 the 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

## WRITTEN NOTICE OF INTENT TO ISSUE AIR PERMIT

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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) and (9), F.A.C., the applicant shall provide proof of publication to the Permitting Authority at the above address within 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 14 days from the date of publication of the Public Notice. Written comments must be received by the Permitting Authority by close of business (5:00 p.m.) on or before the end of this 14-day period. 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. All comments filed will be made available for public inspection.

**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

**WRITTEN NOTICE OF INTENT TO ISSUE AIR PERMIT**

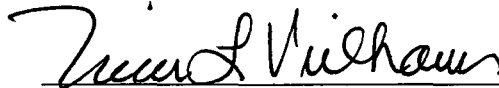
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respect to the agency's proposed action. A petition that does not dispute the material facts upon which the Permitting Authority's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set 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 Vielhauer, Chief  
Bureau of Air Regulation

**CERTIFICATE OF SERVICE**

The undersigned duly designated deputy agency clerk hereby certifies that this Written Notice of Intent to Issue Air Permit package (including the Public Notice, the Technical Evaluation and Preliminary Determination, and the Draft Permit Revision) was sent by electronic mail with received receipt requested before the close of business on 8/29/08 to the persons listed below.

- Mr. Michael Opalinski, Seminole ([mopalinski@seminole-electric.com](mailto:mopalinski@seminole-electric.com))
- Mr. Mike Roddy, Seminole ([wmroddy@seminole-electric.com](mailto:wmroddy@seminole-electric.com))
- Mr. Juan Ramirez, Seminole ([jramirez@seminole-electric.com](mailto:jramirez@seminole-electric.com))
- Mr. Thomas Davis, ECT ([tdavis@ectinc.com](mailto:tdavis@ectinc.com))
- Ms. Cindy Zhang-Torres, Southwest District Office ([Cindy.Zhang-Torres@dep.state.fl.us](mailto:Cindy.Zhang-Torres@dep.state.fl.us))
- Ms. Kathleen Forney ([forney.kathleen@epa.gov](mailto: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) 8/29/08 (Date)

## PUBLIC NOTICE OF INTENT TO ISSUE AIR PERMIT

Florida Department of Environmental Protection  
Division of Air Resource Management, Bureau of Air Regulation  
Draft Air Permit No. PSD-FL-344A, Project No. 0490340-012-AC  
Seminole Electric Cooperative, Inc., Midulla Generating Station  
Hardee County, Florida

**Applicant:** The applicant for this project is the Seminole Electric Cooperative, Inc. The applicant's authorized representative and mailing address is: Mr. Michael Opalinski, V.P. of Technical Services, Seminole Electric Cooperative, Inc., P.O. Box 272000.

**Facility Location:** The Seminole Electric Cooperative, Inc. operates the existing Midulla Generating Station, which is an existing electrical power plant located in Hardee County at 6695 County Road 663 in Bowling Green, Florida. This plant 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.

**Project:** Currently, Permit No. PSD-FL-344 requires testing for carbon monoxide (CO) emissions prior to and after the oxidation catalyst (an air pollution control device) on the new simple cycle combustion turbine peaking units. Initial tests demonstrating compliance were conducted in accordance with this requirement. However, testing prior to the oxidation catalyst is difficult because of limited space. The draft permit replaces the requirement to conduct subsequent periodic CO tests prior to the oxidation catalyst with requirements to test, monitor and report the catalyst reactivity. Tests are still required after the oxidation catalyst to determine compliance with the CO emissions standards. This project results in a minor permit revision. 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 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. 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.

**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 the physical address indicated above for the Permitting Authority. The complete project file includes the Draft Permit, the Technical Evaluation and Preliminary Determination, the application and information submitted by the applicant (exclusive of confidential records under Section 403.111, F.S.). Interested persons may contact the Permitting Authority's project engineer for additional information at the address and 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 construction 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 14 days from the date of publication of the Public Notice. Written comments must be received by the

(Public Notice to be Published in the Newspaper)

Permitting Authority by close of business (5:00 p.m.) on or before the end of this 14-day period. 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. All comments filed will be made available for public inspection.

**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 at 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000 (Telephone: 850/245-2241). 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 this Public Notice or receipt of a written notice, 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 rights will be affected by the agency determination; (c) A statement of when and how the 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 Public 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.

**TECHNICAL EVALUATION  
&  
PRELIMINARY DETERMINATION**

**PROJECT**

Project No. 0490340-012-AC  
Draft Air Construction Permit Revision PSD-FL-344A  
Revision for CO Inlet Testing

**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



August 28, 2008

## **1. GENERAL PROJECT INFORMATION**

### **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 (SO<sub>2</sub>) 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<sub>x</sub>) emissions, each unit is equipped with dry low-NO<sub>x</sub> 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<sub>x</sub> 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<sub>x</sub> 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<sub>x</sub> CEMS is installed on one of the ten combustion turbines.

### **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 June 9, 2008, the Department received an application to revise original air construction Permit No. PSD-FL-214 for the two combined cycle units and concurrently revise the existing Title V air operation Permit No. 0490340-006-AV. The applicant requests: removal of the requirement to conduct the annual compliance stack tests for VOC and SAM emissions; and replacement of the current SAM emission limits with a maximum fuel sulfur limit.



## TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

On June 30, 2008, the Department received a request to modify the application for this project to include a revision of original air construction Permit No. PSD-FL-344 for the five simple cycle combustion turbine sets and a concurrent revision of the existing Title V air operation Permit No. 0490340-006-AV. The new request is to: remove the requirement to conduct the annual compliance stack tests for CO upstream of the oxidation catalyst system; and to remove the requirement to conduct compliance stack tests for VOC prior to the air operation permit renewal.

On August 13, 2008, the Department received a second request to modify the application for this project to include a revision of original air construction Permit No. PSD-FL-344 for the five simple cycle combustion turbine sets and a concurrent revision of the existing Title V air operation Permit No. 0490340-006-AV. The new request is to increase the maximum permitted heat input rates for the peaking units based on vendor performance curves specifically for the installed units.

On August 26, 2008, the Department met with the applicant and discussed these related projects. The applicant indicated that CO inlet tests were required before the end of the federal fiscal year (September 30<sup>th</sup>). Such testing presents a hardship because equipment on and around the units must be removed to accommodate the test team and apparatus. Since this part of the application request is complete, the Department agreed to consider a separate draft permit revision for just this request. This minor revision will require a public notice with a 14-day comment period. After a final permit is issued, the permit revision will be incorporated into the pending revision of existing Title V air operation Permit No. 0490340-006-AV.

## **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 (F.A.C.). This project is subject to the applicable rules and regulations defined in the following Chapters of the Florida Administrative Code.

#### Chapter    Description

62-4	Permitting Requirements
62-204	Ambient Air Quality Requirements, PSD Increments, and Federal Regulations Adopted by Reference
62-210	Permits Required, Public Notice, Reports, Stack Height Policy, Circumvention, Excess Emissions, and Forms
62-212	Preconstruction Review, PSD Review, and Non-attainment Area Review
62-213	Title V Air Operation Permits for Major Sources of Air Pollution
62-296	Emission Limiting Standards
62-297	Test Methods and Procedures, Continuous Monitoring Specifications, and Alternate Sampling Procedures

### **Federal Regulations**

This project is also subject to the applicable federal provisions regarding air quality as established by the Environmental Protection Agency (EPA) in the following sections of the Code of Federal Regulations (CFR).

#### Title 40, CFR    Description

Part 60	Subpart A - General Provisions for NSPS Sources NSPS Subpart GG – Stationary Gas Turbines
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### **General PSD Applicability**

The Department regulates major air pollution sources in accordance with Florida's PSD program, as approved by the EPA in Florida's State Implementation Plan and defined in Rule 62-212.400, F.A.C. A PSD review is

## TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

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required in areas currently in attainment with the state and federal Ambient Air Quality Standards (AAQS) 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 (Table 62-212.400-1, F.A.C.), 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 as 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 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 located in Hardee County, which is in an area that is currently in attainment with the state and federal AAQS or otherwise designated as unclassifiable. The facility is an existing PSD-major stationary source and the project is subject to a PSD applicability review. However, only minor changes to the existing permit conditions regarding testing are requested. Therefore, the project is not subject to PSD preconstruction review.

### 3. DEPARTMENT’S PROJECT REVIEW

#### Revisions to Permit PSD-FL-344, Ten Simple Cycle Combustion Turbines CT-4A through CT-8B

On June 29, 2005, the Department issued air construction permit PSD-FL-344, which authorized Seminole Electric Cooperative, Inc. to construct five combustion turbine sets (Twin Pacs) consisting of two combustion turbines per set. The applicant requests the following changes to this permit.

1. *Applicant Request:* Currently, Condition 25a requires annual CO tests for each fuel type to be conducted both upstream and downstream of the oxidation catalyst. The results of the CO tests are then used to calculate the CO destruction efficiency of the oxidation catalyst. The applicant requests removal of the requirement to conduct the annual tests for CO upstream of the oxidation catalyst. The applicant states that the annual CO tests are unnecessary since compliance is demonstrated by the results of the CO emissions tests conducted on the combustion turbine exhaust. In addition, testing CO emissions upstream of the oxidation catalyst is problematic due to space constraints.

*Department Response:* Previous tests conducted for CO emissions (2006 to 2008) demonstrate compliance with the standards. The purpose of the tests upstream of the oxidation catalyst is to estimate the destruction efficiency as a sign of degrading catalyst effectiveness. However, this can also be shown by having a catalyst sample (coupon) analyzed for catalyst reactivity. Therefore, the condition will be revised to eliminate periodic CO tests upstream of the oxidation catalyst, but will include the following requirements to test the catalyst reactivity.

“Within the first 24 months of operation, the permittee shall have one coupon of the catalyst from each Twin Pac (5 total) analyzed for catalytic reactivity. Subsequent samples shall be taken at 24-month intervals ( $\pm$  2 months) and analyzed for catalytic reactivity. The purpose of the sampling program is to track the loss of catalyst reactivity. Based on data collected for the samples, the operator shall appropriately plan for the addition of catalyst or the replacement of catalyst as necessary to ensure compliance with the emissions standards of this permit. Within 60 days of determining the catalyst reactivity, the permittee shall submit a report to the Compliance Authority summarizing the results, the general trend of catalyst reactivity, all CO emissions tests and plans for adding or replacing catalyst.”

## TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

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Since each combustion turbine in a Twin Pac generally operates at the same time, only one coupon of catalyst per Twin Pac (5 total) is required for analysis.

#### 4. PRELIMINARY DETERMINATION

The Department makes a preliminary determination that the proposed project will comply with all applicable state and federal air pollution regulations as conditioned by the draft permit. This determination is based on a technical review of the complete application, 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. 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.

# DRAFT PERMIT

## NOTICE OF FINAL PERMIT REVISION

In the Matter of an  
Application for Permit by:

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

Permit No. PSD-FL-344A  
Project No. 0490340-012-AC  
Midulla Generating Station  
Facility ID No. 0490340  
CO Inlet Testing Revision

Enclosed is Final Permit No. PSD-FL-344A (Project No. 0490340-012-AC), which revises the original air construction permit five combustion turbine sets at Seminole Electric Cooperative, Inc.'s Midulla Generating Station. This facility is an existing electrical power plant (SIC No. 4911) located in Hardee County at 6695 County Road 663 in Bowling Green, Florida. This plant was formerly known as the Payne Creek Generating Station. A copy of this letter shall be filed with the referenced permit and shall become part of the permit. This permit modification is issued pursuant to Chapter 403, Florida Statutes.

Any party to this order has the right to seek judicial review of it under Section 120.68 of the Florida Statutes 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.

(DRAFT)

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Joseph Kahn, Director  
Division of Air Resource Management

**CERTIFICATE OF SERVICE**

The undersigned duly designated deputy agency clerk hereby certifies that this Notice of Final Permit (including the final permit revision) was sent by electronic mail with received receipt requested before the close of business on \_\_\_\_\_ to the persons listed:

Mr. Michael Opalinski, Seminole Electric Cooperative, Inc. ([mopalinski@seminole-electric.com](mailto:mopalinski@seminole-electric.com))

Mr. Juan Ramirez, Seminole Electric Cooperative, Inc. ([jramirez@seminole-electric.com](mailto:jramirez@seminole-electric.com))

Mr. Walt Hentze, Seminole Electric Cooperative, Inc. ([whentze@seminole-electric.com](mailto:whentze@seminole-electric.com))

Mr. Tom Davis, ECT, Inc. ([tdavis@ectinc.com](mailto:tdavis@ectinc.com))

Mr. Mike Halpin, Siting Office ([Halpin\\_M@dep.state.fl.us](mailto:Halpin_M@dep.state.fl.us))

Ms. Cindy Zhang-Torres, Southwest District Office ([Cindy.Zhang-Torres@dep.state.fl.us](mailto:Cindy.Zhang-Torres@dep.state.fl.us))

Ms. Kathleen Forney, EPA Region 4 ([forney.kathleen@epa.gov](mailto:forney.kathleen@epa.gov))

Clerk Stamp

**FILING AND ACKNOWLEDGMENT FILED**, on this date, pursuant to §120.52, Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

\_\_\_\_\_  
(Clerk)

\_\_\_\_\_  
(Date)

**REVISIONS TO PERMIT NO. PSD-FL-344**

All construction related to this project is complete and no further construction is authorized by this action. The following permit conditions are revised as follows. Deleted text is shown as ~~strikethrough~~ and new added text is shown with double underline. All other conditions are unchanged and the affected emissions units remain subject to the applicable requirements.

**Emissions Performance Testing**

**25. Annual Performance Tests:**

- (a) To demonstrate compliance with the emission standards specified in this permit, the permittee shall conduct annual performance tests for NO<sub>x</sub>, CO, and visible emissions for each combustion turbine on each fuel. VOC emission tests are not required annually provided the CO emission standards are being met. The CO standard shall be demonstrated initially by the measurement of CO emissions upstream and downstream of the oxidation catalyst and by calculating CO removal efficiency, ~~thereafter,~~ compliance with the CO standard shall be demonstrated by conducting tests downstream of the oxidation catalyst. ~~In the event that the measured removal efficiency is less than or equal to 85%, the Department shall be immediately notified and the oxidation catalyst shall be renewed within 120 calendar days of the test date. Failure to fully comply with this requirement shall represent a violation of this permit. Once the oxidation catalyst is renewed, the Department shall be notified as to the actual date complete.~~ Within the first 24 months of operation, the permittee shall have one coupon of the catalyst from each Twin Pac (5 total) analyzed for catalytic reactivity. Subsequent samples shall be taken at 24-month intervals (± 2 months) and analyzed for catalytic reactivity. The purpose of the sampling program is to track the loss of catalyst reactivity. Based on data collected for the samples, the operator shall appropriately plan for the addition of catalyst or the replacement of catalyst as necessary to ensure compliance with the emissions standards of this permit. Within 60 days of determining the catalyst reactivity, the permittee shall submit a report to the Compliance Authority summarizing the results, the general trend of catalyst reactivity, all CO emissions tests and plans for adding or replacing catalyst. Testing for ammonia slip is required during the first scheduled annual performance tests after the cumulative hours of operation on each combustion turbine exceed 1,500 hours of oil firing or 5,000 hours of gas firing starting from the initial installation of the SCR catalysts. Thereafter, ammonia testing is required during the first scheduled annual performance tests after subsequent cumulative 1,500 hours of oil firing and 5,000 hours of gas firing in each combustion turbine or after regeneration, replacement or addition to the SCR catalyst system. If conducted at permitted capacity, NO<sub>x</sub> emissions data collected during the annual NO<sub>x</sub> continuous monitor RATA required pursuant to 40 CFR 75 may be substituted for the required annual performance test. Tests required on an annual basis shall be conducted at least once during each federal fiscal year (October 1<sup>st</sup> to September 30<sup>th</sup>). In the event that the operation of a combustion turbine is less than 400 hours per year on natural gas or distillate oil, annual testing is not required for that year and that fuel. [Rule 62-297.310(7)(a), F.A.C.]

**P.E. CERTIFICATION STATEMENT**

**PERMITTEE**

Seminole Electric Cooperative, Inc.  
P.O. Box 272000  
Tampa, Florida 33688-2000

Draft Air Permit No. PSD-FL-344A  
Project No. 0490340-012-AC  
Seminole Electric Cooperative, Inc.  
Midulla Generating Station  
Revision of CO Inlet Testing

**PROJECT DESCRIPTION**

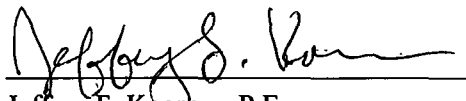
Seminole Electric Cooperative, Inc. operates the Midulla Generating Station, which is an existing electrical generating plant (SIC No. 4911) located in Hardee County at 6695 County Road 663 in Bowling Green, Florida. This station was formerly known as the Payne Creek Generating Station. The existing 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.

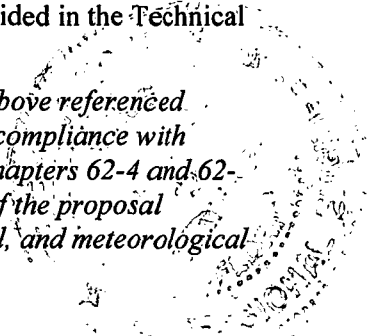
Currently, Condition 25a in Permit No. PSD-FL-344A requires annual CO tests for each fuel type to be conducted both *upstream and downstream* of the oxidation catalyst. The results of the CO tests are then used to calculate the CO destruction efficiency of the oxidation catalyst. The applicant requests removal of the requirement to conduct the annual tests for CO upstream of the oxidation catalyst. The applicant states that the annual CO tests are unnecessary since compliance is demonstrated by the results of the CO emissions tests conducted on the combustion turbine exhaust. In addition, testing CO emissions upstream of the oxidation catalyst is problematic due to space constraints.

Previous tests conducted for CO emissions (2006 to 2008) demonstrate compliance with the standards. The purpose of the tests upstream of the oxidation catalyst is to estimate the destruction efficiency as a sign of degrading catalyst effectiveness. However, this can also be shown by having a catalyst sample (coupon) analyzed for catalyst reactivity. Therefore, the condition will be revised to eliminate periodic CO tests upstream of the oxidation catalyst, but will include requirements to test, monitor and report the catalyst reactivity.

The Department's full review of the project and rationale for issuing the draft permit is provided in the Technical Evaluation and Preliminary Determination.

*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 any other aspects of the proposal (including, but not limited to, the electrical, mechanical, structural, hydrological, geological, and meteorological features).*

  
\_\_\_\_\_  
Jeffery F. Koerner, P.E.  
Registration No. 49441

  
8-28-08  
\_\_\_\_\_  
(Date)

**Walker, Elizabeth (AIR)**

---

**From:** Walker, Elizabeth (AIR)  
**Sent:** Friday, August 29, 2008 5:34 PM  
**To:** 'mopalinski@seminole-electric.com'; 'wmroddy@seminole-electric.com'; 'jramirez@seminole-electric.com'  
**Cc:** 'tdavis@ectinc.com'; Zhang-Torres; 'Forney.Kathleen@epamail.epa.gov'  
**Subject:** MIDULLA GENERATING STATION; 0490340-012-AC/PSD-FL-344A

Dear Sir/Madam:

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**Owner/Company Name:** SEMINOLE ELECTRIC COOPERATIVE, INC.

**Facility Name:** MIDULLA GENERATING STATION

**Project Number:** 0490340-012-AC /PSD-FL-344A

**Permit Status:** DRAFT

**Permit Activity:** CONSTRUCTION

**Facility County:** HARDEE

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If you have any problems opening the documents or would like further information, please contact the Florida Department of Environmental Protection, Bureau of Air Regulation at (850)488-0114.

*Elizabeth Walker*

Bureau of Air Regulation

Division of Air Resource Management (DARM)

(850)921-9505



**Walker, Elizabeth (AIR)**

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**From:** Exchange Administrator  
**Sent:** Friday, August 29, 2008 5:34 PM  
**To:** Walker, Elizabeth (AIR)  
**Subject:** Delivery Status Notification (Relay)  
**Attachments:** ATT227737.txt; MIDULLA GENERATING STATION; 0490340-012-AC/PSD-FL-344A

This is an automatically generated Delivery Status Notification.

Your message has been successfully relayed to the following recipients, but the requested delivery status notifications may not be generated by the destination.

[mopalinski@seminole-electric.com](mailto:mopalinski@seminole-electric.com)  
[wmroddy@seminole-electric.com](mailto:wmroddy@seminole-electric.com)  
[jramirez@seminole-electric.com](mailto:jramirez@seminole-electric.com)

**Walker, Elizabeth (AIR)**

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**From:** Tom Davis [tdavis@ectinc.com]  
**Sent:** Friday, August 29, 2008 5:37 PM  
**To:** Walker, Elizabeth (AIR)  
**Subject:** RE: MIDULLA GENERATING STATION; 0490340-012-AC/PSD-FL-344A

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**From:** Walker, Elizabeth \ (AIR\ ) [mailto:Elizabeth.Walker@dep.state.fl.us]  
**Sent:** Friday, August 29, 2008 5:34 PM  
**To:** mopalinski@seminole-electric.com; wmroddy@seminole-electric.com; jramirez@seminole-electric.com  
**Cc:** tdavis@ectinc.com; Zhang-Torres; Forney.Kathleen@epamail.epa.gov  
**Subject:** MIDULLA GENERATING STATION; 0490340-012-AC/PSD-FL-344A

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**Owner/Company Name:** SEMINOLE ELECTRIC COOPERATIVE, INC.  
**Facility Name:** MIDULLA GENERATING STATION  
**Project Number:** 0490340-012-AC /PSD-FL-344A  
**Permit Status:** DRAFT  
**Permit Activity:** CONSTRUCTION  
**Facility County:** HARDEE

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*Elizabeth Walker*  
Bureau of Air Regulation  
Division of Air Resource Management (DARM)  
(850)921-9505

*The Department of Environmental Protection values your feedback as a customer. DEP Secretary Michael W. Sole is committed to continuously assessing and improving the level and quality of services provided to you. Please take a few minutes to comment on the quality of service you received. Simply click on [this link to the DEP Customer Survey](#). Thank you in advance for completing the survey.*

**Walker, Elizabeth (AIR)**

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**From:** Mike Opalinski [MOpalinski@seminole-electric.com]  
**Sent:** Tuesday, September 02, 2008 7:36 AM  
**To:** Walker, Elizabeth (AIR)  
**Subject:** Re: MIDULLA GENERATING STATION; 0490340-012-AC/PSD-FL-344A

>>> "Walker, Elizabeth (AIR)" <[Elizabeth.Walker@dep.state.fl.us](mailto:Elizabeth.Walker@dep.state.fl.us)> 8/29/2008 5:34 PM >>>

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**Owner/Company Name:** SEMINOLE ELECTRIC COOPERATIVE, INC.

**Facility Name:** MIDULLA GENERATING STATION

**Project Number:** 0490340-012-AC /PSD-FL-344A

**Permit Status:** DRAFT

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**Facility County:** HARDEE

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*Elizabeth Walker*

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## Walker, Elizabeth (AIR)

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**From:** Mike Roddy [WMRoddy@seminole-electric.com]  
**Sent:** Tuesday, September 02, 2008 8:50 AM  
**To:** Walker, Elizabeth (AIR)  
**Subject:** Re: MIDULLA GENERATING STATION; 0490340-012-AC/PSD-FL-344A

>>> "Walker, Elizabeth (AIR)" <Elizabeth.Walker@dep.state.fl.us> 8/29/2008 5:34 PM >>>

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Florida Department of  
Environmental Protection

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**Memorandum**

To: Trina Vielhauer, Bureau of Air Regulation  
From: Jeff Koerner, New Source Review Section *JK*  
Date: August 28, 2008  
Subject: Project No. 0490340-012-AC  
Draft Permit No. PSD-FL-344A  
Seminole Electric Cooperative, Inc.  
Midulla Generating Station  
Revision for CO Inlet Testing

This project is a minor revision to a previous PSD permit. The Technical Evaluation and Preliminary Determination provides a detailed description of the project and the rationale for issuance. The applicant requested that a separate it from the other requests so that it could be implemented before the end of the fiscal year, which would save them some hardship and costs. I recommend your approval of the attached Draft Permit package.

Attachments

TLV/jfk