



Jeb Bush  
Governor

# Department of Environmental Protection

Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

Colleen M. Castille  
Secretary

May 4, 2005

Mr. Michael P. Opalinski, Vice President of Technical Services  
Seminole Electric Cooperative, Inc. – Payne Creek Generating Station  
16313 North Dale Mabry Highway  
Tampa, FL 33688-2000

Re: Draft Air Permit No. PSD-FL-344  
Project No. 0490340-003-AC  
Payne Creek Generating Station, Peaker Project  
300 MW nominal capacity increase

Dear Mr. Opalinski:

On August 27, 2004, Seminole Electric Cooperative, Inc. submitted an application to add a nominal 300 MW of generating capacity to the existing Payne Creek Generating Station, which is located at 6697 County Road 663, Bowling Green, Hardee County, Florida. Enclosed are the following documents: "Draft Permit", "Written Notice of Intent to Issue Air Permit", and "Public Notice of Intent to Issue Air Permit".

The "Draft Permit" includes the specific conditions that regulate the emissions units covered by the proposed permit. 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, Michael P. Halpin, P.E. at 850/921-9519.

Sincerely,

Trina Vielhauer, Chief  
Bureau of Air Regulation

Enclosures

TV/mh

*"More Protection, Less Process"*

*Printed on recycled paper.*

**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.  
Payne Creek Generating Station  
6697 County Road 663  
Tampa, Florida 33834

Draft Air Permit No. PSD-FL-344  
Project No. 0490340-003-AC  
Payne Creek Generating Station  
Peaker Project  
Hardee County, Florida

*Authorized Representative:*

Mr. Michael P. Opalinski, Vice President of Technical Services

**Facility Location:** Seminole Electric Cooperative, Inc. (SECI) operates an existing power plant located in Bowling Green, Hardee, Florida.

**Project:** The applicant proposes to install five nominal 60 MW gas turbine-electrical generator sets and other miscellaneous support equipment. Upon completion of this project, the plant will have a total generating capacity of approximately 800 MW. The existing facility is subject to the power plant site certification requirements of the Department (PA89-25). Details of the project are provided in the application and the enclosed "Draft Permit".

**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 Florida Department of Environmental Protection's Bureau of Air Regulation is the Permitting Authority responsible for making a permit determination for this project. The Bureau of Air Regulation's physical address is 111 South Magnolia Drive, Suite 4, Tallahassee, Florida 32301 and the mailing address is 2600 Blair Stone Road, MS #5505, Tallahassee, Florida 32399-2400. The Bureau of Air Regulation's phone 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 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 and phone number listed above. A copy of the application is available at the Air Resource Section of the Department's Southwest District Office at 3804 Coconut Palm Drive, Tampa, Florida 33619-8218 (Phone: 813/744-6100).

**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 applicable 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 the address or phone number listed above. 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 Draft Permit for a period of thirty (30) days from the date of publication of the Public Notice. Written comments must be post-marked, and all email or facsimile comments must be received by the close of business (5:00 p.m.), on or before the end of this 30-day period by the Permitting Authority at the above address, email or facsimile. As part of his or her comments, any person may also request that the Permitting Authority hold a public meeting on this permitting action. If the Permitting Authority determines there is

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

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sufficient interest for a public meeting, it will publish notice of the time, date, and location on the Department's official web site for notices at <http://tlhora6.dep.state.fl.us/onw> and in a newspaper of general circulation in the area affected by the permitting action. For additional information, contact the Permitting Authority at the above address or phone number. If written comments or comments received at a public meeting result in a significant change to the Draft Permit, the Permitting Authority will issue a Revised 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 fourteen (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 fourteen (14) days of publication of the attached Public Notice or within fourteen (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 fourteen (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 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 how and when each petitioner received notice of the agency action or proposed action; (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; 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. This PSD permitting action is being coordinated with a certification under the Power Plant Siting Act (Sections 403.501-519, F.S.). If a petition for an administrative hearing on the Department's Intent to Issue Air Permit is filed by a substantially affected person, that hearing shall be consolidated with the certification hearing, as provided under Section 403.507(3), F.S.

**Mediation:** Mediation is not available in this proceeding.

Executed in Tallahassee, Florida.



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Trina Vielhauer, Chief  
Bureau of Air Regulation

WRITTEN NOTICE OF INTENT TO ISSUE AIR PERMIT

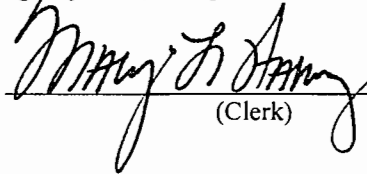
CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this "Written Notice of Intent to Issue Air Permit" package (including the Public Notice, and the Draft Permit) was sent by certified mail (\*) and copies were mailed by U.S. Mail before the close of business on 5/9/05 to the persons listed below.

Michael P. Opalinski, SECI \*  
Mike Roddy, SECI  
Tom Davis, ECT  
Jim Little, EPA Region 4  
Buck Oven, DEP-Siting  
Jerry Kissel, DEP-SWD  
Gregg Worley, EPA Region 4  
John Bunyak, NPS

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)

5/9/05  
\_\_\_\_\_  
(Date)

## PUBLIC NOTICE OF INTENT TO ISSUE AIR PERMIT

Florida Department of Environmental Protection  
Project No. 0490340-003-AC / Draft Air Permit No. PSD-FL-344  
Seminole Electric Cooperative, Inc. – Payne Creek Generating Station  
Hardee County, Florida

**Applicant:** The applicant for this project is Seminole Electric Cooperative, Inc. (SECI). The applicant's authorized representative is Mr. Michael P. Opalinski, Vice President of Technical Services. The applicant's mailing address is 16313 North Dale Mabry Highway, Tampa, Florida 33688.

**Facility Location:** SECI operates the existing Payne Creek Generating Station located in the Hardee County, Florida.

**Project:** The existing Payne Creek Generating Station consists of two nominal 157.5 megawatts (MW) combined-cycle Siemens Westinghouse 501FD combustion turbines. The combined-cycle turbines each include one unfired heat recovery steam generator (HRSG). The combustion turbines only operate in combined-cycle mode (i.e., the HRSGs are not equipped with bypass stacks). Steam generated by the two HRSGs is sent to one common nominal 173 MW steam turbine. The facility utilizes pipeline natural gas as its primary fuel source with distillate fuel oil serving as a backup fuel. After completion of this project, the plant will have a nominal generating capacity of approximately 800 MW.

The existing power plant is located in Hardee County, an area that is currently in attainment with the state and federal Ambient Air Quality Standards (AAQS) or otherwise designated as unclassifiable. The power plant is a major facility in accordance with Rule 62-212.400, F.A.C., the regulatory program for the Prevention of Significant Deterioration (PSD) of Air Quality. Therefore, new projects at the existing facility must be reviewed for PSD applicability.

In August of 2004, the Department received a PSD permit application for the existing facility that would increase the generating output of the facility from 500 to 800 megawatts of output. Based on potential emissions increases, the project is subject to PSD preconstruction review for nitrogen oxides, particulate matter, sulfur dioxide, and volatile organic compounds. In February of 2005, the Department made a preliminary determination of the Best Available Control Technology (BACT) for each of these pollutants. The Department's determination resulted in an emission limitation for Nitrogen Oxides (NO<sub>x</sub>) which was more stringent than the applicant had sought, and the applicant filed a petition for an administrative hearing in accordance with Sections 120.569 and 120.57, F.S. Subsequently, settlement discussions resulted in the NO<sub>x</sub> emission limit, which is reflected in the terms and conditions of the draft permit. Based on the supporting air quality analysis of the potential impacts from increased operation, the applicant provided the Department with reasonable assurance that the project would not significantly contribute to or cause a violation of any state or federal ambient air quality standards and would not significantly contribute to or cause a violation of any PSD Class I or Class II increments. The facility is subject to the power plant site certification requirements of the Department.

**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 Florida Department of Environmental Protection's Bureau of Air Regulation is the Permitting Authority responsible for making a permit determination for this project. The Bureau of Air Regulation's physical address is 111 South Magnolia Drive, Suite 4, Tallahassee, Florida 32301 and the mailing address is 2600 Blair Stone Road, MS #5505, Tallahassee, Florida 32399-2400. The Bureau of Air Regulation's phone number is 850/488-0114 and fax number is 850/921-9533.

**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 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 and phone number listed above. A copy of the application is available at the Air Resource Section of the Department's Southwest District Office at 3804 Coconut Palm Drive, Tampa, Florida 33619-8218 (Phone: 813/744-6100).

**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.

(Public Notice to be Published in the Newspaper)

## PUBLIC NOTICE OF INTENT TO ISSUE AIR PERMIT

**Comments:** The Permitting Authority will accept written comments concerning the Draft Permit for a period of thirty (30) days from the date of publication of the Public Notice. Written comments must be post-marked, and all e-mail or facsimile comments must be received by the close of business (5:00 p.m.), on or before the end of this 30-day period by the Permitting Authority at the above address, email or facsimile. As part of his or her comments, any person may also request that the Permitting Authority hold a public meeting on this permitting action. If the Permitting Authority determines there is sufficient interest for a public meeting, it will publish notice of the time, date, and location on the Department's official web site for notices at <http://tlhora6.dep.state.fl.us/onw> and in a newspaper of general circulation in the area affected by the permitting action. For additional information, contact the Permitting Authority at the above address or phone number. If written comments or comments received at a public meeting result in a significant change to the Draft Permit, the Permitting Authority will issue a Revised Draft Permit and require, if applicable, another Public Notice. All comments filed will be made available for public inspection.

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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 how and when each petitioner received notice of the agency action or proposed action; (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; 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. This PSD permitting action is being coordinated with a certification under the Power Plant Siting Act (Sections 403.501-519, F.S.). If a petition for an administrative hearing on the Department's Intent to Issue Air Permit is filed by a substantially affected person, that hearing shall be consolidated with the certification hearing, as provided under Section 403.507(3), F.S.

**Mediation:** Mediation is not available in this proceeding.

(Public Notice to be Published in the Newspaper)

**DRAFT**

**PERMITTEE:**

Seminole Electric Cooperative, Inc.  
Payne Creek Generating Station  
6697 County Road 663  
Bowling Green, FL 33834

ARMS Permit No.	0490340-003-AC
PSD Permit No.	PSD-FL-344
Facility ID No.	0490340
SIC No.	4911
Expires:	December 31, 2007 [PA 89-25]

*Authorized Representative:*

Mr. Michael P. Opalinski  
Vice President of Technical Services

**PROJECT AND LOCATION**

This permit is issued pursuant to the requirements for the Prevention of Significant Deterioration of Air Quality (PSD Permit). The proposed project authorizes the installation of five combustion turbine sets, complete with electrical generator sets. The gas turbines are capable of producing a nominal 300 MW of electricity.

The project will be located at the existing Payne Creek Generating Station, located in Hardee County. UTM coordinates for this facility are Zone 17; 405.049 km E; 3057.712 km N.

**STATEMENT OF BASIS**

This air pollution construction permit is issued under the provisions of Chapter 403 of the Florida Statutes (F.S.), and Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297 of the Florida Administrative Code (F.A.C.) and 40 CFR 52.21. 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.

**APPENDICES**

The following Appendices are attached as part of this permit.

- Attachment CS - Compliance Spreadsheet
- Appendix GC - Construction Permit General Conditions

\_\_\_\_\_  
Michael G. Cooke, Director  
Division of Air Resource Management

Date:

**FACILITY DESCRIPTION**

Completion of this project will result in the installation of five new electric power generator sets, capable of providing a nominal 300 MW of electrical power.

**NEW EMISSIONS UNITS**

The proposed project will result in the following new emissions units.

Emissions Unit No.	Emissions Unit Description
005 - 009	Pratt & Whitney Twin Pac Combustion Turbines each representing approximately 60 megawatts of peaking power.

**REGULATORY CLASSIFICATION**

HAPs: This facility is a synthetic minor source of hazardous air pollutants (Title III) and the permittee maintains that the synthetic minor status is unaffected by this project.

Acid Rain: This facility is subject to the acid rain provisions of the Clean Air Act (Title IV).

Title V Major Source: This facility is a Title V major source of air pollution.

PSD Major Source: Each pollutant with potential emissions greater than the Significant Emissions Rates specified in Table 62-212.400-2, F.A.C. requires a PSD review. For this project, emissions of NO<sub>x</sub>, CO, VOC, PM<sub>10</sub> and SO<sub>2</sub> are significant, although CO emissions have been reduced below the PSD significance level (100 TPY) via the application of an oxidation catalyst.

NSPS Sources: The combustion turbines specified in this permit are also subject to regulation under the New Source Performance Standards for Stationary Gas Turbines, 40 CFR 60, Subpart GG.

**RELEVANT DOCUMENTS**

- Permit application received on 08/27/04
- Intent to Issue Permit package mailed on 05/05/05
- Public Notice published in xxxxxx on xx/xx/xx
- Proof of publication received xx/xx/xx



## GENERAL AND ADMINISTRATIVE REQUIREMENTS

1. Permitting Authority: All documents related to applications for permits to construct, operate or modify an emissions unit should be submitted to the Bureau of Air Regulation (BAR), Florida Department of Environmental Protection (DEP), at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400 and phone number 850/488-0114.
2. Compliance Authority: All documents related compliance activities such as reports, tests, and notifications should be submitted to the Air Resources Section of the Southwest District Office, Florida Department of Environmental Protection, 3804 Coconut Palm Drive, Tampa, Florida 323619-8218. The phone number is 813/744-6100 and the fax number is 813/744-6084.
3. Terminology: The terms used in this permit have specific meanings as defined in the applicable chapters of the Florida Administrative Code.
4. General Conditions: The owner and operator are subject to, and shall operate under the attached General Conditions listed in *Appendix GC* of this permit. General Conditions are binding and enforceable pursuant to Chapter 403 of the Florida Statutes. [Rule 62-4.160, F.A.C.]
5. 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 of the Florida Statutes (F.S.); Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-296, and 62-297 of the Florida Administrative Code (F.A.C.); and the Title 40, Parts 60, 72, 73, and 75 of the Code of Federal Regulations (CFR), adopted by reference in Rule 62-204.800, 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 62-204.800, 62-210.300 and 62-210.900, F.A.C.]
6. PSD Expiration: Approval to construct shall become invalid if construction is not commenced within 18 months after receipt of such approval, or if construction is discontinued for a period of 18 months or more or if construction is not completed within a reasonable time. The Department may extend the 18-month period upon a satisfactory showing that an extension is justified.
7. Permit Expiration: For good cause, the permittee may request that this PSD air construction permit be extended. Such a request shall be submitted to the Department's Bureau of Air Regulation at least sixty (60) days prior to the expiration of this permit. [Rules 62-4.070(4), 62-4.080, and 62-210.300(1), F.A.C.]
8. BACT Determination: In conjunction with extension of the 18 month period to commence or continue construction, phasing of the project, or an extension of the permit expiration date, the permittee may be required to demonstrate the adequacy of Best Available Control Technology (BACT) for the source. [Rule 62-212.400(6)(b), F.A.C.]
9. 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.]
10. Modifications: No emissions unit or facility subject to this permit shall be constructed or modified without obtaining an air construction permit from the Department. Such permit shall be obtained prior to beginning construction or modification. [Rules 62-210.300(1) and 62-212.300(1)(a), F.A.C.]
11. Application for Title IV Permit: At least 24 months before the date on which the new unit begins serving an electrical generator greater than 25 MW, the permittee shall submit an application for a Title IV Acid Rain Permit to the Region 4 Office of the U.S. Environmental Protection Agency in Atlanta, Georgia and a copy to the Department's Bureau of Air Regulation in Tallahassee. [40 CFR 72]
12. Title V Permit: This permit authorizes construction of the permitted emissions unit and initial operation to determine compliance with Department rules. A Title V operation permit is required for regular operation of the permitted emission units. The permittee shall apply for and obtain a Title V operation permit in accordance with Rule 62-213.420, F.A.C. 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. The application shall

SECTION II. ADMINISTRATIVE REQUIREMENTS

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be submitted to the Department's Bureau of Air Regulation and a copy to the Compliance Authority. [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 new emissions units.

E.U. ID No.	COMMON EMISSION UNIT DESCRIPTION
005 - 009	Pratt & Whitney Twin Pac Combustion Turbines each representing approximately 60 megawatts of peaking power.

#### BACKGROUND

Seminole Electric filed a petition for administrative hearing on the draft permit issued by the Department on February 4, 2005. This subsequent (draft) permit is issued as the result of a settlement agreement entered between the Department and the applicant resolving that litigation.

This project involves the installation of 10 Pratt & Whitney FT-8 simple cycle combustion turbines with a nominal rating of 30 MW each. These units will be used for peaking purposes and each will operate less than an equivalent of 2000 hours on gas each year<sup>1</sup>.

Both parties recognize this as a unique case. This is the only (draft) permit issued by the Department within at least the last five years for simple cycle combustion turbines, used for peaking purposes, that limits operations to an equivalent of 2000 hours on gas each year. As a result of lengthy settlement discussions and the unique aspects of this project, the parties reached a settlement agreement on the NO<sub>x</sub> emission limit for gas firing. Therefore, the Department issues this (draft) permit with a NO<sub>x</sub> emission limit that is equivalent to 20 ppmvd @ 15% oxygen at 2000 hours per year of natural gas operation for this unique project. This project is not precedent for any other simple cycle combustion turbine project as set forth in the Department's technical evaluation dated February 4, 2005.

<sup>1</sup> 500 hours of oil firing was also requested, although the application was structured so as to allow for gas in lieu of oil.

#### APPLICABLE STANDARDS AND REGULATIONS

1. Prevention of Significant Deterioration: The emission units addressed in this section are subject to a PSD Review for nitrogen oxides (NO<sub>x</sub>), sulfur dioxide (SO<sub>2</sub>), particulate matter (PM<sub>10</sub>), carbon monoxide (CO), Volatile Organic Compounds (VOC) and particulate matter (PM<sub>10</sub>). [Rule 62-212.400, F.A.C.]
2. NSPS Requirements: The combustion turbines shall comply with all applicable requirements of 40 CFR 60, adopted by reference in Rule 62-204.800(7)(b), F.A.C.
  - (a) **Subpart A, General Provisions**, including:
    - 40 CFR 60.7, Notification and Record Keeping
    - 40 CFR 60.8, Performance Tests
    - 40 CFR 60.11, Compliance with Standards and Maintenance Requirements
    - 40 CFR 60.12, Circumvention
    - 40 CFR 60.13, Monitoring Requirements
    - 40 CFR 60.19, General Notification and Reporting Requirements
  - (b) **Subpart GG, Standards of Performance for Stationary Gas Turbines**: These provisions include a requirement to correct test data to ISO conditions; however, such correction is not used for compliance determinations with the BACT standards.

#### PERFORMANCE RESTRICTIONS

3. Combustion Turbines: The permittee is authorized to install, tune, operate and maintain five new combustion turbine sets with electrical generators (Pratt & Whitney Twin Pac). Each Twin Pac is designed to produce approximately 60 MW of electrical power. [Applicant Request]
4. Permitted Capacity: The heat input to each combustion turbine set from firing natural gas shall not exceed 635.6 MMBtu per hour based on the following: 100% base load, a higher heating value (HHV) for natural gas and a compressor inlet air temperature of 50° F. The heat input to each combustion turbine set from firing No. 2 fuel oil shall not exceed 576.8 MMBtu per hour based on the following: 100% base load, HHV and a compressor inlet air

temperature of 78° F. The permittee shall provide manufacturer's performance curves (or equations) that correct for site conditions to the Permitting and Compliance Authorities within 45 days of completing the initial compliance testing. Heat input rates will vary depending upon compressor conditions and the combustion turbine characteristics. Operating data may be adjusted for the appropriate site conditions in accordance with the performance curves on file with the Department. [Design, Rule 62-210.200, F.A.C. (Definition - PTE)]

5. Simple Cycle, Peaking Operation: Each combustion turbine shall operate only in simple cycle mode not to exceed the permitted hours of operation allowed by this permit. This restriction is based on the permittee's request, which formed the basis of the PSD applicability which resulted in the emission standards specified in this permit. For any request to convert this unit to combined cycle operation by installing/connecting to heat recovery steam generators or changes to the fuel quality or quantity which may cause an increase in short or long-term emissions, the permittee may be required to submit a full PSD permit application complete with a new proposal of the best available control technology as if the unit had never been built. [Rules 62-212.400(2)(g) and 62-212.400(6)(b), F.A.C.]
6. Allowable Fuels: Each combustion turbine shall only be fired with natural gas containing no more than 1 grain of sulfur per 100 dry standard cubic feet of gas (monthly average) and 0.05% sulfur distillate oil (or superior). The permittee shall demonstrate compliance with the fuel sulfur limit by keeping the records specified in this permit. [Applicant Request, Rule 62-210.200, F.A.C. (Definition - PTE)]
7. Hours of Operation: Each Twin Pac shall operate no more than 2000 hours on natural gas and 500 hours on distillate fuel oil, subject to the exceptions defined in Condition III. 17. The permittee shall install, calibrate, operate and maintain a monitoring system to measure and accumulate the hours of operation for each Twin Pac. In the event that any increase to the hours of operation (of any fuel type) is sought prior to December 31, 2010 a construction permit application shall be submitted for the installation of an SCR (consistent with the conditions of this permit) prior to the increase being granted. If an increase from the 2000 hours on natural gas and 500 hours on distillate fuel oil is desired after December 31, 2010, the permittee shall be required to submit a full PSD permit application complete with a new proposal of the best available control technology as if the unit had never been built. [Rule 62-212.400, F.A.C.; Rule 62-212.400(2)(g), F.A.C.; Rule 62-210.200, F.A.C. (PTE)]
8. Operating Procedures: The determinations established by this permit rely on "good operating practices" to minimize emissions. Therefore, all operators and supervisors shall be properly trained to operate and maintain the combustion turbines and pollution control systems in accordance with the guidelines and procedures established by the manufacturer. The training shall include good operating practices as well as methods of minimizing excess emissions. [Applicant Request; Rule 62-4.070(3); Rule 62-212.400, F.A.C.]
9. Plant Operation - Problems: If temporarily unable to comply with any of the conditions of the permit due to breakdown of equipment or destruction by fire, wind or other cause, the permittee shall notify the Compliance Authority as soon as possible, but at least within one working day, excluding weekends and holidays. The notification shall include: pertinent information as to the cause of the problem; steps being taken to correct the problem and prevent future recurrence; and, where applicable, the owner's intent toward reconstruction of destroyed facilities. Such notification does not release the permittee from any liability for failure to comply with the conditions of this permit or the regulations. [Rule 62-4.130, F.A.C.]

#### EMISSIONS CONTROLS

10. Unconfined Particulate Emissions: During the construction period, unconfined particulate matter emissions shall be minimized by dust suppressing techniques such as covering, confining, or applying water or chemicals to the affected areas, as necessary. [Rule 62-296.320(4)(c), F.A.C.]
11. Water Injection/Dry Low NO<sub>x</sub> Burner Technology: The permittee shall install, calibrate, tune, operate, and maintain a dry low NO<sub>x</sub> burner and/or water injection system for each combustion turbine. The system shall be designed and operated so as to ensure that NO<sub>x</sub> emissions are sufficient to achieve the NO<sub>x</sub> emission limits in Condition III. 17. [Rule 62-212.400, F.A.C.]
12. Oxidation Catalyst: To control CO and VOC emissions, each combustion turbine shall include an oxidation catalyst. [Design and Rule 62-212.400, F.A.C. – escape PSD]
13. SCR: Should an SCR be installed to control NO<sub>x</sub> emissions, each combustion turbine limit will be 5.0 ppm (gas) and 8.0 ppm (oil). In the event an SCR is not installed, the NO<sub>x</sub> limits shall be according to Condition III. 17. The

installation of SCR prior to December 31, 2010 shall void the natural gas operating hours limitation in Condition III. 7, and allow for 8760 hours of operation per year, 2400 hours of which may be while firing oil. The ammonia slip rate shall be limited to 5 ppmvd @ 15% O<sub>2</sub>. All NO<sub>x</sub> limits in this condition are in units of ppmvd corrected to 15% oxygen. [Rule 62-212.400, F.A.C.; Rule 62-210.200, F.A.C. (PTE)]

14. Circumvention: The permittee shall not circumvent the air pollution control equipment or allow the emission of air pollutants without this equipment operating properly. [Rule 62-210.650, F.A.C.]

#### EMISSIONS STANDARDS

15. Summary: The following table summarizes the emissions standards for each pollutant and total emissions in lb/hr and TPY (PTE) for informational and convenience purposes only; such standards are not separately enforceable. This table does not supersede any of the terms or conditions of this permit:

Pollutant	Twin Pac Emission Standards (limits)	Emission Equivalents (lb/hr)		Emission Unit (lb/year) <sup>1</sup>	TPY for 5 EU's <sup>1</sup>
		OIL	GAS		
NO <sub>x</sub>	lb/hr equiv of 20 ppm (gas), 42 ppmvd (oil) @ 15% O <sub>2</sub>	102.4	51	153,200	383
CO	19.9 TPY <sup>2</sup>	2.7	13.1	27,550	68.87
SO <sub>2</sub>	Natural Gas & 0.05% Sulfur oil	29.4	1.8	18,300	45.75
PM <sub>10</sub>	VE	14	6	19,000	47.5
VOC	CO as surrogate	9.2	16.6	37,800	94.5

Notes: (1) Assumed 2000 hours of gas operation and 500 hours of oil operation.

(2) Calculated maximum based upon applicant proposed oxidation catalyst at 90% removal efficiency and proposed limit.

16. Carbon Monoxide (CO):

CO emissions from each Twin Pac shall not exceed 19.9 TPY. The permittee shall demonstrate compliance with this standard by conducting performance tests and emissions monitoring in accordance with EPA Method 10 and the requirements of this permit. [Rule 62-212.400(2)(g), F.A.C. (PSD Avoidance)]

17. Nitrogen Oxides (NO<sub>x</sub>):

- (a) NO<sub>x</sub> emissions from each Twin Pac while firing gas shall be controlled to achieve an equivalent of 20 ppm at full load for 2000 hours per year, which equates to 102,000 lbs over a rolling 12 calendar month period while firing natural gas as per the attached compliance spreadsheet, attachment and incorporated herein as a part of this permit as attachment CS. In the event that during any rolling 12 calendar month period, the NO<sub>x</sub> emissions while firing natural gas are in excess of 102,000 lbs, a corresponding "hours limitation" shall apply to that Twin Pac unit for the next calendar month of actual operation. The hours limitation shall be calculated in accordance with attachment CS and will yield an equivalent and off-setting NO<sub>x</sub> reduction for the next calendar month of actual operation. This hours limitation adjustment will ensure a truing up of NO<sub>x</sub> emissions on a monthly basis. During the next calendar month of actual operation, any hours operated in excess of the calculated hours limitation ("available hours") shall represent a violation of this permit.
- (b) NO<sub>x</sub> emissions from each Twin Pac shall not exceed a 64 lb/hr average over any calendar month while firing natural gas
- (c) During any 12 calendar month rolling average period, should the actual NO<sub>x</sub> emissions for a Twin Pac unit total less than 102,000 lbs, it shall be permissible for that Twin Pac unit to fire an additional amount of natural gas (over the 2000 hours limitation in Condition III. 7) provided that:
- (1) The 12-month rolling average of 102,000 lbs of NO<sub>x</sub> for natural gas firing is not exceeded, and
  - (2) The allowable hours of oil firing (500 hours per Twin Pac per 12 month period) shall be reduced by one hour for each hour of additional gas firing. In no circumstance shall it be permissible for a Twin Pac to operate over 2500 total hours during any 12 month period.
- (d) NO<sub>x</sub> emissions shall not exceed 42 ppmvd while firing fuel oil.
- (e) During the initial twelve calendar months of operation, NO<sub>x</sub> emissions while firing natural gas shall not exceed 102,000 lbs per Twin Pac, nor 64 lb/hr averaged over any calendar month.

- (f) Compliance with the standard specified herein shall satisfy the NSPS and BACT requirements.
- (g) The permittee shall demonstrate compliance with this standard by conducting performance tests, emissions monitoring and continuous water-to-fuel ratio monitoring in accordance with 40 CFR Part 60 Subpart GG, as well as all other conditions of this permit.
- (h) The attached Compliance Spreadsheet shall be used to calculate NO<sub>x</sub> emissions, in accordance with Specific Condition 34.

[Rule 62-212.400, F.A.C.]

18. Particulate Matter (PM/PM<sub>10</sub>) Sulfur Dioxides (SO<sub>2</sub>) and Volatile Organic Compounds (VOC):

- (a) Fuel Specifications. Emissions of PM, PM<sub>10</sub>, and SO<sub>2</sub> shall be limited by the use of pipeline-quality natural gas containing no more than 1 grain per standard cubic feet, the use of 0.05% Sulfur oil and good combustion techniques as specified in this permit. The permittee shall demonstrate compliance with the fuel sulfur limit by maintaining the records specified by this permit. [Rule 62-212.400, F.A.C. (PSD Applicability)].
- (b) VE Standard. Visible emissions from each combustion turbine shall not exceed 10% opacity, based on a 6-minute average. The permittee shall demonstrate compliance with this standard by conducting tests in accordance with EPA Method 9 and the performance testing requirements of this permit. [Rule 62-212.400, F.A.C. (PSD Applicability)]
- (c) Compliance with the CO standard specified within this permit shall act as a surrogate for the VOC requirements.

**EXCESS EMISSIONS**

- 19. Excess Emissions Prohibited: Excess emissions caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure that may reasonably be prevented during startup, shutdown or malfunction, shall be prohibited. These emissions shall be included in the calculation of the 12-month rolling averages to demonstrate compliance with the continuous NO<sub>x</sub> emissions standard. [Rule 62-210.700(4), F.A.C.]
- 20. Excess Emissions Allowed: Providing the permittee adheres to best operational practices to minimize the amount and duration of excess emissions, the following conditions shall apply:
  - (a) During startup and shutdown, visible emissions excluding water vapor shall not exceed 20% opacity for more than 2 hours in any 24-hour period. [Design; Rule 62-210.700(1) and (5), F.A.C.]
  - (b) During all startups, shutdowns, and malfunctions, the continuous emissions monitor (water-to-fuel ratio or CEMS) shall monitor and record emissions. However, up to 2 hours of monitoring data during any 24-hour period may be excluded from continuous compliance demonstrations as a result of startups, shutdowns, and documented malfunctions. A documented malfunction means a malfunction that is documented within one working day of detection by contacting the Compliance Authority by telephone, facsimile, or electronic mail. In case of malfunctions, the permittee shall notify the Compliance Authorities within one working day. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department. [Design; Rules 62-210.700(1), (5), and 62-4.130, F.A.C.]

**EMISSIONS PERFORMANCE TESTING**

- 21. Sampling Facilities: The permittee shall design the combustion turbine stack to accommodate adequate testing and sampling locations in order to determine compliance with the applicable emission limits specified by this permit. Permanent stack sampling facilities shall be installed in accordance with Rule 62-297.310(6), F.A.C. [Rules 62-4.070 and 62-204.800, F.A.C., and 40 CFR 60.40a(b)]
- 22. Performance Test Methods: Compliance tests shall be performed in accordance with the following reference methods as described in 40 CFR 60, Appendix A, and adopted by reference in Chapter 62-204.800, F.A.C.
  - (a) EPA Method 9 - Visual Determination of the Opacity of Emissions from Stationary Sources;
  - (b) EPA Method 10 - Determination of Carbon Monoxide Emissions from Stationary Sources;

- (c) EPA Method 7E - Determination of Nitrogen Oxides Emissions from Stationary Sources (Instrumental Analyzer Procedure); or EPA Method 20 - Determination of Oxides of Nitrogen Oxide, Sulfur Dioxide and Diluent Emissions from Stationary Gas Turbines; or ASTM D6522-00 Standard Test Method for Determination of Nitrogen Oxides, Carbon Monoxide and Oxygen Concentrations in Emissions from Natural Gas-Fired Reciprocating Engines, Combustion Turbines, Boilers and Process Heaters Using Portable Analyzers, as specified in 40 CFR 60.335;
- (d) EPA Method 25 or 25A - Determination of Volatile Organic Concentrations. (EPA Method 18 may be conducted to account for the non-regulated methane portion of the VOC emissions); and
- (e) Conditional Test Method 027 – Measurement of Ammonia Slip; this shall be required in the event that SCR is installed.

No other test methods may be used for compliance testing unless prior DEP approval is received, in writing, from the DEP Emissions Monitoring Section Administrator in accordance with an alternate sampling procedure specified in Rule 62-297.620, F.A.C.

- 23. Test Notification: The permittee shall notify the Compliance Authority in writing at least 30 days prior to initial NSPS performance tests and at least 15 days prior to any other required tests. [40 CFR 60.7, 40 CFR 60.8 and Rule 62-297.310(7)(a)9., F.A.C.]
- 24. Initial Tests Required: Initial performance tests to demonstrate compliance with the emission standards specified in this permit shall be conducted on each combustion turbine within 60 days after achieving at least 90% of maximum production rate, but not later than 180 days after initial operation of the emissions unit. Initial performance tests shall be conducted for CO, NO<sub>x</sub>, VOC, ammonia slip (if SCR installed) and visible emissions while combusting each fuel. Initial NO<sub>x</sub> performance tests shall be conducted in accordance with the requirements of NSPS Subpart GG and shall also be converted into units of the NSPS emissions standard. [Rule 62-297.310(7)(a)1., F.A.C.]
- 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 by the measurement of CO emissions upstream and downstream of the oxidation catalyst and by calculating CO removal efficiency. 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. 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.]
  - b) For purposes of demonstrating ongoing qualification as Low Mass Emission (LME) Units, the permittee shall comply with the procedures outlined in 40 CFR 75.19.
  - c) Following 3 years of annual testing for each combustion turbine, the permittee may request a reduction in the testing frequency (including retesting of Appendix E NO<sub>x</sub>-to-heat input correlation for each combustion turbine) as set forth below:
    - 1) The permittee shall demonstrate to the Department's satisfaction that a group or groups of combustion turbines are performing identically;

- 2) No more than three of the ten combustion turbines may be considered as identical for the purposes of grouping, i.e. there shall be no less than 4 total groups;
- 3) The combustion turbine which is selected for testing within each group will be rotated annually;
- 4) The operating hour exemption from testing shall not apply to an entire group of combustion turbines, i.e. every group shall be required to demonstrate annual compliance during every federal fiscal year;
- 5) Should the combustion turbine selected for annual testing within a group fail to comply with any permitted emission standard or trigger an additional requirement within this permit, every combustion turbine within that group shall be considered to have done likewise and shall be treated as such; and
- 6) The Department reserves the right to discontinue the reduction in testing frequency for annual compliance demonstrations.

[Rule 62-4.070, F.A.C.]

26. Tests Prior to Permit Renewal: Prior to renewing the air operation permit, the permittee shall conduct performance tests for CO, NO<sub>x</sub>, VOC and visible emissions from each combustion turbine. Testing for ammonia slip meeting the requirements of Condition 25 (above) 'Annual Performance Tests' will satisfy the requirements of this condition. These tests shall be conducted within the 12-month period prior to renewing the air operation permit. For pollutants required to be tested annually, the permittee may submit the most recent annual compliance test to satisfy the requirements of this provision. [Rule 62-297.310(7)(a)3., F.A.C.]
27. Tests After Major Repairs or Replacements: The Department may require that additional compliance testing be conducted within 90 days after major repairs or replacements are performed. [Rule 62-297.310(7)(a)4., F.A.C.]
28. Combustion Turbine Testing Capacity: Initial performance tests shall be conducted in accordance with 40 CFR 60.8 and 40 CFR 60.335 for pollutants subject to a New Source Performance Standard (NSPS) in Subpart GG for stationary gas turbines. Other required performance tests for compliance with standards specified in this permit shall be conducted with each combustion turbine operating at permitted capacity. Permitted capacity is defined as 90-100 percent of the maximum heat input rate allowed by the permit, corrected for the average ambient air temperature during the test (with 100 percent represented by a curve depicting heat input vs. ambient temperature). If it is impracticable to test at permitted capacity, the source may be tested at less than permitted capacity. However, subsequent operation is limited by adjusting the entire heat input vs. ambient temperature curve downward by an increment equal to the difference between the maximum permitted heat input (corrected for inlet temperature) and 110 percent of the value reached during the test 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 purposes of additional compliance testing to regain the permitted capacity. Emissions performance tests shall meet all applicable requirements of Chapters 62-204 and 62-297, F.A.C. [Rule 62-297.310(2), F.A.C.]
29. 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.]
30. Applicable Test Procedures:
  - (a) Required Sampling Time.
    1. 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. [Rule 62-297.310(4)(a)1., F.A.C.]
    2. The minimum observation period for a visible emissions compliance test shall be sixty (60) minutes. The observation period shall include the period during which the highest opacity can reasonably be expected to occur. [Rule 62-297.310(4)(a)2., F.A.C.]
  - (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. [Rule 62-297.310(4)(b), F.A.C.]
  - (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)(d), F.A.C.]



**31. 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. [Rule 62-297.310(5)(a), F.A.C.]
- (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)(b), F.A.C.]

- 32. 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.]

**CONTINUOUS MONITORING REQUIREMENTS**

- 33. NO<sub>x</sub> CEMS:** The combustion turbines qualify as Low Mass Emission (LME) Units for the purposes of Acid Rain. Accordingly, the permittee has indicated that these emissions units will follow the procedures outlined in 40 CFR 75.19 in lieu of NO<sub>x</sub> CEMS. However, should the permittee elect or be otherwise required to install NO<sub>x</sub> CEMS, such NO<sub>x</sub> monitoring devices shall comply with the requirements of 40 CFR 60.334(b) for 40 CFR Part 75 monitoring systems. A monitoring plan shall be provided to the Department's Emissions Monitoring Section Administrator, EPA Region 4, and the Compliance Authority for review no later than 45 days prior to the first scheduled certification test pursuant to 40 CFR 75.62. The plan shall consist of data on CEM equipment specifications, manufacturer, type, calibration and maintenance needs, and its proposed location. A monitor for carbon dioxide may be used in place of the oxygen monitor, but the system shall be capable of correcting the emissions to 15% oxygen. [Rule 62-212.400, F.A.C. and 40 CFR 75]
- 34. Water-to-fuel ratio:** Each Twin Pac shall be fitted with continuous water to fuel ratio monitoring equipment, as per 40 CFR 75 Appendix E. Appendix E is an alternative monitoring protocol that may be used by oil and gas-fired peaking units in lieu of installing a CEMS to measure NO<sub>x</sub> emissions. Hourly NO<sub>x</sub> emissions (lbs for natural gas, ppm for oil) shall be correlated to the results of a series of stack tests based on the heat input to the unit at various water-to-fuel injection ratios. Based upon the measured water-to-fuel ratio, and the measured heat input for each fuel, the actual NO<sub>x</sub> emissions shall be calculated. With the appropriate load selection, the Subpart GG performance testing may also be utilized to satisfy the NO<sub>x</sub>-to-heat input correlation testing requirements of Appendix E. Retesting of Appendix E NO<sub>x</sub>-to-heat input correlation for each combustion turbine shall be required annually, except as provided for within Specific Condition 25 of this permit. The permittee shall solicit a list from the turbine manufacturer of at least four operating parameters (indicative of NO<sub>x</sub> formation) with acceptable ranges to serve as QA/QC parameters as per Appendix E. The manufacturer supplied ranges for the parameters, shall be used on an hourly basis to establish that the unit is being operated in a normal fashion and, therefore, that the NO<sub>x</sub>-to-heat input correlation (by fuel type) can be used with validity.

**COMPLIANCE DEMONSTRATIONS**

- 35. 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.]
- 36. Fuel Records:** The permittee shall demonstrate compliance with the fuel sulfur limits for natural gas and fuel oil specified in this permit by maintaining records required by 40 CFR 60.334 and 60.335. [Rules 62-4.070(3) and 62-4.160(15), F.A.C.]

37. Monthly Operations Summary: By the fifth calendar day of each month, the permittee shall record the hours of operation and amount of each fuel fired for each combustion turbine. An hour of operation is defined to include a totalization of every minute within a specified period (e.g. month), during which a permitted fuel is fired (regardless of the amount) divided by 60. The information shall be recorded in a written or electronic log and shall summarize the previous month of operation and the previous 12 months of operation. Information recorded and stored as an electronic file shall be available for inspection and/or printing within at least one day of a request from the Compliance Authority. [Rule 62-4.160(15), F.A.C.]

#### REPORTS

38. Emissions Performance Test Reports: A report indicating the results of any required emissions performance test shall be submitted to the Compliance Authority no later than 45 days after completion of the last test run. The test report shall provide sufficient detail on the tested emission unit and the procedures used to allow the Department to determine if the test was properly conducted and if the test results were properly computed. At a minimum, the test report shall provide the applicable information listed in Rule 62-297.310(8)(c), F.A.C. [Rule 62-297.310(8), F.A.C.].
39. Excess Emissions Reporting and Semi-annual Reports: If excess NO<sub>x</sub> or visible emissions occur due to malfunction, the permittee shall notify the Compliance Authority within (1) working day of: the nature, extent, and duration of the excess emissions; the cause of the excess emissions; and the actions taken to correct the problem. In addition, the Department may request a written summary report of the incident. Following the NSPS format in 40 CFR 60.7(c), Subpart A, periods of startup, shutdown and malfunction, shall be monitored, recorded and reported as excess emissions when emission levels exceed the standards specified in this permit. Within thirty (30) days following each calendar semi-annual period, the permittee shall submit a report on any periods of excess emissions that occurred during the previous semi-annual period to the Compliance Authority. [Rules 62-4.130, 62-204.800, 62-210.700(6), F.A.C., and 40 CFR 60.7]
40. Annual Operating Report: The permittee shall submit an annual report that summarizes the actual operating rates and emissions from this facility. Annual operating reports shall be submitted to the Compliance Authority by March 1st of each year. The Annual Operating Report shall include an estimate of all HAPS emitted, such that the Department can affirm that the facility complies with its synthetic minor status. [Rule 62-210.370(2), F.A.C.]

**APPENDIX GC**  
GENERAL PERMIT CONDITIONS [F.A.C. 62-4.160]

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- G.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.
- G.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 or exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
- G.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.
- G.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.
- G.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.
- G.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.
- G.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.
- G.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.

**APPENDIX GC**  
GENERAL PERMIT CONDITIONS [F.A.C. 62-4.160]

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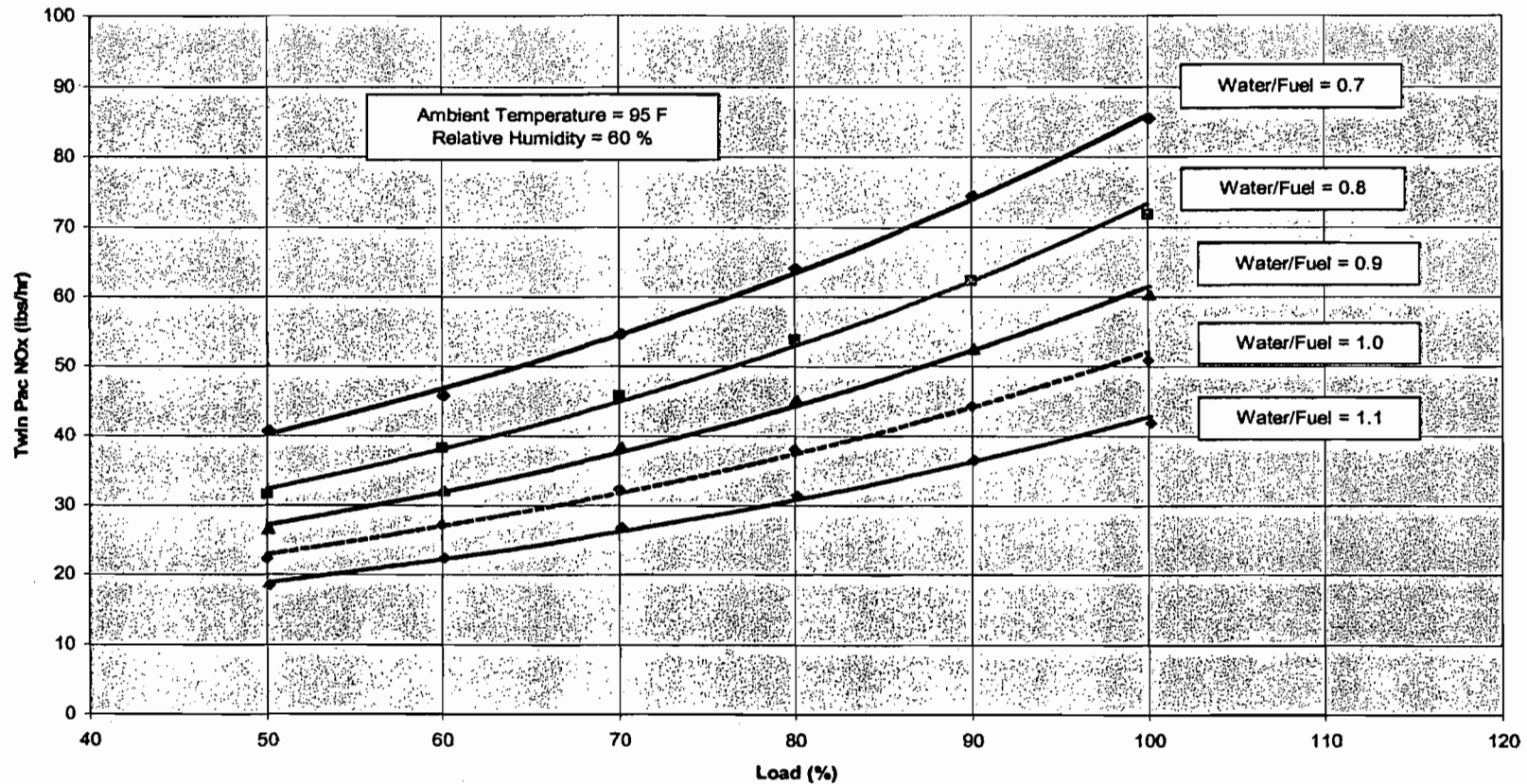
The permittee shall be responsible for any and all damages, which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

- G.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.
- G.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.
- G.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.
- G.12 This permit or a copy thereof shall be kept at the work site of the permitted activity.
- G.13 This permit also constitutes:
- a) Determination of Best Available Control Technology (X)
  - b) Determination of Prevention of Significant Deterioration (X); and
  - c) Compliance with New Source Performance Standards (X).
- G.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.
- G.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.

APPENDIX CS  
Compliance Spreadsheet

INPUT 1		INPUT 2									Next Mo.	
Month	Monthly hours of gas operation	Monthly NOx emitted (lbs)	Monthly lb/hr	Rolling 12 mo. Nox - lbs	Rolling 12 mo. hrs oper.	Rolling 12 mo. lb/hr	Over - lbs (Under) - lbs	Allowable Lbs 12 mo running	Allowable 12 Mo. Gas hrs	Used Hours	Avail. Hours	
1	0	0	0							NA		
2	0	0	0							NA		
3	0	0	0							NA		
4	0	0	0							NA		
5	0	0	0							NA		
6	0	0	0							NA		
7	0	0	0							NA		
8	0	0	0							NA		
9	0	0	0							NA		
10	0	0	0							NA		
11	0	0	0							NA		
12	0	0	0	0	0	0.0	-102000			NA		
13	0	0	0	0	0	0.0	-102000	102000	0	0	0	
14	0	0	0	0	0	0.0	-102000	102000	0	0	0	
15	0	0	0	0	0	0.0	-102000	102000	0	0	0	
16	0	0	0	0	0	0.0	-102000	102000	0	0	0	
17	0	0	0	0	0	0.0	-102000	102000	0	0	0	
18	0	0	0	0	0	0.0	-102000	102000	0	0	0	
19	0	0	0	0	0	0.0	-102000	102000	0	0	0	
20	0	0	0	0	0	0.0	-102000	102000	0	0	0	
21	0	0	0	0	0	0.0	-102000	102000	0	0	0	
22	0	0	0	0	0	0.0	-102000	102000	0	0	0	
23	0	0	0	0	0	0.0	-102000	102000	0	0	0	
24	0	0	0	0	0	0.0	-102000	102000	0	0	0	
25	0	0	0	0	0	0.0	-102000	102000	0	0	0	
26	0	0	0	0	0	0.0	-102000	102000	0	0	0	
27	0	0	0	0	0	0.0	-102000	102000	0	0	0	
28	0	0	0	0	0	0.0	-102000	102000	0	0	0	
29	0	0	0	0	0	0.0	-102000	102000	0	0	0	
30	0	0	0	0	0	0.0	-102000	102000	0	0	0	

# NOx Versus Load (Hot Day, Average Humidity)





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4

ATLANTA FEDERAL CENTER  
61 FORSYTH STREET  
ATLANTA, GEORGIA 30303-8960

JUN 07 2005

4APT-APB

RECEIVED

JUN 09 2005

BUREAU OF AIR REGULATION

Ms. Trina Vielhauer  
Florida Department of Environmental Protection  
Bureau of Air Regulation  
Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

Dear Ms. Vielhauer:

Thank you for sending to the Region 4 office of the U.S. Environmental Protection Agency (EPA) the draft prevention of significant deterioration (PSD) permit (Permit No. PSD-FL-344) for a modification of the Seminole Electric Cooperative, Inc. (SECI) Payne Creek Generating Station. The modification consists of adding ten simple cycle Pratt & Whitney combustion turbines configured in five sets of two combustion turbines referred to as Twin Pac sets. Each Pratt & Whitney Twin Pac set has a nominal generating capacity of approximately 60 megawatts. Operation of the Twin Pac sets will be restricted to 2,000 hours per year firing natural gas and 500 hours per year firing distillate fuel oil with a maximum sulfur content of 0.05 percent by weight. The proposed increase in emissions resulting from the project triggers PSD review for nitrogen oxides (NO<sub>x</sub>), sulfur dioxide (SO<sub>2</sub>), particulate matter (PM/PM<sub>10</sub>), and volatile organic compounds (VOC).

We have the following comments on the draft permit:

Twin Pac Set Terminology

1. In several permit conditions the Florida Department of Environmental Protection (FDEP) specifies a requirement for a Twin Pac or a Twin Pac set rather than for the individual combustion turbines that comprise a set. For example, Condition III.17.(b) specifies that NO<sub>x</sub> emissions "from each Twin Pac shall not exceed a 64 lb/hr average over any calendar month while firing natural gas." This could be taken to mean that one combustion turbine could exceed 64 lb/hr so long as the other had a lower emission rate to yield a set average of 64 lb/hr. If this is what FDEP intended, then it should be so stated to eliminate any confusion.

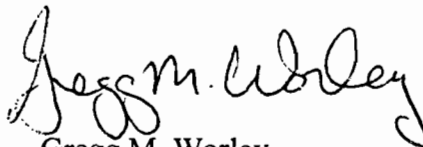
As another example, Condition III.7. provides that "Each Twin Pac shall operate no more than 2000 hours on natural gas." It is not clear if this means that each combustion turbine in a given Twin Pac shall operate no more than 2000 hours per year on natural gas or if the sum of the operating hours for both combustion turbines combined shall not exceed 2000 hours per year on natural gas.

## Excess Emissions

7. Condition III.19. describes the excess emissions prohibited by the PSD permit. The last sentence of this condition refers to the inclusion of excess emissions in the calculation of the 12-month rolling average for NO<sub>x</sub> emissions. Including this sentence in Condition III.19. is not appropriate since the condition is referring to emissions that should not be occurring in the first place, i.e., prohibited emissions. It is more appropriate for this sentence to appear in Condition III.20. Furthermore, the concept of including startup/shutdown emissions should not be limited to NO<sub>x</sub> only, but is applicable to any pollutant with an annual emission limit. Therefore, assessment of compliance with the annual limit for CO should include startup/shutdown emissions.
8. Condition III.20. describes the allowed excess emissions that can be excluded from "continuous compliance demonstrations as a result of startup, shutdown, and documented malfunctions." It is our understanding that the draft PSD permit only mandates one continuous compliance demonstration method, the monitoring of the water-to-fuel ratio in lieu of a CEMS for NO<sub>x</sub> emissions, and therefore the exclusion would only apply to NO<sub>x</sub> emissions. However, excluding startup/shutdown emissions is generally relevant only when a permit includes short-term emissions limits which is not the case for NO<sub>x</sub> in this permit. Condition III.17.(b) contains a calendar month NO<sub>x</sub> emission limit of 64 lb/hr when firing natural gas. This emission limit is 25.5 percent higher than the equivalent 12-month rolling average of 51 lb/hr that was derived from the annual NO<sub>x</sub> emissions used in the applicant's BACT analysis. This monthly emissions limit provides adequate leeway to accommodate temporary fluctuations in combustion turbine NO<sub>x</sub> emissions during startup/shutdown. Therefore, EPA's position is that exempting startup/shutdown emissions from compliance with any NO<sub>x</sub> emissions limit in this permit is not appropriate.
9. The draft permit does not include definitions of startup and shutdown. The final permit should include definitions.

If you have any questions concerning this letter, please call Jim Little at 404-562-9118 or Katy Forney at 404-562-9130.

Sincerely,



Gregg M. Worley  
Chief  
Air Permits Section



**SECI Payne Creek Generating Station  
P&W Peaker CO Emissions - PSD Applicability**

Oxidation Catalyst Efficiency: 90 %

**1. Annual Profile # 1** (Case 1 - 32°F ambient, 100% load, 1,250 hr/yr and Case 3 - 32°F ambient, 50% load, 1,250 hr/yr gas-firing)

Fuel Type	Operating Scenario			Uncontrolled CO Emissions Per CT			Controlled CO Emissions				
	Hours	Amb. Temp.	Load				Per CT			10 CTs	
	(hr/yr)	(°F)	(%)	(ppmvd)	(lb/hr)	(tpy)	(ppmvd)	(lb/hr)	(tpy)	(lb/hr)	(tpy)
Gas	1,250	32	100	80	61.3	38.3	8	6.1	3.8	61.3	38.3
Gas	1,250	32	50	193	81.3	50.8	19	8.1	5.1	81.3	50.8
<b>Totals</b>	<b>2,500</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>89.2</b>	<b>N/A</b>	<b>N/A</b>	<b>8.9</b>	<b>N/A</b>	<b>89.2</b>

**2. Annual Profile # 2** (Case 6 - 50°F ambient, 50% load, 2,500 hr/yr gas firing)

Fuel Type	Operating Scenario			Uncontrolled CO Emissions Per CT			Controlled CO Emissions				
	Hours	Amb. Temp.	Load				Per CT			10 CTs	
	(hr/yr)	(°F)	(%)	(ppmvd)	(lb/hr)	(tpy)	(ppmvd)	(lb/hr)	(tpy)	(lb/hr)	(tpy)
Gas	2,500	50	50	147	65.3	81.7	15	6.5	8.2	65.3	81.7
<b>Totals</b>	<b>2,500</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>81.7</b>	<b>N/A</b>	<b>N/A</b>	<b>8.2</b>	<b>N/A</b>	<b>81.7</b>

**3. Annual Profile # 3** (Case 6 - 50°F ambient, 50% load, 2,000 hr/yr gas firing, 500 hr/yr oil-firing)

Fuel Type	Operating Scenario			Uncontrolled CO Emissions Per CT			Controlled CO Emissions				
	Hours	Amb. Temp.	Load				Per CT			10 CTs	
	(hr/yr)	(°F)	(%)	(ppmvd)	(lb/hr)	(tpy)	(ppmvd)	(lb/hr)	(tpy)	(lb/hr)	(tpy)
Gas	2,000	50	50	147	65.3	65.3	15	6.5	6.5	65.3	65.3
Oil	500	78	50	33	13.3	3.3	3	1.3	0.3	13.3	3.3
<b>Totals</b>	<b>2,500</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>68.7</b>	<b>N/A</b>	<b>N/A</b>	<b>6.9</b>	<b>N/A</b>	<b>68.7</b>



RECEIVED

JUN 13 2005

June 8, 2005

by fax / original by mail  
BUREAU OF AIR REGULATION

Ms. Trina Vielhauer  
Florida Department of Environmental Protection  
Bureau of Air Quality Regulation  
2600 Blair Stone Road  
Tallahassee, FL 32399-2400

Re: Comments on Seminole Electric Cooperative, Inc. (SECI) Payne Creek Station/PSD-FL-344 Draft Permit

Dear Ms. Vilhauer:

We have had an opportunity to review the comments on the above-referenced draft permit submitted by the U.S. Environmental Protection Agency (EPA), by letter dated June 7, 2005. We thank EPA for its thorough review and assistance in this matter. After careful review of EPA's comments, we respectfully respond as follows:

Twin-Pac Set Terminology

1. EPA has inquired about the purpose of treating the Pratt-Whitney Twin-Pacs as sets for purposes of writing permit limits, in light of the potential need to run only one CT of a Twin-Pac at times. EPA is correct that the Twin-Pac sets have the valuable feature that one unit could be run under exceptional circumstances, if necessary. However, the preferred, most efficient mode of operation that will be utilized the vast majority of the time is that of running both CTs of a Twin-Pac simultaneously. [It should be noted that in the event only one CT of a set is temporarily on line, its operational time would count against the 2000 hour/year limit of use when burning gas (or 500 for oil).] Therefore, SECI believes that the current language of the draft permit is appropriate.

Nitrogen Oxides Emissions

2. EPA recommended that CEMs be installed on at least one Twin-Pac. However, SECI believes that the current NOx emissions monitoring required by the permit fully satisfies the requirements of 40 CFR Part 75.
3. EPA recommends that Condition III.17(d) be amended to specify a compliance averaging time. SECI concurs and suggests that the condition be revised to read as follows:

NOx emissions from each combustion turbine shall not exceed 42 ppmvd while firing oil. The compliance averaging time shall be the sampling period specified by the applicable Condition III. 22(c) compliance method.

#### Carbon Monoxide Emissions

4. EPA recommends deletion of the reference to CO in Condition III.1. SECI concurs.
5. (& 6) EPA Questions whether Condition III.16 contains a practically enforceable emissions limit on CO. SECI believes that it does. The current CO monitoring required by the draft permit (annual CO emission tests, including an annual test of the oxidation catalyst) is adequate for the relatively few hours the Twin Pacs will operate per year. In addition, as shown in the Condition III.15 emissions table, maximum emissions based on 2,000/500 hrs/yr for gas/oil are projected to total 68.9 ton/yr for all five Twin Pacs -- only 70% of the 100 ton/yr PSD applicability threshold for CO.

#### Excess Emissions

7. EPA Questioned the second sentence in Condition III.19. SECI concurs that clarification could be beneficial. We suggest that the second sentence of Condition III.19 be revised to read as follows:

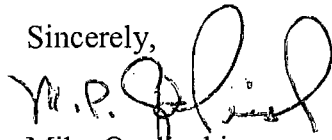
In the event that prohibited excess emissions occur, [t]hese emissions shall be included in the calculation of the 12-month rolling averages to demonstrate compliance with the continuous NOx emissions standard. [Rule 62-210.700(4), F.A.C.]

8. EPA questions the exemption of startup/shutdown emissions from compliance with NOx limits in Condition III.20. However, SECI believes that Condition III.20 properly applies Rules 62-210.700(1) & (5), and 62-4.130, F.A.C.
9. EPA recommends that definitions for startup and shutdown be included in the final permit. SECI concurs, and suggests that the following subparagraph be added to Condition III.20:

(d) The terms "shutdown" and "startup", as used in this permit, shall have the meanings set forth at Rule 62-210.200(231) & (246), respectively.

On behalf of SECI, we wish to once again thank the Department and EPA for their efforts on this matter.

Sincerely,

A handwritten signature in black ink, appearing to read "M. P. Opalinski". The signature is fluid and cursive, with the first name "M. P." written in a smaller, more legible font than the last name "Opalinski".

Mike Opalinski  
Vice President, Technical Services

cc: M. Cooke-FDEP  
M. Halpin-FDEP  
H. Oven-FDEP  
D. Beason-FDEP  
B. Green-HGS

SECI Payne Creek Generating Station  
P&W Peaker CO Emissions - PSD Applicability

Oxidation Catalyst Efficiency: 90 %

1. Annual Profile # 1 (Case 1 - 32°F ambient, 100% load, 1,250 hr/yr and Case 3 - 32°F ambient, 50% load, 1,250 hr/yr gas-firing)

Fuel Type	Operating Scenario			Uncontrolled CO Emissions Per CT			Controlled CO Emissions				
	Hours (hr/yr)	Amb. Temp. (°F)	Load (%)	(ppmvd)	(lb/hr)	(tpy)	(ppmvd)	Per CT (lb/hr)	(tpy)	10 CTs (lb/hr)	(tpy)
Gas	1,250	32	100	80	61.3	38.3	8	6.1	3.8	61.3	38.3
Gas	1,250	32	50	193	81.3	50.8	19	8.1	5.1	81.3	50.8
<b>Totals</b>	<b>2,500</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>89.2</b>	<b>N/A</b>	<b>N/A</b>	<b>8.9</b>	<b>N/A</b>	<b>89.2</b>

2. Annual Profile # 2 (Case 6 - 50°F ambient, 50% load, 2,500 hr/yr gas firing)

Fuel Type	Operating Scenario			Uncontrolled CO Emissions Per CT			Controlled CO Emissions				
	Hours (hr/yr)	Amb. Temp. (°F)	Load (%)	(ppmvd)	(lb/hr)	(tpy)	(ppmvd)	Per CT (lb/hr)	(tpy)	10 CTs (lb/hr)	(tpy)
Gas	2,500	50	50	147	65.3	81.7	15	6.5	8.2	65.3	81.7
<b>Totals</b>	<b>2,500</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>81.7</b>	<b>N/A</b>	<b>N/A</b>	<b>8.2</b>	<b>N/A</b>	<b>81.7</b>

3. Annual Profile # 3 (Case 6 - 50°F ambient, 50% load, 2,000 hr/yr gas firing, 500 hr/yr oil-firing)

Fuel Type	Operating Scenario			Uncontrolled CO Emissions Per CT			Controlled CO Emissions				
	Hours (hr/yr)	Amb. Temp. (°F)	Load (%)	(ppmvd)	(lb/hr)	(tpy)	(ppmvd)	Per CT (lb/hr)	(tpy)	10 CTs (lb/hr)	(tpy)
Gas	2,000	50	50	147	65.3	65.3	15	6.5	6.5	65.3	65.3
Oil	500	78	50	33	13.3	3.3	3	1.3	0.3	13.3	3.3
<b>Totals</b>	<b>2,500</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>68.7</b>	<b>N/A</b>	<b>N/A</b>	<b>6.9</b>	<b>N/A</b>	<b>68.7</b>