



Florida Department of
Environmental Protection

Memorandum

TO: Michael G. Cooke

THRU: Trina Vielhauer 
Jeff Koerner

FROM: Michael P. Halpin 

DATE: June 24, 2005

SUBJECT: Seminole Electric Cooperative, Inc.
Payne Creek Peaker Project

Attached for approval and signature is the final PSD permit for the subject facility.

As you are aware, much of what is contained in this permit is the result of lengthy settlement discussions between FDEP and SECI. Accordingly, proper deference was given to SECI's responses to EPA's comments, in making the Final Determination.

I recommend your approval and signature.

Attachments

/mph

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
NOTICE OF PERMIT

In the Matter of an
Application for Permit by:

Seminole Electric Cooperative, Inc.
16313 North Dale Mabry Highway
Tampa, FL 33688-2000

Permit PSD-FL-344; 0490340-003-AC
Power Plant Siting Case No. PA 89-25
Payne Creek Generating Station


Enclosed is the Final Permit Number PSD-FL-344. This permit authorizes Seminole Electric Cooperative, Inc. to construct approximately 300 MW of peaking power at the existing Payne Creek Generating Station, located in Hardee County. This permit is issued pursuant to Chapter 403, Florida Statutes and 40CFR52.21.

Any party to this order (permit) has the right to seek judicial review of the permit pursuant to Section 120.68, F.S., by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Legal Office; 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 of Appeal must be filed within 30 (thirty) days from the date this Notice is filed with the Clerk of the Department.

In addition to the appeal process described above, federal appeals procedures concerning this PSD permit are outlined in 40CFR 124.19. Any person who filed comments on the draft permit may petition the Environmental Appeals Board to review any condition of the permit decision. Any person who failed to file comments on the draft permit may petition for administrative review only to the extent of the changes from the draft to the final permit decision.

The petition must be filed with the Environmental Appeals Board within 30 days of issuance of this Notice. Petitions may be addressed to the Environmental Appeals Board, MC 1103B, U.S. Environmental Protection Agency, 401 M Street, Washington, D.C. 20460. Further details are available at www.epa.gov/eab.

Executed in Tallahassee, Florida.



Trina Vielhauer, Chief
Bureau of Air Regulation

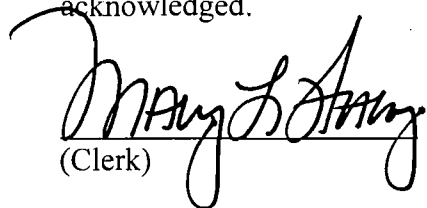
CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF FINAL PERMIT (including the FINAL permit) was sent by certified mail* and copies were mailed by U.S. Mail before the close of business on 6/29/05 to the person(s) listed:

Michael P. Opalinski, SECI *
Mike Roddy, SECI
Jim Frauen, SECI
Tom Davis, ECT
Joel Smolen, DEP-SWD
Hamilton Oven, DEP-Siting
Jim Little, EPA Region 4
Gregg Worley, EPA Region 4
John Bunyak, NPS
William H. Green, HG&S

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) 6/29/05
(Date)

FINAL DETERMINATION

Seminole Electric Cooperative, Inc.
Payne Creek Generating Station
DEP File No. 0490340-003-AC, PSD-FL-344

The Department distributed a public notice package on May 9, 2005 to allow the applicant to construct approximately 300 MW of simple cycle peaking power at the Payne Creek Generating Station located at 6697 County Road 663, Bowling Green, Hardee County. The Public Notice of Intent to Issue concerning the Draft Permit was published in the *Herald Advocate* on May 12, 2005 and the *Highlands Today* on May 11, 2005.

COMMENTS/CHANGES

No comments were received by the Department from the public.

Comments were received from EPA by letter dated June 7, 2005.

Comments were received from the applicant by letter dated June 8, 2005. These comments were largely in response to EPA comments and are only referenced where appropriate for this final determination.

The comments are summarized below and the Department's responses are included following each comment.

Twin Pac Set Terminology: EPA noted that some potential confusion exists where permit conditions are specified for a Twin Pac rather than individual combustion turbines. By way of example, Condition III.7. states that "Each Twin Pac shall operate no more than 2000 hours on natural gas..." and Condition III.17.(b) specifies that "NO_x emissions from each Twin Pac shall not exceed a 64 lb/hr average over any calendar month while firing natural gas." EPA suggests that questions might exist as to whether the operation of a single CT for "2000 hours on natural gas" is considered as 2000 hours of Twin Pac operation, and whether a 64 lb/hr average over any calendar month might be construed as the average of each CT instead of the monthly average of the additive NO_x emissions. Additionally, the applicant has noted that the preferred, most efficient mode of operation which will be utilized the vast majority of the time is that of running both CTs of a Twin Pac simultaneously.

RESPONSE: In direct response to EPA's comments, one hour of operation for any portion of the Twin Pac (whether one or both CT's) represents one hour of Twin Pac operation and the sum (not average) of the individual CT NO_x emissions represents the Twin Pac NO_x output, with the hourly emissions averaged over time. However, in consideration of this comment, the Department will clearly define a Twin Pac and its relationship to each CT within Condition III.3.

NO_x Averaging Time on Oil: EPA commented "Condition III.17.(d) contains a NO_x emissions limit when firing fuel oil but does not indicate the compliance averaging time for this limit. If the compliance averaging time is the sampling period specified for the performance testing method (EPA Method 7E), this should be so stated."

RESPONSE: The Department agrees and will revise Condition III.17.(d) accordingly.

Reference to CO in Condition III.1.: EPA noted that since the project did not trigger a PSD review, the reference to CO in this condition should be eliminated.

RESPONSE: The Department agrees and will revise Condition III.1. accordingly.

Specific Condition III.16: EPA questioned whether this condition constitutes a practically enforceable CO emission limit (19.9 TPY per Twin Pac, determined by annual stack test). EPA suggested that "a short-term (pounds per hour or ppm) limit combined with parametric monitoring of some sort" might be an alternative.

FINAL DETERMINATION

Seminole Electric Cooperative, Inc.
Payne Creek Generating Station
DEP File No. 0490340-003-AC, PSD-FL-344

RESPONSE: The Department notes that the TPY limit proposed within the draft permit is to be determined via EPA Method 10. Furthermore, EPA Method 10 requires that the mass emission rate is calculated based upon a measured CO concentration within the stack gas. As a result, the CO mass emission rate limitation within the Seminole permit requires the following intermediate steps (additively, per combustion turbine):

CO Mass Emission Rate Calculations per CT

CO = corrected concentration of CO (ppmvd)

MW = 28 lb/lb-mole

Q_d = SCFH (from EPA Method 19 flow data)

Mass emission rate of CO (lb/hr) = $CO \times 10^{-6} \times Q_d \times MW / 385.322$ (ideal gas)

Mass emission rate of CO (ton/yr per CT) = CO (lb/hr) x {hrs/yr Twin Pac operation}/2000 (lb/ton)

Mass emission rate of CO (ton/yr per Twin Pac) = CT1 (ton/yr) + CT2 (ton/yr)

Since the compliance method requires that the short term emission rate (ppm) be measured in order to comply with the calculated TPY limit, the Department will revise the subject condition to incorporate appropriate short-term CO emission limits (19 ppm gas or 7 ppm oil) and a requirement that the applicant take appropriate steps (such as performing maintenance or replacing catalyst) should a standard be exceeded.

Specific Condition III.19: EPA commented that this condition “describes the excess emissions prohibited by the PSD permit” and that the last sentence of the condition “is not appropriate since the condition is referring to emissions that should not be occurring in the first place, i.e., prohibited emissions.” EPA recommended that the sentence be relocated so as to appear in Condition III.20. EPA additionally noted that “the concept of including startup/shutdown emissions should not be limited to NO_x only, but is applicable to any pollutant with an annual emission limit” and startup and shutdown of CO emissions should therefore be included in the annual limit.

RESPONSE: In response to EPA’s initial suggestion, the second sentence of Condition III.19 will be reworded. Regarding the latter suggestion, the Department will incorporate a condition requiring the applicant to quantify the CO emissions resulting from a representative start-up and to include such emissions within the annual compliance demonstration.

Specific Condition III.20: EPA noted that “exempting startup/shutdown emissions from compliance with any NO_x emissions limit in this permit is not appropriate” given the lack of a short-term emission limit for these units.

RESPONSE: The Department has reviewed significant amounts of emissions data for those Twin Pac units in operation domestically. In general, the highest concentration of NO_x is observed during the first 10% of output (load) range and decreases to values at or below 25 ppm by the time the unit reaches 25% of output. It is also noted that the start-up time for the Twin Pac units is approximately 10 minutes, and that shutdowns can also occur within a 10 minute period. Based upon FDEP’s review, the most likely case is that the first hour of operation of a start-up would result in emissions well below 51 lbs, suggesting that it is advantageous to the applicant to include that initial hour of start-up emissions in the monthly compliance calculation. Re-stated, there is adequate incentive between the equipment design and the compliance method to ensure that it would be a rare case whereby the applicant would wish to exclude an hour of start-up or shutdown data. Given these factors, the Department concludes that in this case, providing the permittee with an allowance for exempting start/up and shut-down emissions is not problematic.

FINAL DETERMINATION

Seminole Electric Cooperative, Inc.
Payne Creek Generating Station
DEP File No. 0490340-003-AC, PSD-FL-344

Start-up and Shut-down definitions: EPA recommended that definitions for start-up and shut-down be included in the final permit.

RESPONSE: The Department agrees.

NO_x CEMS: EPA recommended that the applicant be required to install a NO_x CEMS on one Twin Pac due to concerns about “the actual level of NO_x emissions that can be achieved when operating the proposed combustion turbines.”

RESPONSE: The Department agrees.

CONCLUSION

The final action of the Department is to issue the permit with the changes described above.



Department of Environmental Protection

Jeb Bush
Governor

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

Colleen M. Castille
Secretary

PERMITTEE:

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

Authorized Representative:

Mr. Michael P. Opalinski
Vice President of Technical Services

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]

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:

"More Protection, Less Process"

Printed on recycled paper.

SECTION I. FACILITY INFORMATION

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_x, CO, VOC, PM₁₀ and SO₂ 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 the *Herald-Advocate* on May 12, 2005 and *Highlands Today* on May 11, 2005
- Proof of publication received on May 26th and May 25th, 2005, respectively.

SECTION II. ADMINISTRATIVE REQUIREMENTS

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

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.]

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

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 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 year¹.

Both parties recognize this as a unique case. This is the only 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_x emission limit for gas firing. Therefore, the Department issues this permit with a NO_x 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.

¹ 500 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

- Prevention of Significant Deterioration:** The emission units addressed in this section are subject to a PSD Review for nitrogen oxides (NO_x), sulfur dioxide (SO₂), particulate matter (PM₁₀), Volatile Organic Compounds (VOC) and particulate matter (PM₁₀). [Rule 62-212.400, F.A.C.]
- 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.
 - 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
 - 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

- 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. Each Twin Pac is comprised of two combustion turbines, representing (and referred to herein as) a "combustion turbine set". [Applicant Request]
- 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

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

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_x Burner Technology: The permittee shall install, calibrate, tune, operate, and maintain a dry low NO_x burner and/or water injection system for each combustion turbine. The system shall be designed and operated so as to ensure that NO_x emissions are sufficient to achieve the NO_x 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]

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

13. SCR: Should an SCR be installed to control NO_x 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_x 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% O₂. All NO_x 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) ¹	TPY for 5 EU's ¹
		OIL	GAS		
NO _x	lb/hr equiv of 20 ppm (gas), 42 ppmvd (oil) @ 15% O ₂	102.4	51	153,200	383
CO	19.9 TPY ²	2.7	13.1	27,550	68.87
SO ₂	Natural Gas & 0.05% Sulfur oil	29.4	1.8	18,300	45.75
PM ₁₀	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. CO emissions from each combustion turbine shall not exceed 19 ppmvd (gas) nor 7 ppm (oil). The permittee shall demonstrate compliance with these standards by conducting performance tests and emissions monitoring in accordance with EPA Method 10 and the requirements of this permit. In the event that any of these standards are exceeded, the permittee shall take appropriate steps (e.g. perform maintenance, replace catalyst, etc.) in order to reduce CO emissions below the standards, as demonstrated by a subsequent re-test within 60 days of obtaining the results of the exceedance. [Rule 62-212.400(2)(g), F.A.C. (PSD Avoidance)]

17. Nitrogen Oxides (NO_x):

- (a) NO_x 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_x 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_x reduction for the next calendar month of actual operation. This hours limitation adjustment will ensure a truing up of NO_x 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_x 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_x 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_x for natural gas firing is not exceeded, and

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

- (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_x emissions from each combustion turbine shall not exceed 42 ppmvd while firing fuel oil. The compliance averaging time shall be the sampling period specified by the applicable Condition III. 22.(c) compliance method.
- (e) During the initial twelve calendar months of operation, NO_x 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_x emissions, in accordance with Specific Condition 34.

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

18. Particulate Matter (PM/PM₁₀) Sulfur Dioxides (SO₂) and Volatile Organic Compounds (VOC):

- (a) Fuel Specifications. Emissions of PM, PM₁₀, and SO₂ 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. In the event that prohibited emissions occur, these emissions shall be included in the calculation of the 12-month rolling averages to demonstrate compliance with the continuous NO_x emissions standard. {Permitting Note: The permittee shall quantify the CO emissions resulting from a typical start-up and include estimated annual emissions in the TPY limitation specified within Specific Condition 16.} [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.]
- (c) The terms "startup" and "shutdown", as used in this permit, shall have the meanings set forth at Rule 62-210.200(246) and (231), respectively.

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

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_x, VOC, ammonia slip (if SCR installed) and visible emissions while combusting each fuel. Initial NO_x 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_x, 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_x emissions data collected during the annual NO_x 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

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

be conducted at least once during each federal fiscal year (October 1st to September 30th). 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_x-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_x, 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.

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

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_x 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_x CEMS. However, should the permittee elect or be otherwise required to install NO_x CEMS, such NO_x 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_x emissions. Hourly NO_x 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_x emissions shall be calculated. With the appropriate load selection, the Subpart GG performance testing may also be utilized to satisfy the NO_x-to-heat input correlation testing requirements of Appendix E. Retesting of Appendix E NO_x-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_x 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_x-to-heat input correlation (by fuel type) can be used with validity. As a further means of ensuring the validity of the Appendix E protocol for determining NO_x

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

emissions, one of the five Twin Pacs shall be fitted with a NO_x CEMS. The NO_x CEMS which is installed solely for this purpose (rather than one of the purposes outlined in Specific Condition 33 above) shall not be the compliance method, but shall be utilized for the purpose of ensuring that the Appendix E protocol is being properly applied. Annual data (obtained from the above required testing) shall be provided to the Department correlating the CEMS indication to the Appendix E indication.

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

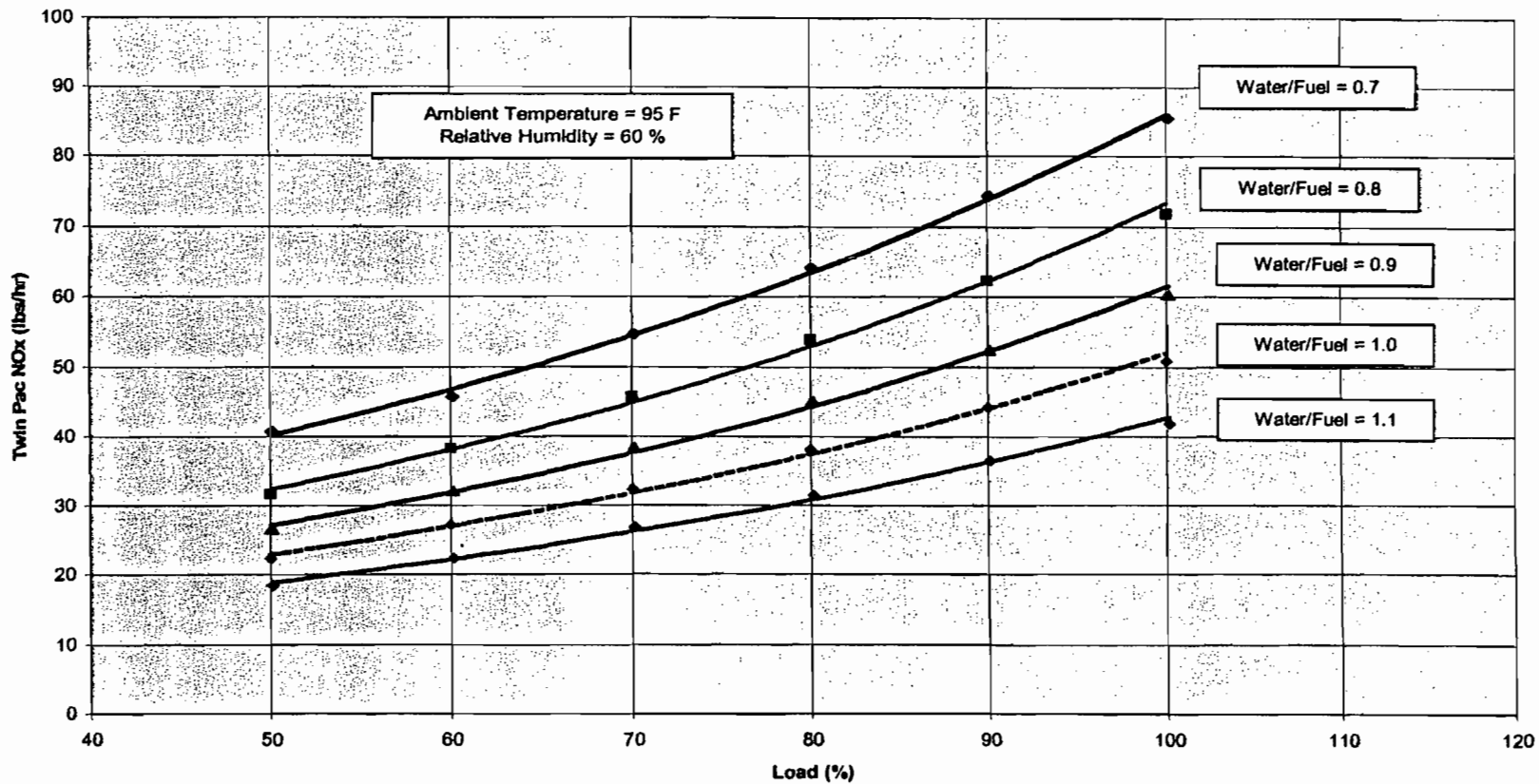
38. Emissions Performance Test Reports: A report indicating the results of any required emissions performance test shall be submitted to the Compliance Authority no later than 45 days after completion of the last test run. The test report shall provide sufficient detail on the tested emission unit and 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_x 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 CS
Compliance Spreadsheet

<u>Month</u>	INPUT 1	INPUT 2	<u>Monthly lb/hr</u>	<u>Rolling 12 mo. Nox - lbs</u>	<u>Rolling 12 mo. hrs oper.</u>	<u>Rolling 12 mo. lb/hr</u>	<u>Over - lbs (Under) - lbs</u>	<u>Allowable Lbs 12 mo running</u>	<u>Allowable 12 Mo. Gas hrs</u>	<u>Used Hours</u>	<u>Next Mo. Avail. Hours</u>	
	<u>Monthly hours of gas operation</u>	<u>Monthly NOx emitted (lbs)</u>										
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

APPENDIX CS
Compliance Spreadsheet

NOx Versus Load (Hot Day, Average Humidity)



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

- 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]

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.

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

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

2. Article Number
(Transfer from service label)

7001 0320 0001 3692 2886

COMPLETE THIS SECTION ON DELIVERY

A. Signature

Xwendi Cummins Agent Addressee

B. Received by (Printed Name)

C. Date of Delivery

7/1/05

D. Is delivery address different from item 1? Yes
If YES, enter delivery address below: No

3. Service Type

- Certified Mail Express Mail
- Registered Return Receipt for Merchandise
- Insured Mail C.O.D.

4. Restricted Delivery? (Extra Fee) Yes

U.S. Postal Service
CERTIFIED MAIL RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

7001 0320 0001 3692 2886

Postage	\$	
Certified Fee		
Return Receipt Fee (Endorsement Required)		
Restricted Delivery Fee (Endorsement Required)		

Postmark
Here

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



May 24, 2005

Michael P. Halpin, P.E.
FDEP-Bureau of Air Regulation
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Re: Payne Creek Generating Station, Peaker Project
Project No. 0490340-003-AC

Dear Mr. Halpin:

Attached is the "proof of publication" for the Public Notice which ran in the Highlands Today on May 11, 2005. We published in two paper because the Herald-Advocate is only a weekly paper and Highlands Today is a daily. If you have any questions please call me at (813) 739-1224.

Sincerely,

Mike Roddy
Senior Environmental Engineer

RECEIVED

MAY 26 2005

BUREAU OF AIR REGULATION



RECEIVED

MAY 25 2005

BUREAU OF AIR REGULATION

May 23, 2005

Michael P. Halpin, P.E.
FDEP-Bureau of Air Regulation
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Re: Payne Creek Generating Station, Peaker Project
Project No. 0490340-003-AC

Dear Mr. Halpin:

Attached is the "proof of publication" for the Public Notice which ran in the Herald-Advocate on May 12, 2005. If you have any questions please call me at (813) 739-1224.

Sincerely,

Mike Roddy
Senior Environmental Engineer

BEST AVAILABLE COPY

HIGHLANDS TODAY & THE 1
Published Daily
Sebring, Highlands County,

State of Florida }
County of Highlands } ss.

Before the undersigned authority personally appeared that she is Advertising Billing Supervisor of Highlands newspapers published at Sebring in Highlands County of advertisement being a

LEGAL NOTICE HIGHLANDS TODAY

in the matter of **PUBLIC NOTICE OF INTENT**

was published in said newspaper in the issues of
MAY 11, 2005

Affiant further says that the said Highlands Today & The Tampa Tribune are newspapers published at Sebring in said Highlands County, Florida, and the said newspapers have heretofore been continuously published in said Highlands County, Florida, each day and have been entered as second class mail matter at the post office in Sebring, in said Highlands County, Florida for a period of one year next preceding the first publication of the attached copy of advertisement; and affiant further says that she has neither paid nor promised any person, this advertisement for publication in the said newspaper.

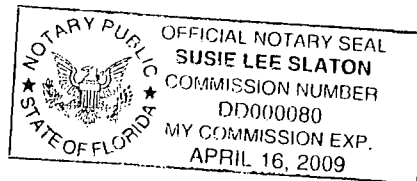
C. Offner

Sworn to and subscribed by me, this 18 day
of MAY, A.D. 20 05

Personally Known or Produced Identification _____
Type of Identification Produced _____

(SEAL)

Susie Lee Slaton



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. 1/2 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 unclassifi-

able. 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 re-

sults in an emission limitation for Nitrogen Oxides (NOX) 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 NOX emission limit, which is reflected in the terms and conditions of the draft permit. Based on the supporting air quality analysis 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 above. A copy of the application is available at the Resource Center located at the applicant's address. The applicant has agreed that the project will not have a significant impact on air quality and that the project will comply with all applicable laws, rules, and regulations. Final Administrative Review: The Permitting Authority will review the project for compliance with the provisions of Chapters 62-4, 62-210, and 62-212, F.A.C. and the conditions of the draft permit. The Permitting Authority will issue a final decision on the project. The Permitting Authority will issue a final decision on the project. The Permitting Authority will issue a final decision on the project.

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 above. A copy of the application is available at the Resource Center located at the applicant's address. The applicant has agreed that the project will not have a significant impact on air quality and that the project will comply with all applicable laws, rules, and regulations. Final Administrative Review: The Permitting Authority will review the project for compliance with the provisions of Chapters 62-4, 62-210, and 62-212, F.A.C. and the conditions of the draft permit. The Permitting Authority will issue a final decision on the project. The Permitting Authority will issue a final decision on the project. The Permitting Authority will issue a final decision on the project.

Notice of Intent: 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 of Intent. The Department will hold a public hearing on the project on the date and time set forth in the attached Public Notice of Intent. Any person who wishes to participate in the hearing should contact the Permitting Authority at the address above. A copy of the application is available at the Resource Center located at the applicant's address. The applicant has agreed that the project will not have a significant impact on air quality and that the project will comply with all applicable laws, rules, and regulations. Final Administrative Review: The Permitting Authority will review the project for compliance with the provisions of Chapters 62-4, 62-210, and 62-212, F.A.C. and the conditions of the draft permit. The Permitting Authority will issue a final decision on the project. The Permitting Authority will issue a final decision on the project. The Permitting Authority will issue a final decision on the project.

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'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 petitioner 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 403.501(3), F.S. Mediation is available in this proceeding. The Permitting Authority will issue a final decision on the project. The Permitting Authority will issue a final decision on the project. The Permitting Authority will issue a final decision on the project.

AFFIDAVIT OF PUBLICATION
The Herald-Advocate
Published Weekly at Wauchula, Florida

RECEIVED
MAY 25 2005

FLORIDA,
HARDEE

I, the undersigned authority personally appeared Denise Moya of the backkeeper of The Herald-Advocate, a newspaper published at Wauchula, in Hardee County, Florida; that the attached copy of advertisement is a Public Notice of Intent to Issue Air Permit of Seminole Electric Cooperative Court, was published in said newspaper in the issues of May 12, 2005

and further says that the said Herald-Advocate is a newspaper published at Wauchula, in Hardee County, Florida, and that the said newspaper has heretofore been continuously published in Hardee County, Florida, each week and has been entered as second class mail matter at the post office at Wauchula, in said Hardee County, Florida, for a period of one year next preceding the date of the attached copy of advertisement; and affiant further says that he has neither paid nor received any person, firm or corporation any discount, rebate, commission or refund for the purpose of advertising for publication in the said newspaper.

Denise Moya

Witness my hand and subscribed before me this 12 day of May, 2005
Army Jay Brown
Notary Public

My Commission Expires June 28, 2008



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 representative is Mr. Michael P. Opalinski, Vice President of Technical Services. The applicant's mailing address is 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 high pressure steam generator (HRSG). The combustion turbines only operate in combined-cycle mode (i.e., the HRSGs are with bypass stacks). Steam generated by the two HRSGs is sent to one common nominal 173 MW steam turbine facility which utilizes pipeline natural gas as its primary fuel source with distillate fuel oil serving as a backup fuel. At 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 Ambient Air Quality Standards (AAQS) or otherwise designated as unclassifiable. The power plant is in compliance with Rule 62-212.400, F.A.C., the regulatory program for the Prevention of Significant Deterioration 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 generate output of the facility from 500 to 800 megawatts of output. Based on potential emissions increases, 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 Technology (BACT) for each of these pollutants. The Department's determination resulted in an emission limit for Nitrogen Oxides (NO_x) which was more stringent than the applicant had sought, and the applicant filed a preconstruction hearing in accordance with Sections 120.569 and 120.57, F.S. Subsequently, settlement discussions in the NO_x emission limit, which is reflected in the terms and conditions of the draft permit. Based on the settlement analysis of the potential impacts from increased operation, the applicant provided the Department with 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 incremental facility 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 Florida Statutes (F.S.) and Chapters 62-4, 62-210, and 62-212 of the Florida Administrative Code. The proposed project is not exempt from air permitting requirements and an air permit is required to perform the 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 South Magnolia Drive, Suite 4, Tallahassee, Florida 32301 and the mailing address is 2600 Blair Stone Road, 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 9:00 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. 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. A copy of the application is available in the Air Resource Section of the Department's Southwest District Office at 3804 Coconut Palm Drive, Tallahassee, Florida 32309-8218 (Phone: 813/744-6100).

Notice of Intent to Issue Air Permit: The Permitting Authority gives notice of its intent to issue an air permit for the project described above. The applicant has provided reasonable assurance that operation of the equipment will not adversely impact air quality and that the project will comply with all appropriate provisions of the Florida Statutes (F.S.) and Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297, F.A.C. The Permitting Authority will issue a Final Air Permit 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 of intent results in a significant change of terms or conditions.

Comments: The Permitting Authority will accept written comments concerning the Draft Permit for a period of 30 days from the date of publication of the Public Notice. Written comments must be post-marked, and all e-mail comments must be received by the close of business (5:00 p.m.), on or before the end of this 30-day period. Comments should be submitted to the Permitting Authority at the above address, email or facsimile. As part of his or her comments, any person may request that the Permitting Authority hold a public meeting on this permitting action. If the Permitting Authority determines that there is sufficient interest for a public meeting, it will publish notice of the time, date, and location on the Department's website at <http://dhora6.dep.state.fl.us/oww> 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. 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 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, Florida Department of Environmental Protection, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32300. Petitions filed by the applicant or any of the parties listed below must be filed within fourteen (14) days from the date of this Written Notice of Intent to Issue Air Permit. Petitions filed by any persons other than those entitled to vote under Section 120.60(3), F.S., must be filed within fourteen (14) days of publication of the attached Public Notice. Petitions filed 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 hearing (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party. Subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in conformity 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; (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; (c) A statement of how the petitioner's substantial interests will be affected by the agency determination; (d) A statement of all disputed material facts; (e) A statement of the petitioner's proposed action; (f) A statement of the ultimate facts alleged, and when each petitioner received notice of the agency action or proposed action; (g) A statement of all disputed material facts. If there are none, the petition must so state; (h) A concise statement of the petitioner's proposed action; (i) 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 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 for an administrative hearing does not constitute a stay of the Permitting Authority's final action. Persons whose substantial interests will be affected by any such final decision of the Permitting Authority have the right to petition to become a party to the proceeding, in accordance with the requirements of Rule 403.501-519, F.S. This PSD permitting action is being coordinated with a certification under the Power Plant Siting Act, 403.501-519, F.S. If a petition for an administrative hearing on the Department's intent to issue an air permit is filed by a substantially affected person, that hearing shall be consolidated with the certification hearing, as provided by Rule 403.507(3), F.S.

Mediation: Mediation is not available in this proceeding.

Hopping Green & Sams

Attorneys and Counselors

March 25, 2005

Via U.S. Mail

W. Douglas Beason
Assistant General Counsel
Department of Environmental Protection
3900 Commonwealth Boulevard, MS #35
Tallahassee, FL 32399-3000

Re: Seminole Electric Cooperative, Inc.
Public Notice of Intent to Issue Air Permit

Dear Mr. Beason:

Enclosed please find Seminole Electric's published Public Notice of Intent to Issue Air Permit, along with their accompanying affidavits.

Sincerely,



Robert A. Manning

RAM/rje

cc: Mike Roddy

Enclosures

MAR 28 2005

BEST AVAILABLE COPY

AFFIDAVIT OF PUBLICATION

The Herald-Advocate

Published Weekly at Wauchula, Florida

STATE OF FLORIDA,
COUNTY OF HARDEE

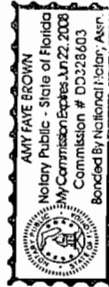
Before the undersigned authority personally appeared Denise Moya
who on oath says he is the bookkeeper of The Herald-Advocate, a
newspaper published at Wauchula, in Hardee County, Florida; that the attached copy of advertise-
ment, being a Public Notice To Issue Air Permit
in the matter of Seminole Electric
in the _____ Court, was published in said newspaper in the issues
of March 10, 2005

Affiant further says that the said Herald-Advocate is a newspaper published at Wauchula, in
said Hardee County, Florida, and that the said newspaper has heretofore been continuously published
in said Hardee County, Florida, each week and has been entered as second class mail matter at the
post office in Wauchula, in said Hardee County, Florida, for a period of one year next preceding the
publication of the attached copy of advertisement; and affiant further says that he has neither paid nor
promised any person, firm or corporation any discount, rebate, commission or refund for the purpose
of securing this advertisement for publication in the said newspaper.

Denise Moya

Sworn to and subscribed before me this 10 day of March
A.D. 2005

Army Jay Brown
Notary Public
My Commission Expires June 22 2008



PUBLIC NOTICE OF INTENT TO ISSUE AIR PERMIT

Florida Department of Environmental Protection
Project No. 0490340-003-AC/Draft Air Permit No. PSD-FL-3
Seminole Electric Cooperative, Inc. - Payne Creek Generating Station
Hardee County, Florida

Applicant: This applicant for this project is Seminole Electric Cooperative, Inc. The applicant's authorized representative is Mr. Michael P. Opalinski, Vice President, Technical Services. The applicant's mailing address is 18313 North Dale 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 101 megawatts (MW) combined-cycle Siemens Westinghouse 501FD combustion turbine. 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. The Department has made a preliminary determination of the Best Available Control Technology (BACT) for each of these pollutants. 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.

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 the 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 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 and phone number listed above. A copy of the project file 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.

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, e-mail 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 website for notices at <http://flhosp.dep.state.fl.us/sona> 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 file 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 on which the petitioner contends warrant reversal of 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.S.

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 than the action of Intent to Issue Air Permit. Persons

BEST AVAILABLE COPY

HIGHLANDS TODAY & THE TAMPA TRIBUNE
Published Daily
Sebring, Highlands County, Florida

State of Florida
County of Highlands } ss.

Before the undersigned authority personally appeared C. Pugh, who on oath says that she is Advertising Billing Supervisor of Highlands Today & The Tampa Tribune, daily newspapers published at Sebring in Highlands County, Florida; that the attached copy of advertisement being a

LEGAL NOTICE HIGHLANDS TODAY

in the matter of PUBLIC NOTICE OF INTENT
was published in said newspaper in the issues of MARCH 10, 2005

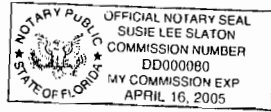
Affiant further says that the said Highlands Today & The Tampa Tribune are newspapers published at Sebring in said Highlands County, Florida, and the said newspapers have heretofore been continuously published in said Highlands County, Florida, each day and have been entered as second class mail matter at the post office in Sebring, in said Highlands County, Florida for a period of one year next preceding the first publication of the attached copy of advertisement; and affiant further says that she has neither paid nor promised any person, this advertisement for publication in the said newspaper.

Sworn to and subscribed by me, this 15 day of MARCH, A.D. 20 05

Personally Known or Produced Identification
Type of Identification Produced

(SEAL)

Susie Lee Slaton



PUBLIC NOTICE OF INTENT TO ISSUE AIR PERMIT
Florida Department of Environmental Protection
Project No. 0490349-003-AC/Draft Air Permit No. PSD-F-344

Applicant: This applicant for this project is Seminole Electric Cooperative, Inc. (SEC). The applicant's authorized representative is Mr. Michael P. Dpalinski, Vice President of Technical Services. The applicant's mailing address is 16313 North Dale Mabry Highway, Tampa, Florida 33618.

Facility Location: SEC 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 megawatt Siemens Westinghouse 50FD combustion 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 a common nominal 173 MW steam turbine. The facility utilizes piped-in natural gas as its primary fuel source with distillate fuel oil as a backup fuel source.

The existing power plant is located in Hardee County in an area that is currently in attainment with the state and federal Ambient Air Quality Standards (AAQS) and otherwise designated as unclassified. The power plant is a major facility in accordance with Rule 62-210, F.S., 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 capacity of the facility from 500 to 800 megawatts 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. The Department has made a preliminary determination of the Best Available Control Technology (BACT) for each of the supporting air quality 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.

Permitting Authority: Applications for all 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 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 Avenue, Tallahassee, Florida 32301 and the mailing address is 2600 Lyons 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 the address indicated above for the Permitting Authority. The complete project file includes the Draft Permit and Preliminary Determination, the application submitted by the applicant, exclusive of confidential information, under Section 403.111, F.S. Interested persons may contact the Permitting Authority's project review engineer for additional information on the address and phone number listed above. A copy of the project file is available at the Air Resource Section of the Department's South Coconut Palm Drive, Tallahassee, Florida 32318. 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. The applicant has provided reasonable assurance that the proposed equipment will not adversely impact ambient air quality with all appropriate provisions of 62-204, 62-210, 62-212, 62-296, and 62-301, F.A.C. will issue a Final Permit in accordance with the conditions of the proposed Draft Permit unless a timely petition for administrative review 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 Draft Permit for a period of three (3) 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 period by the Permitting Authority at the above address. As part of his or her comments, any person may 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 of the meeting on the Department's official website for notices at http://flhars.deo.state.fl.us/now 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 file 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 petitioner

must submit the petition set forth below to the Bureau of Air Regulation. The petition must be filed with (received by) the Department of General Counsel of the Department of Environmental Protection, 3900 Commonwealth Boulevard, Mail Station #15, Tallahassee, Florida 32399-3000. Petitions filed by the applicant or an authorized representative of the applicant 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 file a petition must be filed within fourteen (14) days of publication of the Public Notice or within fourteen (14) days of receipt of this Written Notice of Intent to Issue Air Permit. A person who asks the Permitting Authority for notice of agency action may file a petition within fifteen (15) 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 listed above, at the time of filing. The failure of a person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative hearing under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any such 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.S.

A petition that disputes the public notice 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; (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 petitioner must so state. (e) A statement of the ultimate facts alleged, including the specific facts upon which the petitioner contends reversal of 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 petitioner 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 otherwise shall contain the same information as set forth above, as required by Rule 28-106.30, F.S.

Because the administrative hearing process is designed to formulate a 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 interest will be affected by any such final decision of the Permitting Authority on

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 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.

AD#26736 3/10/2005
SB7584

STATE OF FLORIDA
DIVISION OF ADMINISTRATIVE HEARINGS

FILED
05 MAY -6 PM 3:47
DIVISION OF
ADMINISTRATIVE
HEARINGS

SEMINOLE ELECTRIC COOPERATIVE, INC.

Petitioner,

v.

DOAH Case No. 05-1228
OGC Case No. 05-0611
OGC Case No. 05-0322

DEPARTMENT OF ENVIRONMENTAL
PROTECTION,

Respondent.

_____ /

SETTLEMENT AGREEMENT

Petitioner, Seminole Electric Cooperative, Inc. (Seminole), and Respondent, Department of Environmental Protection (Department), hereby enter into this Settlement Agreement in resolution of all issues raised in OGC Case No. 05-0322 and DOAH Case No. 05-1228. (This latter case also has an OGC Case No. of 05-0611.)

1. The referenced cases that are the subject of this Settlement Agreement involve the Department's action in response to Seminole's application, in August 2004, for a Prevention of Significant Determination (PSD) permit to install additional electric generating equipment at the Payne Creek Generating Station in Hardee County, Florida.

2. In February, 2005, the Department issued an Intent to Issue and Draft Air Permit No. PSD-FL-344. On March 7, 2005, Seminole initiated OGC Case No. 05-0322 by filing a Petition for Formal Administrative Hearing that contested certain conditions in that Draft Air Permit No. PSD-FL-344. On March 22, 2005, the Department notified Seminole that the Intent to Issue and Draft Permit No. PSD-FL-344 was being replaced by a Written Notice of Intent to Deny Air Permit. On March 23, 2005, the Department issued an Order dismissing Seminole's

pending Petition for Formal Administrative Hearing as moot. On March 24, 2005, Seminole initiated Case No. OGC 05-0611 by filing a Petition for Formal Administrative Hearing contesting the Department's Written Intent to Deny Air Permit. The Department then referred this petition to the Division of Administrative Hearings, where it was assigned DOAH Case No. 05-1228.

3. The Department and Seminole have shared information and diligently pursued settlement opportunities in lieu of proceeding with a contested administrative hearing.

4. As a result of the ongoing dialogue between the parties, the Department will issue the version of Notice of Intent and Draft permit (Draft Air Permit No. PSD-FL-344) that is attached hereto as Attachment 1.

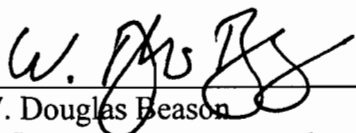
5. The parties mutually agree that the referenced Notice of Intent and Draft Permit (Attachment 1) contain conditions that comply with all applicable requirements and resolve all disputed issues.

6. The parties, in reliance on implementation of this Settlement Agreement, jointly request the Department of Administrative Hearings dismiss DOAH Case No. 05-1228.

7. Each party shall bear its own attorneys' fees and litigation costs.


Respectfully submitted this 6th day of May, 2005.

**DEPARTMENT OF ENVIRONMENTAL
PROTECTION**



W. Douglas Beason
Office of General Counsel

**SEMINOLE ELECTRIC
COOPERATIVE, INC.**



William H. Green
James S. Alves
Attorneys for Seminole Electric
Cooperative, Inc.

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that the original of the forgoing document has been filed with Division of Administrative Hearings, and a copy served by U.S. Mail on Douglas Beason, Department of Environmental Protection, The Douglas Building, 3900 Commonwealth Boulevard, Tallahassee, Florida, 32399-3000 this 5th day of May, 2005.



Attorney

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

Attachment "1"

WRITTEN NOTICE OF INTENT TO ISSUE AIR PERMIT

*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 sufficient interest for a public meeting, it will publish notice of the time, date, and location on the Department's official

WRITTEN NOTICE OF INTENT TO ISSUE AIR PERMIT

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.

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 _____ 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)

(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_x) 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_x 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.

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 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)

PERMITTEE:

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

Authorized Representative:
Mr. Michael P. Opalinski
Vice President of Technical Services

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]

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:

SECTION I. FACILITY INFORMATION

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_x, CO, VOC, PM₁₀ and SO₂ 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

SECTION II. ADMINISTRATIVE REQUIREMENTS

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

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.]

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

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 year¹.

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_x emission limit for gas firing. Therefore, the Department issues this (draft) permit with a NO_x 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.

¹ 500 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

- Prevention of Significant Deterioration:** The emission units addressed in this section are subject to a PSD Review for nitrogen oxides (NO_x), sulfur dioxide (SO₂), particulate matter (PM₁₀), carbon monoxide (CO), Volatile Organic Compounds (VOC) and particulate matter (PM₁₀). [Rule 62-212.400, F.A.C.]
- 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.
 - 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
 - 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

- 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]
- 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

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

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_x Burner Technology: The permittee shall install, calibrate, tune, operate, and maintain a dry low NO_x burner and/or water injection system for each combustion turbine. The system shall be designed and operated so as to ensure that NO_x emissions are sufficient to achieve the NO_x 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_x 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_x limits shall be according to Condition III. 17. The

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

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% O₂. All NO_x 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) ¹	TPY for 5 EU's ¹
		OIL	GAS		
NO _x	lb/hr equiv of 20 ppm (gas), 42 ppmvd (oil) @ 15% O ₂	102.4	51	153,200	383
CO	19.9 TPY ²	2.7	13.1	27,550	68.87
SO ₂	Natural Gas & 0.05% Sulfur oil	29.4	1.8	18,300	45.75
PM ₁₀	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_x):**

- (a) NO_x 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_x 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_x reduction for the next calendar month of actual operation. This hours limitation adjustment will ensure a truing up of NO_x 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_x 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_x 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_x 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_x emissions shall not exceed 42 ppmvd while firing fuel oil.
- (e) During the initial twelve calendar months of operation, NO_x emissions while firing natural gas shall not exceed 102,000 lbs per Twin Pac, nor 64 lb/hr averaged over any calendar month.

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

- (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_x emissions, in accordance with Specific Condition 34.

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

18. Particulate Matter (PM/PM₁₀) Sulfur Dioxides (SO₂) and Volatile Organic Compounds (VOC):

- (a) Fuel Specifications. Emissions of PM, PM₁₀, and SO₂ 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_x 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

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

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_x, VOC, ammonia slip (if SCR installed) and visible emissions while combusting each fuel. Initial NO_x 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_x, 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_x emissions data collected during the annual NO_x 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 1st to September 30th). 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_x-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;

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

- 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_x, 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.]

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

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_x 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_x CEMS. However, should the permittee elect or be otherwise required to install NO_x CEMS, such NO_x 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_x emissions. Hourly NO_x 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_x emissions shall be calculated. With the appropriate load selection, the Subpart GG performance testing may also be utilized to satisfy the NO_x-to-heat input correlation testing requirements of Appendix E. Retesting of Appendix E NO_x-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_x 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_x-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.]

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

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.]

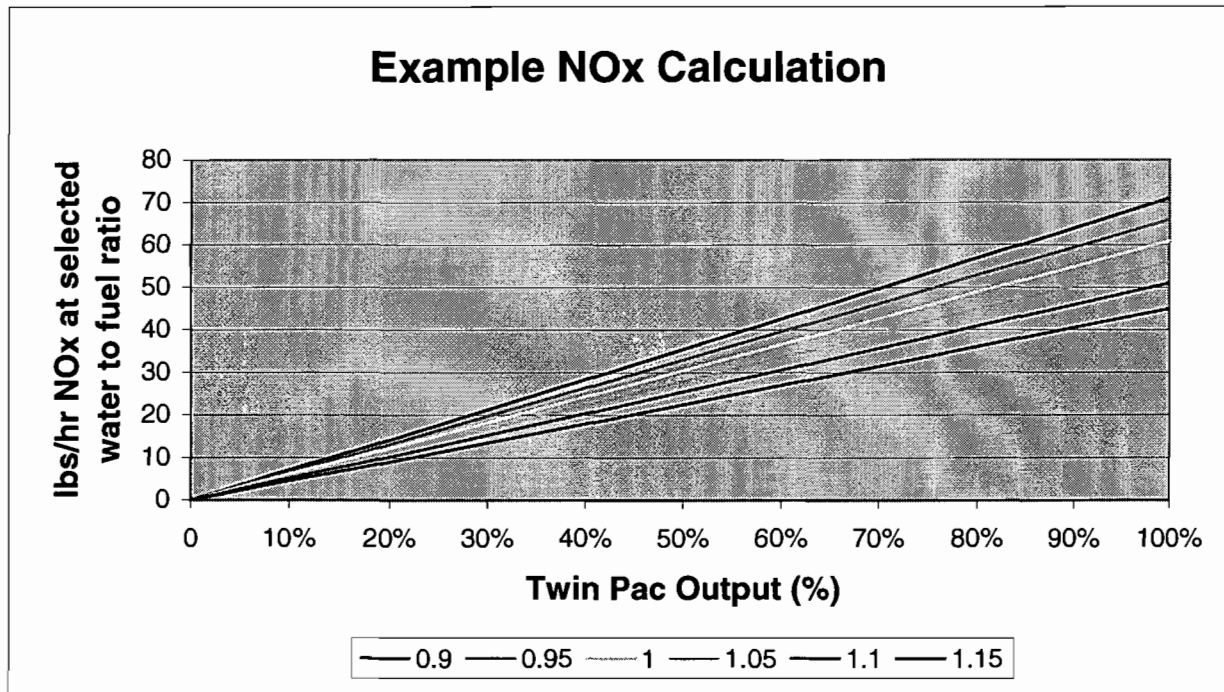
REPORTS

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_x 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.]

Month	INPUT 1	INPUT 2	Monthly lb/hr	<u>Rolling</u>	<u>Rolling</u>	<u>Rolling</u>	<u>Over - lbs</u> <u>(Under) - lbs</u>	<u>Allowable Lbs</u> <u>12 mo running</u>	<u>Allowable 12</u> <u>Mo. Gas hrs</u>	<u>Used</u> <u>Hours</u>	<u>Next Mo.</u>
	Monthly hours of gas operation	Monthly NOx emitted (lbs)		<u>12 mo.</u> <u>Nox - lbs</u>	<u>12 mo.</u> <u>hrs oper.</u>	<u>12 mo.</u> <u>lb/hr</u>					<u>Avail.</u> <u>Hours</u>
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

EXAMPLE: lb/hr NOx at various water to fuel ratios:

<u>heat input</u>	<u>0.9</u>	<u>0.95</u>	<u>1</u>	<u>1.05</u>	<u>1.1</u>	<u>1.15</u>
0	0	0	0	0	0	0
10%	7.1	6.6	6.1	5.6	5.1	4.5
20%	14.2	13.2	12.2	11.2	10.2	9
30%	21.3	19.8	18.3	16.8	15.3	13.5
40%	28.4	26.4	24.4	22.4	20.4	18
50%	35.5	33	30.5	28	25.5	22.5
60%	42.6	39.6	36.6	33.6	30.6	27
70%	49.7	46.2	42.7	39.2	35.7	31.5
80%	56.8	52.8	48.8	44.8	40.8	36
90%	63.9	59.4	54.9	50.4	45.9	40.5
100%	71	66	61	56	51	45





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

*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

Authorized Representative:

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

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

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

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.

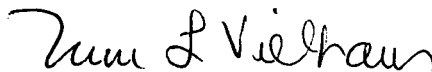
Petitions: A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative hearing in accordance with Sections 120.569 and 120.57, F.S. The petition must contain the information set forth below and must be filed with (received by) the Department's 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.



Trina Vielhauer, Chief
Bureau of Air Regulation

WRITTEN NOTICE OF INTENT TO ISSUE AIR PERMIT

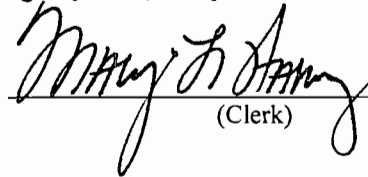
CERTIFICATE OF SERVICE

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_x) 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_x 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.

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 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)

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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_x, CO, VOC, PM₁₀ and SO₂ 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 year¹.

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_x emission limit for gas firing. Therefore, the Department issues this (draft) permit with a NO_x 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.

¹ 500 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_x), sulfur dioxide (SO₂), particulate matter (PM₁₀), carbon monoxide (CO), Volatile Organic Compounds (VOC) and particulate matter (PM₁₀). [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_x Burner Technology: The permittee shall install, calibrate, tune, operate, and maintain a dry low NO_x burner and/or water injection system for each combustion turbine. The system shall be designed and operated so as to ensure that NO_x emissions are sufficient to achieve the NO_x 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_x 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_x limits shall be according to Condition III. 17. The

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

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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% O₂. All NO_x 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) ¹	TPY for 5 EU's ¹
		OIL	GAS		
NO _x	lb/hr equiv of 20 ppm (gas), 42 ppmvd (oil) @ 15% O ₂	102.4	51	153,200	383
CO	19.9 TPY ²	2.7	13.1	27,550	68.87
SO ₂	Natural Gas & 0.05% Sulfur oil	29.4	1.8	18,300	45.75
PM ₁₀	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_x):**

(a) NO_x 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_x 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_x reduction for the next calendar month of actual operation. This hours limitation adjustment will ensure a truing up of NO_x 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_x 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_x 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_x 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_x emissions shall not exceed 42 ppmvd while firing fuel oil.

(e) During the initial twelve calendar months of operation, NO_x 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_x emissions, in accordance with Specific Condition 34.

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

18. Particulate Matter (PM/PM₁₀) Sulfur Dioxides (SO₂) and Volatile Organic Compounds (VOC):

- (a) Fuel Specifications. Emissions of PM, PM₁₀, and SO₂ 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_x 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_x, VOC, ammonia slip (if SCR installed) and visible emissions while combusting each fuel. Initial NO_x 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_x, 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_x emissions data collected during the annual NO_x 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 1st to September 30th). 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_x-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_x, 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_x 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_x CEMS. However, should the permittee elect or be otherwise required to install NO_x CEMS, such NO_x 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_x emissions. Hourly NO_x 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_x emissions shall be calculated. With the appropriate load selection, the Subpart GG performance testing may also be utilized to satisfy the NO_x-to-heat input correlation testing requirements of Appendix E. Retesting of Appendix E NO_x-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_x 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_x-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_x 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]

- 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]

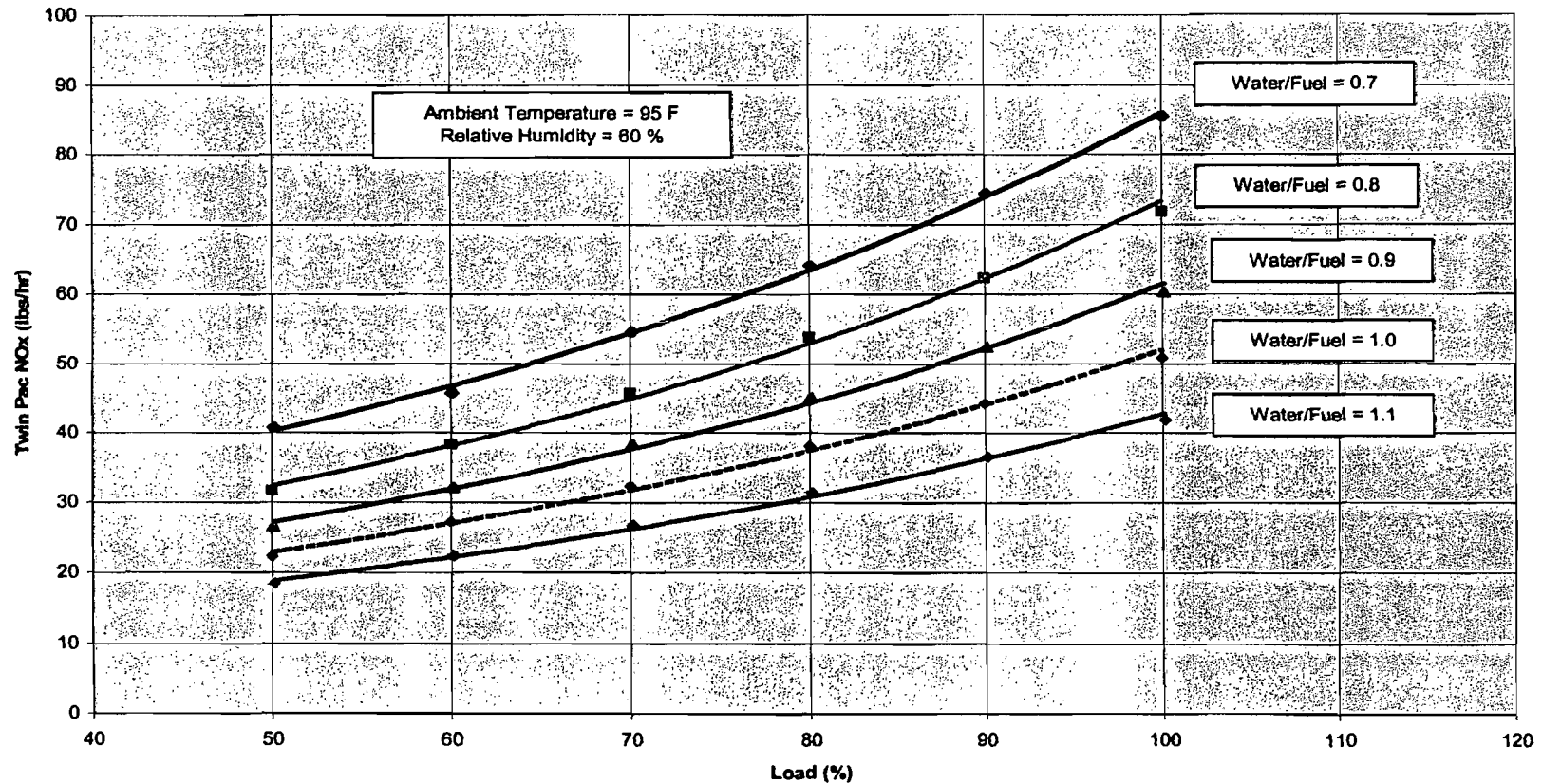
The permittee shall be responsible for any and all damages, which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

- 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		<u>Rolling</u>	<u>Rolling</u>	<u>Rolling</u>	<u>Over - lbs</u>	<u>Allowable Lbs</u>	<u>Allowable 12</u>	<u>Used</u>	<u>Next Mo.</u>
<u>Month</u>	<u>hours of gas</u>	<u>NOx emitted</u>	<u>Monthly</u>	<u>12 mo.</u>	<u>12 mo.</u>	<u>12 mo.</u>	<u>(Under) - lbs</u>	<u>12 mo running</u>	<u>Mo. Gas hrs</u>	<u>Hours</u>	<u>Avail.</u>
	<u>operation</u>	<u>(lbs)</u>	<u>lb/hr</u>	<u>Nox - lbs</u>	<u>hrs oper.</u>	<u>lb/hr</u>					<u>Hours</u>
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)





Department of Environmental Protection

Jeb Bush
Governor

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

Colleen M. Castille
Secretary

March 22, 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: Issuance of Intent to Deny 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. ("Seminole Electric") submitted an application for a Prevention of Significant Deterioration ("PSD") permit 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.

On February 4, 2005, The Department of Environmental Protection issued an Intent to Issue Air Permit and a Draft Permit for the above-referenced project. On March 7, 2005, Seminole Electric filed a Petition for Administrative Hearing pursuant to sections 120.569 and 120.57, Florida Statutes, challenging the issuance of the Department's Draft Permit.

Upon receipt of the Petition for Administrative Hearing, the Department re-evaluated its proposed agency action and made a determination that Seminole Electric's application for a PSD permit should be denied. Accordingly, the Department hereby withdraws the Intent to Issue Air Permit and the Draft Permit and issues the attached Written Notice of Intent to Deny Air Permit.

The "Written Notice of Intent to Deny Air Permit" provides important information regarding the Permitting Authority's Intent to Deny an air permit for the proposed project including the process for filing a petition for an administrative hearing.

If you have any questions, please contact my office at 850/921-9503.

Sincerely,

A handwritten signature in cursive script that reads "Trina Vielhauer".

Trina Vielhauer, Chief
Bureau of Air Regulation

Enclosures

"More Protection, Less Process"

Printed on recycled paper.

*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

Authorized Representative:

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

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

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 Pratt-Whitney FT8 Twin Pac Combustion Turbine (nominal 60 MW) gas turbine-electrical generator sets and other miscellaneous support equipment. Upon completion of this project, the plant would 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 permit application.

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 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 project file 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 Withdrawal of Written Notice of Intent to Issue Air Permit: On February 4, 2005, the Department issued a Written Notice of Intent to Issue Air Permit and a Draft Permit for the above-referenced project. Seminole Electric has filed a Petition for Administrative Hearing with respect to the Department's proposed agency action. The Department has re-evaluated its proposed agency action and has concluded that Seminole Electric's application for a PSD permit should be denied. Accordingly, the Department hereby withdraws the Written Notice of Intent to Issue Air Permit. The Department's Notice of Withdrawal renders moot the pending Petition for Administrative Hearing. The Department's Written Notice of Intent to Deny Air Permit provides Seminole Electric with a separate point-of-entry in the event it should elect to administratively challenge the Department's permitting decision.

Written Notice of Intent to Deny Air Permit: The Permitting Authority hereby gives Written Notice of its Intent to Deny a PSD permit to the applicant for the project described above. The applicant has failed to provide reasonable assurance that the operation of the proposed FT8 Twin Pac Combustion Turbines and related equipment will comply with all applicable provisions of Chapters 62-4, 62-210, and 62-212, F.A.C. Specifically, the applicant has failed to provide reasonable assurance to demonstrate that a NOx emission rate of 25 parts per million (ppm) using water injection represents Best Available Control Technology for simple cycle combustion turbines. Therefore, the applicant has failed to provide reasonable assurance that the proposed project will meet the requirements of Rule 62-212.400, F.A.C., which requires the application of Best Available Control Technology.


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 Deny Air Permit. 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 Deny 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 Deny Air Permit" was sent by certified mail (*), facsimile (**), and copies were mailed by U.S. Mail before the close of business on 3/22/05 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
Robert Manning, Jim Alves, HGS **
Doug Beason, Pat Comer, OGC **
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.

Victoria Gibson
(Clerk)


3/22/05
(Date)

Memorandum

Florida Department of Environmental Protection

TO: Trina Vielhauer

THRU: J. K. Pennington

FROM: M. P. Halpin 

DATE: February 4, 2005

SUBJECT: Seminole Electric Cooperative, Inc. – Payne Creek Generating Station
300-Megawatt Peaker Project
DEP File No. 0490340-003-AC

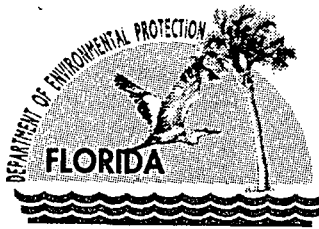
Seminole Electric Cooperative, Inc. (SECI) has submitted a permit application, requesting permission to add another 300 megawatts of simple cycle peaking power to the existing Payne Creek Generating Station. SECI has requested approval to install 5 combustion turbine-generator sets, each with an approximate 60 MW of capacity. The applicant maintains that the preferred CT sets are Pratt & Whitney Twin Pacs (FT-8), capable of achieving 25 ppmvd / 42 ppmvd @ 15% O₂ based upon gas/oil firing. SECI additionally has requested permission for 500 hours per year of 0.05% sulfur oil firing, out of 2500 hours per year of requested operation.

The attached draft documents reflect a proposed NO_x limit of 15 ppmvd while firing natural gas (rather than 25 ppmvd) which is consistent with EPA guidance and recent (5 years) Department permitting actions for simple cycle combustion turbines firing natural gas, where SCR was not applied. My review suggests that the break even point at which SCR becomes cost effective is around 3000 hours of annual operation, and thus an SCR was not required here. This determination is consistent with the recent Tallahassee Hopkins simple cycle CT addition, where SCR was cost effective at 5840 annual operating hours.

Attached is the public notice package for the subject project. I recommend your approval.

JKP/mph

Attachments



Department of Environmental Protection

Jeb Bush
Governor

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

Colleen M. Castille
Secretary

February 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: "Technical Evaluation and Preliminary BACT Determination", "Draft Permit", "Written Notice of Intent to Issue Air Permit", and "Public Notice of Intent to Issue Air Permit".

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

If you have any questions, please contact the Project Engineer, Michael P. Halpin, P.E. at 850/921-9519.

Sincerely,

Trina Vielhauer, Chief
Bureau of Air Regulation

Enclosures

TV/jp/mh

"More Protection, Less Process"

Printed on recycled paper.

WRITTEN NOTICE OF INTENT TO ISSUE AIR PERMIT

*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

Authorized Representative:

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

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

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 "Technical Evaluation and Preliminary BACT 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 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 Technical Evaluation and Preliminary BACT 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 and phone number listed above. A copy of the project file 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

WRITTEN NOTICE OF INTENT TO ISSUE AIR PERMIT

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.

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.



Trina Vielhauer, Chief
Bureau of Air Regulation

P.E. Certification Statement

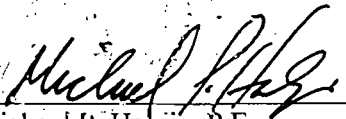
Seminole Electric Cooperative, Inc.
Payne Creek Generating Station – Peaker Project
Hardee County

DEP File No.: PSD-FL-344, PA 89-25
Facility ID No.: 0490340

Project: PSD Permit – Addition of 300 MW peaking power

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

(Seal)



Michael P. Halpin, P.E.
Registration Number: 31970

2-3-05
Date

Permitting Authority:
Florida Department of Environmental Protection
Division of Air Resources Management
Bureau of Air Regulation
New Source Review Section
Mail Station #5505
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Telephone: 850/488-0114
Fax: 850/922-6979

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, the Technical Evaluation and Preliminary BACT Determination, and the Draft Permit) was sent by certified mail (*) and copies were mailed by U.S. Mail before the close of business on 2/4/05 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.

Gregg Worley (Clerk) 2/4/05 (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. The Department has made a preliminary determination of the Best Available Control Technology (BACT) for each of these pollutants. 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 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 and phone number listed above. A copy of the project file 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.

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

(Public Notice to be Published in the Newspaper)

PUBLIC NOTICE OF INTENT TO ISSUE AIR PERMIT

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.

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 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)

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

- 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]

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.



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.

- Appendix BD - Technical Evaluation and BACT Determination
- Appendix GC - Construction Permit General Conditions

Michael G. Cooke, Director
Division of Air Resource Management

Date:

SECTION I. FACILITY INFORMATION

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 and Best Available Control Technology (BACT) determination. For this project, emissions of NO_x, CO, VOC, PM₁₀ and SO₂ are significant and subject to the BACT standards specified in this permit. The emission of CO has 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 02/04/05
- Public Notice published in xxxxxx on xx/xx/xx
- Proof of publication received xx/xx/xx

SECTION II. ADMINISTRATIVE REQUIREMENTS

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 facility 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 any previous determination 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,

SECTION II. ADMINISTRATIVE REQUIREMENTS

compliance test results, and such additional information as the Department may by law require. The application shall 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.]

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

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.

APPLICABLE STANDARDS AND REGULATIONS

1. **BACT Determinations:** The emission units addressed in this section are subject to a Best Available Control Technology (BACT) determination for nitrogen oxides (NO_x), sulfur dioxide (SO₂), particulate matter (PM₁₀), carbon monoxide (CO), Volatile Organic Compounds (VOC) and particulate matter (PM₁₀). [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 or equivalent). Each unit 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 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, Intermittent 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 and BACT determination and 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 increasing the allowable hours of operation, including 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)]

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

7. Hours of Operation: Each combustion turbine shall operate no more than 2500 hours during any consecutive 12-month period, 500 of which may be on distillate fuel oil. The permittee shall install, calibrate, operate and maintain a monitoring system to measure and accumulate the hours of operation. In the event that any increase to the hours of operation (of any fuel type) is sought prior to December 31, 2010 an SCR shall be installed (consistent with the conditions of this permit) prior to the increase being granted. 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. (BACT); Rule 62-212.400(2)(g), F.A.C.; Rule 62-210.200, F.A.C. (PTE)]
8. Operating Procedures: The Best Available Control Technology (BACT) 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. (BACT)]
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_x Burner Technology: The permittee shall install, calibrate, tune, operate, and maintain a dry low NO_x burner and/or water injection system for each combustion turbine. The system shall be designed and operated so as to ensure that NO_x emissions are sufficient to achieve the NO_x emission limits in Condition III. 17 [Rule 62-212.400, F.A.C. (BACT)]
12. Oxidation Catalyst: To control CO and VOC emissions, each combustion turbine shall include an oxidation catalyst. The catalyst systems shall be designed in order to achieve 7.0 ppm CO, regardless of the fuel being combusted. [Design and Rule 62-212.400, F.A.C.]
13. SCR: Adequate space shall be provided, to install a Selective Catalytic Reduction system (SCR) for each combustion turbine. Should an SCR be installed to control NO_x 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_x limits shall be 15.0 ppm (gas) and 42 ppm (oil). 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% O₂. All NO_x limits are in units of ppmvd corrected to 15% oxygen. [Rule 62-212.400, F.A.C. (BACT); 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. This table does not supersede any of the terms or conditions of this permit:

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

Pollutant	Emission Standard	CT Emissions (lb/hr)		Emission Unit (lb/year)	TPY for 5 EU's
		OIL	GAS		
NO _x	15 (gas) 42 (oil) ppmvd @ 15% O ₂	51.2	19.2	128,000	320
CO	7 ppmvd @ 15% O ₂	7.0	7.0	35,000	87.5
SO ₂	NG & 0.05% S oil	14.7	0.9	18,300	45.75
PM ₁₀	VE	7	3	19,000	47.5
VOC	CO as surrogate	4.6	8.3	37,800	94.5

Notes: (1) Assumed 2000 hours of oil operation and 500 hours of natural gas operation at highest emission rate.
 (2) Calculated based upon applicant proposed oxidation catalyst at 85% removal efficiency and proposed limit.

16. Carbon Monoxide (CO):

CO emissions from each combustion turbine shall not exceed 7.0 ppmvd corrected to 15% oxygen for each fuel. 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_x):

NO_x emissions from each combustion turbine shall not exceed 15.0/42.0 ppmvd corrected to 15% oxygen for gas/oil nor 5.0/8.0 ppmvd corrected to 15% oxygen for gas/oil in the event that an SCR is installed. Compliance with the BACT standard specified herein shall satisfy the NSPS requirements. The permittee shall demonstrate compliance with this standard by conducting performance tests and emissions monitoring in accordance with 40 CFR Part 60 Subpart GG and based on a 24-hour block average for data collected from the continuous emissions monitor. [Rule 62-212.400, F.A.C. (BACT)]

18. Particulate Matter (PM/PM₁₀) Sulfur Dioxides (SO₂) and Volatile Organic Compounds (VOC):

- (a) Fuel Specifications. Emissions of PM, PM₁₀, and SO₂ 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 24-hour averages to demonstrate compliance with the continuous NO_x 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 (CEM) 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

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

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 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_x, VOC, ammonia slip and visible emissions while combusting each fuel. Initial NO_x 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: To demonstrate compliance with the emission standards specified in this permit, the permittee shall conduct annual performance tests for NO_x, CO, and visible emissions from each combustion turbine for each fuel. VOC emission tests are not required annually provided the CO emission standards are being met. 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_x emissions data collected during the annual NO_x 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 1st to September 30th). In the event that the operation of the CT 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.]

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

26. Tests Prior to Permit Renewal: Prior to renewing the air operation permit, the permittee shall conduct performance tests for CO, NO_x, 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

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

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_x CEMS: - The permittee shall install, calibrate, operate, and maintain a CEMS to measure and record NO_x and oxygen concentrations in the combustion turbine exhaust stack. 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. The NO_x 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. [Rule 62-212.400, F.A.C. (BACT) and 40 CFR 75]

34. NO_x CEMS Data Requirements:

(a) Installation. The CEMS shall be installed, calibrated, and properly functioning prior to the initial performance tests. Each device shall comply with the applicable monitoring system requirements of 40 CFR 60.7(a)(5), 40 CFR 60.13, and 40 CFR 60.334(b).

(b) Data Collection. Emissions shall be monitored and recorded at all times including startup, operation, shutdown, and malfunction except for continuous monitoring system breakdowns, repairs, calibration checks, zero adjustments and span adjustments. Each valid 1-hour average shall be calculated using at least two valid data points at least 15 minutes apart.

(c) Data Reporting: Data collected by the CEMS shall be used to demonstrate compliance with the emissions standards specified for each 24-hour block average. Emissions shall be reported in units of ppmvd corrected to 15% oxygen for each hour of operation. The compliance averages shall be determined by calculating the arithmetic average of a 24-hour block of valid hourly emission rates. When a monitoring system reports emissions in excess of the standards allowed by this permit, the permittee shall notify the Compliance Authority within one (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. The Department may request a written report summarizing the excess emissions incident. The permittee shall also report excess emissions in a quarterly report as required in specific condition 42 of this permit.

(d) Data Exclusion. Unless prohibited by 62-210.700 F.A.C., valid hourly emission rates shall not include periods of start up, shutdown, or documented malfunction as described under the excess emissions requirements of this permit.

[Rules 62-4.130, 62-4.160(8), 62-204.800, 62-210.700, 62-297.520, F.A.C and 40 CFR 60.7].

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

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

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_x 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.]

**TECHNICAL EVALUATION AND
PRELIMINARY BACT DETERMINATION**

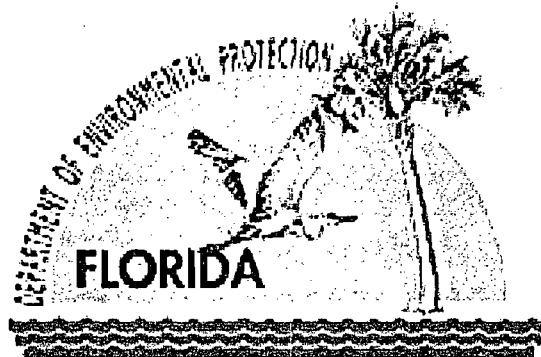
**TECHNICAL EVALUATION
AND
PRELIMINARY BACT DETERMINATION**

Seminole Electric Cooperative

Payne Creek Peaker Project

Hardee County

0490340-003-AC



Department of Environmental Protection
Division of Air Resources Management
Bureau of Air Regulation
North Permitting Section

February 4, 2005

TECHNICAL EVALUATION AND PRELIMINARY BACT DETERMINATION

1. GENERAL INFORMATION

1.1 APPLICANT NAME AND ADDRESS

Seminole Electric Cooperative, Inc.
Payne Creek Peaker Project
16313 North Dale Mabry Highway
Tampa, Florida 33688-2000

Authorized Representative: Michael P. Opalinski – Vice President of Technical Services

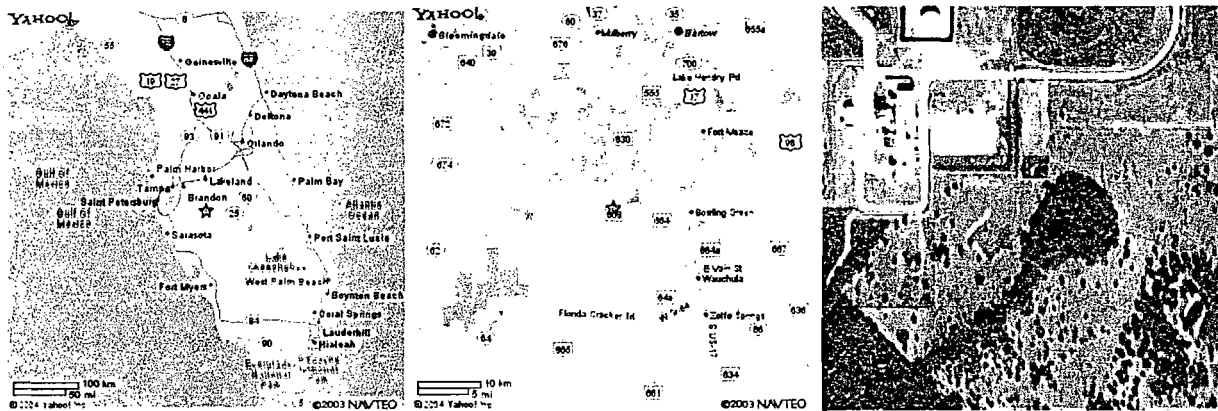
1.2 REVIEWING AND PROCESS SCHEDULE

August 27, 2004 Received permit application
November 17, 2004 Received response to first RFAI
January 20, 2005 Received response to second RFAI

2. FACILITY INFORMATION

2.1 FACILITY LOCATION

This existing facility is located at 6697 County Road 663, Bowling Green, Hardee County. UTM Coordinates: Zone 17, 405.049 km East and 3057.712 km North; and, Latitude: 27° 38' 30" North and Longitude: 81° 57' 45" West.



2.2 STANDARD INDUSTRIAL CLASSIFICATION CODES (SIC)

Industry Group No.	49	Electric, Gas and Sanitary Services
Industry No.	4911	Electric Services

2.3 FACILITY CATEGORY

The regulated emissions units at the existing facility include 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. These are Acid Rain Units and are regulated under the Florida Electrical Power Plant Siting Act.

Based on the Title V permit, this facility is a synthetic minor source of hazardous air pollutants (HAPs). This facility is classified as a Major or Title V Source of air pollution because emissions of at least one regulated air pollutant, such as particulate matter (PM/PM₁₀), sulfur dioxide (SO₂), nitrogen oxides (NO_x), carbon monoxide (CO), or volatile organic compounds (VOC) exceeds 100 tons per year (TPY). This facility is within an industry included in the list of the 28 Major Facility Categories per Table 62-212.400-1, F.A.C. Because emissions are greater than 100 TPY for at least one criteria pollutant, the facility is also a Major Facility with respect to Rule 62-212.400,

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Prevention of Significant Deterioration (PSD). This facility is located in an area designated, in accordance with Rule 62-204.340, F.A.C., as attainment for all pollutants.

3. PROJECT DESCRIPTION

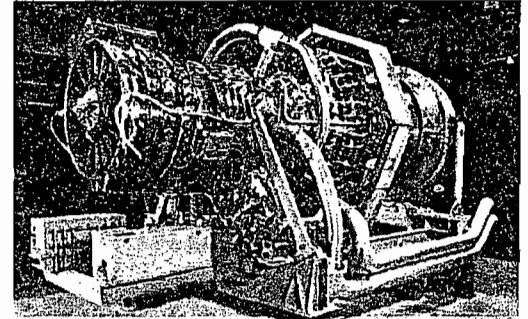
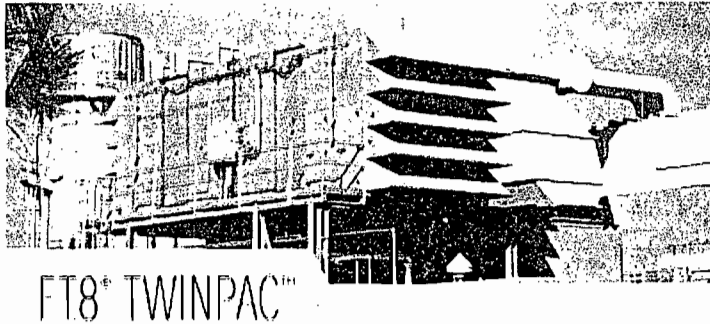
This project will add approximately 300 megawatts worth of simple cycle (peaking power) combustion turbines.

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

The applicant proposes that the above generators will be operated in simple cycle mode (only) with the hours of operation limited to 2500 per CT per year. Of the 2500 hours per year, the applicant proposes to fire 0.05% sulfur oil for up to 500 hours per year and pipeline natural gas for the remaining (2000) hours per year. A review and P.T.E. analysis follow.

4. PROJECT DETAILS

Five FT8 Twin Pac Combustion Turbines are intended to be installed at the Payne Creek plant. Each Twin Pac consists of two 30 MW (FT8) gas turbines; each generator is derived from the JT8D aircraft engine and a separate power turbine. Each CT is expected to have an approximate maximum heat input of 317.8 MMBtu/hr based upon natural gas. The images below represent the approximate appearance of such units, with the table indicating advertised specifications.

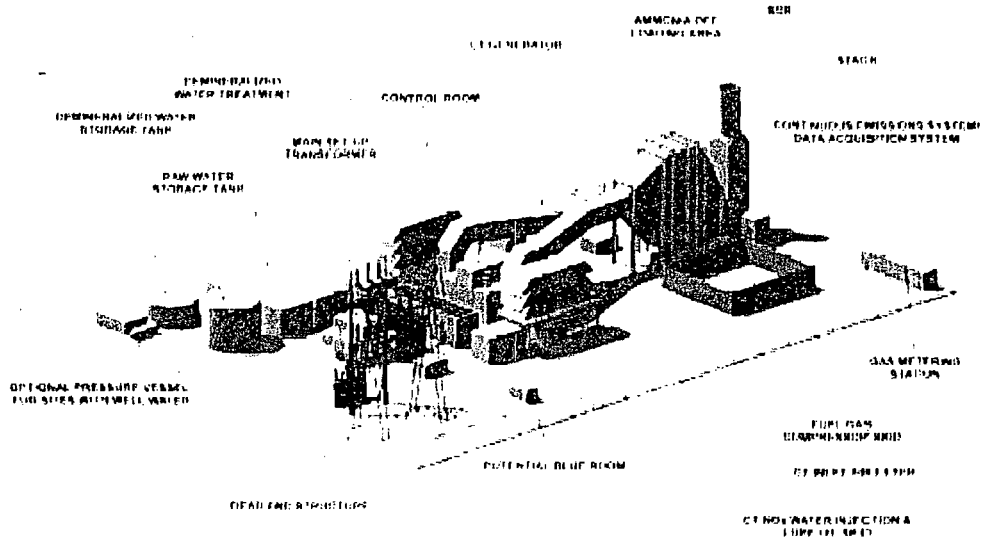


Performance

	<u>Natural Gas/WI</u>	<u>Fuel Oil/WI</u>
Output (kW)	55138	53002
Horsepower (shp)	73951	71086
Heat rate (BTU/kW-hr)	9214	9397
Efficiency (%)	37	36
Exhaust flow (lb/sec)	389	384
Exhaust temp (°F)	841	842
NOx emissions (ppmvd@15%O2)	25	42

The Twin Pac consists of three primary units: the gas turbine unit, the generator unit, and the electric/control unit. The Twin Pac turbine and generator units consist of two opposed gas turbines directly connected through a diaphragm coupled to a single double-ended electric generator. Below is a typical layout, from CalPeak's Escondido Power Plant (Enterprise #7).

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4.1 MAXIMUM POTENTIAL TO EMIT

The following table summarizes the maximum potential to emit (PTE) for the subject project without the applicant's proposed CO/VOC controls:

Pollutant	PSD Threshold (TPY)	CT Emission Rate (lb/hr)		Annual CT Emissions (lb/year) ⁽¹⁾	Tons per year for 10 CT's	PSD Applies?
		OIL	GAS			
NO _x	40	51.2	32	89,600	448	Yes
CO ⁽²⁾	100	19.3	81.3	172,333	861.67	Yes
SO ₂	40	14.7	0.9	9,150	45.75	Yes
PM ₁₀	15	7	3	9500	47.5	Yes
VOC	40	4.6	8.3	18,900	94.5	Yes
SAM	7	1.69	0.21	1,265	6.3	No

Notes: (1) Assumed 2000 hours of oil operation and 500 hours of natural gas operation at highest emission rate.
(2) Calculated based upon removal of applicant's proposed oxidation catalyst at 85% removal efficiency.

In summary, a PSD Review and BACT Determination are required for NO_x, CO, SO₂, VOC and PM₁₀.

4.2 APPLICANT'S PROPOSAL

NO_x: The applicant provided an estimate from the CT supplier (Pratt & Whitney) for 10 packaged SCR systems at \$12.02M or \$1.2M per unit. It should be noted that the inclusion of water injection systems on each CT was presumed as the "starting point" by the applicant. The applicant estimates a direct installation cost of \$3.6M and an indirect cost of \$3.1M (both for all 10 CT's), which together with 15% contingency and another \$0.43M "pre-production cost" yields a total capital investment of \$21.99M, or \$2.2M per CT.

The applicant further estimates that the additional "annual costs" will be \$5.2M, split almost equally between the annualized catalyst replacement cost and the capital investment annual recovery charges. Dividing this estimate by 10 yields an annualized total CT cost (TAC) of \$525k. The applicant estimates that each SCR system will reduce the annual NO_x by 80%, or to approximately 5/8.4 ppm while combusting gas/oil respectively. Therefore, an annual NO_x reduction of 0.80 * 44.8 = 35.84 TPY is computed and the applicant's cost effectiveness is submitted as \$525,197/35.84 = \$14,654 per ton.

According to the applicant, BACT for the simple cycle combustion turbines is represented by water injection, with proposed emission rates of 25 ppm (gas) and 42 ppm (oil).

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CO/VOC: The applicant indicated that the NESHAP does not apply to this application since the facility is currently a synthetic minor for HAPS and this project yields an increase of only 3.7 TPY, of which formaldehyde represents 57%. However, an oxidation catalyst is being proposed and the applicant did not calculate the oxidation catalyst cost-effectiveness for purposes of BACT.

PM₁₀: The applicant indicated that a review of EPA's BACT/LAER Clearinghouse Documents did not reveal any post-combustion particulate control technologies being used on gas-fired or light-oil fired CTs and recommended that the combustion of clean fuels provides the best means of PM control.

SO₂/SAM: The applicant indicates that fuel quality is the only technically feasible method of controlling SO₂ and SAM emissions. The applicant proposes pipeline natural gas and 0.05% sulfur distillate oil as BACT.

4.3 SUMMARY OF APPLICANT'S PROPOSAL AFTER PROPOSED CONTROLS

Pollutant	PSD Threshold (TPY)	CT Emission Rate (lb/hr)		Annual CT Emissions (lb/year) ⁽¹⁾	Tons per year for 10 CT's	PSD Applies?
		OIL	GAS			
NO _x	40	51.2	32	89,600	448	Yes
CO ⁽²⁾	100	7.0		17,500	87.5	No
SO ₂	40	14.7	0.9	9,150	45.75	Yes
PM ₁₀	15	7	3	9500	47.5	Yes
VOC	40	4.6	8.3	18,900	94.5	Yes
SAM	7	1.69	0.21	1,265	6.3	No

Notes: (1) Assumed 2000 hours of oil operation and 500 hours of natural gas operation at highest emission rate.

(2) Calculated based upon applicant proposed oxidation catalyst at 85% removal efficiency and proposed limit.

The Department will make a determination of BACT for NO_x, PM₁₀ and SO₂/SAM. The applicant's proposal for an oxidation catalyst suffices for the Department's CO/VOC BACT Determination as the top control technology.

5. DEPARTMENT DETERMINATION

In accordance with Rule 62-212.400, F.A.C., this BACT determination is based on the maximum degree of reduction of each pollutant emitted which the Department of Environmental Protection (Department), on a case by case basis, taking into account energy, environmental and economic impacts, and other costs, determines is achievable through application of production processes and available methods, systems, and techniques. In addition, the regulations state that, in making the BACT determination, the Department shall give consideration to:

- Any Environmental Protection Agency determination of BACT pursuant to Section 169, and any emission limitation contained in 40 CFR Part 60 - Standards of Performance for New Stationary Sources or 40 CFR Part 61 - National Emission Standards for Hazardous Air Pollutants.
- All scientific, engineering, and technical material and other information available to the Department.
- The emission limiting standards or BACT determination of any other state.
- The social and economic impact of the application of such technology.

The EPA currently stresses that BACT should be determined using the "Top-Down" approach. The Department considers Top-Down to be a useful tool, though not a unique or required approach to achieve a BACT under the State regulations.

The minimum basis for a BACT determination is 40 CFR 60, Subpart GG, Standards of Performance for Stationary Gas Turbines (NSPS). The Department adopted subpart GG by reference in Rule 62-204.800, F.A.C. The key emission limits required by Subpart GG are 75 ppmvd NO_x @ 15% O₂ (assuming 25 percent efficiency) and 150 ppmvd SO₂ @ 15% O₂ (or <0.8% sulfur in fuel). The BACT proposed by SECI is well within the NSPS limit.

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5.1 NO_x CONTROL

For this project, the applicant recommended that the top control methodology is water injection, rejecting SCR as too costly and dry low NO_x burners as yielding no benefit over water injection (and causing a commensurate reduction in power output). The Department does not completely concur with the cost effectiveness calculations provided by the applicant and notes that EPA Region 4 (likewise) did not accept the SECI analysis. The following excerpts from CalPeak's Escondido application provide the Department with an example of cost effectiveness and emission estimates from another FT-8 project:

Baseline Emission Rate

The baseline emission rate represents a "realistic scenario of upper bound controlled emissions for the source." All new turbines manufactured in the U.S. in the last decade have been equipped with "dry low NO_x (DLN)" combustors or water injection to reduce NO_x formation in the turbine combustor. The FT-8 DLN combustor has a guaranteed NO_x emission rate of 39 ppm. SCR will be used to reduce NO_x emissions from the simple-cycle FT-8 Twin Pac to 2 ppm.

Annualized Cost of the Each Control Option

The approximate capital cost of the SCR is \$1,600,000. The estimated approximate annualized cost of the SCR is \$1,000,000/year, including amortized capital and installation costs, O&M and CEM related costs. The NO_x reduction achieved by the SCR at the uncontrolled NO_x "potential to emit" level of 39 ppm at 8,760 hour/year will be approximately 333 tons per year (tpy). The NO_x control cost effectiveness at PTE conditions is approximately \$3,000/ton.

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The approximate capital cost of the CO catalyst is \$400,000. The estimated approximate annualized cost of the SCR is \$120,000/year. The CO reduction achieved by the CO catalyst at the uncontrolled CO "potential to emit" level of 80 ppm at 8,760 hour/year will be approximately 422 tpy. The CO control cost effectiveness at PTE conditions is approximately \$300/ton. It is important to note that the relatively low CO control cost effectiveness is due primarily to the fact that a CO catalyst frame is already designed into the SCR housing. As a result, the cost of constructing and erecting the CO catalyst housing is already incorporated in the SCR capital cost.

The Department cites the above for two reasons:

- 1) All else being equal, it is reasonable to assume that if the CalPeak unit were permitted for 2500 hours per year, that the cost effectiveness would have been approximately $(8760/2500) * 3000 = \underline{\$10,500 \text{ per ton}}$.
- 2) Under an assumption that the SCR cost might not appreciably decrease when going from a 94% reduction (CalPeak's 2.5 ppm emission rate reduced from 39 ppm) to an 80% reduction (the SECI proposal), and for 2500 hours, the cost effectiveness would be approximately: $\$10,500 * 0.94 / 0.8 = \underline{\$12,300 \text{ per ton}}$.

As an additional cross-check, the Department reviewed the ONSITE SYCOM Energy Corporation Study prepared for the U.S. Department of Energy, although the 1999 study is outdated by present day standards. Based upon this study (Table A-6), the total annual cost for a hot SCR applied to a 25 MW class unit (80% removal, 8400 hrs/yr) is \$427,818 per year. For the Seminole project, each 25 MW CT is estimated to emit 44.8 TPY; therefore, the annual removal rate at 80% would be 35.8 TPY and the cost effectiveness would be $\$427,818 / 35.8 = \underline{\$11,950 \text{ per ton}}$.

Therefore, even though the Department does not agree with the applicant's BACT analysis for a variety of reasons (e.g. failure to consider the additional power output from utilizing water injection), the Department stipulates that SCR cost effectiveness is likely \$10,000 per ton (or higher) for a simple cycle unit operating at such low annual hours (2500). The Department further concludes that the cost effectiveness of Hot SCR on a typical simple cycle unit decreases to below \$10,000 per ton as operating hours approach 3000 per year; this is consistent with the Tallahassee Hopkins (LM6000) Determination, where hot SCR was *clearly* cost effective at 5800 hours per year. As a result, the issuance of a final permit for this project should require that the applicant provide ample physical space necessary to install an SCR should any (future) increase in emission rates or operating hours be sought; precedence for requirements such as this can be found in prior permitting actions.

For simple cycle units, the next most common methods of NO_x control are dry low NO_x burners, followed by water/steam injection. However, prior to making a BACT Determination for this case, references to three EPA letters, a 5-year old FDEP Determination, a 'Request for Additional Information' dated January 10, 2001 and EPA comments on this project are shown as a means of establishing the framework for setting a limit:

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- 1) In a letter written to the Illinois EPA (IEPA) dated July 5, 2000, the USEPA Region 5 spoke to the issue of whether 25 ppm and water injection represented BACT for the control of nitrogen oxides. Region 5 wrote:
- "Specifically, you asked for our perspective on the nature of aeroderivative turbines and whether they should be treated as a separate category of equipment from other turbines. SEV [applicant] has proposed 25 parts per million (ppm) and water injection as BACT for control of emissions of nitrogen oxides (NO_x). Instead of determining whether turbines derived from those used in the aerospace industry, known as aeroderivative turbines, warrant treatment under PSD as a separate category of equipment from other turbines, we chose alternatively to look at other aeroderivative turbines around the country and see what BACT determinations there were." "We found that several slightly larger, yet arguably similar aeroderivative units in other States utilize selective catalytic reduction (SCR) and/or water injection to control NO_x emissions down to 15 ppm and even as low as 5 ppm permitted levels, with actual tested levels below these values. The Texas Natural Resource Conservation Commission (TNRCC) permits simple cycle peakers in the 9 to 15 ppm NO_x range, according to phone conversations with their staff and information obtained from their web page: http://www.tnrcc.state.tx.us/air/nsr_permits/files/turbine.pdf. From their March 1, 2000 guidance memo on BACT for gas turbine peakers, including simple cycle: '2. NO_x emissions - 9 to 15 ppmvd. Because of the limited operation of a peaking unit, TNRCC has, in practice, allowed a higher NO_x BACT for peaking units.... TNRCC will continue its practice of recommending higher NO_x BACT for peaking units not to exceed 15 ppmvd.'"*

Region 5 further stated that the above proposal under evaluation by IEPA (25 ppm NO_x control via water injection) for BACT "does not meet the requirements of the Clean Air Act". This memo can be found at: <http://www.epa.gov/rgvtgrnj/programs/artd/air/nsr/nsrmemos/sev.pdf>.

- 2) In a letter written to the Ohio EPA (OEPA) dated October 15, 1999 the USEPA Region 5 made the following comment regarding BACT for simple cycle combustion turbines:

"USEPA does not believe the emission rate of 25 ppm of NO_x represents BACT for simple cycle combustion turbines and would also request more information regarding the cost analysis for SCR control."

This memo can be found at: <http://www.epa.gov/Region7/programs/artd/air/nsr/nsrmemos/columbus.pdf>.

- 3) In a letter written to the Kentucky Department of Environmental Protection dated August 23, 1999 the USEPA Region 4 made the following comments regarding BACT for a simple cycle combustion turbine:

"The issue of most concern to us is the proposed best available control technology (BACT) for NO_x emissions. We disagree with the applicant's contention that dry low-NO_x (DLN) turbine design capable of achieving emissions less than 25 ppmvd (at 15% oxygen) is not "available" for this project. Our determination is that a NO_x emission rate of 25 ppmvd using water injection does not represent BACT for simple cycle combustion turbines. This determination is based on the following considerations:

a. The definition of best available control technology in Section 169(3) of the Clean Air Act refers to an emission limitation which the permitting authority, on a case-by-case basis, "determines is achievable for such facility through application of production processes and available methods, systems, and techniques." The definition of BACT in federal PSD regulations (40 CFR 51.166 and 52.21) essentially repeats the Clean Air Act definition. Our view is that DLN technology achieving a NO_x emission rate less than 25 ppmvd is an available method under the general Clean Air Act concept of BACT. The lead time required to obtain an available control system is not taken into account specifically in either the Clean Air Act or in the implementing federal regulations.

b. On page 5-22 of the permit application (July 1999 revision), Calvert City Power refers to the U.S. Environmental Protection Agency's (EPA's) Draft October 1990 New Source Review Workshop Manual in discussing the concept of availability. In particular, the applicant refers to the phrase on page B.17 of the New Source Review Workshop Manual stating that "a technology is considered 'available' if it can be obtained by the applicant through commercial channels or is otherwise available within the common sense meaning of the term." We have two comments about the quoted phrase. First, it refers to a "technology" and not to a specific piece of equipment, and it does not denote one way or the other whether a time delay

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in ordering a technology is outside the bounds of the common sense meaning of available. Second, and more important, the quoted phrase appears after the following sentences: [paragraph] "In step 2, the technical feasibility of the control options identified in step 1 is evaluated. This step should be straightforward for control technologies that are demonstrated – if the control technology has been installed and operated successfully on the type of source under review, it is demonstrated and it is technically feasible. For control technologies that are not demonstrated in the sense indicated above, the analysis is somewhat more involved." [new paragraph] "Two key concepts are important in determining whether an undemonstrated technology is feasible: 'availability' and 'applicability.'" [emphasis added] In other words, the phrase cited by Calvert City Power applies within the context of an undemonstrated technology. Use of DLN simple cycle combustion turbines to achieve NO_x emissions less than 25 ppmvd is clearly a demonstrated technology.

c. Understandably, the applicant's concern is with starting up the facility by the desired date of summer 2000. However, this was a startup commitment date elected by the applicant at the applicant's own risk before having any assurance that the facility could be permitted as proposed or permitted in time to meet the desired startup date. The U.S. Environmental Protection Agency (EPA) certainly has no wish to hinder a power developer's ability to enter a market at an opportune time. However, EPA has an obligation to consider long-term environmental effects over the entire lifetime of 20+ years that could be expected for a simple cycle combustion turbine facility. Starting up a facility with a control technology that is already out of date and that cannot be replaced except at great cost (see comments below) is not consistent with the objective of long-term environmental protection.

Additionally, within the "conclusions" portion of the letter, EPA Region 4 wrote in part:

"The actions that would resolve our objection to the issuance of a PSD/Title V permit are as follows:

9. Use of an alternative that would achieve a NO_x of 15 ppmvd or less....."

This memo can be found at: <http://www.epa.gov/region7/programs/artd/air/nsr/nsrmemos/calvert.pdf>.

- 4) In a letter written to FDEP dated February 1, 2005 regarding this project, EPA referenced the above (Kentucky) letter and stated "The statements made in 1999 continue to reflect Region 4's expectations for simple cycle CT projects subject to PSD review."
- 5) In a Best Available Control Technology Determination completed by FDEP in year 2000 (PSD-FL-281), where the applicant proposed (as one option) the installation of ABB GT-24 machines with a NO_x BACT of 25ppm via water injection, the Department went on record as stating:
 - A) *"The proposed emission limit of 25 ppmvd NO_x for the ABB GT-24 option is too high compared with the 10.5 limit for the similar class GE product. The added power and efficiency characteristics of the ABB GT-24 do not justify a BACT for NO_x more than twice that of the GE product." And,*
 - B) *"BACT for the ABB option is determined to be 5 ppmvd by Hot SCR while firing natural gas. Up to 250 hours of fuel oil operation are permitted with the Hot SCR system off (NO_x equal to 42 ppmvd) and another 250 hours are permitted with the Hot SCR system in operation (NO_x equal to 10 ppmvd)."*
- 6) In prior correspondence (1/10/2001) with Calpine Corp. (DEP File No. 1050221-004-AC, PSD-FL-311), regarding an application for a simple cycle peaking unit at the Auburndale facility, the Department wrote:

"I. The initial (Phase I) gas fired emission level of NO_x requested for the CT is 25 ppmvd, utilizing water injection as the control method. This does not represent BACT for the unit. Please reconsider the control technology, which is being proposed."

The applicant's reply follows (in part):

Response: As discussed at the January 12th meeting, the emissions limit proposed at 25 ppmvd NO_x as BACT was based on the availability of the combustion turbine and the ability to generate additional power during the 2001-2002 summer seasons. The Siemens Westinghouse 501D5A with water injection for NO_x control was the only available peaking turbine for the desired timeframe. Given the Department's concern with the proposed NO_x emission limit as BACT, the Department's suggestion of "netting-out" of BACT review by assuming a federally enforceable emissions cap on both the existing Auburndale Cogeneration Facility and the Peaker Project is being proposed."

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The table below provides a summary of FDEP simple cycle permitting actions for the past five years (since 1999).

Project	Size (MW)	Type	Permit No.	Gas NO _x Limit ppmvd @ 15%O ₂	Oil NO _x Limit ppmvd @ 15%O ₂	Date Issued
City of Tallahassee Hopkins Station	100	Simple Cycle and SCR	No. 343	5	8	10/26/2004
FPL Manatee	1150	Simple Cycle	No. 328	9 12 PA 15 Peaking		4/16/2003
FPL Martin	1150	Simple Cycle	No. 327	9 12 PA 15 Peaking	42	4/16/2003
El Paso Manatee Energy Center	600	Simple Cycle	No. 318	9		1/16/2002
El Paso Belle Glade Energy Center	600	Simple Cycle	No. 317	9		1/28/2002
El Paso Broward Energy Center	775	Simple Cycle	No. 316	9		10/30/2001
Enron Deerfield Beach Energy Center	510	Simple Cycle	No. 314	9	36	WITHDRAWN
Calpine Eastern/Auburndale (Polk)	135	Simple Cycle	No. 311	25 (netted out)	42	6/26/2001
Duke Lake	640	Simple Cycle	No. 308	12 9 (new & clean)		7/19/2001
Enron Midway Energy Center (St. Lucie)	510	Simple Cycle	No. 305	9	42	2/14/2001
Enron Pompano Beach Energy Center	510	Simple Cycle	No. 304	9	42	WITHDRAWN
Duke Ft. Pierce	640	Simple Cycle	No. 302	10.5		6/18/2001
FPL Fort Myers	340	Simple Cycle	No. 298	10.5	42	12/22/2000
Decker Peace River (Polk)	510	Simple Cycle	No. 292	9	42	12/22/2000
FPL Martin	340	Simple Cycle	No. 286	9	42	7/24/2000
FPC (formerly Entergy/IPS) (DeSoto)	510	Simple Cycle	No. 284	9	42	6/30/2000
Granite Power Partners (Hardee)	510	Simple Cycle	No. 281	10.5	42	8/7/2000
Mirant (formerly IPS Shady Hill) (Pasco)	510	Simple Cycle	No. 280	9	42	8/7/2000
Dynegy Palmetto Power (Osceola)	510	Simple Cycle	No. 277	15		6/5/2000
El Paso Vandolah (Hardee)	680	Simple Cycle	No. 275	9	42	12/16/1999
Reliant (Osceola)	510	Simple Cycle	No. 273	10.5	42	12/28/1999
FPC Intercession City	300	Simple Cycle	No. 268	9	42	12/9/1999
JEA Brandy Branch (Duval)	510	Simple Cycle	No. 267	9	42	10/14/1999
TECO Polk Power Station	340	Simple Cycle	No. 263	10.5	42	10/8/1999
Constellation/Oleander Power (Brevard)	850	Simple Cycle	No. 258	9	42	11/22/1999
KUA Cane Island Power Park Unit 3	250	Simple Cycle	No. 254	12 @24-hr avg	42	11/24/1999

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As can be seen from the table above, BACT for simple cycle combustion turbines in Florida (where SCR has not been required) has consistently been established in the ranges of 9 to 15 ppm on natural gas and from 36 to 42 ppm on oil, since late 1999 [BACT “means an emission limitation,” see 40 C.F.R. § 52.21(b)(12)].

In summary, the Department finds that the weight of evidence is such that it is simply unable to conclude (as requested by the applicant) that NO_x BACT for the proposed peaking units should exceed 15 ppm, or more specifically should be set at 25 ppm via water injection while firing natural gas. To do so would be contrary to Department determinations made over the past 5 years, in direct contradiction to EPA written guidance on prior simple cycle combustion turbine projects and this specific project, and would seemingly ignore legislative history, which is clear that Congress intended BACT to perform a technology-forcing function. Accordingly, the Department establishes BACT at 15 ppm while firing gas and 42 ppm while firing oil. Should the applicant choose to install SCR, a more stringent limit will be established.

Note: Within its January, 2005 “Response to FDEP’s Second Request for Additional Information”, the applicant wrote: ...“Moreover, certain aspects of the Department’s letter articulates an approach to BACT analysis that would have the effect of redesigning the essential elements of the proposed project and requiring SECI to change its proposed fuel option and/or choose an alternative vendor. This is an inappropriate extension of the BACT concept.” The applicant went on to cite two cases heard by the EAB (92-1 and 98-3 through 98-20).

In light of the EPA Region IV comments related to this project, the Department does not believe that the attendant determination “redefines the source”.

5.2 PM₁₀ CONTROL

PM₁₀: The applicant stated that a “review of EPA’s BACT/LAER Clearinghouse Documents did not reveal any post-combustion particulate control technologies being used on gas-fired or light-oil fired CTs.” The Department agrees.

5.3 SO₂/SAM CONTROL

SO₂/SAM: The applicant indicates that fuel quality is the only technically feasible method of controlling SO₂ and SAM emissions. As a result, the applicant contends that pipeline natural gas and 0.05% sulfur distillate represent BACT. Although the Department has been proactively supporting the use of lower sulfur distillate fuels within new PSD projects (e.g. FPL Turkey Point and JEA Brandy Branch), given the relatively low annual SO₂ emission (PTE) of this project (45.8 TPY), 0.05% sulfur oil and pipeline natural gas are accepted as BACT for this project.

5.4 SUMMARY OF DEPARTMENT DRAFT BACT DETERMINATION

Emissions from each gas turbine shall not exceed the values given in the following table.

Pollutant	Emission Standard	CT Emissions (lb/hr)		Emission Unit (lb/year)	TPY for 5 EU’s
		OIL	GAS		
NO _x	15 (gas) 42 (oil) ppmvd @ 15% O ₂	51.2	19.2	128,000	320
CO	7 ppmvd @ 15% O ₂	7.0	7.0	35,000	87.5
SO ₂	NG & 0.05% S oil	14.7	0.9	18,300	45.75
PM ₁₀	VE	7	3	19,000	47.5
VOC	CO as surrogate	4.6	8.3	37,800	94.5

TECHNICAL EVALUATION AND PRELIMINARY BACT DETERMINATION

6. AIR QUALITY IMPACT ANALYSIS

6.1 INTRODUCTION

Based upon Department calculations of PTE, the proposed project will increase emissions of four pollutants at levels in excess of PSD significant amounts: PM/PM₁₀, NO_x, SO₂ and VOC. PM₁₀, SO₂ and NO_x are criteria pollutants and have national and state ambient air quality standards (AAQS), PSD increments, significant impact levels and de minimus monitoring levels defined for them. There are no applicable PSD increments, AAQS, significant impact or de minimus monitoring levels for VOC. However, VOC is a precursor to a criteria pollutant, ozone; and any net increase of 100 tons per year of VOC requires an ambient impact analysis including the gathering of preconstruction ambient air quality data.

6.2 Significant Impact Analysis

For PM/PM₁₀, NO_x and SO₂, which have significant impact levels defined for them, a significant impact analysis is performed. In order to conduct a significant impact analysis, the applicant uses the proposed project's emissions at worst load conditions as inputs to the models. The models used in this analysis and any required subsequent modeling analyses are described in Models and Meteorological Data Used in the Air Quality Analysis, later in this section. The highest predicted short-term concentrations and highest predicted annual averages predicted by this modeling are compared to the appropriate significant impact levels for the Class I and Class II Areas. If this modeling at worst load conditions show significant impacts, additional modeling, which includes the emissions from surrounding facilities, or multi-source modeling is required to determine the project's impacts on any applicable AAQS or PSD increments. If no significant impacts are shown, the applicant is exempted from doing any further modeling.

The applicant's initial PM/PM₁₀, NO_x, and SO₂ air quality impact analyses for this project indicated that maximum predicted impacts from all pollutants are less than the applicable "significant impact levels." These values are tabulated below and compared with the National Ambient Air Quality Standards.

Maximum Project Air Quality Impacts from the Payne Creek Peaker Project for Comparison to the PSD Class II Significant Impact Levels

Pollutant	Averaging Time	Max Predicted Impact (ug/m ³)	Significant Impact Level (ug/m ³)	Ambient Air Standards (ug/m ³)	Significant Impact?
SO ₂	Annual	0.18	1	60	NO
	24-Hour	3.3	5	260	NO
	3-Hour	9.4	25	1300	NO
PM ₁₀	Annual	0.15	1	50	NO
	24-Hour	2.7	5	150	NO
NO ₂	Annual	0.48	1	100	NO

It is obvious that maximum predicted impacts from the project are much less than the respective ambient air quality standards. They are also less than the respective significant impact levels that would otherwise require more detailed modeling efforts.

The nearest PSD Class I area is the Chassahowitzka National Wilderness Area (CNWA) located about 130 km to the north. The applicant's initial PM/PM₁₀, NO_x, and SO₂ air quality impact analyses for this project indicated that maximum predicted impacts from all pollutants are less than the applicable "significant impact levels" for the Class I area. These values are tabulated below. Note that the values are miniscule if compared with the ambient air quality standards given in the previous table. Since these impacts are less than the respective significant impact levels, no further detailed modeling efforts are required in this Class I area.

TECHNICAL EVALUATION AND PRELIMINARY BACT DETERMINATION

Maximum Project Air Quality Impacts from the Payne Creek Peaker Project Compared with PSD Class I Significant Impact Levels (Chassahowitzka)

Pollutant	Averaging Time	Max. Predicted Impact at Class I Area (ug/m ³)	Class I Significant Impact Level (ug/m ³)	Significant Impact?
PM ₁₀	Annual	0.003	0.2	NO
	24-hour	0.12	0.3	NO
NO ₂	Annual	0.008	0.1	NO
SO ₂	Annual	0.004	0.1	NO
	24-hour	0.10	0.2	NO
	3-hour	0.5	1	NO

6.3 Preconstruction Ambient Monitoring Requirements

A preconstruction monitoring analysis is done for those pollutants with listed de minimus impact levels. These are levels which, if exceeded, would require pre-construction ambient monitoring. For this analysis, as was done for the significant impact analysis, the applicant uses the proposed project's emissions at worst load conditions as inputs to the models. As shown in the table below, the maximum predicted impacts for all pollutants with listed de minimus impact levels were less than these levels. Therefore no pre-construction monitoring is required for these pollutants.

Maximum Project Air Quality Impacts for Comparison to the *de minimus* Ambient Impact Levels

Pollutant	Averaging Time	Max Predicted Impact (ug/m ³)	De Minimus Level (ug/m ³)	Impact Greater Than De Minimus?
PM ₁₀	24-hour	2.7	10	NO
NO ₂	Annual	0.5	14	NO
SO ₂	24-hour	3.3	13	NO

There are no ambient standards or *de minimus* air quality levels associated with VOC. However, the pollutant associated with VOC is actually ozone. Projects exhibiting VOC emissions greater than 100 tons per year (TPY) are required to perform an ambient impact analysis for ozone including the gathering of preconstruction ambient air quality data. The proposed peaker project VOC emissions are predicted to be no more than 94.5 TPY, therefore an analysis, including ambient monitoring for ozone is not required.

Based on the preceding discussions, the only additional detailed air quality analyses (inclusive of all sources in the area) required by the PSD regulations for this project is an analysis of impacts on soils, vegetation, visibility, and of growth-related air quality modeling impacts.

6.4 Models and Meteorological Data Used in the Air Quality Analysis

PSD Class II Area. The EPA-approved Industrial Source Complex Short-Term (ISCST3) dispersion model was used to evaluate the pollutant emissions from the proposed project in the surrounding Class II Area. This model determines ground-level concentrations of inert gases or small particles emitted into the atmosphere by point, area, and volume sources. It incorporates elements for plume rise, transport by the mean wind, Gaussian dispersion, and pollutant removal mechanisms such as deposition. The ISCST3 model allows for the separation of sources, building wake downwash, and various other input and output features. A series of specific model features, recommended by the EPA, are referred to as the regulatory options. The applicant used the EPA recommended regulatory options. Direction-specific downwash parameters were used for all sources for which downwash was considered. The stacks associated with this project all satisfied the good engineering practice (GEP) stack height criteria.

Meteorological data used in the ISCST3 model consisted of a concurrent 5-year period of hourly surface weather observations and twice-daily upper air soundings from the St. Petersburg/Clearwater International Airport and

TECHNICAL EVALUATION AND PRELIMINARY BACT DETERMINATION

Ruskin respectively (surface and upper air data). The 5-year period of meteorological data was from 1992 through 1996. This airport station was selected for use in the study because it is the closest primary weather station to the study area and is most representative of the project site. The surface observations included wind direction, wind speed, temperature, cloud cover, and cloud ceiling.

In reviewing this permit application, the Department has determined that the application complies with the applicable provisions of the stack height regulations as revised by EPA on July 8, 1985 (50 FR 27892). Portions of the regulations have been remanded by a panel of the U.S. Court of Appeals for the D.C. Circuit in *NRDC v. Thomas*, 838 F. 2d 1224 (D.C. Cir. 1988). Consequently, this permit may be subject to modification if and when EPA revises the regulation in response to the court decision. This may result in revised emission limitations or may affect other actions taken by the source owners or operators. A more detailed discussion of the required analyses follows.

PSD Class I Area. Since the closest PSD Class I area, the Chassahowitzka National Wilderness Area (CNWA) is greater than 50 km from the proposed facility, long-range transport modeling was required for the Class I impact assessment. The California Puff (CALPUFF) dispersion model was used to evaluate the potential impact of the proposed pollutant emissions on the PSD Class I increments and on one Air Quality Related Value (AQRV): regional haze. CALPUFF is a non-steady state, Lagrangian, long-range transport model that incorporates Gaussian puff dispersion algorithms. This model determines ground-level concentrations of inert gases or small particles emitted into the atmosphere by point, line, area, and volume sources. The CALPUFF model has the capability to treat time-varying sources. It is also suitable for modeling domains from tens of meters to hundreds of kilometers, and has mechanisms to handle rough or complex terrain situations. Finally, the CALPUFF model is applicable for inert pollutants as well as pollutants that are subject to linear removal and chemical conversion mechanisms.

The meteorological data used in the CALPUFF model was processed by the California Meteorological (CALMET) model. The CALMET model utilizes data from multiple meteorological stations and produces a three-dimensional modeling grid domain of hourly temperature and wind fields. The wind field is enhanced by the use of terrain data, which is also input into the model. Two-dimensional fields such as mixing heights, dispersion properties, and surface characteristics are produced by the CALMET model as well. Meteorological data were obtained and processed for the calendar years of 1990, 1992 and 1996, the years for which MM4 and MM5 data are available. The CALMET wind field and the CALPUFF model options used were consistent with the suggestions of the federal land managers.

6.5 Additional Impacts Analysis

Impact on Soils, Vegetation, and Wildlife. Very low emissions are expected from this natural gas-fired, with backup fuel oil, combustion turbine in comparison with conventional power plants generating equal power. Emissions of acid rain and ozone precursors will be very low. The maximum ground-level concentrations predicted to occur for PM₁₀, NO_x and SO₂ as a result of the proposed project, including background concentrations and all other nearby sources, will be less than the respective ambient air quality standards (AAQS).

The project impacts are also less than the significant impact levels for PM₁₀, NO_x, and SO₂, which in-turn, are less than the applicable allowable increments for each pollutant. Because the AAQS are designed to protect both the public health and welfare, and the project impacts are less than significant, it is reasonable to assume the impacts on soils, vegetation, and wildlife will be minimal or insignificant. The combination of low NO_x and VOC emissions insures that the project will not contribute significantly to regional ozone levels or to any impacts caused by such ozone levels.

According to the application, native Floridian species of vegetation, such as cypress, slash pine, live oak, and mangrove, will not be visibly damaged when exposed to 1300 ug/m³ of SO₂ for 8 hours. This proposed project is predicted to have a maximum impact of 9.4 ug/m³ of SO₂ over a 3-hour period and 3.3 ug/m³ of SO₂ over a 24-hour period. The maximum predicted nitrogen (N) and sulfur (S) depositions are well below the significant impact levels for N and S deposition.

Impact on Visibility. The maximum predicted regional haze impact on the Class I Chassahowitzka NWA located 130 km to the north was 5.14 percent and is slightly over the federal land manager's 5.0 significant impact level. This impact was predicted with the use of fuel oil and only occurs once in the three years of modeled events. The backup fuel oil will be limited to 0.05 percent sulfur, will exhibit relatively low particulate emissions and may only

TECHNICAL EVALUATION AND PRELIMINARY BACT DETERMINATION

be fired 500 hours per year per turbine. Pipeline natural gas is a clean fuel and produces little particulate emissions. Very low NO_x and SO₂ emissions will also minimize plume opacity and any effects on regional visibility.

Growth-Related Air Quality Impacts. According to the applicant, the project will require about 1 or 2 additional permanent employees. Therefore, residential growth due to this project will be minimal.

This project is a response to statewide and regional growth and also accommodates more growth. There are no adequate procedures under the PSD rules to fully assess these impacts. However, the type of project proposed has a small overall physical "footprint." After construction of the proposed project, Hardee County is expected to remain below the National Ambient Air Quality Standards.

7. CONCLUSION

Based on the foregoing technical evaluation of the application, additional information submitted by the applicant and other available information, the Department has made a preliminary determination that the proposed project as outlined will comply with all applicable state and federal air pollution regulations.

Michael P. Halpin, Professional Engineer
Department of Environmental Protection, Bureau of Air Regulation
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

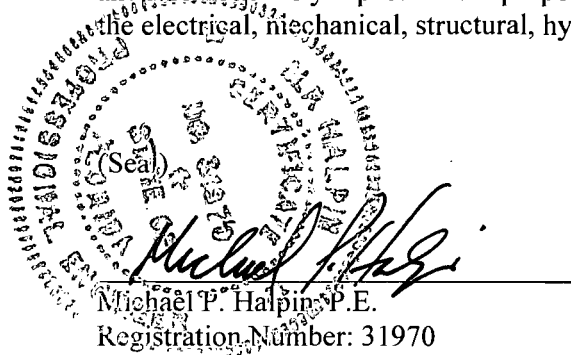
P.E. Certification Statement

Seminole Electric Cooperative, Inc.
Payne Creek Generating Station – Peaker Project
Hardee County

DEP File No.: PSD-FL-344, PA 89-25
Facility ID No.: 0490340

Project: PSD Permit – Addition of 300 MW peaking power

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



Michael P. Halpin, P.E.
Registration Number: 31970

2-3-05
Date

Permitting Authority:

Florida Department of Environmental Protection
Division of Air Resources Management
Bureau of Air Regulation
New Source Review Section
Mail Station #5505
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Telephone: 850/488-0114
Fax: 850/922-6979

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1. Article Addressed to:

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

2. Article Number

(Transfer from service label)

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A. Signature

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5/11/05

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

PS Form 3800, January 2001

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
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<p>1. Article Addressed to:</p> <p>Mr. Michael Opalinski V.P., Technical Services Seminole Electric Co-op 16313 N. Dale Mabry Highway Tampa, FL 33688-2000</p>	<p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes <input type="checkbox"/> No If YES, enter delivery address below:</p> <p>3. Service Type <input checked="" type="checkbox"/> Certified Mail <input type="checkbox"/> Express Mail <input type="checkbox"/> Registered <input type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> Insured Mail <input type="checkbox"/> C.O.D.</p> <p>4. Restricted Delivery? (Extra Fee) <input type="checkbox"/> Yes</p>
<p>2. Article Number (Transfer from service label) 7000 2870 0000 7028 4175</p>	
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<p>1. Article Addressed to:</p> <p>Mr. Michael Opalinski, Vice President of Technical Services Seminole Electric Cooperative, Inc. Payne Creek Generating Station 16313 North Dale Mabry Highway Tampa, Florida 33688-2000</p>	<p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No</p> <p>3. Service Type</p> <p><input checked="" type="checkbox"/> Certified Mail <input type="checkbox"/> Express Mail</p> <p><input type="checkbox"/> Registered <input type="checkbox"/> Return Receipt for Merchandise</p> <p><input type="checkbox"/> Insured Mail <input type="checkbox"/> C.O.D.</p> <p>4. Restricted Delivery? (Extra Fee) <input type="checkbox"/> Yes</p>
<p>2. Article Number (Transfer from service label)</p> <p><i>7000 1670 0013 3110 2349</i></p>	
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Form 3800, May 2000. See Reverse for Instructions.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

JUN 07 2005

4APT-APB

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

RECEIVED

JUN 09 2005

BUREAU OF AIR REGULATION

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_x), sulfur dioxide (SO₂), particulate matter (PM/PM₁₀), 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_x 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.

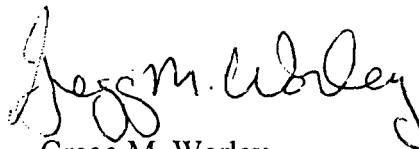
As another example, Condition III.7. provides that "Each Twin Pac shall operate no more than 2000 hours on natural gas." It is not clear if this means that each combustion turbine in a given Twin Pac shall operate no more than 2000 hours per year on natural gas or if the sum of the operating hours for 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_x 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_x 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_x emissions, and therefore the exclusion would only apply to NO_x 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_x in this permit. Condition III.17.(b) contains a calendar month NO_x 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_x emissions used in the applicant's BACT analysis. This monthly emissions limit provides adequate leeway to accommodate temporary fluctuations in combustion turbine NO_x emissions during startup/shutdown. Therefore, EPA's position is that exempting startup/shutdown emissions from compliance with any NO_x 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

Hopping Green & Sams

Attorneys and Counselors

March 23, 2005

RECEIVED

MAR 23 2005

BUREAU OF AIR REGULATION

Via Hand Delivery

W. Douglas Beason
Assistant General Counsel
Department of Environmental Protection
3900 Commonwealth Boulevard, MS #35
Tallahassee, FL 32399-3000

Re: Public Records Request
Payne Creek Generating Station Peaker Project
File No. 04906340-003-AC
PSD-FL-344
PA 89-25

Dear Mr. Beason:

This letter is an official request, pursuant to Chapter 119, Florida Statutes, for an opportunity to inspect and examine public records relating to the referenced project. For purposes of this request, the term "public records" is intended to have the same meaning as set forth in Section 119.001, Florida Statutes. In addition, for purposes of this request, "document" means all correspondence, e-mails, letters, notes, phone logs, memorandum or other writings whether on paper or in electronic form. If the Department has no documents responsive to a specific request made below, please state in writing. If the Department decides not to produce any document or portion of a document by claiming an exception to Chapter 119, Florida Statutes, provide a description of each such document (or portion) and the statutory basis for not producing it as requested, pursuant to Section 119.07(2)(a), Florida Statute.

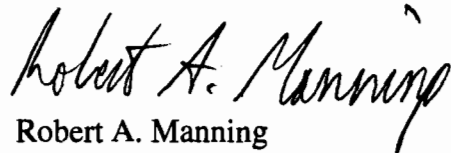
The public records that I am requesting access to include the following:

1. The entire project file.
2. All documents between any representatives of the Department of Environmental Protection (including, but not limited to, Mike Halpin, Trina Vielhauer and Al Linero) and the United States Environmental Protection Agency concerning Seminole's application, the Department's

February 4, 2005 Intent to Issue and preliminary BACT determination, or the Department's March 22, 2005 Intent to Deny.

3. All documents between any representative of the Department (including, but not limited to, Mike Halpin, Trina Vielhauer and Al Linero) and General Electric, Siemens Westinghouse, or other combustion turbine manufacturer since August 2004.
4. All documents containing any information related to or analysis used in the Department's Intent to Deny dated March 22, 2005.
5. All PowerPoint presentations made by any representative of the Department (including, but not limited to, Mike Halpin, Trina Vielhauer and Al Linero) related to combustion turbines since January 2002.
6. A copy of all Notices of Withdrawal of Intent to Issue Air Permit issued by the Department since 1995.
7. A copy of all Notices of Intent to Deny Air Permit issued by the Department since 1995.

Sincerely,



Robert A. Manning
HOPPING GREEN & SAMS, P.A.

cc: Patty Adams, DEP
Mike Opalinski, Seminole

Hopping Green & Sams

Attorneys and Counselors

February 8, 2005

RECEIVED

FEB 08 2005

Via Hand Delivery

Ms. Patty G. Adams
Department of Environmental Protection
Bureau of Air Regulation
2600 Blair Stone Road, MS-5505
Tallahassee, FL 32399-2400

BUREAU OF AIR REGULATION

Re: Public Records Request
Payne Creek Generating Station Peaker Project
File No. 0490340-003-AC
PSD-FL-344
PA 89-25

Dear Ms. Adams:

At Trina Vielhauer's suggestion (see attachment), please accept this letter as an official request, pursuant to Chapter 119, Florida Statutes, for an opportunity to inspect and examine public records relating to the referenced project. For purposes of this request, the term "public records" is intended to have the same meaning as set forth in Section 119.011, Florida Statutes. The public records that I am requesting access to include the following:

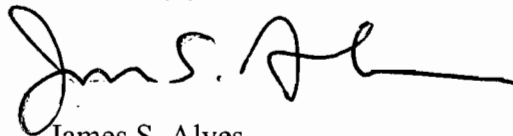
1. The entire project file.
2. All correspondence, including letters, emails, or other manner of written communications, between any representative of the Department of Environmental Protection (DEP) and the Environmental Protection Agency (EPA) concerning the Technical Evaluation and Preliminary BACT Determination for the referenced project.
3. All correspondence, including letters, emails, or other manner of written communications, between any representative of the Department of Environmental Protection (DEP) and the Environmental Protection Agency (EPA) concerning EPA's February 1, 2005 letter to DEP addressing the referenced project.
4. All drafts of EPA's February 1, 2005 letter to DEP addressing the referenced project.
5. All drafts of DEP's Technical Evaluation and Preliminary Determination

Ms. Patty G. Adams
February 8, 2005
Page 2

6. All correspondence, including letters, emails, or other manner of communication, from a representative of DEP to any agency or persons requesting information relative to DEP's research and deliberations on the Technical Evaluation and Preliminary Determination for the referenced project.
7. All responses to the correspondence identified in paragraph 6, above.
8. All correspondence, including letters, emails, or other manner of communication, between representatives of DEP concerning the reference project.
9. All notes or memoranda of representatives of DEP relating to the referenced project.

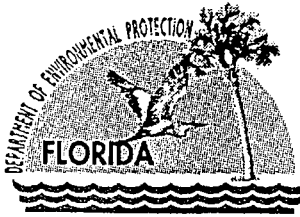
Thank you for your attention to this request to review public records.

Very truly yours,

A handwritten signature in black ink, appearing to read "James S. Alves". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

James S. Alves

cc: Michael Cooke, DEP
Trina Vielhauer, DEP
Michael Halpin, DEP
Douglas Beason, DEP
Mike Opalinski, Seminole
Jim Frauen, Seminole
Tom Davis, ECT
Robert Manning, HGS



Jeb Bush
Governor

Department of Environmental Protection

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

Colleen M. Castille
Secretary

January 20, 2005

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JAN 31 2005

HOPPING, GREEN, & SAMS

Michael P. Opalinski
Vice President of Technical Services
Seminole Electric Cooperative, Inc.
16313 North Dale Mabry Highway
PO Box 272000
Tampa, Florida 33688-2000

RE: Payne Creek Generating Station Peaker Project
File No. 0490340-003-AC; PSD-FL-344; PA 89-25

Dear Mr. Opalinski:

I am in receipt of Seminole Electric Cooperative, Inc.'s ("Seminole") January 11, 2005 response to the Department's second request for additional information ("Seminole's letter") for the above reference project. Seminole's letter is currently under review by my staff. I am also in receipt of the December 6, 2004 letter from Mr. Jim Alves referenced in paragraph 6 of Seminole's letter. In both letters, a request is made to review "all information at [your] disposal that the Department apparently intends to utilize to internally estimate the cost effectiveness of hot SCR".

As of today's date, Seminole's application remains incomplete. As I indicated at the December 21, 2004 meeting, the Department is still in the process of evaluating the application, collecting and evaluating appropriate information and documentation, and determining its agency action. Therefore, the Department cannot, at this time, fulfill these requests *as written*. However, if you are interested in conducting a public records review of this application file as it stands on today's date, you are welcome to do so. Please understand that the Department reserves its right to collect, utilize and rely upon any additional information it identifies and deems relevant prior to its proposed agency action. You may arrange a public records review of these files by contacting Ms. Patty Adams at 850/921-9505.

Sincerely,

Trina L. Vielhauer
Chief
Bureau of Air Regulation

cc: Jim Alves and Robert Manning

"More Protection, Less Process"

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*Seminole***Vielhauer, Trina**

From: Halpin, Mike
Sent: Tuesday, February 15, 2005 3:09 PM
To: Vielhauer, Trina; Pennington, Jim
Cc: Linero, Alvaro
Subject: RE: New Turbine Proposed NSPS

The applicant requested 25 ppm NOx emissions for gas (32 lb/hr) and 42 ppm for oil (51.2 lb/hr) per CT. Since the application states that the Generator nameplate rating is 62 MW, it is reasonable to assume that each of the CT's (which comprise the TwinPac) have a capacity greater than or equal to 30MW. The draft NSPS requires 0.39 lb/MW-hr for gas and 1.2 lb/MW-hr for oil for these size units. This equates to required emission limits of approximately 9.5 ppm firing gas and 30.5 ppm firing oil.

I hate to be overly pessimistic, but if my estimates are even close, then I'm quite confident that this new subpart has no chance as written (the turbine manufacturers will band together to oppose it). It is much more likely that in final form, the revised NSPS would allow for 15 ppm on gas (0.62 lb/MW-hr) and 42 ppm on oil (1.65 lb/MW-hr).

Mike

-----Original Message-----

From: Vielhauer, Trina
Sent: Tuesday, February 15, 2005 2:21 PM
To: Halpin, Mike; Pennington, Jim
Subject: FW: New Turbine Proposed NSPS

Mike and Jim,
 Have you taken a look at this to see impacts, if any, on Seminole Payne Creek? We should know this before the Monday meeting.

Thx,
 Trina

-----Original Message-----

From: Mulkey, Cindy
Sent: Tuesday, February 15, 2005 11:58 AM
To: Linero, Alvaro; Vielhauer, Trina
Subject: RE: New Turbine Proposed NSPS

To comply with KKKK the Keys needs to meet 1.2 lb/MWH

The rationale for this is that turbine manufacturers guarantee a NOx emission level of 42 ppm.

This limit is also based on a 48 percent efficiency consistent with large oil-fired combined-cycle turbines. (EPA is basing the limit for the small simple cycle turbines on an efficiency of 30%.)

EPA believes this is appropriate because there are "almost no oil-fired simple-cycle turbines in the greater than 30 MW category" and are

2/15/2005

requesting comments on this issue.

EPA has also concluded that most of the simple-cycle turbines are used as peaking units". EPA is requesting comments on an approach to "allow large oil-fired peaking units to meet the same NOx limit that applies to the small units" (1.9 lb/MWH).

The Keys project misses out on both counts. It is a simple cycle unit greater than 30 MW (large). It could meet the 1.9 lb/MWH limit for the smaller units, however it will not qualify as a peaking unit.

It looks like the Keys comes in at 1.53 lb/MWH at full load. This is assuming the 73.7 lb/hr number supplied by GE for 59° and 100% full load.

Also, at partial loads (at which the Keys plan on running) the efficiency is going to decrease, making the lb/MWH go up.

I believe they would need to come down to 57.6 lb/hr which is about 32.5 ppm at full load by my calculations to meet the new standard. Al can confirm this.

It looks like the Keys will be required to use add-on controls to meet the new limits unless a separate limit with new rationale for large simple cycle baseload units is formulated.

Cindy Mulkey
Engineer
Bureau of Air Regulation
Permitting South
(850) 921-8968
FAX (850)921-9533
SC 291-8968

-----Original Message-----

From: Linero, Alvaro
Sent: Tuesday, February 15, 2005 9:45 AM
To: Vielhauer, Trina
Cc: Mulkey, Cindy; Koerner, Jeff
Subject: RE: New Turbine Proposed NSPS

Attached is a rationale I excerpted from the new KKKK.

Looks to me like Keys would not meet it as proposed because the limit of 42 ppm assumes efficiency of 48%. Their turbine is likely to be about 42% (but I'll have to verify).

EPA is taking comment on this issue because they seem to be presuming that large CTs operate in combined cycle.

They are also taking comment on low load considerations.

Bottom line is that I don't think Keys as proposed will comply with KKKK.

They would have to reduce emissions to the 35 bracket or so. I'll have to fine-tune that estimate too.

2/15/2005

Cindy is checking to see how they do on a lb/MWH basis which is how they actually wrote the standard.

Pratt & Whitney turbines might fall under different size designation than Keys.

Thanks.

Al.

Hopping Green & Sams

Attorneys and Counselors

February 8, 2005

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FEB 09 2005

BUREAU OF AIR REGULATION

Via Hand Delivery

Ms. Patty G. Adams
Department of Environmental Protection
Bureau of Air Regulation
2600 Blair Stone Road, MS-5505
Tallahassee, FL 32399-2400

Re: Public Records Request
Payne Creek Generating Station Peaker Project
File No. 0490340-003-AC
PSD-FL-344
PA 89-25

Dear Ms. Adams:

At Trina Vielhauer's suggestion (see attachment), please accept this letter as an official request, pursuant to Chapter 119, Florida Statutes, for an opportunity to inspect and examine public records relating to the referenced project. For purposes of this request, the term "public records" is intended to have the same meaning as set forth in Section 119.011, Florida Statutes. The public records that I am requesting access to include the following:

1. The entire project file.
2. All correspondence, including letters, emails, or other manner of written communications, between any representative of the Department of Environmental Protection (DEP) and the Environmental Protection Agency (EPA) concerning the Technical Evaluation and Preliminary BACT Determination for the referenced project.
3. All correspondence, including letters, emails, or other manner of written communications, between any representative of the Department of Environmental Protection (DEP) and the Environmental Protection Agency (EPA) concerning EPA's February 1, 2005 letter to DEP addressing the referenced project.
4. All drafts of EPA's February 1, 2005 letter to DEP addressing the referenced project.
5. All drafts of DEP's Technical Evaluation and Preliminary Determination

Ms. Patty G. Adams

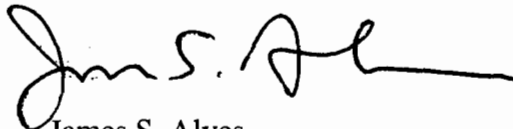
February 8, 2005

Page 2

6. All correspondence, including letters, emails, or other manner of communication, from a representative of DEP to any agency or persons requesting information relative to DEP's research and deliberations on the Technical Evaluation and Preliminary Determination for the referenced project.
7. All responses to the correspondence identified in paragraph 6, above.
8. All correspondence, including letters, emails, or other manner of communication, between representatives of DEP concerning the reference project.
9. All notes or memoranda of representatives of DEP relating to the referenced project.

Thank you for your attention to this request to review public records.

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James S. Alves

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Michael P. Opalinski
Vice President of Technical Services
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Sincerely,

Trina L. Vielhauer
Chief
Bureau of Air Regulation

cc: Jim Alves and Robert Manning

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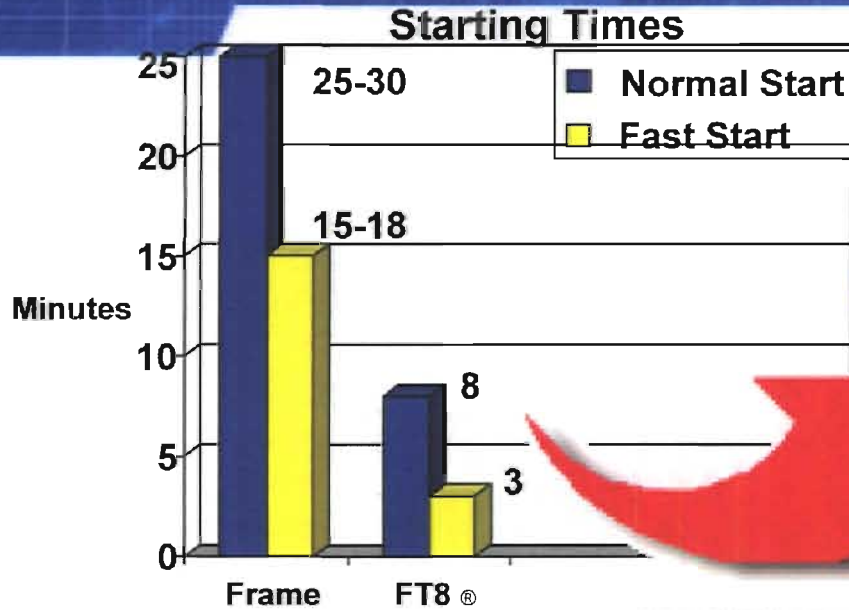
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Faster Starting Time



Frame vs. FT8[®]



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Using Less Fuel**

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3	8%
1	20%

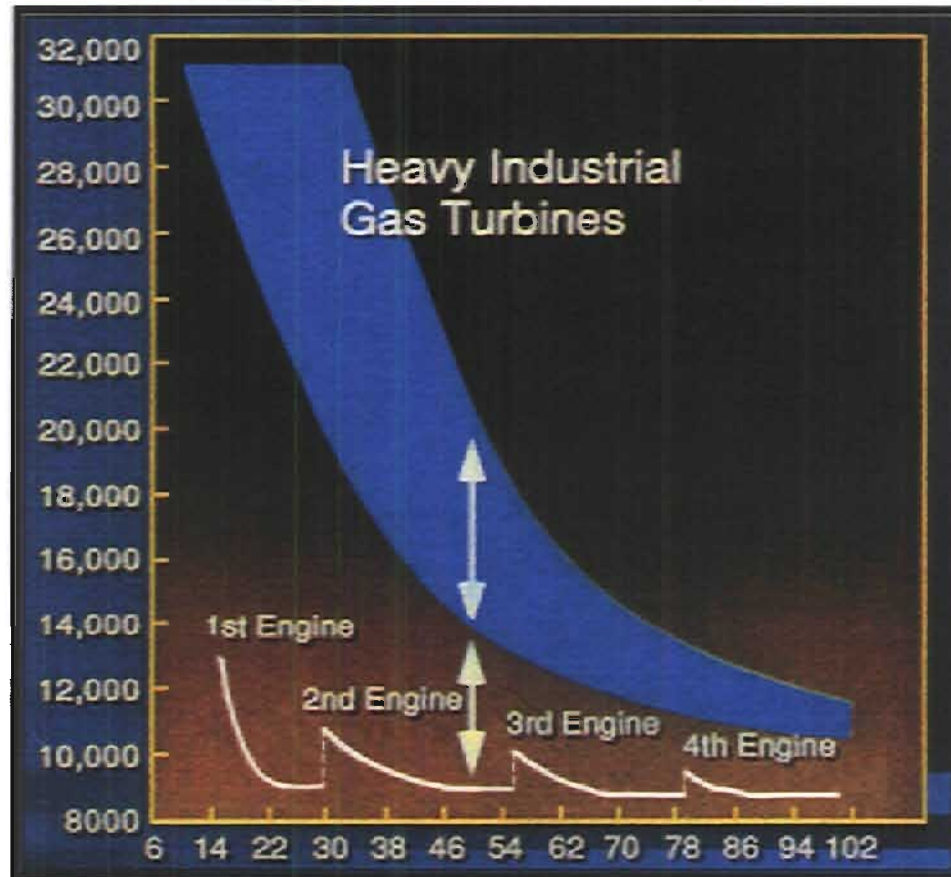
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Aero-derivative Advantages



Typical FT8® Fuel Savings...
Two FT8 TWINPAC™'s vs Large Unit

Heat Rate
Btu/kWh



Power - MW

Advantages

FT8[®] vs. Frame Machines

Higher Base Load Simple Cycle Efficiency (10 to 15%)

Higher Part Load Simple Cycle Efficiency (20 to 50%)

Faster Starting (3 minutes versus 20 to 30 minutes)

No Operating Hour Penalty for Number of Starts

No Cycle Limitation on Critical Parts Providing Higher Unit Durability

Synchronous Condenser Operation Capability

Faster and Simpler Installation

Higher Unit Availability (3 to 10%) with 8 Hour Complete Unit Change-out

Advantages

FT8[®] vs. Frame Machines

Reliability Based on the World's Most Successful Aero Engine

Easier and Quicker Maintenance (Reduced Outage Completion Time)

- **Numerous Borescope Locations for Quick Inspection**
- **Numerous Field Replaceable /Repairable Parts**
- **Lease Engine and Major Assembly Program**

Longer Time Between Required Overhauls

Future Uprate Capability

Higher Availability/Reliability/Lower Maintenance Cost

Better Start Reliability

Short Order Period

Peak Load Capability



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

FACSIMILE TRANSMITTAL SHEET

To	Mike Halpin - FDEP
Fax Number	(850) 922-6979
From	Jim Little Air Planning Branch, Air Permits Section Phone: (404) 562-9118 Fax: (404) 562-9019 E-mail: little.james@epa.gov
Subject	Consideration of "Alternative Designs" in a BACT Evaluation
Date	January 24, 2005
Pages	15 (including this sheet)

Mike - Here are some materials related to the concept of "alternative designs" in a BACT evaluation. I may look for some other documents as well.

Attachment 1 - An excerpt from a 2002 letter EPA Region 4 wrote to the Kentucky Division for Air Quality on a proposed electric utility steam generating plant with pulverized coal boilers. The main reason for sending this attachment is the statement about the discretion of the permitting agency.

Attachment 2 - An excerpt from the 1990 NSR Workshop Manual on the subject.

Attachment 3 - An excerpt from a 2004 letter from EPA Region 8 concerning a proposed circulating fluidized bed electric utility steam generating plant. The project site is on tribal lands, and EPA is the permit-issuing agency.

Attachment 4 - This is an excerpt from a lengthy legal treatise written by an EPA headquarters attorney (Greg Foote) while he was on a temporary assignment with another organization and not representing EPA. Therefore, the views expressed in this treatise by no means represent any official view by EPA. However, some of the ideas and cited references may be of interest. I can e-mail the entire treatise if you're interested.

3. Alternative Designs and Fuels

We are aware of comments that have been made recommending consideration of alternative designs and alternative fuels. The alternative designs that have been mentioned are circulating fluidized bed boilers and integrated gasification combined cycle combustion turbines. The alternative fuels that have been mentioned include low sulfur coals that are used widely in the eastern United States. As the permitting authority, it is in your discretion to require a detailed evaluation of such alternatives as part of the BACT evaluation. Regardless of whether you elect to require a detailed evaluation before reaching a final BACT determination, we recommend that you include documentation from the applicant in your files providing a rationale as to why a configuration of pulverized coal boilers burning high-sulfur western Kentucky coal was selected for this project and why other design and fuel alternatives were eliminated.

Attachment 1

ATTACHMENT 2D R A F T
OCTOBER 1990

technology has the potential to achieve a more stringent emissions level than otherwise would constitute BACT or the same level at a lower cost, it may be proposed as an innovative control technology. Innovative technologies are distinguished from technology transfer BACT candidates in that an innovative technology is still under development and has not been demonstrated in a commercial application on identical or similar emission units. In certain instances, the distinction between innovative and transferable technology may not be straightforward. In these cases, it is recommended that the permit agency consult with EPA prior to proceeding with the issuance of an innovative control technology waiver.

In the past, only a limited number of innovative control technology waivers for a specific control technology have been approved. As a practical matter, if a waiver has been granted to a similar source for the same technology, granting of additional waivers to similar sources is highly unlikely since the subsequent applicants are no longer "innovative."

IV.A.3. CONSIDERATION OF INHERENTLY LOWER POLLUTING PROCESSES/PRACTICES

Historically, EPA has not considered the BACT requirement as a means to redefine the design of the source when considering available control alternatives. For example, applicants proposing to construct a coal-fired electric generator, have not been required by EPA as part of a BACT analysis to consider building a natural gas-fired electric turbine although the turbine may be inherently less polluting per unit product (in this case electricity). However, this is an aspect of the PSD permitting process in which states have the discretion to engage in a broader analysis if they so desire. Thus, a gas turbine normally would not be included in the list of control alternatives for a coal-fired boiler. However, there may be instances where, in the permit authority's judgment, the consideration of alternative production processes is warranted and appropriate for consideration in the BACT analysis. A production process is defined in terms of its physical and chemical unit operations used to produce the desired product from a specified set of raw

D R A F T
OCTOBER 1990

materials. In such cases, the permit agency may require the applicant to include the inherently lower-polluting process in the list of BACT candidates.

In some cases, a given production process or emissions unit can be made to be inherently less polluting (e.g; the use of water-based versus solvent based paints in a coating operation or a coal-fired boiler designed to have a low emission factor for NOx). In such cases the ability of design considerations to make the process inherently less polluting must be considered as a control alternative for the source. Inherently lower-polluting processes/practice are usually more environmentally effective because lower amounts of solid wastes and waste water are generated when compared with add-on controls. These factors are considered in the cost, energy and environmental impacts analyses in step 4 to determine the appropriateness of the additional add-on option.

Combinations of inherently lower-polluting processes/practices (or a process made to be inherently less polluting) and add-on controls are likely to yield more effective means of emissions control than either approach alone. Therefore, the option to utilize an inherently lower-polluting process does not, in and of itself, mean that no additional add-on controls need be included in the BACT analysis. These combinations should be identified in step 1 of the top down process for evaluation in subsequent steps.

IV.A.4. EXAMPLE

The process of identifying control technology alternatives (step 1 in the top-down BACT process) is illustrated in the following hypothetical example.

ATTACHMENT 3

EPA RESPONSE TO JUNE 9, 2004 LETTER FROM DESERET POWER

~~This response incorporates review of Deseret Power's June 9 letter by specialists at EPA's Office of Air Quality Planning & Standards (OAQPS), on the topics of mercury MACT, mercury CEMS, and particulate matter CEMS. A portion of the response on IGCC also incorporates OAQPS review of the June 9 letter.~~

Integrated Gasification Combined Cycle

At our April 28 meeting with Deseret, we advised Deseret to provide an explanation of why Deseret ruled out Integrated Gasification Combined Cycle (IGCC) technology, as an alternative to a Circulating Fluidized Bed (CFB) boiler. Deseret's June 9 letter responded, in brief, that they investigated and concluded that IGCC is not designed to operate with coal that has a heating value as low as the coal that will be used for their Waste Coal Fired Unit (WCFU). Deseret stated that their waste coal will have an average heating value of approximately 4,000 Btu/lb, with a range from 3,051 to 5,326 Btu/lb. Deseret said that U.S. DOE and NETL representatives they spoke to did not think IGCC would work with coal of such low heating value. Deseret also mentioned high ash content of their own waste coal (about 50%) as another reason to rule out IGCC. Deseret said all IGCC facilities they were aware of utilized coal with ash content of less than 25%.

Our response to Deseret's statements is that we believe Deseret should provide some further discussion of the feasibility or infeasibility of IGCC, specifically in regard to coal blending and pretreating. Our own investigation revealed that waste coal can be used as a feedstock for IGCC, either as a blend or 100% feed if pretreated. Two CFBs in operation by Gilberton Coal use waste coal as their feedstock. We spoke to Gilberton Coal and learned that their waste coal ranges from 2,000 to 7,000 Btu/lb, averaging about 4,000 Btu/lb (about the same as Deseret's proposed WCFU), and has ash content as high as 60% to 70% (more than Deseret's proposed WCFU). It is this same waste coal that Gilberton is going to use in the DOE funded IGCC which is scheduled to be operational in three years. Currently at least two IGCC's are operating in the U.S. that have achieved greater than 90% reliability. Several other IGCC projects are in the design phase, which shows that industry has accepted them as a proven process.

We also wish to respond to the following statement in Deseret's June 9 letter:

"EPA also recognizes that a fluidized bed combustor is the only technology for utilizing coal refuse. 40 CFR Parts 60 and 63 Proposed National Emission Standards for Hazardous Air Pollutants issued January 30, 2004 page 4665 states: "Previously considered unusable by the industry because of the high ash content and relatively low heat content, it (coal refuse) now may be utilized as a supplemental fuel in limited amounts in some units or as the primary fuel in a fluidized bed combustor (FBC). Because of the inherent inability to utilize coal refuse as the primary fuel in anything other than an FBC, it is considered to be a separate coal rank for purposes of the proposed rule."

We have been advised by OAQPS staff who prepared the January 30, 2004 Federal Register notice that EPA did not intend, nor should it be interpreted that, the wording cited in the January 30, 2004, proposed rulemaking infers that FBC units are the only technology for utilizing waste coal. The statement merely says waste coal may be used as the primary fuel in FBC units...not that it can't be used in other units. (The cited language states, in fact, that waste coal may be used in limited amounts in some [other] units.) Nothing is said regarding the use, or not, of waste coal in IGCC units.

Mercury Limit and Mercury CEMS

Clean Air Act section 112(g), and the implementing regulations at 40 CFR 63.43, require Region 8 EPA, as the permitting authority for the WCFU project, to make a case-specific MACT determination. 40 CFR 63.43(d)(4) requires us to consider any relevant EPA-proposed MACT rule when making that determination. On January 30, 2004, EPA Headquarters proposed MACT standards for mercury emissions from coal-fired electric utility units. The proposal includes standards for waste coal fired units and continuous mercury monitoring.

As case-specific MACT for mercury, Deseret's PSD permit application does not propose a mercury emission limit, but proposes BACT emission limits for particulate matter and sulfur dioxide as surrogates. In our April 28 meeting with Deseret, we indicated that it was our interpretation of 40 CFR 63.43(d) that an emission limit for mercury itself would be necessary as part of case-specific MACT, in view of the fact that the EPA-proposed MACT rule contains no provision for surrogates to a mercury emission limit. We also indicated that we consider continuous mercury monitoring to be appropriate as required monitoring for case-specific MACT purposes, again in view of the fact that the EPA-proposed MACT rule proposes such monitoring.

Deseret's June 9 letter states that Deseret does not believe any mercury emission limit is appropriate for the WCFU until the EPA-proposed MACT rule is finalized and new regulations set emission limits for similar units. The letter goes on to discuss the proposed MACT rule, to the extent it would pertain to waste coal fired CFBs.

Our response, based on advice from OAQPS staff who wrote the EPA-proposed MACT rule for mercury, is that particulate matter and SO₂ are not suitable surrogates for mercury. Rather than avoid establishing a mercury emission limit and continuous mercury monitoring as case-specific MACT until the MACT rule is finalized, the Region and OAQPS believe these requirements should be established in the initial PSD permit, then be relaxed or strengthened in consideration of whatever requirements are finally promulgated.

In its discussion of the proposed mercury MACT rule, Deseret's June 9 letter fails to note that under either of the regulatory options proposed on January 30, 2004, EPA would establish mercury limits for new sources (applicable to all sources commencing construction after January 30, 2004, including the WCFU) AND continuous mercury monitoring (with either CEMS or semi-continuous sorbent traps). Even if the cap-and-trade alternative approach was to be

ELR

NEWS & ANALYSIS

ATTACHMENT 4

Considering Alternatives: The Case for Limiting CO₂ Emissions From New Power Plants Through New Source Review

by Gregory B. Foote

Anthropogenic emissions of carbon dioxide (CO₂) and other greenhouse gases are changing the earth's climate in ways that could lead to catastrophe.¹ The United States is the largest emitter of these gases, producing almost one-fourth of worldwide emissions of CO₂, the dominant greenhouse gas.² Power plants alone account for one-third of total U.S. emissions of CO₂.³ A prompt transition to economies based on efficient use of renewable, nonpolluting energy sources rather than carbon-based fuels might avoid the worst effects of climate change by stabilizing greenhouse gases at acceptable levels.⁴ But even if that transition begins now, world energy forecasts predict that for the next several decades, fossil fuel use will greatly increase. Of special concern, many new coal-fired power plants may be built in the United States—and elsewhere, particularly in China and other developing countries.⁵ In order to limit further harm to the global environment, these plants—if they are built at all—should be constructed in a way that minimizes CO₂ emissions and facilitates future capture and safe storage of those emissions.⁶ This Article outlines a way of accomplishing that task under current U.S. law.

Gregory B. Foote is Assistant General Counsel in the Air and Radiation Law Office at the U.S. Environmental Protection Agency (EPA). Since 1990, he has led a team of lawyers at EPA providing counseling and litigation support on a range of environmental issues. These include new source review, operating permits, visibility protection, enforcement and monitoring, nuclear waste disposal, and secondhand tobacco smoke. During 2003, he was a Faculty Visitor at the New Zealand Centre for Environmental Law, University of Auckland. He is presently detailed to the Center for International Environmental Law (CIEL) in Washington, D.C. The author would like to acknowledge the assistance of Monica Derbes Gibson, Acting Assistant General Counsel, EPA, and Donald Goldberg, Senior Attorney, CIEL, for reviewing a draft of this Article and making valuable suggestions. The views expressed in this Article are solely those of the author and do not reflect the position of either EPA or CIEL.

The ultimate goal of the United Nations Framework Convention on Climate Change (UNFCCC) is to stabilize atmospheric concentrations of greenhouse gases at levels that would prevent dangerous human interference with the climate system.⁷ The United States ratified the UNFCCC in 1992, and the Bush Administration officially endorsed the scientific consensus on the threat posed by climate change with its submission to the United Nations (U.N.) of *Climate Action Report 2002*.⁸ The Administration has also acknowledged that drastic reductions in total greenhouse gas emissions are needed to stabilize atmospheric concentrations,⁹ and has funded technological developments toward this end.¹⁰ Many believe that comprehensive programs imposing mandatory CO₂ limits are needed to meet climate change goals. But the United States has declined to ratify the Kyoto Protocol, a first step in market-based, global CO₂ regulation. Instead, the Administration has adopted a program calling for only voluntary reductions in "carbon intensity"—the ratio of CO₂ emissions to economic output—before 2012.¹¹ Meanwhile, actual U.S. emissions have risen 12% since adoption of the UNFCCC, and are expected to rise another 30% in the next two decades, even assuming very substantial increases in energy efficiency and renewable energy resources.¹² The immensity of the task, and the absence of any program of comprehensive domestic CO₂ regulation, compels consideration of other available mechanisms for making progress on climate change *right now*. This Article proposes one such tool, which requires enactment of no new laws, but merely compliance with provisions of existing law that have been overlooked.

STATE WILDLIFE AND THREATEN HUMAN HEALTH (National Wildlife Fed'n 2000), available at http://caddodefense.org/download/toll_from_coal.pdf (visited Feb. 20, 2004).

1. See, e.g., SUMMARY FOR POLICYMAKERS: A REPORT OF WORKING GROUP I OF THE INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE (IPCC) (IPCC Secretariat, Geneva, 2001).
2. See U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA), INVENTORY OF U.S. GREENHOUSE GAS EMISSIONS AND SINKS: 1990-2001—FINAL VERSION 2-1 (2003) (EPA 430-R-03-004), available at <http://yosemite.epa.gov/OAR/globalwarming.nsf/content/ResourceCenterPublicationsGHGEmissionsUSEmissionsInventory2003.html>.
3. See *id.* tbl. 1-11.
4. See *id.* at 12-14 (CO₂ emissions would need to decline to a small fraction of current levels to stabilize atmospheric levels at 450 parts per million (ppm), a level needed to avoid very substantial adverse environmental consequences, although still involving a significant amount of such effects).
5. ENERGY INFORMATION ADMINISTRATION, INTERNATIONAL ENERGY OUTLOOK 2003 (2004), available at <http://www.eia.doe.gov/oiaf/ico/world.html>; *id.* tbl. A2; "World Total Energy Consumption by Region and Fuel, Reference Case, 1990-2025," available at http://www.eia.doe.gov/oiaf/ico/tbl_a2.html.
6. See, e.g., PATRICIA GLICK, THE TOLL FROM COAL: HOW EMISSIONS FROM THE NATION'S COAL-FIRED POWER PLANTS DEVAS-
7. For a general description of UNFCCC provisions, obligations, and implementation measures, see UNITED NATIONS (U.N.) CLIMATE CHANGE SECRETARIAT, A GUIDE TO THE CLIMATE CHANGE CONVENTION PROCESS (2002), available at <http://unfccc.int/resource/process/guideprocess-p.pdf>.
8. See U.S. CLIMATE ACTION REPORT 2002, THIRD NATIONAL COMMUNICATION OF THE UNITED STATES OF AMERICA UNDER THE UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE (hereinafter CLIMATE ACTION REPORT 2002). Chapter 6 of *Climate Action Report 2002* spells out the adverse impacts on the United States, including temperature and sea level rises, increase in severe weather events, and loss of sensitive ecosystems.
9. See U.S. Department of Energy (DOE), Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Implementation of the Carbon Sequestration Program, 69 Fed. Reg. 21514, 21515 (Apr. 21, 2004) ("even modest stabilization scenarios would eventually require a reduction in worldwide greenhouse gas emissions of 50 to 90% below current levels").
10. See *id.* (discussing the Administration's Global Climate Change Initiative and Carbon Sequestration Program).
11. See *id.*
12. See *id.*

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For the first time in a generation, large numbers of new coal-fired power plants are being planned in the United States.¹³ These plants are the largest emitters of greenhouse gases, and under business as usual, each would release hundreds of millions of tons of CO₂ over an expected lifespan of half a century or more. These plants are not entitled to a free pass on greenhouse gases. Instead, they should be seen as a prime opportunity for both limiting CO₂ emissions using currently available production processes and stimulating future technological advancement here and in the developing world. The Clean Air Act's (CAA's) new source review (NSR) permit program can fulfill these purposes.

The NSR program embodies a basic congressional judgment that proposed major new sources of air pollution should assess their environmental impacts—including adverse effects from unregulated pollutants such as CO₂ and mercury—and mitigate those impacts. Considering reasonable alternatives to proposed sources is a key component of this scheme. Due to their huge CO₂ emissions and longevity, new coal-fired power plants merit careful scrutiny because there is no regulatory structure in place to remedy the problem of climate change. In these circumstances, both sound policy and the legal obligation of permitting authorities to make reasonable decisions, call for a “pay-as-you-go” approach that minimizes CO₂ emissions using available technologies and provides offsetting CO₂ reductions elsewhere for emissions that cannot be avoided.

The balance of this Article is divided into five sections:

Section I introduces the general principle of administrative law requiring decisionmaking that is reasonable under the specific regulatory context presented. The section then outlines the relevant statutory and regulatory authorities, purposes, and procedures under NSR provisions of the CAA. It summarizes the requirements for emissions minimization, advocating that available means for reducing emissions should be addressed in a hierarchical fashion. The section then provides an overview of NSR provisions requiring assessment of environmental impacts, including emissions of “unregulated” pollutants such as CO₂ and mercury, and consideration of alternatives to a proposed new source. It highlights the flexible and comprehensive nature of this inquiry.

Section II synthesizes NSR permit cases that address conflicts over the basic parameters of a proposed new source, explaining why there is no basis in law for excluding consideration of alternatives that would “redefine the source” as proposed by a permit applicant. It also addresses the allocation of burdens in considering alternatives to a proposed source, focusing on the insights provided by cases arising in the context of environmental justice. This section also discusses the role of environmental analyses conducted for other purposes in NSR permitting.

Section III outlines generally how alternatives to a proposed new power plant can be appropriately considered, applying the Article's recommended hierarchy of methods for reducing emissions. This section emphasizes the need for permitting authorities to consider all available production processes, and to take into account production efficiency as a means of emissions reduction.

Section IV provides a specific model by which permitting authorities can use NSR to address CO₂ emissions at a new coal-fired plant, by requiring Integrated Gasification Combined Cycle (IGCC) technology to minimize emissions and emissions offsets to mitigate remaining CO₂ emissions. It begins by explaining why the U.S. Environmental Protection Agency's (EPA's) 2003 determination that CO₂ is not an “air pollutant” subject to mandatory CAA regulation has no effect on the need to address CO₂ as an “unregulated” pollutant for NSR purposes. This section also explains how adopting CO₂ measures through NSR would assist the U.S. in complying with commitments under international law to reduce CO₂ emissions pursuant to the UNFCCC, and to follow policies that are consistent with the principles of sustainable development.

Section V is an appendix summarizing the remedies available in the event that permitting authorities fail to make reasoned NSR decisions.

I. Prevention of Significant Deterioration (PSD) and Nonattainment Area NSR Permitting Requirements of the CAA

A. The Requirement for Reasoned Decisionmaking

In explaining the need to consider alternatives in NSR permitting, this Article refers throughout to two key tenets of administrative law. First, with deceptive simplicity, the Administrative Procedure Act (APA) calls upon agencies to make reasonable decisions. Second, what qualifies as reasonable depends on the circumstances of the particular action in question. These principles apply to NSR permit decisions—and most other final agency action—through the “arbitrary and capricious” standard of judicial review under the APA and analogous state laws.¹⁴ The single arbitrary and capricious standard actually encompasses a sliding scale of review. Under that standard the degree of discretion afforded to the decisionmaker and, hence, the degree of scrutiny of the agency decision by a reviewing tribunal, varies depending on the specific regulatory context of the particular matter in question. As a result, the arbitrary and capricious standard serves as a broad umbrella under which a scant analysis may justify a cursory decision in some circumstances, while in other cases a highly developed factual record and detailed analysis is necessary to justify as reasonable a decision that undergoes a hard look by a reviewing body.¹⁵ The need for reasonable decisions is by no means an abstract or academic point; as the U.S. Supreme Court recently affirmed in *Alaska Department of Environmental Conservation v. U.S. Environmental Protection*

13. See TRACKING NEW COAL-FIRED POWER PLANTS: COAL'S RESURGENCE IN ELECTRIC POWER GENERATION (National Energy Technology Laboratory 2004), available at <http://www.netl.doe.gov/coalpower/oces/pubs/nep.pdf> (last visited Mar. 23, 2004) (listing 94 plants proposed through 2025, with a total anticipated cost of \$72 billion; the plants would generate approximately 62,000 megawatts (MW) of electricity); Mark Clayton, *America's New Coal Rush*, CHRISTIAN SCI. MONITOR, Feb. 26, 2004, available at <http://www.csmonitor.com/2004/0226/p01s04-stcr.html>.

14. See 5 U.S.C. §706; see also *infra* note 226.

15. See generally, e.g., WILLIAM H. RODGERS, ENVIRONMENTAL LAW §3.1 (2d ed. & Full 2003 Supp.) and cases cited therein.

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manner that is sufficiently robust to fulfill the legislative purposes. A comparison of the NNSR alternatives analysis language with corresponding provisions under NEPA and PSD is illustrative.

As noted previously, under NEPA agencies are free to ignore the results of an environmental impact statement (EIS) no matter how meritorious the alternatives presented or how bleak the environmental consequences of the proposed action.⁸² Under PSD, where alternatives are placed in consideration by either the applicant/permitting authority or by commenters, the state must provide a reasoned explanation for rejecting the alternatives. It follows that the consideration of reasonable alternatives underlying that explanation should be at least as broad and deep as under NEPA. Consequently, the extensive case law on what constitutes an acceptable weighing of alternatives under NEPA should serve as a baseline in assessing the adequacy of alternatives analysis under PSD.

With respect to NNSR, the state has an explicit burden to justify any decision to build the major new source of air pollution as providing net benefits that "significantly outweigh" the "environmental and social costs" of that decision. Consequently, there is less discretion to reject an environmentally preferable alternative than there would be under PSD, where the state need only justify its decision as reasonable, not as preferable, from the environmental perspective. The NNSR language also means that in many cases the state's decision must be informed by an analysis more detailed than one that would suffice under NEPA. For example, as to mitigation of the adverse environmental impacts that would flow from a decision to build the new source, a merely cursory analysis or summary disposition appears inadequate for NNSR purposes.⁸³ Moreover, since a separate NNSR provision already requires greater than one-for-one emissions offsets for the pollutants that are the direct subject of the NNSR review, principles of statutory construction dictate that the purposes of the alternatives analysis cannot be satisfied by mere reference to those offsets, since that would render the alternatives analysis superfluous. Rather, it is other environmental impacts that need to be considered—including the impacts of CO₂ and toxic mercury emissions from a new coal-fired power plant.

To recap, the NSR permitting process is open-ended and is intended to raise basic issues about the environmental consequences of a new source of air pollution. The case law and administrative history, however, are almost entirely concerned with "end-of-stack" or "add-on" control technologies. Similarly, most air quality analyses focus on compliance with the NAAQS and increments. Agencies are substantially less experienced with more fundamental questions about the nature, siting, and—at the threshold—the very existence of the prospective new source of pollution. Nevertheless, the law is clear that permitting authorities are required to assess the full range of environmental impacts of a proposed source (including impacts on global climate), consider alternatives to the source as proposed, and justify

the permit decision based on these analyses. In this sense, NSR is "NEPA with teeth."

II. "Redefining the Source"

Before examining the particular categories of issues that arise in considering applications to build new power plants, it is useful to synthesize the history of a general, preliminary question: the obligation of permitting authorities to consider alternatives to a prospective new source as presented in a permit application. Despite the clarity of the statutory language requiring consideration of alternatives, some permitting authorities have limited the scope of NSR proceedings to the specific configuration of fuel and production process presented by the applicant. These states appear not to understand their own initial obligation to address statutorily mandated factors, since they treat comments urging consideration of alternatives that would "redefine the source" as nongermane.⁸⁴ It is possible that those views are derived from a misreading of case law on PSD permit appeals decisions by the EAB. As discussed below, careful review of this case law reinforces what the statute itself and its legislative purposes already provide, namely that permitting authorities cannot lawfully accept the design or location of a proposed source as a fait accompli. Rather, the proposal is subject to public debate, and permitting authorities must justify on the record of the permit proceeding any decision to reject reasonable alternatives to the proposed source.

A. The EAB Precedents

EPA first addressed the issue of possible limits to the consideration of alternatives in NSR in a 1988 case, *In re Pennsauken County, New Jersey Resource Recovery Facility*,⁸⁵ in which a petitioner objected to the construction of a municipal waste combustor that would also produce electricity for sale to the power grid. The petitioner urged that the municipal waste instead be burned in an existing nearby power plant, co-firing the waste with coal. The Administrator ruled that BACT permit conditions "are imposed on the source as the applicant has defined it," and although imposition of BACT conditions "may, among other things, have a

82. See *supra* note 37 and accompanying text.

83. Cf. *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 350-52, 19 ELR 20743 (1989) (no need to formulate and adopt a complete mitigation plan under NEPA, since that statute is purely procedural and state agencies—not the federal agency that must comply with NEPA—would be responsible for carrying out any plan to mitigate the adverse effect).

84. See, e.g., Letter from Scott Hassett, Secretary, Wisconsin Department of Natural Resources, to Carl A. Sinderbrand (June 10, 2003) (on file with author). In that correspondence, the state of Wisconsin disclaimed authority to consider IGCC as an alternative to a proposed new pulverized coal boiler, on the ground that these are "different process technologies." Cf. CAA §169(3) (BACT requires consideration of available "processes"). The state also asserted that it need not consider IGCC since EPA has not specifically required this in its own guidance, and Wisconsin law prohibits the state from adopting standards more stringent than corresponding federal standards. As to the latter assertion, as discussed in this section, EPA has in fact called upon states to consider alternatives to a proposed source where the failure to do so would constitute an abuse of discretion. Even if Wisconsin were correct that EPA had not spoken (and ignoring that the CAA itself expressly requires consideration of alternative processes), it would not follow that a state law restricting permit terms to those no more stringent than required by EPA would prohibit consideration of IGCC or other alternatives. Rather, the state would be required to follow a BACT process (such as the top-down process Wisconsin adopted consistent with EPA policy) and reach its own conclusions as to what constitutes BACT. In other words, since BACT is essentially a procedural rubric requiring a case-by-case determination, there simply are no "federal standards" that would establish a maximum level of stringency for the state's determination or constrain its consideration of alternatives.

85. See 2 E.A.D. 667, 1988 EPA App. LEXIS 27 (Adm'r 1988).

profound effect on the viability of the proposed facility as conceived by the applicant, the conditions themselves are not intended to redefine the source." Thus, the petitioner's objections were "not within the scope of this proceeding."⁸⁶

It seems inappropriate for NSR purposes to consider the goal of the permit applicant—a municipality—to be construction of a waste combustor. A municipality has no proper intrinsic purpose to undertake a particular method of waste disposal. Rather, its governmental function is to dispose of waste in an appropriate way at minimum cost. *Pennsauken* seemed to assume that the municipality's proper purpose was inherently incompatible with the petitioner's suggestion that the task be accomplished by co-firing waste in a preexisting power plant. Yet, at the same time, *Pennsauken* acknowledged that the applicant had no right to construct its desired project, pointing out that the stringency of required end-of-stack controls might threaten the viability of the project altogether.⁸⁷ Logically, the ability to deny the permit application subsumes the ability to set conditions short of outright denial, and as noted previously, the CAA legislative history confirms this ability,⁸⁸ as does the statutory requirement to consider "alternatives" to a proposed source.⁸⁹

The next year, *In re Hibbing Taconite Co.*⁹⁰ involved a permit for modification of a gas-burning boiler to switch to petroleum coker. EPA ruled that the permitting agency had failed to justify its cursory rejection of continued use of gas on economic grounds, since the mere fact of the plant's prior history showed gas to be a viable alternative. The Administrator found that requiring the company to continue burning gas would not "redefine the source" and distinguished *Pennsauken* on the ground that the plant was presently burning gas. This distinction is unpersuasive, however, since the relevant issue in *Pennsauken* was not the economic cost or technical feasibility of the petitioner's suggested alternative of co-firing municipal waste in an existing power plant, but whether the proposal to build a waste combustor in the first place was subject to challenge.

Considering just *Pennsauken* and *Hibbing Taconite*, one might conclude that EPA believes there is a line beyond which alternatives to a proposed source constitute "redefining" the source, and that as such they are beyond the scope of a PSD proceeding. More recent EAB decisions contravene that reading, however, and instead make it clear that even if alternatives brought forward by commenters constitute "redefining" the source, they are within the scope of the PSD proceeding. Newer cases also specify that the permitting authority may ultimately require the alternative to be adopted.⁹¹ The more recent EAB decisions also acknowledge that if the permitting authority rejects a proffered alternative, that rejection constitutes an exercise of

discretion that is reviewable to determine whether such discretion was exercised reasonably, and not abused. This formulation was summarized in a 2003 case, *In re Kendall New Century Development*⁹²:

We have previously noted that the Agency's PSD regulations governing permit conditions do not require that a permitting authority consider "redefining the source" as a means of reducing emissions. . . . However, "although it is not EPA's policy to require a source to employ a different design, redefinition of the source is not always prohibited. This is a matter for the permitting authority's discretion." *Knauf Fiber Glass*, 8 E.A.D. at 136. In order to obtain review of a permit issuer's decision not to conduct a broader BACT analysis that would include redefinition of the source, a petitioner must show a good reason in the circumstances of the case for curtailing the permit issuer's discretion or that the permit issuer abused this discretion.⁹³

As *Kendall* reflects, the standard articulated by the EAB in addressing alternatives to the proposed source presumes as an initial matter that the permitting agency must have authority to consider redefining the source in response to criticisms articulated by commenters who propose alternatives.⁹⁴ It would be illogical, and contrary to the CAA statutory language and legislative purposes, to conclude otherwise. If states could simply disclaim authority to consider alternatives, by the same thinking they could reject even traditional add-on control devices that exceed some predetermined "disproportionate cost" threshold without providing a case-specific rationale for that decision. The Court has found that to be arbitrary and thus unlawful.⁹⁵ For the same basic reason, it also would be improper to accede to any a priori limitations on a permitting authority's responsibility to consider reasonable alternatives to the proposed new or modified source. As the EAB pointed out in *Kendall*, the state cannot abuse its discretion in such matters, and complete failure to consider statutorily mandated factors such as "alternatives" to a proposed source generally or "production processes" in particular plainly constitutes such an abuse.⁹⁶

92. PSD Appeal No. 03-01, ELR ADMIN. MAT. 41261, 2003 EPA App. LEXIS 3 (EAB Apr. 29, 2003).

93. 2003 EPA App. LEXIS 3, at *30 n.14 (citations omitted).

94. Thus, for example, in *In re Hawaiian Commercial & Sugar Co.*, PSD Appeal No. 92-1, 4 E.A.D. 95, ELR ADMIN. MAT. 40025, 1992 EPA App. LEXIS 42 (EAB July 20, 1992), the EAB addressed a claim that a proposed coal-fired power plant should use gas and a different combustion process. The EAB pointed out that the state permitting agency asserted it lacked authority to exercise its discretion in a way that would impose different fuels, processes, or control devices. *See id.*, 1992 EPA App. LEXIS 42, at **11-14. The EAB then noted that "the definition of BACT includes consideration of both clean fuels and use of air pollution control devices," implying that the state agency's authority to issue PSD permits would be deemed inadequate if the EAB had not ultimately concluded that the petitioner had failed, in any event, to demonstrate that the permit was deficient under the facts of the case. *See id.* Likewise, in *Kendall*, the EAB responded to a similar state assertion that it lacked authority to require that the permit applicant build a smaller number of larger gas turbines than proposed, or require that they be constructed in combined-cycle rather than simple-cycle mode. In a quoted passage the EAB again implied it was necessary that the state agency have authority to exercise the discretion to require such a "redefining" of the proposed source. *See* 2003 EPA App. LEXIS 3, at *30 & n.14.

95. *See Alaska Dep't of Envtl. Conservation v. EPA*, 124 S. Ct. 983, 1007-09, 34 ELR 20012 (2004).

96. *See infra* note 121 and accompanying text. If such a limitation on state authority were allowed, it would have no obvious bright-line boundary, and could lead to a form of gaming whereby the applicant

86. 2 E.A.D. at 667, 1988 EPA App. LEXIS 27, at **13-14.

87. *Id.*

88. *See supra* note 58 and accompanying text.

89. *See supra* Section I.C.3.

90. 2 E.A.D. at 838, 1988 EPA App. LEXIS 24, at **11-12.

91. *In re Hillman Power Co., Ltd. Liab. Corp.*, PSD Appeal Nos. 02-04 et al., ELR ADMIN. MAT. 41255, 2002 EPA App. LEXIS 15, at **46-47 (EAB July 31, 2002) (petitioner asked permitting agency to condition permit so as to prevent applicant's desired requested process modification; agency "clearly has discretion under EPA guidance to consider and even require such a restriction").

Regarding the degree of flexibility accorded to permitting agencies in considering proposed alternatives, the EAB's use of the term "abuse of discretion" merits explanation. Nothing in the EAB's precedents suggests an attempt to depart from the governing "arbitrary and capricious" standard for assessing the validity of agency action, of which "abuse of discretion" is a component.⁹⁷ Although the EAB, in reviewing administrative decisions based on a record prepared by the permitting agency, has many similarities to a court engaged in judicial review, the EAB is itself an administrative entity. Its authority is delegated by the EPA Administrator, and its decisions constitute final agency action.⁹⁸ For the purpose of efficiently ordering its internal affairs, EPA has chosen to place great reliance on the initial permitting decisions reached by regional offices and delegated state agencies.⁹⁹ This is reflected in the EAB's generally narrow standard for granting EAB review.¹⁰⁰ Thus, absent "clear error," the initial permitting decision is adopted as the core of the Agency action. At that point the entire Agency action, consisting of the initial permit decision as well as the EAB's decision to deny administrative review under its internal, administrative "clear error" standard, is

proposes to construct a source that is defined in a way that makes it not amenable to cost-effective control technology, e.g., choosing a combination of plant site and design configuration that leaves no room for a control device, or proposing to dispose of municipal solid waste by burning it in an open trench. Notably, reviewing courts have rejected such artificial narrowing of the range of alternatives to a proposed project in the analogous NEPA context. See, e.g., *Colorado Envtl. Coalition v. Dombeck*, 185 F.3d 1162, 1175, 29 ELR 21406 (10th Cir. 1999) (agencies are precluded from "defining the objectives of their actions in terms so unreasonably narrow they can be accomplished by only one alternative (i.e., the applicant's proposed project)"); see also, e.g., *Citizens Against Burlington v. Busey*, 938 F.2d 190, 196, 21 ELR 21142 (D.C. Cir. 1991) (consideration of alternatives is bounded by a reasonable determination of the objectives of the action in question: "an agency may not define the objectives of its action in terms so unreasonably narrow that only one alternative . . . would accomplish the goals").

97. See 5 U.S.C. §706(2)(A). The "discretion" afforded to an agency in addressing alternatives within an informal adjudication does not refer to "agency action [that] is committed to agency discretion by law" within the meaning of the APA because there is no meaningful legal standard against which agency action could be judged or because the decision is inherently discretionary. See *id.* §701(a)(2). Matters committed to agency discretion and presumptively insulated from judicial review are those such as prosecutorial discretion, e.g., *Heckler v. Chaney*, 470 U.S. 821, 830-31, 15 ELR 20335 (1985) (decision whether to prosecute generally committed to agency discretion and thus immune from judicial review). The discretion at issue in an informal adjudication such as an NSR permit proceeding must be exercised in a "reasoned and justified" manner; failure to do so in determining BACT constitutes "abuse of discretion" under the "arbitrary and capricious" standard of review and renders the permit decision unlawful. See, e.g., *Alaska v. EPA*, 298 F.3d 814, 825, 32 ELR 20793 (9th Cir. 2002) (lack of reasoned justification for BACT decision constitutes unlawful "abuse of discretion" under arbitrary and capricious standard), *aff'd sub nom. Alaska Dep't of Envtl. Conservation*, 124 S. Ct. at 983.
98. See 40 C.F.R. §1.25(e)(2) (EAB performs functions as delegated by the EPA Administrator); *id.* §124.19(a) (EAB jurisdiction over PSD permit appeals).
99. See, e.g., *In re Knauf*, 1999 EPA App. LEXIS 2, at **14-15 ("[I]n applying this standard for granting review, the [EAB] has been guided by the following language in the preamble to section 124.19: the 'power of review should be only sparingly exercised' and 'most permit conditions should be finally determined at the [permitting authority] level.' 45 Fed. Reg. 33290, 33412 (May 19, 1980)").
100. See 40 C.F.R. §124.19(a)(1). Note, however, that in addition to this narrow internal standard, under 40 C.F.R. §124.19(a)(2) the EAB also may grant review where there is an "exercise of discretion or an important policy consideration which the [EAB] should, in its discretion, review").

subject to external judicial review under the APA's usual "arbitrary and capricious" standard.¹⁰¹ Consequently, a reviewing court would refuse to uphold the rejection of a proffered alternative to the proposed new source if such rejection, considering the administrative record as a whole, constituted an abuse of discretion or otherwise was "arbitrary and capricious."¹⁰²

In examining the issue of what would constitute reasonable, as opposed to arbitrary, state consideration of alternatives, EAB precedents again are illuminating. These decisions provide that the depth of a permitting agency's consideration of alternatives to the proposed source—and the degree of discretion the agency has to accept or reject those alternatives—is a function of the persuasive value of those alternatives. That value in turn is determined by the strength of the factual record presented in support of the proffered alternatives and corresponding legal and policy arguments.¹⁰³ Not surprisingly, the EAB's decisions reflect that more obvious and proven alternatives merit greater consideration by the permitting agency than those that are novel and unproven; as to the latter type, there is a correspondingly larger burden on the commenter to marshal facts and arguments in support of its preferred approach.¹⁰⁴ Every aspect of this an-

101. *Citizens for Clean Air v. EPA*, 959 F.2d 839, 845-46, 22 ELR 20669 (9th Cir. 1992). NSR permitting under federal law is a form of licensing not subject to decision "on the record" after a formal, trial-like hearing. Thus, in APA terminology, it is an "informal adjudication." See 5 U.S.C. §§501(4)-(9), 554.
102. See 959 F.2d at 845-46; see also *Alaska Dep't of Envtl. Conservation*, 124 S. Ct. at 1006-07 (judicial review of BACT determination under arbitrary and capricious standard); *Sur Contra la Contaminacion v. EPA*, 202 F.3d 443, 447-48, 30 ELR 20358 (1st Cir. 2000) (same).
103. See, e.g., *In re Hawaiian Commercial & Sugar Co.*, PSD Appeal No. 92-1, 4 E.A.D. 95, ELR ADMIN. MAT. 40025, 1992 EPA App. LEXIS 42 (EAB July 20, 1992). The EAB cited the Workshop Manual at B.13 as providing that permitting agencies have discretion in selecting production technology, and found that petitioner "has provided no good reason" to conclude that the agency "abused this discretion" in that case. *Id.* at **11-14. See also *In re Knauf Fiber Glass, GmbH*, 30 ELR 41218, 1999 EPA App. LEXIS 2, at **37-52 (EAB Mar. 14, 2000) (petitioner claimed that agency had failed to consider more efficient production process; permit decision remanded for consideration of that option). Notably, the form of analysis used in these decisions is the usual one in review of alternative courses of action presented in administrative decisions.
104. See, e.g., *Citizens for Clean Air*, 959 F.2d at 846-47 (petitioners seeking to require recycling as condition of construction of municipal incinerator had particularly heavy burden of demonstrating that their preferred alternative constituted BACT because at the time considering the air quality benefits of recycling required the agency to "embark upon an exploration of uncharted territory" (quoting *Vermont Yankee Nuclear Power Corp. v. Natural Resources Defense Council*, 435 U.S. 519, 553, 8 ELR 20288 (1978)).
- For another example, on the issue of technology transfer from one source category to another, compare *In re Mecklenburg Cogeneration Ltd. Partnership*, 3 E.A.D. 492, 494 n.3, 1990 EPA App. LEXIS 42, at *4 n.3 (Adm'r 1990):

[A] permit issuer does not commit clear error if it carefully considers the potentially transferable technologies in the context of a particular project . . . but its level of consideration or documentation nonetheless falls short of matching the level that would be expected, for example, if the permit issuer were rejecting a top technology with a proven track record in the same source category. A rule of reason proportionate to the technology's track record necessarily governs how much detail and documentation must go into consideration of a particular technology.

with In re Pennsauken County, N.J. Resource Recovery Facility, 2 E.A.D. 667, 1988 EPA App. LEXIS 27, at *10 (Adm'r 1988) (permit determination remanded where rejected technology was in use domestically in the same type of facility but the BACT determination

alytical framework is fully consistent with the mainstream of black-letter administrative law.

B. Environmental Justice and the Allocation of Burdens in Considering Alternatives Under PSD

Despite the EAB's clear acknowledgement of the need to consider alternatives to a proposed new source, the EAB's jurisprudence with respect to alternatives that the EAB characterizes as seeking to "redefine the source" reflects a seeming discomfort with addressing issues that it views as better handled by state agencies. This may be due at least in part to the understandable desire to maintain comity with the states, and a sense that states are better equipped to make basic economic growth decisions.¹⁰⁵ The EAB displays no such reluctance, however, to engage fundamentally similar issues that arise under the rubric of environmental justice. Examination of this perceived anomaly reveals that in actuality the EAB has applied a uniform standard of review to both types of cases. The apparent disparity simply reflects distinctions between the procedural contexts of these classes—specifically, whether the matter at issue is within the class of issues which the permitting authority has a mandatory duty to consider on its own initiative, or whether the commenter has the burden of presenting it for consideration.

Environmental justice claims arising under NSR assert that a new source of pollution will result in disproportionately high and adverse human health or environmental effects on minority or low-income populations, and the party's desired remedy typically is to build the source elsewhere or, in some instances, not at all. As such, it is quite clear that environmental justice claims do seek to "redefine the source" as that term has been used by the EAB. Nevertheless, the EAB has not characterized environmental justice claims in that manner. For example, in *In re EcoElectrica, Ltd. Partnership*,¹⁰⁶ the petitioner raised an environmental justice claim expressing concern with the air quality impacts of locating a proposed power plant in lower income towns in Puerto Rico; the petitioner separately claimed that energy efficiency projects could obviate need for the plant altogether. The EAB was solicitous of the environmental justice claim and, while ultimately rejecting it on the merits, expressed no concern regarding the ability of the EPA permitting office to address the claim.¹⁰⁷ Conversely, the EAB stated that the petitioner's claim that conservation could substitute for the new power plant constituted an attempt to "redefine the source" and was more appropriately addressed to commonwealth officials.¹⁰⁸

The environmental justice claim in *In re EcoElectrica*, if successful, plainly would have "redefined the source" by resulting in it not being built at all, or being sited in a location different from that proposed by the applicant. The difference in the EAB's characterization of the environmental jus-

lacked the "detail and analysis" necessary to show that the rejected technology was technically or economically unachievable by the proposed source).

105. See *infra* note 108 and accompanying text. This concern over the respective roles of EPA and the states would not arise, of course, as to state-issued permits.

106. See 7 E.A.D. 56, ELR ADMIN. MAT. 40632, 1997 EPA App. LEXIS 5, at **27-28 and **36-43 (Apr. 8, 1997).

107. See 7 E.A.D. at 56, 1997 EPA App. LEXIS 5, at **27-31.

108. See 7 E.A.D. at 56, 1997 EPA App. LEXIS 5, at **39-42.

tice claim and the energy efficiency claim and its treatment of them is readily reconciled, however, by viewing the claims within the normal administrative law framework for review of agency action. The permitting agency was obligated to address environmental justice by the issuance of Executive Order No. 12898, which expressly directed EPA to incorporate environmental justice concerns into Agency decisions.¹⁰⁹ By its terms, that Executive Order is only procedural in nature, and adds no substantive legal obligations.¹¹⁰ Accordingly, since environmental justice claims (like many other claims that a permitting authority should consider alternatives to a proposed source) seek to "redefine the source," it follows that characterizing any claim as one that would "redefine the source" does not render it ineligible for consideration in the permitting exercise.

Rather, what is significant about environmental justice in illuminating the larger issue of considering alternatives in NSR permitting is that by adopting the policy of "identifying and addressing" potential disparate impacts on minority and low-income communities,¹¹¹ the permitting authority—here, EPA—altered the regulatory context. It did so by placing environmental justice within the class of issues arising in NSR permitting that are a mandatory component of the preconstruction review. As a result, if the permitting agency failed to adequately address the issue in the permitting exercise, and if a commenter pointed out that failure and its significance, the permit would be found deficient and remanded to correct the deficiency. As noted, in *In re EcoElectrica* the EAB held that the permitting agency had adequately addressed the environmental justice issue in crafting the permit, and so ultimately rejected the claim on its merits.

In contrast, there was no equivalent policy directing EPA to consider the claim in *In re EcoElectrica* for efficiency-based alternatives to the proposed plant. Thus, the mere fact that the permitting agency had not considered those alternatives in preparing the permit did not render the permit legally deficient, because the agency had no mandatory duty to address those alternatives on its own initiative. Rather, under the specific regulatory context, it was the commenter's obligation to raise the issue and present a persuasive case as to why failure to consider its preferred alternatives would be a reasonable exercise of discretion. Consequently, in *In re EcoElectrica* the EAB needed to do no more than note the absence of effective advocacy by petitioner of the energy conservation alternative, and in particular the complete failure to demonstrate how the claim related to the requirements of BACT or other PSD provisions.¹¹² As a result, the EAB found that the permitting agency acted reasonably under the record of the case in cursorily rejecting the claim.¹¹³

109. See 7 E.A.D. at 56, 1997 EPA App. LEXIS 5, at **27-28 (citing Exec. Order No. 12898, 3 C.F.R. §859 (1995), ELR ADMIN. MAT. 45075 (Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations)).

110. See, e.g., *Sur Contra la Contaminacion v. EPA*, 202 F.3d 443, 449, 30 ELR 20358 (1st Cir. 2000) (Executive Order No. 12898 was "intended only to improve the internal management of the executive branch"; by its own words, the order "shall not be construed to create any right to judicial review" (quoting Exec. Order No. 12898, *supra* note 109, §6-609)).

111. Exec. Order No. 12898, *supra* note 109, §1-101.

112. 7 E.A.D. at 56, 1997 EPA App. LEXIS 5, at **36-37 & n.23.

113. 7 E.A.D. at 56, 1997 EPA App. LEXIS 5, at **39-41.

7-2004

NEWS & ANALYSIS

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This same review format is evident in *In re Knauf*¹¹⁴ as well. There, the commenters' environmental justice claim had been summarily rejected by the permitting agency. In petitioning EAB, the commenters needed only to point out the agency's essential failure to address a mandatory issue and its potential impact on the outcome of the permit proceeding. The petitioners did so, and the EAB found that the agency's failure to explain its basis for rejection of the environmental justice issue (as contrasted to the detailed explanation provided in *In re EcoElectrica*) rendered the permit deficient. Accordingly, the EAB remanded the matter for further consideration, placing the obligation on the agency to document its findings on environmental justice and provide an opportunity for public comment on them.¹¹⁵

As had occurred in *In re EcoElectrica*, commenters in *In re Knauf* also raised claims that on appeal the EAB characterized as an attempt to redefine the source. Specifically, they sought to require that the permitting agency consider a fundamentally different production process.¹¹⁶ In *In re Knauf*, however, the petitioners carried their burden of explaining how the different production technology merited consideration as BACT. Consequently, the Board ordered that the permit be remanded to determine whether the alternative process was "available," and if so, to consider it as a BACT option, because enabling the permit applicant to artificially limit the range of fundamental project designs to its preferred process technology would undermine the statutory purpose.¹¹⁷

In sum, *In re EcoElectrica* and *In re Knauf* illustrate that whether a proffered alternative to a proposed new source is characterized as a request to "redefine" it is merely a way of framing an issue as possibly arising toward the discretionary end of the administrative decisionmaking spectrum. Such characterization does not alter in any fundamental way the permitting authority's ultimate responsibility to consider the BACT alternatives presented and explain the basis for its decision. The general obligation for reasoned decisionmaking is uniform, as is the obligation to provide a reasoned justification for rejection of any BACT options that are more stringent than the applicant's preferred approach. What can vary is the allocation of the burden to present alternatives at issue in the first instance and the degree of discretion afforded to the permitting authority in addressing the alternatives once they have been brought forward for consideration. Hence, deeming an alternative as one that would "redefine the source" merely signals that, in the PSD context, such an alternative is usually—but not always—treated as being beyond the range of mandatory permitting issues that the applicant and the permitting authority have the obligation to address in the first instance. Where consideration of the alternative is not mandatory, commenters have the burden of presenting the case that the alternative should be adopted. EPA or states can, however, broaden the range of mandatory issues to include particular classes of alternatives, including those that would "redefine the source." As noted, EPA and some states have done so with respect to en-

vironmental justice.¹¹⁸ Some states also have done so as to other matters,¹¹⁹ such as by establishing an approach to power plant choices that ranks them in ascending order of adverse environmental impacts.¹²⁰

Standing alone, failure to consider a mandatory issue generally would render the permit decision legally deficient.¹²¹ It is important to emphasize, however, that even in the event of a complete failure to consider a mandatory issue or other clear defect in a permit, the aggrieved party is still responsible for pointing out the error and explaining how it renders the permit deficient.¹²² Such allocation of burdens is inherent under the arbitrary and capricious standard of review, which presumes the validity of agency action and which places upon a challenger the ultimate responsibility for overcoming this presumption.¹²³

In the context of nonattainment areas and NNSR, the allocation of burdens in considering alternatives to the proposed source differs from that under PSD. As noted, NNSR: (1) places an affirmative obligation on the permitting authority to consider "alternate sites, sizes, production processes, and environmental control techniques for such proposed source"; and (2) enables the state to issue the permit only if its analysis "demonstrates that benefits of the proposed source significantly outweigh the environmental and social costs imposed as a result of its location, construction, or modification."¹²⁴ Using the terms of the analytical framework discussed above, consideration of alternatives is a mandatory permitting element that must be included in the permit application and addressed in the permit decision. Unlike the situation under PSD, consideration of alternatives is never a discretionary issue that commenters have the obli-

114. 1999 EPA App. LEXIS 2, at *127.

115. *Id.* at *128.

116. The claim involved a proprietary process for fiberglass manufacturing. See *id.* at **37-41.

117. *Id.* at *47.

118. See, e.g., Exec. Order No. 12898, *supra* note 109; NEW YORK DEPT. OF ENVTL. CONSERVATION, COMMISSIONER'S POLICY, ENVIRONMENTAL JUSTICE AND PERMITTING (2003), available at <http://www.dec.state.ny.us/website/ej/cjpolicy.html>. As previously noted, failure to follow policies adopted by executive order are not judicially reviewable as such. See *supra* note 110. Such disregard of an agency's own decisionmaking criteria would, however, appear to constitute evidence of arbitrary action subject to judicial review on that basis. But see *Air Transp. Ass'n of Am. v. FAA*, 169 F.3d 1, 8-9 (D.C. Cir. 1999).

119. See *infra* note 134 (summarizing Wisconsin resource planning statute).

120. For the reasons discussed, whether a proposed alternative constitutes an attempt to "redefine the source" is not necessarily determinative of either the initial allocation of burden to present that alternative in the permit proceeding or the degree of discretion ultimately afforded to the permitting authority in considering that alternative. Consequently, the term is of limited utility and is potentially misleading. Thus, it would seem prudent for the EAB to discontinue use of the term altogether, or take care to characterize the issues before it in terms of the allocation of the initial burden to address alternatives to a proposed source and related matters.

121. See, e.g., *Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43, 13 ELR 20672 (1983) (normally, an agency action would be arbitrary and capricious if the agency, inter alia, "entirely failed to consider an important aspect of the problem"); *Sierra Club v. Leavitt*, 2004 U.S. App. LEXIS 8832 (11th Cir. 2004) (same).

122. E.g., *Vermont Yankee Nuclear Power Corp. v. Natural Resources Defense Council*, 435 U.S. 519, 553, 8 ELR 20288 (1978).

123. See, e.g., *Alaska Dep't of Envtl. Conservation v. EPA*, [24 S. Ct. 983, 1004-05, 34 ELR 20012 (2004)]; *Citizens of Overton Park v. Volpe*, 401 U.S. 402, 415, 1 ELR 20110 (1971); see also, e.g., *City of Seabrook v. EPA*, 659 F.2d 1349, 1360, 11 ELR 21058 (5th Cir. 1981) ("[W]hen petitioners claim that an agency conclusion was arbitrary because there was no evidence to support it, they must at least identify the factual determination the agency was required to make and their basis for disputing it, bringing the countervailing evidence, if any, to the attention of the court.")

124. CAA §173(a)(5); see *supra* note 79 and accompanying text.

gation to raise in the first instance, at least as to obvious, reasonable alternatives.

Consequently, the failure to adequately consider alternatives in NNSR permitting should itself be sufficient to render the permit deficient.¹²⁵ Where, however, the absence of an alternatives analysis is challenged in judicial review of a permit decision as a failure to undertake a mandatory permitting requirement under NNSR, an aggrieved party still is not relieved of the obligations inherent in any attempt to overturn agency action under the arbitrary and capricious standard of review. Such a party must still explain how this failure bears upon the adequacy of the final permit decision, just as it must "make the case" under PSD.

Even where consideration of alternatives is mandatory, as it always is under nonattainment area NNSR, and sometimes is under PSD, the question remains what constitutes adequate consideration. As noted, EPA has issued no regulations or guidance.¹²⁶ What remains is broad discretion for permitting authorities to provide content to this requirement. In these circumstances, some states may be inclined to take a minimalist view of their NNSR obligation, and it could follow that reviewing courts might have little basis upon which to conclude that the state's minimalist treatment was inadequate. As discussed in the next subsection, however, a permitting authority's consideration of alternatives does not occur in a vacuum despite the absence of EPA or state guidance. Instead, it is informed by the statutory language and purposes, as well as by any prior environmental analyses performed for other purposes. Nevertheless, as a practical matter, even in nonattainment areas, those wanting a robust consideration of alternatives to a proposed source would be wise to provide detailed comments supporting their preferred alternatives.¹²⁷

125. See, e.g., *Oregon Envtl. Council v. Oregon Dep't of Envtl. Quality*, 1992 U.S. Dist. LEXIS 14842 (D. Or. 1992) (in citizen suit under CAA §304 collaterally challenging prior state permit decision, permitting authority violated SIP by issuing permits that failed to include NNSR alternatives analysis).

126. See *supra* note 80 and accompanying text. In at least one instance, however, an EPA regional office has construed the NNSR alternatives analysis as providing that the applicant "should provide a thorough alternatives analysis that details alternative locations for the equipment and alternate processes that might have less severe impacts on environmental and public health and safety." See *Communities for a Better Env't v. Cenco Ref. Co.*, 180 F. Supp. 2d 1062, 1071 (C.D. Cal. 2001); see also *In re Campo Landfill Project*, 6 E.A.D. 505, ELR ADMIN. MAT. 40526, 1996 EPA App. LEXIS 25, at **36-47 (June 19, 1996) (EIS conducted under NEPA was sufficient for purposes of NNSR alternatives analysis under facts of the case).

127. *City of Seabrook* is instructive in this regard. The case arose under the CAA as amended in 1977, under which only certain nonattainment areas were required, pursuant to CAA §172(b)(1)(A), 42 U.S.C. §7502(b)(1)(A) (1977), to undertake the analysis now mandated in all nonattainment areas pursuant to §173(a)(5) of the CAA as amended in 1990. Petitioners had alleged that the Texas NNSR program was deficient because it merely required permit applicants to state whether an alternatives analysis had been conducted, and contained no specific analytical requirements whatsoever. 659 F.2d at 1361. The court noted both the absence of any EPA guidance or interpretation regarding the content of an alternatives analysis, and that petitioners had made only conclusory allegations of state program deficiency rather than asserting any particular shortcomings. *Id.* at 1359-60, 1363. The court, in a somewhat tortured analysis, reluctantly concluded ("[w]e hesitate to accept the EPA's argument in full," *id.* at 1362) that EPA's approval of the state's bare-bones approach to the analysis requirement was not arbitrary or capricious. *Id.* at 1363.

C. The Role of Previously Conducted Environmental Analyses in Considering Alternatives Under NSR

Whether addressing alternatives in the first instance in a permit application or draft permit, or responding to comments that present alternatives, an obvious source of guidance to inform the adequacy of a state's consideration is a previously conducted environmental impacts analysis. Thus, permitting authorities often rely on environmental analyses conducted under state law, such as state equivalents to NEPA, or power plant siting statutes and other resource planning tools.¹²⁸ The Energy Policy Act of 1992 required states to at least consider adopting integrated resource planning that considers a range of alternatives in addressing electricity generation.¹²⁹ These can be an acceptable means of framing the consideration of alternatives for NSR purposes; a prior environmental impact assessment can appropriately inform the preconstruction review.¹³⁰

Reliance on prior analyses of alternatives is adequate in practice, however, only to the extent that: (1) the prior analysis actually addresses all of the issues that would be germane to the permit decision; and (2) the permitting authority exercises independent judgment in the permit decision, and does not automatically accept prior determinations made for other purposes.¹³¹ Thus, if the prior environmental analysis is narrower in scope than is needed for NSR purposes, or failed to incorporate air quality-related data that were not available until submission of the NSR permit application, the prior analysis should be supplemented as necessary. Likewise, if a prior analysis was not informed by all the factors that are relevant to an NSR decision, the permitting authority may not disclaim the ability to reach conclusions different from any that accompanied such prior analysis.¹³²

In sum, permitting authorities cannot properly take an "easy way out" when faced with potentially controversial alternatives to a proposed new source by claiming a lack of

128. For example, in Wisconsin, the Public Service Commission generally must consider whether a proposed utility plant would satisfy the reasonable needs of the public for an adequate supply of electricity under Wis. STAT. §196.491(3)(d)2, and whether the design and location of the plant is in the public interest considering alternative sources of supply or engineering or economic factors pursuant to *id.* §196.491(3)(d)3. These analyses are incorporated into the PSD permitting decision.

129. See 16 U.S.C. §2621(d)(7).

130. See, e.g., [San Francisco] Bay Area Air Quality Management District Rule 2-2-401 addressing the California Environmental Quality Act (CEQA): "[A]pplications for authorities to construct facilities subject to Rule 2 shall include . . . CEQA-related information which satisfies the requirements of Regulation 2-1-426." Regulation 2-1-426 in turn requires the lead agency under CEQA to prepare an [environmental impact report (EIR)]. PSD delegation agreements between EPA and state permitting agencies provide that "where the delegate agency does not have continuing responsibility for managing land use, it shall consult with the appropriate State and local agency primarily responsible for managing land use prior to making any determination under this section." 40 C.F.R. §52.21(u)(2). See also *supra* note 126 and *infra* Section III.A, (discussing role of prior environmental analyses).

131. For example, in *In re Sutter Power Plant*, 8 E.A.D. 680, ELR ADMIN. MAT. 41216 (EAB Dec. 2, 1999), the EAB rejected a claim that the PSD permit decision failed to consider alternate sites for the proposed source, pointing out that a prior siting analysis under NEPA and California law had considered potential alternatives, and that petitioner had failed to demonstrate that the prior analysis was inadequate or that the permit decision was unreasonable under the record of the case.

132. See *supra* note 94 and accompanying text.

authority to even consider alternatives. Rather, states can be called upon to confront basic issues such as the need for and fundamental design of power plants, to take a public position on those issues, and to be prepared to defend the merits of their positions. In PSD areas, it usually is the obligation of commenters to marshal the facts and arguments supporting their preferred alternatives and present them to the permitting agency. Permitting authorities can, however, by policy, regulation, or statute make consideration of certain alternatives a mandatory part of the preconstruction review. In non-attainment areas, it is always necessary for the permit application to include alternatives to the proposed source, and for the state to consider these alternatives. In both PSD and NNSR permitting, citizens should be prepared to present their preferred alternatives and arguments in support of them. All of this is fully consistent with specific statutory provisions and the underlying legislative intent of the CAA, relevant case law, and basic tenets of administrative law.

III. Considering Alternatives: The Factors That Should Be Addressed in Reviewing Applications for New Power Plants

The foregoing discussion of NSR provisions demonstrates that the framers of the CAA did not intend that PSD and NNSR permit applicants should be entitled to dictate the design parameters under which the prospective major new or modified source of air pollution would be constructed and operated. Likewise, it is clear that permitting authorities are not compelled to grant a permit application that meets a predefined set of specific technical requirements regarding control technology hardware and impacts on ambient concentrations of regulated air pollutants, where broader environmental impact concerns remain. Nevertheless, as a practical matter, in most industries there may be little reason to question a company's basic decision to build. That decision is a result of highly complex market forces. Permitting authorities will likely remain reluctant to question the threshold question of the need for or function of most industrial plants. Likewise, citizens will find it difficult to challenge most such decisions given their highly discretionary nature.¹³³

Power plants, however, are different. Because the function of any single plant typically is to add to a common pool of electricity supply, the threshold question of need should never be ignored in deciding whether to issue a permit. Thus, despite a significant degree of economic deregulation in recent years, and the growth of "merchant" plants that sell electric power in the wholesale market, electricity generating plants primarily serve as and are regulated as public utilities. Coal-fired plants in particular merit extra scrutiny because of their tremendous size, longevity, capital and operating costs, demands on fuel suppliers and transmission lines, and adverse environmental impacts. All these public policy concerns are best addressed by reading the CAA as providing no vested right to build a coal-fired plant in any form, and as requiring that every decision to do so only be made after careful consideration of each important aspect of

the consequences of that decision. As discussed below, this reading is also the best one under the law.

As explained above, BACT can be a combination of all the available methods for minimizing emissions. These methods are most appropriately addressed in a hierarchical fashion, as it is the clearest method of considering the full range of means to limit air pollution. Some states have expressly adopted such a hierarchical approach to energy planning, under which conservation is considered first and burning of coal last, with other options in-between.¹³⁴ Where such policies exist, they should be reflected in an NSR permit application. Where these policies are lacking, interested parties should bring the full range of options to the table in particular permit proceedings, as alternatives to the proposed source.

The following subsections outline, in hierarchical order, the range of emissions issues that should arise in assessing alternatives to a proposed source. The example of a coal-fired power plant is used, although most of the concepts are applicable to other types of power plants and other source categories. Note that although for the reasons explained previously, a hierarchical approach to these emissions reduction methods can facilitate the analysis, it is not a substitute for sound judgment. Nor should a hierarchical approach obscure the need to consider cross-cutting issues. Perhaps most prominent among these are environmental justice and siting issues.¹³⁵

A. Energy Efficiency and Renewable Energy Resources: The Threshold Decision to Build Any New Power Plants Using Fossil Fuels

The threshold question in considering any prospective new or modified electricity generating plant fired by fossil fuels is why the plant should be constructed at all: obviously, it is preferable from the air quality standpoint to rely on renewable energy and more efficient use of existing resources than it is to construct any new fossil-fuel plant. In cases involving traditionally regulated public utilities, a public service commission generally requires a needs analysis. Many states have adopted some form of integrated resource planning that calls for consideration of alternatives to a proposed new power plant, including demand-side management and other

134. For example, Wisconsin has adopted an express hierarchy of energy source priorities in Wis. STAT. §1.12 (2002), as follows:

(4) PRIORITIES. In meeting energy demands, the policy of the state is that, to the extent cost-effective and technically feasible, options be considered based on the following priorities, in the order listed:

- (a) Energy conservation and efficiency.
- (b) Noncombustible renewable energy resources.
- (c) Combustible renewable energy resources.
- (d) Nonrenewable combustible energy resources, in the order listed:
 1. Natural gas.
 2. Oil or coal with a sulphur content of less than 1%.
 3. All other carbon-based fuels.

135. Although environmental justice and siting typically are associated with issues closer to the top of the hierarchy, they can involve a mix of emissions reduction methods. For example, the permitting authority might reasonably conclude that it would be preferable to forego construction of a new factory powered by a hydroelectric project that would displace farmers in a minority or low-income community and instead build the factory in another location where power is supplied by a gas-fired turbine even though the latter results in higher emissions. See also *infra* note 202.

133. As *In re Knaufl* illustrates, however, it does not follow as to industrial sources generally that states should take a hands-off approach to questions of production processes, materials and fuels, and efficiency where alternatives would still accommodate production of the intended amount of the desired end product.



January 11, 2005

Mr. Michael P. Halpin, P.E.
Florida Department of Environmental Protection
Division of Air Resource Management
Bureau of Air Regulation
2600 Blair Stone Road
Tallahassee, FL 32399-2400

RECEIVED

JAN 20 2005

BUREAU OF AIR REGULATION

RE: Payne Creek Generating Station Peaker Project
Response to FDEP's Second Request for Additional Information
File No. 0490340-003-AC; PSD-FL-344; PA 89-25

Dear Mr. Halpin:

Seminole Electric Cooperative, Inc. (SECI) has received the Department's November 24, 2004 letter requesting additional information regarding the pending August 27, 2004 Air Construction Permit Application for the Payne Creek Generating Station Peaker Project. For your convenience, we have numbered specific responses, below, to correspond with the numbered items in the Department's November 24 letter. In addition, SECI requests the Department's consideration of the following initial observations and information.

At the outset, SECI is very concerned that overall the Department's letter appears to inadequately consider the technical infeasibility and cost-effectiveness information that SECI previously provided in support of this project. SECI submitted its application, including the BACT analysis, in accordance with DEP and EPA approved procedures. When determining BACT, the Department must take "into account energy, environmental, and economic impacts, and other costs". (Rule 62-210.200(38), F.A.C.) Accounting for cost effectiveness distinguishes BACT from the concept of Lowest Achievable Emission Reduction (LAER), which only applies within nonattainment areas. Moreover, certain aspects of the Department's letter articulates an approach to BACT analysis that would have the effect of redesigning the essential elements of the proposed project and forcing SECI to change its proposed fuel option and/or choose an alternative vendor. This is an inappropriate extension of the BACT concept. See In Re Hawaiian Commercial and Sugar Company, (EAB PSD Appeal No. 92-1, 1992)(citing EPA's New Source Review Workshop manual for proposition that BACT review should not redefine the source); In Re Knauf Fiber Glass, Greenbelt, (EAB PSD Appeal Nos. 98-3 through 98-20) (BACT review should not redefine the source).

Regarding the specific project that SECI has proposed, it is very important to note that SECI needs the capability of generating up to 310 MW of electricity in various increments based on peak demand. The Pratt & Whitney FT8-3 aeroderivative combustion turbines are self contained, multi-fuel generating units that offer a very

unique ability to supply precise amounts of peaking electrical energy using natural gas and oil while operating at their highest efficiency level. More specifically, each water-injected FT8-3 Twin Pac can generate up to 62 MW of electricity while NO_x emissions are maintained at 25 ppm (gas) and 42 ppm (oil), and each individual water-injected turbine can operate as low as 12.5 MW while maintaining NO_x emissions at the same levels. This modularity satisfies SECI's unique need to meet the peak electricity demands of its members at precise and highly efficient energy output levels while also consistently controlling emissions. The ability to burn both natural gas and fuel oil is essential to both SECI's and Florida's need for fuel diversity, electric reliability, and flexibility. Unlike large mainframe combustion turbines, the Pratt & Whitney FT8-3 units can be cycled on a daily basis without the requirement to undergo accelerated, expensive maintenance overhauls. Again, this enhances reliability. Another important aspect of the proposed project design is that the units can go from a cold start to full load in less than 10 minutes. This capability will enable SECI to follow its peak load using these efficient units in small increments instead of starting large mainframe combustion turbines and running them at lower, less efficient, loads. The 10-minute start time also enables SECI to count a portion of the FT8-3 capacity towards its state-mandated spinning reserve requirement. This eliminates the need to rely on larger generating units from other companies to be on-line to provide this spinning reserve capacity.

In sum, SECI thoughtfully selected the Pratt & Whitney aeroderivative design based on its ability to run at very low loads (12.5 MW) and meet specific efficiency needs while maintaining compliance with applicable emissions limitations. These features will enable a more efficient operation with lower overall air emissions. In addition, the FT8-3 can meet its higher load outputs without the need for an inlet heating and cooling system. An especially beneficial feature of the FT8-3 turbines is the Pratt & Whitney program that enables a user to temporarily replace a damaged engine within 96 hours. Even while the damaged engine is being replaced, the Twin Pac unit can still operate at one-half the output while maintaining its high efficiency and low emissions at 25/42 ppm NO_x when firing natural gas/distillate fuel oil. This minimizes the potential adverse impacts to SECI's customers and to other state generating sources that supply replacement power during forced unit outages.

Attachment E to SECI's application provided summaries of national BACT determinations. Our research indicates that of over 258 FT8s constructed around the world since 1992, only 22 were installed with SCR. Most recently, eleven Twin Pacs were permitted in North Carolina, five in Virginia, six in West Virginia, five in Pennsylvania, six in Illinois, four in Ohio, two in Oregon, one in Minnesota, one in Michigan, one in Wisconsin, and four in Indiana, all without SCR. Especially relevant to the SECI project are four FT8 Twin Pacs in Missouri (two at Empire Electric and two at City Utility of Springfield) and two in Nebraska (Omaha Public Power District), which underwent BACT analysis and were permitted with water injection at 25/42 ppm (all of these projects with the exception of the City Utility of Springfield, MO were included in SECI's Application, Attachment E, page E1-2).

Following are SECI's specific responses to the Department's November 24 letter:

(1) The Standard Energy Ventures (SEVs) project permitted by Illinois EPA (IEPA) is not a legitimate precedent for determining BACT for SECI's proposed project. It should be noted that the SEV project was located in a nonattainment area for ozone, and that SEV in the first instance proposed SCR as a feature of the proposed project, which consisted of 16 Twin Pacs at one site, gas-fired only. (Whereas SECI is applying for 5 Twin Pacs firing oil and gas in an attainment area.) Potential NO_x emissions from the SEV project, when considering the SCR, were lower than major source levels, and therefore, NSR did not apply; BACT for NO_x, therefore, was not formally presented by SEV or determined by IEPA. Moreover, if the SEV project had been major for NO_x, the NO_x limit would have been based on LAER because of the ozone nonattainment status, which as stated above, does not consider cost. Finally, we understand that the SEV project (which included SCR) was never constructed because it turned out to be economically infeasible. The SEV construction permit has expired. Also, it is noteworthy that the EPA letter appended to your November 24, 2004 Request for Additional Information is not a BACT determination and clearly acknowledges that in any given circumstance the permittee may demonstrate economic infeasibility.

(2) The Granite Power Partners Hardee County Generation Facility is distinguishable from SECI's project in several important respects that significantly diminish its relevance/value as a precedent:

A. The Hardee County Generation Facility (HCGF) was a speculative merchant project proposed by an independent power producer, Granite Power Powers (GPP). Although issued an air construction permit by the Department (Permit No.: PSD-FL-281) in August 2000, the project was not constructed and the PSD permit expired.

B. Whereas the SECI project consists of five (5) Pratt & Whitney FT8-3 Twin Pac aeroderivative CT units (each FT8-3 Twin Pac unit is comprised of two simple cycle combustion turbines coupled to one common generator having a nominal generation capacity of 62 MW), the speculative HCGF project was proposed as three dual-fuel simple cycle frame-type combustion turbines with nominal power output capacities ranging from 120 to 170 MWs per turbine. These proposed large frame-type CTs would have had significantly different design and exhaust characteristics compared to the nominal 31 MW Pratt & Whitney aeroderivative CTs planned for the Payne Creek Generating Station.

C. At the time of its air construction permit application submittal, GPP had not selected a particular CT vendor for its speculative HCGF project. For this reason, the submitted air permit application addressed the following four CT vendors or types: (a) General Electric (GE) nominal 170 MW 7FA units, (b) Siemens Westinghouse (S/W) nominal 170 MW 501F units, (c) S/W nominal 120 MW 501D5A units, and (d) ABB nominal 180 MW GT-24 units. In its comments

to the Department on the agency's draft PSD permit, GPP withdrew the ABB GT-24 CT option from further permitting consideration. Accordingly, GPP did not consider it necessary or appropriate to assess or dispute any of the Department's BACT comments regarding the ABB GT-24 CT.

D. While there were differences in expected NO_x emission rates for the various frame-type simple cycle CTs (i.e., the GE, S/W, and ABB units) considered by GPP at the time of submittal of the HCGF air construction permit application, the three major vendors of simple cycle aeroderivative CTs (GE, P&W, and Rolls-Royce) all currently offer units with guaranteed NO_x exhaust concentrations no lower than 25 ppmvd NO_x when firing natural gas and 42 ppmvd when firing distillate fuel oil.

(3) SECI's proposed FT8-3 units feature conventional combustors that include water injection for power augmentation and NO_x reduction. The cost reduction to remove the water injection system from the gas turbine package is approximately \$200,000 per FT8-3 Twin Pac. The cost reduction to remove the water injection balance of plant systems would be approximately \$1,025,000 per FT8 Twin Pac, installed, based on a five-unit plant (see attached Pratt & Whitney document). Significantly, however, the FT8-3 units without water injection produce a NO_x level of around 200 ppm on natural gas fuel. We are not aware of any aeroderivative CT manufacturer that has installed CTs with NO_x guarantees less than 25 ppm on gas fuel without an SCR. The NO_x output with water injection is 25 ppm on natural gas fuel and 42 ppm on liquid fuel. Also note that removal of water injection results in a substantial energy penalty (due to lost power-augmentation capability) and lost ability to fire fuel oil, which would necessitate adding another Twin Pac to generate the needed 310 MW. Construction of another Twin Pac would cost SECI approximately \$16,200,000 plus balance of plant capital costs and installation as detailed below in response number 5.

SECI also wishes to state its understanding of emission levels at a Cal Peak facility in California. Our information is that this facility is achieving NO_x levels prior to the SCR around 36-38 ppm when firing natural gas, but this is not an uncontrolled unit. These machines are FT8-2s which are equipped with DLN. Pratt & Whitney is not aware of an uncontrolled FT8 in the United States, and stands by its emission estimates stated in the paragraph above and in the attachment.

(4) As stated above, the combustion turbines that meet SECIs needs are FT8-3 units with conventional combustors. The only FT8 units available with a DLN combustor are the FT8-2, which has 15% less power on a hot day, plus the loss of power augmentation capability associated with water injection. Expected NO_x levels when burning natural gas with DLN combustors are higher than the water injected 25 ppm level. The FT8-2 DLN gas turbine is a gas-only machine; it has no liquid fuel capability. The additional cost to convert the FT8-3 to a FT8-2 (DLN) is \$1,464,600 per FT8 Twin Pac (see attached Pratt & Whitney document). Losing power-augmentation capability and the

capability to fire fuel oil would be inconsistent with SECI's generation and reliability requirements, and would require at least one additional FT8-3 unit.

(5) Pratt & Whitney has provided in the past a 90% efficient NOx reduction system. The NOx level into the SCR, when firing gas, is 25 ppm and the outlet is 2.5 ppm. The NOx level into the SCR, when firing oil, is 42 ppm and the outlet is 4.2 ppm. The total system back pressure including the ductwork and SCR is 15" H2O (this pressure drop is calculated at the end of the catalyst life). The as-purchased FT8-3 with a CO Catalyst has a total system back pressure of 5.0" H2O. The additional 10" H2O of backpressure for the SCR relates to a 1.5% decrease in power and a 1.5% increase in heat rate. The amount of ammonia required is 185 lbs/hr with an ammonia slip of 10 ppm (see attached Pratt & Whitney document). Based on these assumptions, the cost effectiveness is \$13,329 per ton of NOx controlled using EPA factors for typical SCR direct installation costs. The cost effectiveness is \$16,340 per ton of NOx controlled using the higher site-specific SCR direct installation cost estimate.

SECI is in the process of selecting the construction/installation contractor, and based on prior construction experience, estimates the installation cost for the 5 Twin Pacs at the Payne Creek site to be \$12,270,000 or approximately \$2,454,000 per Twin Pac. As provided in the attached Pratt & Whitney letter, the additional installation cost per SCR per Twin Pac at the Payne Creek site is \$2,100,000 or \$10,500,000 for 5 Twin Pacs. The Payne Creek Generating Station is located on reclaimed phosphate land, and the site specific soil conditions will require approximately (20), 30-foot piles per SCR foundation, which significantly increases the SCR installation cost at this site.

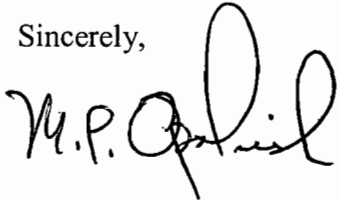
The total cost of the facility without SCR's is estimated at \$134,000,000. This total cost consists of three primary components: capital equipment, installation, and owners costs. The total capital equipment cost for the project is \$104,255,000 and consists of: \$88,000,000 for the 5 Pratt & Whitney Twin Pacs, and \$16,255,000 for the balance of plant capital equipment. Installation costs are those costs directly related to installing the capital equipment and are estimated to be \$12,270,000, as described above. Owners costs are estimated to be \$17,475,000 and consist of various items such as: permitting, start-up costs, interest during construction and spare parts. If SCR's were added to the scope of the project, the total cost would increase by \$22,513,000 to \$156,513,000.

(6) SECI has received no response to date regarding its December 6, 2004 letter requesting to review "all information at [your] disposal" that the Department apparently intends to utilize to internally estimate the cost effectiveness of hot SCR. SECI looks forward to the Department's response.

Seminole – Payne Creek
January 11, 2005
Page 6 of 6

Thank you for your attention to this information and we look forward to working with you in coming to a determination as expeditiously as possible. Please feel free to contact me at (813) 963-0994.

Sincerely,

A handwritten signature in black ink that reads "M.P. Opalinski". The signature is written in a cursive style with a large, looped initial "M".

Michael P. Opalinski
Vice President of Technical Services

Cc:

Trina Vielhauer, DEP
Jim Pennington, DEP
Jim Frauen, SECI
Tom Davis, ECT
Jerry Kissel, SWD
Buck Oven, PPSO
Gregg Worley, EPA Region 4
John Bunyak, NPS
Jim Alves, HGS
Robert Manning, HGS

Pratt & Whitney Power Systems, Inc.

80 Lambertson Road
Windsor, CT 06095
(860) 565-3339

**Pratt & Whitney**

A United Technologies Company

January 11, 2005

Mr. Trevor Pannell
Seminole Electric Cooperative, Inc.
16313 North Dale Mabry Highway
Tampa, FL 33688

Ref: Payne Creek Peaker Project
FDEP Request for Additional Information

Dear Trevor:

As requested, responses to the issues raised by the Florida Department of Environmental Protection (FDEP) to Seminole Electric Cooperative, Inc. pertinent to Pratt & Whitney are provided as follows:

The additional Twin PAC **Equipment Only Price** would be **\$16,200,000**

The gas turbines that Seminole Electric has purchased are FT8-3 units with conventional combustors. The only FT8 available with a DLN combustor is the FT8-2, which has 15% less power on a hot day, plus the loss of power augmentation due to water. The NOx gas fuel level is no better than the water injected 25-ppm level. The FT8-2 DLN gas turbine is a gas only machine and **has no liquid fuel capability**. FT8 -2 (DLN) is **\$1,464,600** per FT8 Twin PAC additional **Equipment Only Price** for a total **Equipment Only price** of **\$ 7,323,000** for all five Units.

The typical SCR system that PWPS has provided in the past is a 90% efficient NOx reduction system. The gas fuel NOx into the SCR is 25 ppm and the outlet is 2.5 ppm. The liquid fuel NOx into the SCR is 42 ppm and the outlet is 4.2 ppm. The total system backpressure including the ductwork and SCR is 15" H2O (This pressure drop is calculated at the end of the catalyst life.) The as purchased FT8-3 with CO Catalyst has a total system back pressure of 5.0" H2O. The additional 10" H2O of backpressure for the SCR relates to a 1.5% decrease in power and a 1.5% increase in heat rate. The amount of ammonia required is 185 lbs/hr with an ammonia slip of 10 ppm. The catalyst life would typically be 3.5 years. The SCR system is estimated at **\$2,402,600** per Twin PAC and can be installed for **\$2,100,000** per Twin PAC at the Seminole Site. At Seminole the soil conditions will require approximately (20), 30-foot piles per SCR foundation. This is a costly installation.

The FT8-3 units without water injection result in a NOx level of 200-ppm on natural gas fuel. The cost savings to remove the water injection system from the gas turbine package is \$200,000 per FT8 Twin Pac. The cost savings to remove the water injection balance of plant systems would be approximately \$ 1,025,000 per FT8 Twin Pac.

I have attached a typical data sheet for a SCR that would be used on an FT8-3 on gas.

Please contact me if any you have any questions or need any additional information.

Sincerely,

Mark S. Etre
Project Manager

Cc: 0302 Contract File

Attached: 1) Typical SCR Data Sheet

DESIGN CRITERIA

The proposed SCR System design is based on the following design conditions; the data is for one (1) unit. Should the actual gas conditions be different from the design data, the performance shall be re-evaluated, based on the corrected design data.

ITEMS	UNITS	DESIGN CONDITIONS			
		Case 1 – 59F	Case 2 – 91F	Case 3 – 91F	Case 4 – 104F
CASE DESCRIPTION:					
FUEL:		NG	NG	NG	NG
REACTOR INLET CONDITIONS:					
Flue Gas Flow Rate, Wet	lb/hr	1,444,320	1,331,280	1,355,040	1,271,520
Design Maximum Temp	°F	905	938	933	956
Flue Gas Composition:					
O ₂	vol % wet	13.02	12.53	12.46	12.18
H ₂ O	vol % wet	10.5	12.97	13.19	14.64
N ₂	vol % wet	72.33	70.39	70.22	69.08
CO ₂	vol % wet	3.28	3.27	3.28	3.27
Ar	vol % wet	0.86	0.84	0.84	0.82
Trace Components:					
NO _x	ppmvd	25.0	25.0	25.0	25.0
NO _x	lb/hr	56.9	52.7	53.9	50.7
CO	ppmvd	80.0	80.0	80.0	80.0
CO	lb/hr	111	103	105	98.8
DeNO _x Efficiency	%	90.0	90.0	90.0	90.0
CO Oxidation Efficiency	%	90.0	90.0	90.0	90.0
Dilution Exhaust Gas	lb/hr	2,633	2,633	2,633	2,633
Aqueous NH ₄ OH Consumption	lb/hr	144	133	136	128
Aqueous NH ₄ OH Consumption	gallons/month	12,952	11,996	12,273	11,535
REACTOR OUTLET CONDITIONS:					
Flue Gas Flow Rate, Wet	lb/hr	1,477,097	1,334,046	1,357,809	1,274,281
Performance Guarantees:					
NO _x	ppmvd	2.5	2.5	2.5	2.5
NO _x	lb/hr	5.7	5.3	5.4	5.1
CO	ppmvd	8.0	8.0	8.0	8.0
CO	lb/hr	11.1	10.3	10.5	9.9
NH ₃	ppmvd	≤0	≤0	≤0	≤0
Estimated System Pressure Drop	"W.C.	<17.5" H2O			

The proposed SCR System design is based on the following design conditions; the data is for one (1) unit. Should the actual gas conditions be different from the design data, the performance shall be re-evaluated, based on the corrected design data.

ITEMS		DESIGN CONDITIONS			
CASE DESCRIPTION:		Case 5 – 104F	Case 6 – 59F	Case 7 – 91F	Case 8 – 91F
FUEL:		NG	No. 2 Fuel Oil	No. 2 Fuel Oil	No. 2 Fuel Oil
REACTOR INLET CONDITIONS:					
Flue Gas Flow Rate, Wet	lb/hr	1,310,400	1,411,200	1,313,280	1,345,680
Design Maximum Temp	°F	947	886	942	934
Flue Gas Composition:					
O ₂	vol % wet	12.11	13.39	12.66	12.60
H ₂ O	vol % wet	14.89	8.54	11.31	11.54
N ₂	vol % wet	68.90	72.88	70.75	70.59
CO ₂	vol % wet	3.28	4.31	4.42	4.43
Ar	vol % wet	0.82	0.87	0.84	0.84
Trace Components:					
NO _x	ppmvd	25.0	42.0	42.0	42.0
NO _x	lb/hr	52.5	92.9	89.6	92.0
CO	ppmvd	80.0	14.0	12.0	12.0
CO	lb/hr	102	18.8	15.6	16.0
DeNO _x Efficiency	%	90.0	90.0	90.0	90.0
CO Oxidation Efficiency	%	90.0	85.7	83.3	83.3
Dilution Exhaust Gas	lb/hr	2,633	3,943	3,943	3,943
Aqueous NH ₄ OH Consumption	lb/hr	133	206	198	204
Aqueous NH ₄ OH Consumption	gallons/month	11,934	18,497	17,845	18,334
REACTOR OUTLET CONDITIONS:					
Flue Gas Flow Rate, Wet	lb/hr	1,313,166	1,415,349	1,317,421	1,349,827
Performance Guarantees:					
NO _x	ppmvd	2.5	4.2	4.2	4.2
NO _x	lb/hr	5.2	9.3	9.0	9.2
CO	ppmvd	8.0	≤2.0	≤2.0	≤2.0
CO	lb/hr	10.2	≤2.7	≤2.6	≤2.7
NH ₃	ppmvd	≤0	≤0	≤0	≤0
Estimated System Pressure Drop	"W.C.	<17.5" H ₂ O			

The proposed SCR System design is based on the following design conditions; the data is for one (1) unit. Should the actual gas conditions be different from the design data, the performance shall be re-evaluated, based on the corrected design data.

ITEMS	UNITS	DESIGN CONDITIONS			
CASE DESCRIPTION:		Case 9 – 104F	Case 10 – 104F		
FUEL:		No. 2 Fuel Oil	No. 2 Fuel Oil		
REACTOR INLET CONDITIONS:					
Flue Gas Flow Rate, Wet	lb/hr	1,257,840	1,288,800		
Design Maximum Temp	°F	959	952		
Flue Gas Composition:					
O ₂	vol % wet	12.31	12.24		
H ₂ O	vol % wet	13.00	13.25		
N ₂	vol % wet	69.44	69.25		
CO ₂	vol % wet	4.42	4.44		
Ar	vol % wet	0.83	0.82		
Trace Components:					
NO _x	ppmvd	42.0	42.0		
NO _x	lb/hr	86.3	88.8		
CO	ppmvd	11.0	11.0		
CO	lb/hr	13.8	14.2		
DeNO _x Efficiency	%	90.0	90.0		
CO Oxidation Efficiency	%	81.8	81.8		
Dilution Exhaust Gas	lb/hr	3,943	3,943		
Aqueous NH ₄ OH Consumption	lb/hr	191	196		
Aqueous NH ₄ OH Consumption	gallons/month	17,189	17,681		
REACTOR OUTLET CONDITIONS:					
Flue Gas Flow Rate, Wet	lb/hr	1,261,974	1,292,939		
Performance Guarantees:					
NO _x	ppmvd	4.2	4.2		
NO _x	lb/hr	8.6	8.9		
CO	ppmvd	≤2.0	≤2.0		
CO	lb/hr	≤2.5	≤2.6		
NH ₃	ppmvd	≤0	≤0		
Estimated System Pressure Drop	"W.C.	<17.5" H2O			

DESIGN NOTES	
1	"ppmvd" denotes parts per million by volume, dry, referenced to 15 percent oxygen.
2	The aqueous ammonia must be industrial or technical grade, diluted with fully de-ionized water to 19% by weight.
3	To prevent premature thermal degradation of the SCR catalyst, the temperature at the catalyst face must not exceed 930°F.
4	The SCR catalyst face temperature must be a minimum of 450°F for natural gas before ammonia injection will be allowed.
5	The NO/NO _x ratio at the AIG and catalyst must be greater than 0.50 at the SCR inlet for optimum performance and NO _x reduction guarantees to be met.

B. GENERAL SPECIFICATIONS:

DESCRIPTION	
1	Electrical Classification: NEMA 4 non-hazardous

C. UTILITY CONSUMPTION:

DESCRIPTION		UNITS
Aqueous Ammonia (19% by Weight)		
Flow Rate	206	Lbs/Hr/Unit
Supply Pressure	40	PSIG
Inlet Temperature	40	F Minimum for NH ₃
Inlet Temperature	0-100	F for NH ₄ OH
Electric Air Heater, 3-Phase, 480V, 60 Hz		
Capacity	Modified to 180	kW
Consumption at Above Ammonia Flow Rate (Estimated)	TBD	kW
Instrument Air (-20 F Dew Point or Better)		
Supply Pressure	80-100	PSIG
Maximum Steady State Air Consumption	0.5	SCFM
Maximum Steady State Air Supply Demand	5	SCFM
Dilution Exhaust Air Blowers, 480V, 3-Phase, 60 Hz		
Nominal Motor Rating	20	HP
Operating Power Consumption (Estimate)	30 – 40% of rated capacity	BHP
Cooling Air Blowers, 480V, 3-Phase, 60 Hz		
Nominal Motor Rating	150 (existing)	HP
Operating Power Consumption (Estimate)	30 - 40% of rated capacity	BHP
Control Power, 120V, 1-Phase, 60 Hz		

D. CATALYST:

SCR CATALYST DATA			
Catalyst Manufacturer	Hitachi America or Equal		
Catalyst Type	Plate		
Gas Flow	Horizontal		
Number of Modules	TBD		
Module Size W x H x D	TBD		
Total Catalyst Weight	66,000 lb.		
Estimated Internal Structure W x H x D	16' x 36'		
Estimated Pressure Drop	≤5.5 "H ₂ O		

CO CATALYST DATA			
Catalyst Manufacturer	Engelhard or Equal		
Catalyst Type	Pt		
Gas Flow	Horizontal		
Total Catalyst Weight	TBD		
Estimated Internal Structure W x H	16' x 36'		
Estimated Total Pressure Drop	≤ 2.8 "H ₂ O		



Jeb Bush
Governor

Department of Environmental Protection

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

Colleen M. Castille
Secretary

January 20, 2005

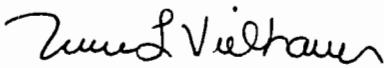
Michael P. Opalinski
Vice President of Technical Services
Seminole Electric Cooperative, Inc.
16313 North Dale Mabry Highway
PO Box 272000
Tampa, Florida 33688-2000

RE: Payne Creek Generating Station Peaker Project
File No. 0490340-003-AC; PSD-FL-344; PA 89-25

Dear Mr. Opalinski:

I am in receipt of Seminole Electric Cooperative, Inc.'s ("Seminole") January 11, 2005 response to the Department's second request for additional information ("Seminole's letter") for the above reference project. Seminole's letter is currently under review by my staff. I am also in receipt of the December 6, 2004 letter from Mr. Jim Alves referenced in paragraph 6 of Seminole's letter. In both letters, a request is made to review "all information at [your] disposal that the Department apparently intends to utilize to internally estimate the cost effectiveness of hot SCR".

As of today's date, Seminole's application remains incomplete. As I indicated at the December 21, 2004 meeting, the Department is still in the process of evaluating the application, collecting and evaluating appropriate information and documentation, and determining its agency action. Therefore, the Department cannot, at this time, fulfill these requests *as written*. However, if you are interested in conducting a public records review of this application file as it stands on today's date, you are welcome to do so. Please understand that the Department reserves its right to collect, utilize and rely upon any additional information it identifies and deems relevant prior to its proposed agency action. You may arrange a public records review of these files by contacting Ms. Patty Adams at 850/921-9505.

Sincerely,

Trina L. Vielhauer
Chief
Bureau of Air Regulation

cc: Jim Alves and Robert Manning

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SEMINOLE – DEP MEETING AGENDA

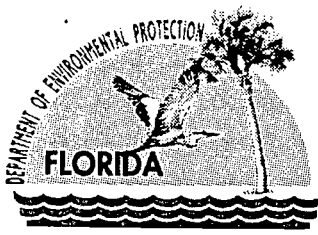
Payne Creek Generating Station Peaking Project December 20, 2004

- Introduction and purpose of today's meeting
 - Concerns about DEP's approach
 - Need for expeditious resolution

- Need for this project
 - Need 310 MW peaking power – 2500 hours (500 on oil)
 - Dual-fuel capability – fuel diversity, reliability issue

- Benefits of P&W Twin Pac units
 - High-efficiency and low-emissions across range of operating levels (from 12.5 to 310 MW)
 - Can meet peak demand in small MW increments (as low as 12.5 MW), which minimizes emissions and lowers cost
 - Capable of higher loads without need to cool or heat inlet air
 - Daily cycling ability without increasing maintenance needs
 - Cold start to full load in 10 minutes
 - Ability to count the FT8-3 capacity toward spinning reserve requirement
 - Ability to rapidly replace engines (within 96 hours), if needed

- BACT analysis
 - Cost considerations
 - Disregarding cost results in LAER
 - Removing water injection results in 200 ppm NO_x on gas, and decreased power
 - DLN is not available for dual-fuel and has same 25 ppm as water injection
 - DLN results in 15 percent power loss on a hot day, plus losses due to water-related power augmentation
 - Removing water injection or adding DLN would trigger need for additional units
 - SCR at 90% efficiency results in a 10 inches of water increase in backpressure, a 1.5% decrease in power, a 1.5% increase in heat rate, and 10 ppm ammonia slip
 - Total installation costs are not currently segregated from the total cost of the units
 - SCR installation costs are much higher at Payne Creek site because it is located on reclaimed phosphate land



Jeb Bush
Governor

Department of Environmental Protection

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

Colleen M. Castille
Secretary

November 24, 2004

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Michael Opalinski, VP Technical Services
Seminole Electric Cooperative, Inc.
16313 North Dale Mabry Highway
Tampa, FL 33688-2000

Re: Second Request for Additional Information
Payne Creek Generating Station
Peaker Project
File No. 0490340-003-AC; PSD-FL-344; PA 89-25

Dear Mr. Opalinski:

This is in reply to your responses to our Request for Additional Information dated September 23, 2004. In order to continue processing your application, we will need the additional information below. Should your response to any of the below items require new calculations, please submit the new calculations, assumptions, reference material and appropriate revised pages of the application form.

BACT Determination for NO_x

Notwithstanding the provided cost effectiveness calculations provided by SECI, the Department notes or requests the following information:

- 1) In a letter written to the Illinois EPA (IEPA) dated July 5, 2000, the USEPA Region 5 spoke to the issue of whether 25 ppm and water injection represented BACT for the control of nitrogen oxides. Region 5 stated that the proposal under evaluation by IEPA for BACT "does not meet the requirements of the Clean Air Act". This memo can be found at:
<http://www.epa.gov/rgvtgrnj/programs/artd/air/nsr/nsrmemos/sev.pdf>
- 2) In a Best Available Control Technology Determination completed by FDEP in year 2000 (PSD-FL-281), where the applicant proposed (as one option) the installation of ABB GT-24 machines with a NO_x BACT of 25ppm via water injection, the Department went on record as stating:
 - A) "The proposed emission limit of 25 ppmvd NO_x for the ABB GT-24 option is too high compared with the 10.5 limit for the similar class GE product. The added power and efficiency characteristics of the ABB GT-24 do not justify a BACT for NO_x more than twice that of the GE product." and
 - B) "BACT for the ABB option is determined to be 5 ppmvd by Hot SCR while firing natural gas. Up to 250 hours of fuel oil operation are permitted with the Hot SCR system off (NO_x equal to 42 ppmvd) and another 250 hours are permitted with the Hot SCR system in operation (NO_x equal to 10 ppmvd)."
- 3) Please obtain from Pratt & Whitney the reduction in cost, for removal of the water injection option. Additionally, please estimate all related cost reductions for the balance of plant (e.g. water treatment systems, piping, etc) including both fixed and variable costs without water injection.
- 4) Please identify whether the proposed CT's are fitted with DLN; if not, obtain from Pratt & Whitney the incremental cost for incorporating DLN.
- 5) Please obtain from Pratt & Whitney a written copy of all available specifications for the quoted SCR. The Department would expect that (at a minimum) NO_x inlet and outlet, ammonia demand, back pressure and catalyst life would have all been specified. Additionally, please indicate who (whether or not Pratt & Whitney) SECI intends to contract for the construction, and whether any contractor has

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provided SECI with estimated written total installation costs for the 10 simple cycle combustion turbines, with or without SCR. The Department is interested in comparing total installation cost to the SCR installation costs which SECI has calculated.

- 6) The applicant should be aware that the Department intends to internally estimate the cost effectiveness of Hot SCR, based upon all information at its disposal. One possible outcome is that the Department may determine that the CT's selected by SECI are incapable of meeting current day BACT standards.

Please note that EPA and NPS have been copied on your application, and should FDEP receive questions or comments from them, we will forward you a copy.

Rule 62-4.050(3), F.A.C. requires that all applications for a Department permit must be certified by a professional engineer registered in the State of Florida. This requirement also applies to responses to Department requests for additional information of an engineering nature. Please note that per Rule 62-4.055(1): "The applicant shall have ninety days after the Department mails a timely request for additional information to submit that information to the Department..... Failure of an applicant to provide the timely requested information by the applicable date shall result in denial of the application."

If you have any questions, please call Michael P. Halpin, P.E. at 850/921-9519.

Sincerely,



Michael P. Halpin, P.E.
DARM/BAR

Mike Roddy, SECI
Tom Davis, ECT
Jerry Kissel, SWD
Buck Oven, PPSO
Gregg Worley, EPA Region 4
John Bunyak, NPS



November 10, 2004

Mr. Michael P. Halpin, P.E.
Florida Department of Environmental Protection
Division of Air Resource Management
Bureau of Air Regulation
2600 Blair Stone Road
Tallahassee, FL 32399-2400

RECEIVED

NOV 17 2004

BUREAU OF AIR REGULATION

RE: Payne Creek Peaker Project
FDEP Request for Additional Information

Dear Mr. Halpin:

Seminole Electric Cooperative, Inc. (SECI) has received your letter dated September 23, 2004 requesting additional information with regards to the Payne Creek Generating Station Peaker Project. For your convenience, we have restated each point and provided a response below each specific issue.

Issue No. 1 – BACT Determination for NO_x

40 CFR 63 Subpart YYYY Applicability

The Department's letter indicates that the oxidation catalyst systems proposed for the simple cycle combustion turbines are being installed to comply with the requirements of 40 CFR 63, Subpart YYYY, *National Emission Standards for Hazardous Air Pollutants (NESHAPS) for Stationary Combustion Turbines*. As noted on Page 5-5 of the air construction permit application, the Payne Creek Generating Station (PCGS) is currently a synthetic minor source of hazardous air pollutants (HAPs). The addition of the proposed simple cycle combustion turbines will not change this regulatory classification; i.e., the PCGS will remain a synthetic minor source for HAPs. Since 40 CFR 63 Subpart YYYY is only applicable to stationary combustion turbines located at a major source of HAP emissions, this NESHAPS is not applicable to the PCGS simple cycle combustion turbine project.

SCR Control Costs

Items 1) and 2)

Pratt & Whitney (P&W) has confirmed that the total capital cost of SCR control systems for the ten simple cycle combustion turbines is \$11,227,500 based on a deduction of \$785,500 for oxidation catalyst control technology. P&W further indicates that the

Mr. Mike Halpin, P.E.

November 10, 2004

Page 2 of 5

oxidation catalyst deduction is valid only if an order for SCR controls is placed by March 31, 2005, and that thereafter the SCR control cost will be \$12,013,000 for the ten simple cycle combustion turbines. P&W has advised that their SCR control cost estimate includes freight and instrumentation but does not include sales tax or installation costs. P&W estimates a total SCR installation cost of \$10,500,000 for the ten simple cycle combustion turbines.

Note that the planned CO oxidation catalyst system will be installed in the vertical section of each simple cycle combustion turbine exhaust stack. In contrast, SCR controls would require a separate device to be added to the horizontal section of each combustion turbine exhaust duct and would require extensive exhaust duct modifications to accommodate the control system.

A copy of P&W's written response to these SCR cost issues is provided in Attachment A.

Item 3)

The estimate of SCR control costs was conducted using procedures obtaining from the Environmental Protection Agency's *Air Pollution Control Cost Manual, Sixth Edition* dated January 2002. This edition of the Cost Control Manual includes a new section on SCR control costs – reference Section 4 (NO_x Controls), Section 4.2 (NO_x Post-Combustion Controls), Chapter 2, Selective Catalytic Reduction.

Section 4.2, Chapter 2 indicates on Page 2-47 that the future worth factor (FWF) should be used to calculate the annual catalyst replacement cost. The annual capital recovery cost is the total capital investment (TCI) multiplied by the capital recovery factor (CRF). For a SCR control system, TCI includes the cost of the initial catalyst. When the CRF is also used to calculate annual catalyst replacement costs, it is appropriate to subtract the cost of the initial catalyst from the TCI when calculating the annual capital recovery cost to avoid "double-counting" of catalyst replacement costs since the CRF considers the catalyst replacement cost to be a present value; i.e., incurred at the start of a project. However, the initial catalyst charge is not "double-counted" and should not be subtracted from the TCI if the FWF is used instead of the CRF to calculate the annual catalyst replacement cost since the FWF treats the catalyst replacement cost as an expense that is incurred in the future; i.e., discounts the future catalyst replacement cost for the time value of money. Subtracting the initial catalyst charge from the TCI when the FWF is used for catalyst replacement costs will completely exclude the initial catalyst cost from the economic analysis. A discussion of the FWF with respect to SCR catalyst replacement costs can be found starting on Page 2-6, Section 4.2, Chapter 2 of EPA's *Air Pollution Control Cost Manual*. An example calculation of SCR control costs is also provided in Chapter 2 starting on Page 2-50. This example does not subtract the initial catalyst cost when calculating the annual capital recovery cost.

Mr. Mike Halpin, P.E.

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analysis excludes freight and instrumentation costs. Conservatively, the EPA Cost Control Manual methodology for estimating installations costs was retained although this procedure results in an installation cost that is well below the P&W estimate. The revised SCR cost effectiveness for the PCGS simple cycle combustion turbine project is \$14,654 per ton of NO_x controlled. Note that use of the P&W SCR installation cost estimate yields a cost effectiveness of \$18,031 per ton of NO_x controlled.

Issue No. 2 – BACT Determination for SO₂

Item 1)

A copy of P&W's Gas Turbine Liquid Distillate Fuel Requirements is provided in Attachment C to this letter. As shown on Table 1 of this document, the maximum recommended distillate fuel oil sulfur content is 1.3 weight percent.

Item 2)

The requested 500 hours of operation on distillate fuel oil represents SECI's best estimate of the maximum amount of hours that will be needed due to potential interruptions in natural gas supply. This estimate is considered reasonable and prudent in light of the recent natural disasters that Florida has experienced; i.e., Hurricanes Charley, Francis, Jeanne, and Ivan.

With respect to project SO₂ emissions, we have evaluated our premise for the sulfur content of natural gas (2.0 grains of sulfur per one hundred standard cubic feet [gr S/100 ft³]) and conclude that this estimate significantly over-estimates actual natural gas sulfur contents. Accordingly, project SO₂ emissions have been re-estimated assuming a natural gas sulfur content of 1.0 gr S/100 ft³. This lower natural gas sulfur content remains conservative; i.e., actual sulfur contents would be expected to be less than approximately 0.5 gr S/100 ft³. Project SO₂ emissions, based on the revised natural gas sulfur content, total 45.7 tons per year. Revised Pages 23 and 24 of the FDEP Application for Permit – Long Form, and a Professional Engineer certification are provided in Attachment D to this letter.

Item 3)

Our fuel oil supplier, British Petroleum (BP), indicates that they currently do not market ultra low sulfur diesel (ULSD) in the southeast (SE), and that ULSD fuel oil will not likely be available in the SE until late 2005 or mid-2006. BP also reviewed the ULSD oil cost estimates contained in our August 2004 Air Construction Permit Application and found them to be reasonable. Further information regarding BP's ULSD fuel oil can be found on their website at ecdiesel.com.

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Item 4)

As noted in the air construction permit application, regional haze impacts at the Chassahowitzka National Wildlife Refuge are considered acceptable for the following reasons:

- Only one 24-hour period out of 1,097 modeled events (1990, 1992, and 1996) exceeded the FLM 5.0 percent guideline; i.e., the guideline was exceeded for only 0.091 percent of the modeled period;
- The regional haze impacts assumed continuous oil-firing. For the SCCT project, oil-firing hours will be limited to no more than 500 hours per year;
- The 5.0 percent FLM guideline is half of the level that is perceptible; i.e. increases in β_{ext} above 10 percent (equivalent to a dv change of 1.0) are considered to be perceptible at the furthest extent of the visual range. Accordingly, the predicted SCCT maximum regional haze impact of 5.14 percent will not be perceptible.
- The regional haze analysis compares project impacts with “natural” background; i.e., a theoretical background that would occur in the absence of all anthropogenic activities. This results in a natural background visual range of approximately 105 miles for the Chassahowitzka NWR. Other than nighttime celestial objects, there are no line-of-sight vistas in the coastal Chassahowitzka NWR that are near this visual range. For example, the theoretical line-of-sight for a six-foot tall person on the shoreline of the Gulf of Mexico is 3.2 miles due to the curvature of the earth.
- The 20 percent best visibility over the 1994-1998 period for the Chassahowitzka NWR was 18 dv or a visual range of 40 miles. A comparison of maximum SCCT project regional haze impacts during oil-firing with this actual background level results in a change in β_{ext} of 1.97 percent; well below perceptible levels.

In addition, the actual sulfur content of the fuel oil supplied to the Payne Creek Generating has been approximately 20 percent below the contract level of 0.05 weight percent. The actual sulfur content of future fuel oil deliveries are expected to be comparable to the historical values.

As noted in the air construction permit application, the use of ultra low sulfur distillate (ULSD) oil for the PCGS simple cycle combustion turbines results in a cost effectiveness of \$15,231 per ton of SO_2 reduced. This cost effectiveness is well above the level considered economically reasonable in prior Department BACT determinations. The use of cost effectiveness as the metric in determining whether a control technology has an adverse economic impact is consistent with guidance found in EPA’s *New Source Review Workshop Manual* and long-standing agency BACT policy.

Our requested SO_2 BACT of 0.05 weight percent sulfur for backup distillate fuel oil is also consistent with the BACT limit recently approved by the Department for the City of Tallahassee’s Arvah B. Hopkins Station simple cycle combustion turbine project. The Department’s Technical Evaluation and Final BACT Determination Peaker for this

Mr. Mike Halpin, P.E.

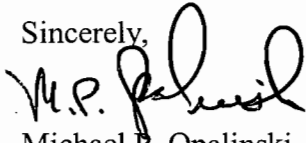
November 10, 2004

Page 5 of 5

project indicated that 0.05% sulfur oil and pipeline natural gas are accepted as BACT given the relatively low annual SO₂ potential emissions.

Your continued expeditious processing of the PCGS Peaker Project air construction permit application will be appreciated. Please contact Mr. Mike Roddy at (813) 963-0994, Ext. 1224 if any you have any questions or need any additional information.

Sincerely,



Michael P. Opalinski

Vice President of Technical Services

Attachments

cc: C. Halladay
B. Owen
G. Kissel, SWD
B. Worley, EPA
G. Bernsah, NPS

ATTACHMENT A

PRATT & WHITNEY SCR COSTS

Pratt & Whitney Power Systems, Inc.

80 Lambertson Road
Windsor, CT 06095
(860) 565-3339



Pratt & Whitney
A United Technologies Company

November 3, 2004

Mr. Trevor Pannell
Seminole Electric Cooperative, Inc.
16313 North Dale Mabry Highway
Tampa, FL 33688

Ref: Payne Creek Peaker Project
FDEP Request for Additional Information , File number 04903-003-AC;PSD-FL-344;PA 89-25,
dated September 23, 2004.

Subject: This information should help you in answering the attached questions from the State of Florida
DEP

Dear Trevor:

As requested, responses to the issues raised by the Florida Department of Environmental Protection (FDEP) in their September 24, 2004 correspondence to Seminole Electric Cooperative, Inc. pertinent to Pratt & Whitney are provided as follows:

Question I. 1)

The total Capital cost for the SCR is \$ **12,013,000** for 10 simple cycle CT's. The incremental deduction of \$ **765,500** for 10 simple cycle CT's is a correct assumption. However, this would only be applicable if the Order was placed by the end of the first quarter next year. Once we procure the stacks and CO catalyst for the CO system only, they are not interchangeable with the SCR/CO System. Therefore, If after the first quarter next year the total cost would be \$ **12,013,000** for 10 simple cycle CT's.

Questions I. 2) a), b), c), and d)

The capital costs provided by Pratt & Whitney include freight and instrumentation but not include sales tax or installation costs. We estimate a total SCR installation cost of \$10,500,000 for the 10 simple cycle CT's.

Question II. 1)

A copy of our Gas Turbine Liquid Distillate Fuel Requirements is attached. As shown on Table 1 of this document, the maximum recommended distillate fuel oil sulfur content is 1.3 weight percent.

Please contact me if any you have any questions or need any additional information.

Sincerely,

Mark S. Etre
Project Manager

Cc: 0302 Contract File

Attached: PWPS FR-1 Rev D, GAS TURBINE LIQUID DISTILLATE FUEL REQUIREMENTS

ATTACHMENT B

REVISED SCR BACT ECONOMIC ANALYSIS

Table 5-8. Capital Costs for SCR System (10 SCCTs)

Item	Dollars	EPA Factor
<u>Direct Capital Cost</u>		
Equipment Cost	11,227,500	EC
Sales tax	789,400	0.06 × EC
Instrumentation	0	Included in EC
Freight	0	Included in EC
Total Purchased Equipment Cost (PEC)	\$12,016,900	
<u>Installation Cost</u>		
Foundations and supports	961,400	0.08 × PEC
Handling and erection	1,682,400	0.14 × PEC
Electrical	480,700	0.04 × PEC
Piping	240,300	0.02 × PEC
Insulation for ductwork	120,200	0.01 × PEC
Painting	120,200	0.01 × PEC
Total Installation Cost (TIC)	\$3,605,200	
Total Direct Capital Costs (DCC)	\$15,622,100	PEC + TIC
<u>Indirect Installation Cost</u>		
General Facilities	781,100	0.05 × DCC
Engineering & Home Office Fees	1,562,200	0.10 × DCC
Process Contingency	781,100	0.05 × DCC
Total Indirect Installation Cost (IIC)	\$3,124,400	
<u>Project Contingency (PC)</u>	2,812,000	0.15 x (DCC + IIC)
Total Plant Cost (TPC)	\$21,558,500	DCC + IIC + PC
Preproduction Cost (PPC)	431,200	0.02 × TPC
Initial Ammonia Inventory Cost	1,425	14 day supply
Total Capital Investment (TCI)	\$21,991,125	TPC + PPC

Sources: ECT, 2004.
P&W, 2004

Table 5-9. Annual Operating Costs for SCR System (10 SCCTs)

Item	Dollars	EPA Factor
<u>Direct Cost</u>		
Maintenance labor and materials (ML&M)	329,867	0.015 × TCI
Catalyst replacement cost		
Replacement (materials and labor) (RC)	7,919,500	
Disposal	158,390	0.02 × RC
Total Catalyst Replacement Cost (CRC)	\$8,077,890	
Future Worth Factor (FWF)	0.2620	7.0%, 3.5 yrs
Annualized Catalyst Cost (ACC)	\$2,116,300	CRC × FWF
Energy Cost	300	OAQPS algorithm
Aqueous Ammonia (AA)	106,600	\$444 / ton (dry basis)
Energy penalty (EP)		
Turbine backpressure	294,000	0.20 / inch delta P
Emission Fee Credit (EFC)	(9,000)	\$25 / ton NO _x
Total Direct Costs (TDC)	\$2,837,467	ML&M + ACC + EP
<u>Indirect Cost</u>		
Capital Recovery Factor (CRF)	0.1098	7.0%, 15 yrs
Capital recovery	2,414,500	CRF × TCI
Total Indirect Cost (TIC)	\$2,414,500	
Total Annual Cost (TAC)	\$5,251,967	TDC + TIC

Sources: ECT, 2004.
SECI, 2004

Table 5-10. Summary of NO_x BACT Analysis


Control Option	Emission Impacts			Economic Impacts			Energy Impacts		
	Environmental Impacts		Installed Reduction (tpy)	Total Annualized Capital Cost (\$)	Cost Effectiveness Cost (\$/yr)	Increase Over Over Baseline (\$/ton)	Toxic Baseline (MMBtu/yr)	Adverse Environmental Impact (Y/N)	Adverse Environmental Impact (Y/N)
	Emission Rates lb/hr	tpy							
SCR	71.7	89.6	358.4	21,991,125	5,251,967	14,654	28,662	Y	Y
Baseline	358.4	448.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Basis: Ten P&W FT8-3 SCCTs, 100-percent load for 2,000 hr/yr/CT gas-firing and 500 hr/yr/CT oil-firing.

Sources: ECT, 2004.
P&W, 2004
SECI, 2004.

ATTACHMENT C

**PRATT & WHITNEY GAS TURBINE
DISTILLATE FUEL REQUIREMENTS**

 Pratt & Whitney A United Technologies Company Pratt & Whitney Power Systems, Inc.	PWPS SPECIFICATION	FR-1	REV D	SHEET 1 OF 6	
		ISSUED BY : P. Lavendier		DATE: 8/18/95	
	REVISE BY : D. Tougas		DATE: 7/8/03		
	RELEASED	REFERENCE :		REV:	

GAS TURBINE LIQUID DISTILLATE FUEL REQUIREMENTS

GENERAL

This document provides the requirements and general guidelines for light and medium hydrocarbon liquid distillate fuels which can be burned satisfactorily in PWPS/P&W aeroderivative industrial gas turbines.

Industrial gas turbines are capable of burning a variety of liquid fuels providing they have appropriate fuel delivery, injection and combustion systems for each class of fuel. Distillate liquid fuels are complex hydrocarbon mixtures processed from a wide variety of basic crude oil stocks, and have a broad range of property values. In some cases, such as gasoline, the hydrocarbon fraction may undergo further processing and acquire additives or, as with naphtha, may be offered for use in the as-distilled form.


This document recognizes three general categories of distillate fuels as defined by ANSI/ASME B 133.7M which may be employed in properly configured PWPS/P&W gas turbines. Category a is No. 0-GT fuels such as light naphtha, gasoline, and JP-4/ Jet B fuels which are highly volatile and require special handling and fuel system design. Categories b and c are No. 1-GT and No. 2-GT such as light to medium kerosene and diesel fuels which can be burned in the standard gas turbine, providing all fuel properties specified in the following Table 1 are met. Fuel treatment or conditioning, including heating, may be necessary to satisfy these requirements. Residual, ash bearing fuels, and blends of distillate and residual fuels are not suitable for aeroderivative gas turbines.

Industrial fuels may be obtained from a large number of producers with a broad range of properties. Contamination in transport and deterioration in storage are common problems. Poor and contaminated fuels greatly affect the performance and durability of gas turbines. Therefore, it is imperative for the gas turbine user to install a proper fuel system design and institute an effective fuel quality management program to insure and maintain clean, high quality fuels.

GUIDELINES FOR EFFECTIVE FUEL QUALITY MANAGEMENT

The fuel management system should be designed and in place prior to the site start-up. The following considerations should be addressed:

- 1) The fuel type is generally chosen on the basis of cost and availability, however, the effects of fuel on gas turbine operation and life cycle economics should be considered. Normally, high viscosity fuels such as heavy diesel are less expensive initially, but usually impact engine life and increase overall life cycle costs. Some fuels can be made usable through treatment and/or conditioning, and the cost of these processes should be factored into the overall economics. Possible treatment processes are water wash, heating, filtration, and centrifuge or cyclone separation.
- 2) The transport path between the fuel producing location and the customer's unloading/ storage area should be analyzed for possible contamination potential. Dedicated transport containers are highly

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		ISSUED BY : P. Lavendier		DATE: 8/18/95	
	REVISE BY : D. Tougas		DATE: 7/8/03		
	RELEASED	REFERENCE :		REV:	


GAS TURBINE LIQUID DISTILLATE FUEL REQUIREMENTS

- recommended.
- 3) The fuel storage equipment should be properly designed and sized and should be free of any contaminating or corrosive materials. Fuel storage time versus tank capacity should be balanced. Sufficient time should be allowed for incoming fuel to settle. The fuel for the gas turbine should not be removed from the bottom of the tanks, so as to avoid picking up heavy bottom ends. Tanks should be regularly drained from the bottom to remove the sediment.
- 4) The on-site conditioning and treatment systems should clean the impurities from the fuel and maintain high quality as it forwards the fuel to the gas turbine. The design should consider the quantity, placement and filtration efficiency of the filters.
- 5) The requirement for fuel preheating, if necessary, should be considered. Preheating is required for viscosity enhancement of heavy fuels and wax removal from high cloud point (waxy) fuels.
- 6) Safety requirements should be considered in the initial design phase, particularly if the fuel is one of the highly volatile Category a type fuels.
- 7) Contaminants brought in with the incoming gas turbine airflow should be considered. Proper air filtration is required. It is the normal practice to subtract the incoming air contaminants from the allowable fuel contaminant limit through a formula given in Note 7 of Table 1.

The operators of PWPS/P&W equipment must comply with all aspects of this specification, and ensure compliance by regularly taking and analyzing liquid fuel samples. Contaminants not normally present in the fuel at the production site may be introduced as a result of contact with sea water, other fuels, or insufficiently cleaned equipment during the transportation, handling and storage phases. If the fuel arriving at the user location falls out of compliance with the specification, and can not be made compliant by treatment, then the fuel supplier should be contacted immediately for a corrective action. Even a short period of operation with fuel of excess contaminants (salts, trace metals, particulates, wax. etc.) could seriously impact the gas turbine life and performance.

To further insure high quality fuel and continuous compliance, a regular maintenance program must be adopted for all on-site fuel handling, storage, conditioning and treatment systems. Regular replacement of filter elements, periodic draining of water, removal of sediments from the tanks, lines and sumps, and replacement of treatment fluids, etc., should be planned for and implemented.

PWPS/P&W requests review of the customer's final overall fuel management system design. PWPS bulletin no. 97M01 entitled "Distillate Fuel System Recommendations" is available for further details on implementing a quality fuel system. Additional guidance can be obtained by contacting your PWPS/P&W Marketing representative.

 Pratt & Whitney A United Technologies Company Pratt & Whitney Power Systems, Inc.	PWPS SPECIFICATION	FR-1	REV D	SHEET 3 OF 6	
		ISSUED BY : P. Lavendier		DATE: 8/18/95	
	REVISE BY : D. Tougas		DATE: 7/8/03		
	RELEASED	REFERENCE :		REV:	

GAS TURBINE LIQUID DISTILLATE FUEL REQUIREMENTS


RECOMMENDED DISTILLATE FUELS

The following liquid distillate fuels can be used in the gas turbine, if the fuel property requirements listed in Table 1 are met for the fuel delivered to the inlet of gas turbine.

Category a (No. 0-GT): Naphtha Fuels, Unleaded gasoline types, wide-cut fuels of the JP-4 (MIL-T-5624), and Jet B (ASTM D 1655) types - SEE NOTE 3

Category b (No. 1-GT): Kerosene or other distillates of the JP-5 (MIL-T-5624); Jet A and A-1 (ASTM D1655); No. 1-D diesel fuel (ASTM D975); No. 1 fuel oil (ASTM D 396); and No. 1 GT gas turbine fuel oil (ASTM D2880) types.


Category c (No. 2-GT): Distillates of the No. 2 diesel fuel (ASTM D975) No. 2 fuel oil (ASTM D 396), No. 2 GT gas turbine, and marine diesel (MIL-F-16884) types.

 Pratt & Whitney A United Technologies Company Pratt & Whitney Power Systems, Inc.	PWPS SPECIFICATION	FR-1	REV D	SHEET 4 OF 6	
		ISSUED BY : P. Lavendier		DATE: 8/18/95	
	REVISE BY : D. Tougas		DATE: 7/8/03		
	RELEASED	REFERENCE :		REV:	

GAS TURBINE LIQUID DISTILLATE FUEL REQUIREMENTS

TABLE 1: GAS TURBINE LIQUID FUEL PROPERTY REQUIREMENTS

Property	Limit	NOTE(S)	Test Method (Note 1)
Viscosity - cSt: Max. (for category a, b, and c)	6.0 max. for starting, 12.0 max. for operation	2	ASTM D445
Min. at 100 °F (37.8°C) (for category a)	0.5 min.	3	ASTM D445
Min. at 100 °F (37.8°C) (for category b&c)	1.0 min		ASTM D445
Combined Free Water and Sediment, vol. % Particle Contamination, mg/gal.	0.1 max. 10.0 max.	4	ASTM D2709 ASTM D2276 or ASTM D5452
Particle Size - microns (micrometer)	20 max	13	
Hydrogen - % by weight	12.4 min	5	ASTM D1018
Metal Contaminants - ppm by wt. Vanadium (V) Sodium (Na) + Potassium (K) Calcium (Ca) Lead (Pb) Copper (Cu)	0.2 max. 0.2 max. 2.0 max. 0.1 max. 0.02 max.	6 & 7 6 & 7 6 & 7 6 & 7 6 & 7	ASTM D3605
Copper corrosion	No.1 max.	8	ASTM D130
Fuel Category a (only) Flash Point, °F (°C) Reid Vapor Pressure, psi or Vapor Pressure by Mini- method, psi	To be reported 12.5 max. 12.5 max.	9	ASTM D93 ASTM D323 ASTM D5191
Fuel Category b and c (only) Flash Point, °F (°C) Cloud Point, °F (°C) Carbon Residue (on 10% bottoms), %	100 °F (37.7°C) or local regulatory limit 25 °F (14°C) below GT inlet fuel temp. 0.25 max.	10	ASTM D93 ASTM D2500 ASTM D524
Sulfur, % by mass	1.3	11, 12	ASTM D4294
Ash, % by mass	0.005 max.		ASTM D482
Net Heating Value, Btu/lb (kcal/kg)	To be reported		ASTM D4809
Specific Gravity	To be reported		ASTM D1298

 Pratt & Whitney A United Technologies Company Pratt & Whitney Power Systems, Inc.	PWPS SPECIFICATION	FR-1	REV D	SHEET 5 OF 6
		ISSUED BY : P. Lavendier		DATE: 8/18/95
	RELEASED		REVISE BY : D. Tougas	
		REFERENCE :		REV:

GAS TURBINE LIQUID DISTILLATE FUEL REQUIREMENTS

NOTES TO REQUIREMENTS (TABLE 1)

NOTE 1

The most recent revision of the ASTM test method should be used insofar as practicable. An equivalent test method may be used in lieu of ASTM test method, if approved by PWPS/P&W.

NOTE 2

Maximum fuel viscosity at gas turbine fuel pump inlet shall be 6.0 cSt for starting and 12.0 cSt during operation. Fuel may be heated, to a maximum of 160 deg F (71C), to meet this requirement.

NOTE 3

In order to operate FT8 with Category a fuels, such as naphtha, specially designed PWPS/P&W fuel system components are required.

NOTE 4

The fuel delivered to the inlet of the gas turbine is to have a sediment level less than 10 mg./gallon of fuel. However, for practical extended fuel filter life, the fuel should have lower sediment levels

NOTE 5

Minimum hydrogen percentage by weight is 12.4; however, for optimum combustion, higher hydrogen percentage is recommended.

NOTE 6


To achieve the level of sensitivity required for the detection of some of these metals, the furnace atomic absorption method may be necessary. Since some trace metals can have harmful effects on gas turbine operation, it is necessary to impose limitations. Higher levels of Table 1 metallic levels, even for short period, will increase the gas turbine maintenance costs.

NOTE 7

Limits of metal contaminants in Table 1 assume no contaminants in the inlet air or injected water. For operation with contaminants in the inlet air or injected water, the maximum allowable limit of any particular contaminant in the fuel must be reduced according to the following formula:

$$A_f = L_f - [C_{air} \times (\text{air/fuel weight ratio})] - [C_{water} \times (\text{water/fuel weight ratio})]$$

where, A_f = Maximum allowable contaminant in the fuel, ppm by wt.
 L_f = Contaminant Limit as called out in Table 1, for example 0.2 for (Na+K)
 C_{air} = Contaminant in inlet air, ppm by wt.
 C_{water} = Contaminant in injection and/or evaporative cooling water, ppm by wt.

 Pratt & Whitney A United Technologies Company Pratt & Whitney Power Systems, Inc.	PWPS SPECIFICATION	FR-1	REV D	SHEET 6 OF 6	
		ISSUED BY : P. Lavendier		DATE: 8/18/95	
		REVISE BY : D. Tougas		DATE: 7/8/03	
		RELEASED	REFERENCE :	REV:	

GAS TURBINE LIQUID DISTILLATE FUEL REQUIREMENTS

NOTE 8

Copper corrosion test conditions are 2 hours at 212 deg F (100 deg C).

NOTE 9

No flash point limitation is specified; however, local regulatory limits and safety regulations must be met.

NOTE 10

The cloud point shall be at least 25 degrees F below the anticipated gas turbine fuel inlet temperature. To meet this requirement, additional fuel heating, to a maximum of 160 degrees F (71C), may be needed.

NOTE 11

Sulfur content limits Below 1.3% WT. are imposed when:

- a) The local regulatory limits of sulfur oxides exhaust emissions are exceeded; then the fuel sulfur content must be reduced until the local regulatory limits are satisfied. For instance, the USA EPA limits fuel Sulphur content to 0.8% for SO₂ emissions control, but local codes vary widely.
- b) If exhaust heat recovery equipment is employed; then the equipment manufacturer's limit may apply.

NOTE 12

High sulfur fuels will impact hot section repair interval dependent on the amount of alkali metals present. The combination of high sulfur and high alkalis must be avoided.

NOTE 13

Maximum particle size to be controlled by filtration with a β_{20} ratio of 200.



Pratt & Whitney
A United Technologies Company
Pratt & Whitney Power Systems, Inc.

PWPS
SPECIFICATION

FR-1

REV D

SHEET 1A
OF 1

ISSUED BY : P. Lavendier

DATE: 8/28/95

REVISE BY : D. Tougas

DATE: 7/8/03

RELEASED

REFERENCE :

REV:

GAS TURBINE LIQUID DISTILLATE FUEL REQUIREMENTS

REV LET	SHEETS AFFECTED	SHEETS ADDED	DESCRIPTION	REV BY & DATE	APPVD & DATE
A	1-4		1) Added 1.7 cs lower limit of viscosity 2) Changed NA + K limit to 0.2 ppm 3) Added sulfur limit to 1.3% max. 4) Changed format to FrameMaker 5) Revised verbiage to put more stringent requirements for fuel management 6) Updated test procedures to current standard	P. Lavendier 8/18/95 EC#8352	
B			Completely re-written and updated to allow the use of Naptha Fuels, lower min viscosities. Max allowable fuel viscosities were changed to be based on actual operating temperatures, rather than a fixed temperature.	EC#9025 T. Fox/D. Dalal 2/11/98	
C	All		Updated Logo to new PWPS Logo. Updated all TPM references to PWPS references.	EC#9925 L. DiSalvo 7/23/01	
D	4		1) Changed Free Water to Combined Free water and sediment. changed limit to 0.1% max by volume. Changed Test Method to ASTM D2709. 2) Changed sediment to Particulate Contamination. Removed metric unit (mg/l) (2.7) from Limit. Changed test method to ASTM D2276 or D5452.	EC#10620 D. Tougas 7/8/03	
	4		3) Added Note 13 to Particle size 4) Removed Test Method IP288.		
	5 & 6		5) Added Test Method ASTM 4809 to Net Heating Valve. 6) Made various typographical changes. Added Note 13 regarding filtering.		

ATTACHMENT D

**REVISED FDEP APPLICATION FOR
PERMIT – LONG FORM
PROFESSIONAL ENGINEER CERTIFICATION**

SO₂ EMISSION RATES

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
POTENTIAL/ESTIMATED FUGITIVE EMISSIONS**

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: SO₂		2. Total Percent Efficiency of Control: N/A	
3. Potential Emissions: 14.7 lb/hour		4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
3. Potential Emissions: 4.6 tons/year			
5. Range of Estimated Fugitive Emissions (as applicable): N/A to tons/year			
6. Emission Factor: N/A Reference: Pratt & Whitney Data		7. Emissions Method Code: 5	
8. Calculation of Emissions: Hourly emission rate based on distillate fuel oil-firing at rated load and 78°F ambient temperature. Annual rate based on natural gas-firing at rated load and 50°F ambient temperature for 2,000 hrs/yr and oil-firing at rated load and 78°F ambient temperature for 500 hrs/yr.			
9. Pollutant Potential/Estimated Fugitive Emissions Comment:			

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
 ALLOWABLE EMISSIONS**

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 2

1. Basis for Allowable Emissions Code: RULE	2. Future Effective Date of Allowable Emissions: N/A .
3. Allowable Emissions and Units: 1.0 gr S / 100 scf natural gas	4. Equivalent Allowable Emissions: 0.9 lb/hour 1.1 tons/year
5. Method of Compliance: Fuel analysis per 40 CFR Part 75, Appendix D.	
6. Allowable Emissions Comment (Description of Operating Method): Rule 62-212.400(5), F.A.C. (BACT) Allowable and equivalent allowable emissions are for natural gas-firing at rated load, 50°F ambient temperature, and 2,500 hr/yr operation.	

Allowable Emissions Allowable Emissions 2 of 2

1. Basis for Allowable Emissions Code: RULE	2. Future Effective Date of Allowable Emissions: N/A
3. Allowable Emissions and Units: 0.05 weight % sulfur fuel oil	4. Equivalent Allowable Emissions: 14.7 lb/hour 3.7 tons/year
5. Method of Compliance: Fuel analysis per 40 CFR Part 75, Appendix D.	
6. Allowable Emissions Comment (Description of Operating Method): Rule 62-212.400(5), F.A.C. (BACT) Allowable and equivalent allowable emissions are for distillate fuel oil-firing at rated load, 78°F ambient temperature, and 500 hr/yr operation.	

SEMINOLE ELECTRIC COOPERATIVE, INC.
PAYNE CREEK GENERATING STATION
PEAKER PROJECT

Professional Engineer Certification

Professional Engineer Statement:

I, the undersigned, hereby certify, except as particularly noted herein, that:*

(1) To the best of my knowledge, the information presented in the Seminole Electric Cooperative, Inc. (SECI) response to the Department's Request for Additional Information (RAI) dated September 23, 2004 concerning the Payne Creek Generating Station Peaker Project are true, accurate, and complete based on my review of material provided by SECI engineering and environmental staff; and

(2) To the best of my knowledge, any emission estimates reported or relied on in this submittal are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of air pollutants not regulated for an emissions unit, based solely upon the materials, information and calculations provided with this certification.

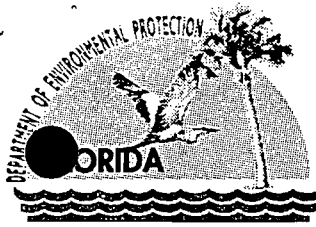
Signature

Date

11/10/04

(seal)

* Certification is applicable to the Seminole Electric Cooperative, Inc. (SECI) response to the Department's Request for Additional Information (RAI) dated September 24, 2004 concerning the Payne Creek Generating Station Peaker Project.



Jeb Bush
Governor

Department of Environmental Protection

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

Colleen M. Castille
Secretary

September 23, 2004

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Michael Opalinski, VP Technical Services
Seminole Electric Cooperative, Inc.
16313 North Dale Mabry Highway
Tampa, FL 33688-2000

Re: Request for Additional Information
Payne Creek Generating Station
Peaker Project
File No. 0490340-003-AC; PSD-FL-344; PA 89-25

Dear Mr. Opalinski:

The Department is in receipt of your PSD application, however in order to continue processing the application, we will need the additional information below. Should your response to any of the below items require new calculations, please submit the new calculations, assumptions, reference material and appropriate revised pages of the application form.

I. BACT Determination for NO_x

Seminole has rejected SCR based upon a calculated cost effectiveness of \$16,052 per ton of NO_x removed. A total equipment cost of \$11,277,500 was estimated for the 10 simple cycle combustion turbines (five Swift Pacs). Based upon the submitted information, it appears that the basis for this estimate was a Pratt & Whitney price quote for a combined SCR/Oxidation Catalyst System at \$12,013,000, less a deduct of \$785,500 for removal of the CO catalyst. Given that the submittal incorporates the application and corresponding sunk cost of an Oxidation Catalyst System in order to comply with 40 CFR 63. Subpart YYYY (compliance with which has currently been stayed), it seems more appropriate to estimate the SCR cost as only the incremental cost of the SCR catalyst. Accordingly, the Department requests:

- 1) As a measure of the price of the Oxidation Catalyst System, Seminole obtain a price quote from Pratt & Whitney for the same SCR/Oxidation Catalyst System, but which specifically includes a deduct for the SCR catalyst (rather than the oxidation catalyst).
- 2) Written clarification from Pratt & Whitney as to whether any of these items are included (either completely or partially) within the \$12,013,000 SCR/Oxidation Catalyst System price quote:
 - a) Sales tax
 - b) Freight
 - c) Base instrumentation
 - d) Installation costs (foundations, electrical, piping, insulation, etc.)
- 3) Since the calculated cost effectiveness includes annual catalyst replacement costs, the cost of the initial catalyst charge should be deducted from the provided "Equipment Cost".
- 4) Seminole consider obtaining one or more additional price quotes for combined SCR/Oxidation Catalyst systems, in order to ensure the competitiveness of the OEM quote.

In addition to reviewing Seminole's submittals, the applicant should be aware that the Department intends to internally estimate the cost effectiveness of SCR based upon all information at its disposal.

II. BACT Determination for SO₂

Seminole has rejected the use of 0.0015% sulfur oil based upon a calculated cost effectiveness of \$15,231 per ton of SO₂ removed. This calculation appears to be based upon the forecasted annual incremental cost of 0.0015%

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sulfur oil above 0.05% sulfur oil (\$542,237) divided by the annual incremental tons of SO₂ generated (35.6 tons). The Department requests the following:

- 1) Please provide the CT manufacturer (Pratt & Whitney)'s worst case distillate oil specifications, particularly with regards to the maximum sulfur content.
- 2) Please provide the basis for the requested 500 hours of operation on distillate oil. Based upon the submitted data, it appears that approximately 300 hours per year (or 60% of the requested annual distillate oil throughput) would allow Seminole to avoid a BACT review for SO₂.
- 3) Please evaluate the cost effectiveness of using 0.0065% sulfur fuel (or similar), or more specifically a liquid fuel with sulfur content between 0.05% and 0.0015%. The Department notes that it recently permitted JEA Brandy Branch for the use of 0.0065% liquid fuel.
- 4) Please provide the Department with alternatives for reducing the maximum change in light extinction at the Chassahowitzka NWR below 5.0%. By way of example, potential solutions include limiting the daily hours of liquid fuel operation, limiting the daily throughput of liquid fuel consumed, or limiting the sulfur content of the liquid fuel.

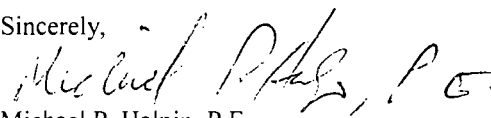
The Department wishes to point out that although the data source cited by Seminole supports an average \$0.054 per gallon of fuel incremental cost difference between 0.05% and 0.0015% sulfur oils, the estimated costs are \$1.243 versus \$1.297 per gallon, representing only slightly more than a 4% increase in fuel cost. Also, Seminole should be advised that in a recent Draft BACT Determination by the Department (FPL Turkey Point), the use of 0.0015% sulfur oil was considered as BACT.

Please note that EPA and NPS have been copied on your application, and should FDEP receive questions or comments from them, we will forward you a copy.

Rule 62-4.050(3), F.A.C. requires that all applications for a Department permit must be certified by a professional engineer registered in the State of Florida. This requirement also applies to responses to Department requests for additional information of an engineering nature. Please note that per Rule 62-4.055(1): "The applicant shall have ninety days after the Department mails a timely request for additional information to submit that information to the Department..... Failure of an applicant to provide the timely requested information by the applicable date shall result in denial of the application."

If you have any questions, please call Michael P. Halpin, P.E. at 850/921-9519.

Sincerely,


Michael P. Halpin, P.E.
DARM/BAR

Mike Roddy, SECI
Tom Davis, ECT
Jerry Kissel, SWD
Buck Oven, PPSO
Gregg Worley, EPA Region 4
John Bunyak, NPS

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
<ul style="list-style-type: none"> Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits. 	<p>A. Signature <input checked="" type="checkbox"/> P. Henry <input type="checkbox"/> Agent <input type="checkbox"/> Addressee</p> <p>B. Received by (Printed Name) P. HENRY</p> <p>C. Date of Delivery</p>
<p>1. Article Addressed to: Mr. Michael Opalinski VP Technical Services Seminole Electric Cooperative, Inc. 16313 North Dale Mabry Highway Tampa, Florida 33688-2000</p>	<p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No</p> <p>3. Service Type <input checked="" type="checkbox"/> Certified Mail <input type="checkbox"/> Express Mail <input type="checkbox"/> Registered <input type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> Insured Mail <input type="checkbox"/> C.O.D.</p> <p>4. Restricted Delivery? (Extra Fee) <input type="checkbox"/> Yes</p>
<p>2. Article Number 7000 1670 0013 3110 2066 (Transfer from service label)</p>	
<p>PS Form 3811, August 2001 Domestic Return Receipt 102595-02-M-1540</p>	

U.S. Postal Service CERTIFIED MAIL RECEIPT <i>(Domestic Mail Only; No Insurance Coverage Provided)</i>												
7000 1670 0013 3110 2066	<table border="1"> <tr> <td>Postage</td> <td>\$</td> <td rowspan="5" style="text-align: center; vertical-align: middle;">Postmark Here</td> </tr> <tr> <td>Certified Fee</td> <td></td> </tr> <tr> <td>Return Receipt Fee (Endorsement Required)</td> <td></td> </tr> <tr> <td>Restricted Delivery Fee (Endorsement Required)</td> <td></td> </tr> <tr> <td>Total Postage & Fees</td> <td>\$</td> </tr> </table> <p>Sent To: Mr. Michael Opalinski, VP Tec. Services Seminole Electric Cooperative, Inc. Street, Apt. No., or PO Box No. 16313 North Dale Mabry Highway Tampa, Florida 33688-2000</p>	Postage	\$	Postmark Here	Certified Fee		Return Receipt Fee (Endorsement Required)		Restricted Delivery Fee (Endorsement Required)		Total Postage & Fees	\$
Postage	\$	Postmark Here										
Certified Fee												
Return Receipt Fee (Endorsement Required)												
Restricted Delivery Fee (Endorsement Required)												
Total Postage & Fees	\$											
PS Form 3800, May 2000 See Reverse for Instructions												

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
<ul style="list-style-type: none"> Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits. 	<p>A. Signature <input checked="" type="checkbox"/> Julie Ludwig <input type="checkbox"/> Agent <input type="checkbox"/> Addressee</p> <p>B. Received by (Printed Name) <input checked="" type="checkbox"/> Julie Ludwig C. Date of Delivery 09/29/04</p> <p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No</p>
<p>1. Article Addressed to: Mr. Michael Opalinski, VP Technical Services Seminole Electric Cooperative, Inc. 16313 North Dale Mabry Highway Tampa, Florida 33688-2000</p>	<p>3. Service Type <input checked="" type="checkbox"/> Certified Mail <input type="checkbox"/> Express Mail <input type="checkbox"/> Registered <input type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> Insured Mail <input type="checkbox"/> C.O.D.</p> <p>4. Restricted Delivery? (Extra Fee) <input type="checkbox"/> Yes</p>
<p>2. Article Number 7000 1670 0013 3110 3193 (Transfer from service label)</p>	
<p>PS Form 3811, August 2001 Domestic Return Receipt 102595-02-M-1540</p>	

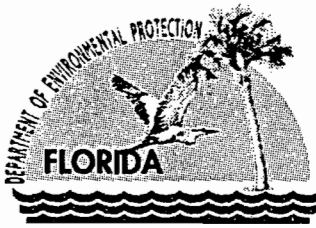
U.S. Postal Service
CERTIFIED MAIL RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

7000 1670 0013 3110 3193

Postage	\$	Postmark Here
Certified Fee		
Return Receipt Fee (Endorsement Required)		
Restricted Delivery Fee (Endorsement Required)		
Total Postage & Fees	\$	

Sent To: Michael Opalinski, VP Tech. Services
 Seminole Electric Cooperative, Inc.
 Street, Apt. No. or PO Box No.: 16313 North Dale Mabry Highway
 Tampa, Florida 33688-2000

PS Form 3800, May 2000 See Reverse for Instructions



Jeb Bush
Governor

Department of Environmental Protection

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

Colleen M. Castille
Secretary

September 3, 2004

Mr. Gregg M. Worley, Chief
Air Permits Section
U.S. EPA, Region 4
61 Forsyth Street
Atlanta, Georgia 30303-8960

RE: Seminole Electric Cooperative
Payne Creek Generating Station Peaker Project
0490340-003-AC, PSD-FL-344

Dear Mr. Worley:

Enclosed for your review and comment is a PSD application submitted by Seminole Electric Cooperative, Inc. to construct ten simple cycle combustion turbines at their existing Payne Creek Generating Station in Hardee County, Florida.

Your comments may be forwarded to my attention at the letterhead address or faxed to the Bureau of Air Regulation at 850/921-9533. If you have any questions, please contact Mike Halpin, review engineer, at 850/921-9519.

Sincerely,

JKP James K. Pennington, P.E.
Administrator
North Permitting Section

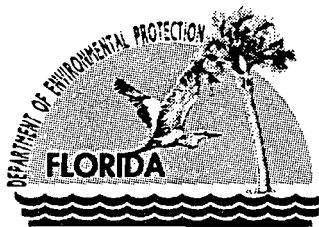
JKP/pa

Enclosure

cc: M. Halpin

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Jeb Bush
Governor

Department of Environmental Protection

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

Colleen M. Castille
Secretary

September 1, 2004

Mr. John Bunyak, Chief
Policy, Planning & Permit Review Branch
NPS – Air Quality Division
12795 W. Alameda Parkway
Lakewood, Colorado 80228

RE: Seminole Electric Cooperative
Payne Creek Generating Station Peaker Project
0490340-003-AC, PSD-FL-344

Dear Mr. Bunyak:

Enclosed for your review and comment is a PSD application submitted by Seminole Electric Cooperative, Inc. to construct ten simple cycle combustion turbines at their existing Payne Creek Generating Station in Hardee County, Florida.

Your comments may be forwarded to my attention at the letterhead address or faxed to the Bureau of Air Regulation at 850/921-9533. If you have any questions, please contact Mike Halpin, review engineer, at 850/921-9519.

Sincerely,

for James K. Pennington, P.E.
Administrator
North Permitting Section

JKP/pa

Enclosure

cc: M. Halpin

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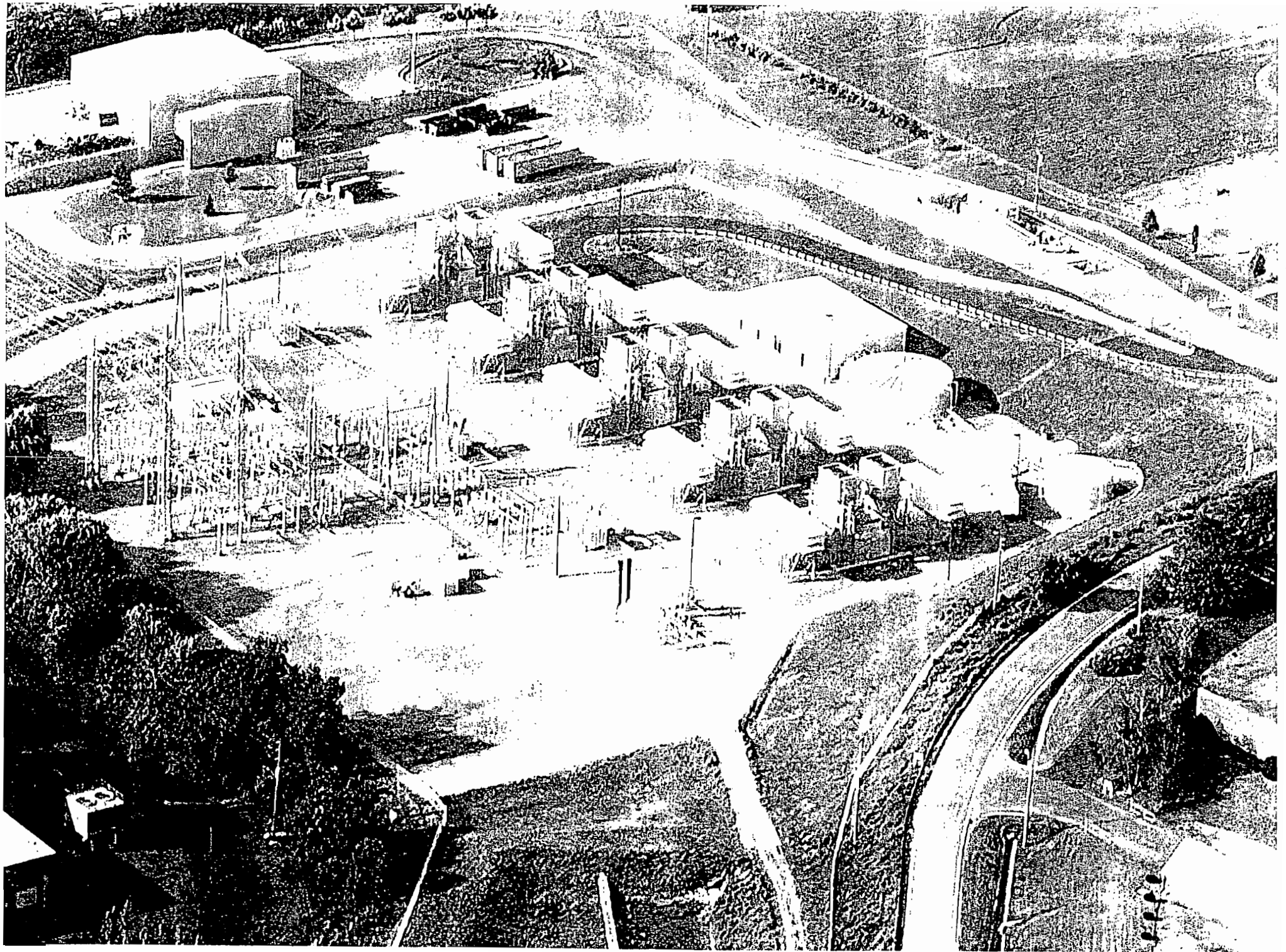
SEMINOLE ELECTRIC COOPERATIVE, INC.

2006 PEAKING PROJECT

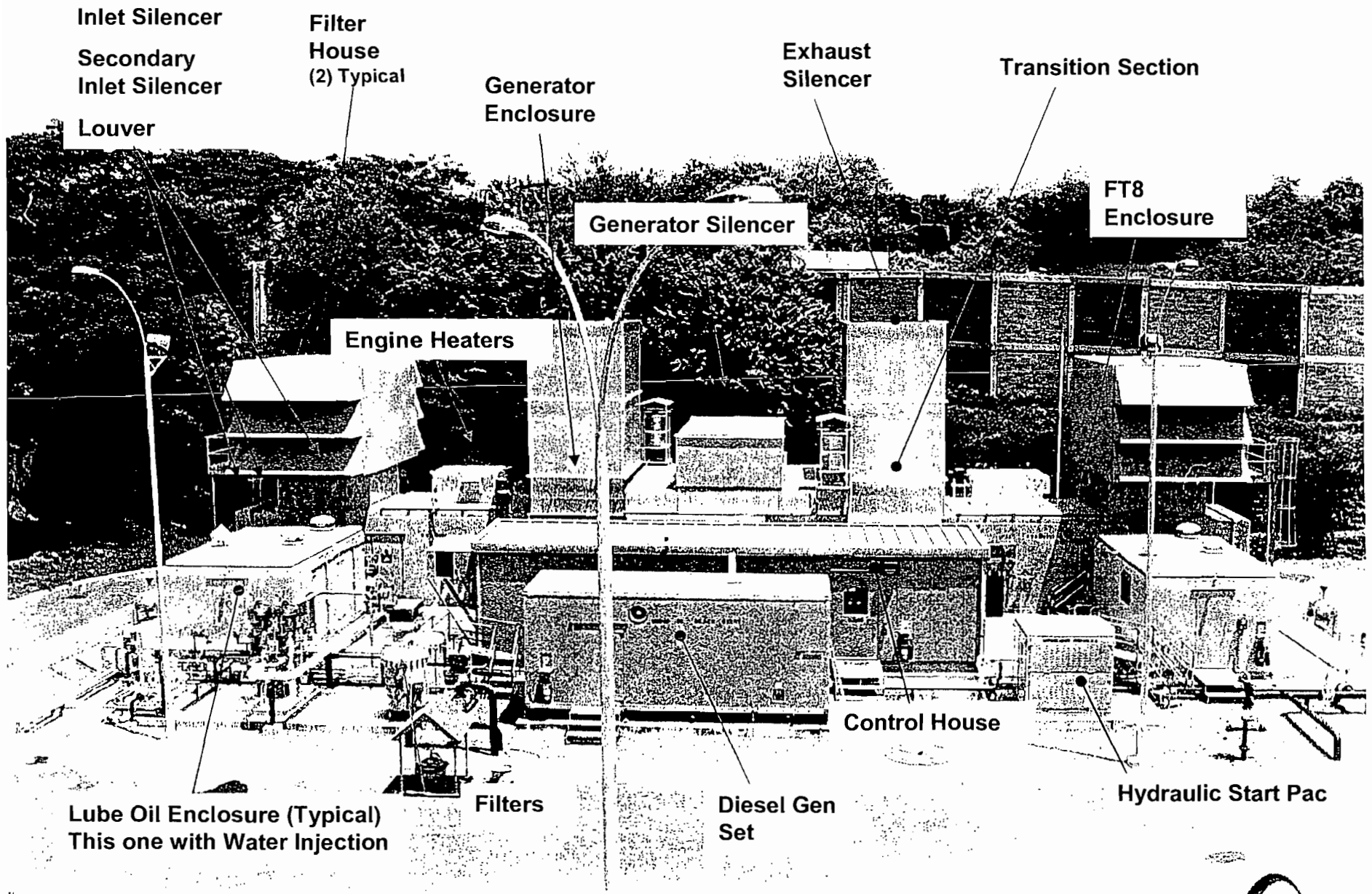
**SEMINOLE ELECTRIC COOPERATIVE, INC.
2006 PEAKING PROJECT**

- **Total Capacity** **310/270 MW**
(Winter/Summer)

- **(5) Pratt & Whitney TwinPacs (FT8-3)**
- **Units rated 62/54 MW each**
- **Quick-start, aero-derivative design**
- **Dual fuel capability**



Typical FT8 TWINPAC



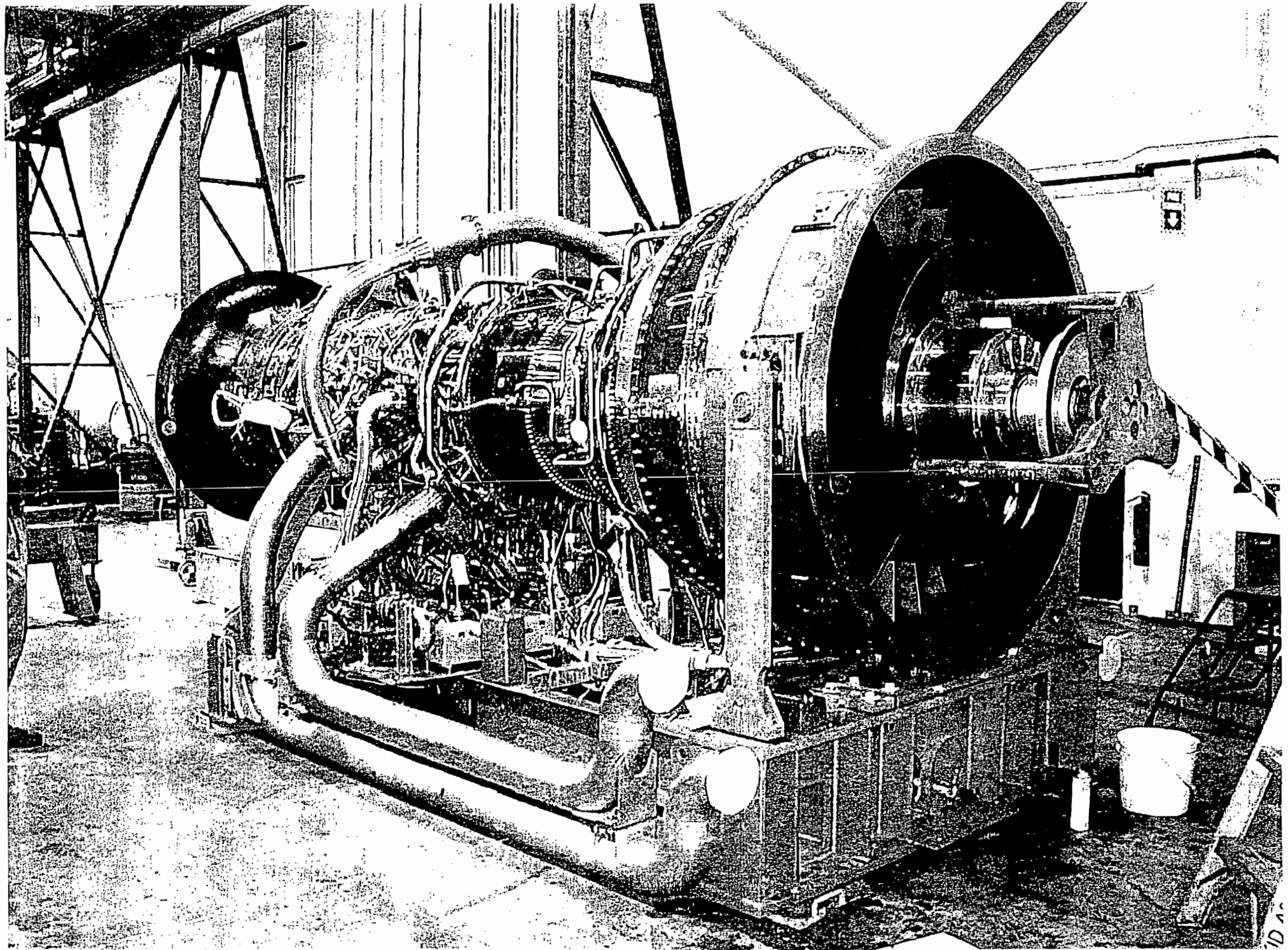


EXHIBIT 9

REV A

**FT8-3 Twin Pac (SP)
Estimated Performance and Emissions Data**

Seminole Power

Configuration: FT8-3 Swift Pac
60 Ft. Stack with CO Converter
Water Injected to indicated levels of NOx

	100	100	100	75	50	25	100	100	100	75	50	25	
	Nat. Gas	Nat. Gas	Nat. Gas	Nat. Gas	Nat. Gas	Nat. Gas	No2 F.O.	No2 F.O.	No2 F.O.	No2 F.O.	No2 F.O.	No2 F.O.	
Percent Load													
Fuel Type													
Ambient Pressure	PSIA	14.63	14.63	14.63	14.63	14.63	14.63	14.63	14.63	14.63	14.63	14.63	
Ambient Temperature	Deg F	32	59	95	95	95	32	59	95	95	95	95	
Relative Humidity	%	80	80	80	80	80	80	80	80	80	80	80	
Inlet Loss	in H2O	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	
Exhaust Loss	in H2O	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5	5	
Lower Heating Value	BTU/lb	20778	20778	20778	20778	20778	18360	18360	18360	18360	18360	18360	
Gross Power Output	kW	62476	60915	54181	40636	27090	56080	56154	52239	39180	26120	13060	
Gross Heat Rate (LHV)	BTU/kWh	9162	9305	9590	10156	11280	9328	9477	9816	10454	11629	15299	
Power Island Aux. Loads	kW	252	252	252	252	252	277	277	277	277	277	277	
Net Power Output	kW	62224	60663	53929	(G) 40384	26838	13294	55803	55877	51962	(G) 38903	25843	12783
Net Heat Rate (LHV)	BTU/kWh	9199	9344	9830	(G) 10220	11386	15107	9375	9524	10065	(G) 10529	11754	15631
Fuel Flow per GT	PPH	13774	13640	12504	9930	7353	4833	14249	14492	13965	11155	8272	5441
Water Inj. Flow per GT	GPM	29.6	30.6	28.5	20.5	13.9	8.0	31.9	33.6	34.3	25.0	16.7	9.4
GT Exhaust Flow per GT	PPS	208.9	201.9	185.8	161.5	136.7	109.5	202.7	196.0	184.5	159.6	135.0	108.3
GT Exhaust Temperature	Deg F	848	901	935	879	831	778	808	868	936	882	836	783
Exhaust Emissions per GT													
NOX - ref. To 15% O2	ppmvd	25.0	25.0	25.0	(G) 25.0	25.0	30.0	42.0	42.0	42.0	(G) 42.0	42	42
	PPH	31.6	31.8	29.4	22.6	16.7	13.2	49.6	50.5	50.2	38.5	28.5	18.7
CO - ref. To 15% O2	ppmvd	20	20	20	(G) 31	47	74	7	6	<10	(G) 7	9	16
	PPH	15.4	15.5	14.3	16.9	19.3	19.9	4.8	4.1	3.2	3.8	3.9	4.3
VOC (as CH4)- ref. To 15%	ppmvd	6	6	6	7	15	30	5	5	5	5	6	22
	PPH	2.6	2.7	2.5	2.3	3.6	4.5	2.1	2.1	2.1	1.6	1.4	3.4
Filterable Particulates	PPH	3.0	3.0	3.0	3.0	3.0	3.0	7.0	7.0	7.0	7.0	7.0	7.0
SO2	PPH	0.23	0.22	0.20	0.17	0.15	0.12	14.2	14.5	14.0	11.2	8.3	5.4
Opacity	%	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Exhaust Composition at GT Exit													
N2	Vol %	72.90	72.02	69.77	70.44	71.10	71.89	73.63	72.70	70.15	70.78	71.46	72.26
Ar	Vol %	0.87	0.86	0.83	0.84	0.85	0.86	0.88	0.87	0.83	0.84	0.85	0.86
CO2	Vol %	3.18	3.29	3.27	2.91	2.56	2.12	4.07	4.26	4.44	3.95	3.48	2.86
H2O	Vol %	9.69	10.93	13.79	12.58	11.40	9.95	7.47	8.75	12.10	11.07	10.00	8.70
O2	Vol %	13.35	12.89	12.32	13.21	14.08	15.17	13.94	13.42	12.47	13.34	14.21	15.31

7/9/2002
Rev 1/14/03
Rev 2/17/03

- Notes:
1. Fuels supplied to gas turbines must meet PWPS fuel specification FR-1 and FR-2.
 2. Water used for injection must meet AR-1.
 3. Net Power = Power measured at the generator terminals minus the indicated power island aux. loads.
 4. Gaseous fuel as per customer RFQ.
 5. Assumed No2 FO properties - LHV = 18360 BTU/lb, HCR = .147, wt% S = 0.05, FBN = <0.015%, ASH = <0.005%.
 6. Guarantees indicated by (G); all other data is expected.

FT8-3 Twin Pac (SP) Estimated Performance and Emissions Data

Seminole Power

Configuration: FT8-3 Swift Pac
60 Ft. Stack without CO Catalyst
Water Injected to indicated levels of NOx

	100	100	100	75	50	25	100	100	100	75	50	25	
	Nat. Gas	Nat. Gas	Nat. Gas	Nat. Gas	Nat. Gas	Nat. Gas	No2 FO	No2 FO	No2 FO	No2 FO	No2 FO	No2 FO	
Percent Load													
Fuel Type													
Ambient Pressure	PSIA	14.63	14.63	14.63	14.63	14.63	14.63	14.63	14.63	14.63	14.63	14.63	
Ambient Temperature	Deg F	32	59	95	95	95	32	59	95	95	95	95	
Relative Humidity	%	80	80	80	80	80	80	80	80	80	80	80	
Inlet Loss	in H2O	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	
Exhaust Loss	in H2O	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	
Lower Heating Value	BTU/lb	20778	20778	20778	20778	20778	18360	18360	18360	18360	18360	18360	
Gross Power Output	kW	62708	61180	54461	40844	27230	13614	56303	56372	52524	39394	26262	13132
Gross Heat Rate (LHV)	BTU/kWh	9123	9265	9544	10097	11200	14693	9284	9433	9767	10390	11545	15158
Power Island Aux. Loads	kW	252	252	252	252	252	252	277	277	277	277	277	277
Net Power Output	kW	62456	60928	54209	40592	26978	13362	56026	56095	52247	39117	25985	12855
Net Heat Rate (LHV)	BTU/kWh	9160	9303	9780	10159	11305	14970	9330	9479	10015	10464	11668	15485
Fuel Flow per GT	PPH	13767	13640	12508	9924	7339	4814	14235	14481	13970	11147	8257	5421
Water Inj. Flow per GT	GPM	29.6	30.6	28.5	20.5	13.9	7.9	31.8	33.6	34.3	24.9	16.7	9.3
GT Exhaust Flow per GT	PPS	208.8	201.9	185.9	161.6	136.7	109.4	202.7	196.0	184.6	159.7	135.0	108.3
GT Exhaust Temperature	Deg F	845	899	932	876	827	774	805	865	933	879	832	778
Exhaust Emissions per GT													
NOX - ref. To 15% O2	ppmvd	25	25	25	25	25	30	42	42	42	42	42	42
	PPH	31.6	31.8	29.4	22.6	16.7	13.2	49.6	50.4	50.2	38.5	28.5	18.7
CO - ref. To 15% O2	ppmvd	60	60	60	93	142	226	20	14	11	18	29	48
	PPH	46.1	46.5	43.0	51.1	57.8	60.1	14.4	10.2	8.0	10.0	12.0	13.0
VOC - ref. To 15% O2	ppmvd	6	6	6	7	15	30	5	5	5	5	6	22
	PPH	2.6	2.7	2.5	2.3	3.6	4.5	2.1	2.1	2.1	1.6	1.4	3.4
Filterable Particulates	PPH	3.0	3.0	3.0	3.0	3.0	3.0	7.0	7.0	7.0	7.0	7.0	7.0
SO2	PPH	0.23	0.22	0.20	0.17	0.15	0.12	14.2	14.5	14.0	11.1	8.3	5.4
Opacity	%	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Exhaust Composition at GT Exit													
N2	Vol %												
Ar	Vol %	72.91	72.02	69.77	70.45	71.11	71.90	73.64	72.70	70.15	70.79	71.47	72.28
CO2	Vol %	0.87	0.86	0.83	0.84	0.85	0.86	0.88	0.87	0.84	0.84	0.85	0.86
H2O	Vol %	3.18	3.29	3.27	2.91	2.56	2.11	4.06	4.26	4.44	3.95	3.47	2.85
O2	Vol %	9.68	10.92	13.79	12.57	11.38	9.92	7.46	8.75	12.09	11.07	9.98	8.68
		13.36	12.89	12.33	13.22	14.09	15.19	13.95	13.42	12.47	13.35	14.22	15.32

1/14/2003

- Notes:
1. Fuels supplied to gas turbines must meet PWPS fuel specification FR-1 and FR-2.
 2. Water used for injection must meet AR-1.
 3. Net Power = Power measured at the generator terminals minus the indicated power island aux. loads.
 4. Gaseous fuel as per customer RFQ.
 5. Assumed No2 FO properties - LHV = 18360 BTU/lb, HCR = .147, wt% S = 0.05, FBN = <0.015%, ASH = <0.005%.

SEMINOLE ELECTRIC COOPERATIVE, INC. 2006 PEAKING PROJECT SCHEDULE

Activity

Site Selection	June 2003
File RUS Loan Application	Sept. 2003
File Env. Permit Application	Sept. 2003
Permit Approval	Oct. 2004
Architect/Engineer Selection	Dec. 2004
Conditional RUS Loan Approval	Dec. 2004
Env. Permit Approvals	May 2005
Final Loan Approval	June 2005
Construction Begins	Feb. 2006
Generation Equipment Delivery	April 2006
Initial Operation	Oct. 2006
Commercial Operation	Dec. 2006

U.S. Postal Service
CERTIFIED MAIL RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

OFFICIAL USE

7001 0320 0001 3692 2886

Postage	\$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	

Postmark
Here

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

PS Form 3800, January 2001

See Reverse for Instructions

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

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

2. Article Number
(Transfer from service label)

7001 0320 0001 3692 2886

COMPLETE THIS SECTION ON DELIVERY

A. Signature

Xwendy Cummings Agent Addressee

B. Received by (Printed Name)

C. Date of Delivery

2/1/05

D. Is delivery address different from item 1? Yes

If YES, enter delivery address below: No

3. Service Type

- Certified Mail Express Mail
- Registered Return Receipt for Merchandise
- Insured Mail C.O.D.

4. Restricted Delivery? (Extra Fee) Yes

UNITED STATES POSTAL SERVICE



First-Class Mail
Postage & Fees Paid
USPS
Permit No. G-10

• Sender: Please print your name, address, and ZIP+4 in this box •

Dept. of Environmental Protection
Division of Air Resources Mgt.
Bureau of Air Regulation, NSR
2600 Blair Stone Rd., MS 5505
Tallahassee, FL 32399-2400

BUREAU OF AIR REGULATION
JUL 05 2005
RECEIVED

0001



RECEIVED

HIGHLANDS TODAY & THE TAMPA TRIBUNE
Published Daily
Sebring, Highlands County, Florida

MAY 26 2005

BUREAU OF AIR REGULATION

State of Florida }
County of Highlands } ss.

Before the undersigned authority personally appeared C. Offner, who on oath says that she is Advertising Billing Supervisor of Highlands Today & The Tampa Tribune, daily newspapers published at Sebring in Highlands County, Florida; that the attached copy of advertisement being a

LEGAL NOTICE HIGHLANDS TODAY

in the matter of PUBLIC NOTICE OF INTENT

was published in said newspaper in the issues of
MAY 11, 2005

Affiant further says that the said Highlands Today & The Tampa Tribune are newspapers published at Sebring in said Highlands County, Florida, and the said newspapers have heretofore been continuously published in said Highlands County, Florida, each day and have been entered as second class mail matter at the post office in Sebring, in said Highlands County, Florida for a period of one year next preceding the first publication of the attached copy of advertisement; and affiant further says that she has neither paid nor promised any person, this advertisement for publication in the said newspaper.

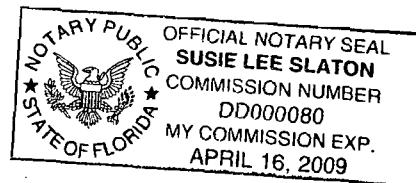
C. Offner

Sworn to and subscribed by me, this 18 day
of MAY, A.D. 20 05

Personally Known or Produced Identification _____
Type of Identification Produced _____

(SEAL)

Susie Lee Slaton



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. 1/8 Payne Creek Generating Station Hardee County, Florida

Applicant: The applicant for this project is Seminole Electric Cooperative, Inc. (SEC). 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: SEC 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 unclassifi-

able. 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 re-

sulted in an emission limitation for Nitrogen Oxides (NOX) 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 NOX 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 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 com-

munication 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 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 website for notices at <http://tlhora6.dep.state.fl.us/oww> 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 upon 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.

AD#68660
SB7725 05/11/2005

AFFIDAVIT OF PUBLICATION
The Herald-Advocate

Published Weekly at Wauchula, Florida

RECEIVED

MAY 25 2005

STATE OF FLORIDA,
COUNTY OF HARDEE

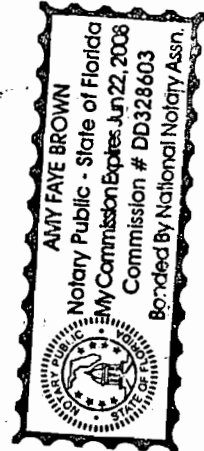
Before the undersigned authority personally appeared Denise Moyer of The Herald-Advocate, a newspaper published at Wauchula, in Hardee County, Florida; that the attached copy of advertisement, being a Public Notice of Intent to Issue Air Permit in the matter of Seminole Electric Cooperative in the _____ Court, was published in said newspaper in the issues of May 12, 2005

BUREAU OF AIR REGULATION

Affiant further says that the said Herald-Advocate is a newspaper published at Wauchula, in said Hardee County, Florida, and that the said newspaper has heretofore been continuously published in said Hardee County, Florida, each week and has been entered as second class mail matter at the post office in Wauchula, in said Hardee County, Florida, for a period of one year next preceding the publication of the attached copy of advertisement; and affiant further says that he has neither paid nor promised any person, firm or corporation any discount, rebate, commission or refund for the purpose of securing this advertisement for publication in the said newspaper.

Denise Moyer

Sworn to and subscribed before me this 12 day of May
A.D. 2005
Amy Faye Brown Notary Public
My Commission Expires June 22, 2008



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_x) 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_x 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 32399-1400. 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.

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://lhora6.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 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.

AFFIDAVIT OF PUBLICATION

The Herald-Advocate

Published Weekly at Wauchula, Florida

STATE OF FLORIDA,
COUNTY OF HARDEE

Before the undersigned authority personally appeared Denise Moya
who on oath says he is the bookkeeper of The Herald-Advocate, a
newspaper published at Wauchula, in Hardee County, Florida; that the attached copy of advertise-
ment, being a Public Notice To Issue Air Permit
in the matter of Seminole Electric
in the _____ Court, was published in said newspaper in the issues
of March 10, 2005

Affiant further says that the said Herald-Advocate is a newspaper published at Wauchula, in
said Hardee County, Florida, and that the said newspaper has heretofore been continuously published
in said Hardee County, Florida, each week and has been entered as second class mail matter at the
post office in Wauchula, in said Hardee County, Florida, for a period of one year next preceding the
publication of the attached copy of advertisement; and affiant further says that he has neither paid nor
promised any person, firm or corporation any discount, rebate, commission or refund for the purpose
of securing this advertisement for publication in the said newspaper.

Denise Moya

Sworn to and subscribed before me this 10 day of March
A.D. 2005

Amy Jay Brown
Notary Public
My Commission Expires June 22 2008



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: This 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. The Department has made a preliminary determination of the Best Available Control Technology (BACT) for each of these pollutants. 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.

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 the 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 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 and phone number listed above. A copy of the project file 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.

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, e-mail 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 website 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 file 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 of 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.S.

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 interest 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.

HIGHLANDS TODAY & THE TAMPA TRIBUNE

Published Daily

Sebring, Highlands County, Florida

State of Florida }
County of Highlands } ss.

Before the undersigned authority personally appeared C. Pugh, who on oath says that she is Advertising Billing Supervisor of Highlands Today & The Tampa Tribune, daily newspapers published at Sebring in Highlands County, Florida; that the attached copy of advertisement being a

LEGAL NOTICE HIGHLANDS TODAY

in the matter of PUBLIC NOTICE OF INTENT

was published in said newspaper in the issues of
MARCH 10, 2005

Affiant further says that the said Highlands Today & The Tampa Tribune are newspapers published at Sebring in said Highlands County, Florida, and the said newspapers have heretofore been continuously published in said Highlands County, Florida, each day and have been entered as second class mail matter at the post office in Sebring, in said Highlands County, Florida for a period of one year next preceding the first publication of the attached copy of advertisement; and affiant further says that she has neither paid nor promised any person, this advertisement for publication in the said newspaper.

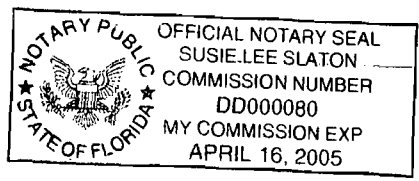
C. Pugh

Sworn to and subscribed by me, this 15 day
of MARCH, A.D. 20 05

Personally Known or Produced Identification _____
Type of Identification Produced _____

(SEAL)

Susie Lee Slaton



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: This 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. The Department has made a preliminary determination of the Best Available Control Technology (BACT) for each of these pollutants. 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.

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 the 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 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 and phone number listed above. A copy of the project file 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).

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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, e-mail 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 website 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 file will be made available for public inspection.

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Mediation: Mediation is not available in this proceeding.

AD#26736
SB7584 3/10/2005

U.S. Postal Service
CERTIFIED MAIL RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

7001 0320 0001 3692 2015

OFFICIAL USE

Postage	\$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage &	

Postmark
Here

Sent To
 Street, Apt. No.,
 or PO Box No.
 City, State, ZIP+4

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

PS Form 3800, January 2001

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1 Article Addressed to:

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

2 Article Number
 (Transfer from service label)

7001 0320 0001 3692 2015

PS Form 3811, August 2001

COMPLETE THIS SECTION ON DELIVERY

- A. Signature *MP* *s/c* Agent
 Addressee
- B. Received by (Printed Name) _____ C. Date of Delivery *5/11/05*
- D. Is delivery address different from item 1? Yes
 If YES, enter delivery address below: No

3. Service Type
 Certified Mail Express Mail
 Registered Return Receipt for Merchandise
 Insured Mail C.O.D.

4. Restricted Delivery? (Extra Fee) Yes

Domestic Return Receipt

102595-02-M-1540

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MAY 13 2005

BUREAU OF AIR REGULATION

Dept. of Environmental Protection
Division of Air Resources Mgt.
Bureau of Air Regulation, NSR
3600 Blair Stone Rd., MS 5505
Tallahassee, FL 32399-2400

0001



U.S. Postal Service
CERTIFIED MAIL RECEIPT
 (Domestic Mail Only; No Insurance Coverage Provided)

OFFICIAL USE

7000 2870 0000 7028 4175

Postage	\$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$

Postmark
Here

Sent To
 Michael Opalinski

Street, Apt. No., or PO Box No.
 16313 N. Dale Mabry Hwy.

City, State, ZIP+4
 Tampa, FL 33688-2000
 PS Form 3800, May 2000 See Reverse for Instructions

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1 Article Addressed to:

Mr. Michael Opalinski
 V.P., Technical Services
 Seminole Electric Co-op
 16313 N. Dale Mabry Highway
 Tampa, FL 33688-2000

COMPLETE THIS SECTION ON DELIVERY

A. Signature Agent Addressee
Julie Ludwig

B. Received by (Printed Name) Date of Delivery
 JULIE LUDWIG 3/24/08

D. Is delivery address different from item 1? Yes No
 If YES, enter delivery address below:

3. Service Type
 Certified Mail Express Mail
 Registered Return Receipt for Merchandise
 Insured Mail C.O.D.

4. Restricted Delivery? (Extra Fee) Yes

2 Article Number (Transfer from service label) 7000 2870 0000 7028 4175

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Dept. of Environmental Protection
Division of Air Resources Mgt.
Bureau of Air Regulation, NSR
2600 Blair Stone Rd., MS 5505
Tallahassee, FL 32399-2400

RECEIVED

MAR 28 2005

BUREAU OF AIR REGULATION

0001



U.S. Postal Service
CERTIFIED MAIL RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

OFFICIAL USE

6482 07TE E700 029T 0002

Postage	\$		Postmark Here
Certified Fee			
Return Receipt Fee (Endorsement Required)			
Restricted Delivery Fee (Endorsement Required)			

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

PS Form 3811, May 2000

See Reverse for Instructions

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1 Article Addressed to:

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

COMPLETE THIS SECTION ON DELIVERY

A. Signature Agent
 R. Henry Addressee

B. Received by (Printed Name) *R. HENRY*

C. Date of Delivery *2/9/05*

D. Is delivery address different from item 1? Yes
If YES, enter delivery address below: No

3. Service Type

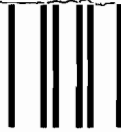
Certified Mail Express Mail
 Registered Return Receipt for Merchandise
 Insured Mail C.O.D.

4. Restricted Delivery? (Extra Fee) Yes

2 Article Number
(Transfer from service label)

7000 1670 0013 3110 2349

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Dept. of Environmental Protection
Division of Air Resources Mgt.
Bureau of Air Regulation, NSR
2600 Blair Stone Rd, MS 5505
Tallahassee, FL 32399-2400

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FEB 11 2005
BUREAU OF AIR REGULATION

0001



U.S. Postal Service
CERTIFIED MAIL RECEIPT
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OFFICIAL USE

9902
 017E
 0100
 019T
 0002

Postage	\$	Postmark Here
Certified Fee		
Return Receipt Fee (Endorsement Required)		
Restricted Delivery Fee (Endorsement Required)		
Total Postage & Fees	\$	
Sent To: <u>Mr. Michael Opalinski, VP Tec. Services</u> <u>Seminole Electric Cooperative, Inc.</u> Street, Apt. No., or PO Box No. <u>16313 North Dale Mabry Highway</u> City, State, ZIP+4 [®] <u>Tampa, Florida 33638-2000</u>		
PS Form 3800, May 2000		See Reverse for Instructions

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:
 Mr. Michael Opalinski
 VP Technical Services
 Seminole Electric Cooperative,
 Inc.
 16313 North Dale Mabry Highway
 Tampa, Florida 33688-2000

COMPLETE THIS SECTION ON DELIVERY

A. Signature Agent
 P. Henry Addressee

B. Received by (*Printed Name*) P. HENRY C. Date of Delivery

D. Is delivery address different from item 1? Yes
 If YES, enter delivery address below: No

3. Service Type
 Certified Mail Express Mail
 Registered Return Receipt for Merchandise
 Insured Mail C.O.D.

4. Restricted Delivery? (*Extra Fee*) Yes

2. Article Number 7000 1670 0013 3110 2066
 (Transfer from service label)

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DEC 05 2004

BUREAU OF AIR REGULATION

Dept. of Environmental Protection
Division of Air Resources Mgt.
Bureau of Air Regulation, NSR
2600 Blair Stone Rd., MS 5505
Tallahassee, FL 32399-2400



UNITED STATES POSTAL SERVICE



First-Class Mail
Postage & Fees Paid
USPS
Permit No. G-10

• Sender: Please print your name, address, and ZIP+4 in this box •

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OCT 01 2004

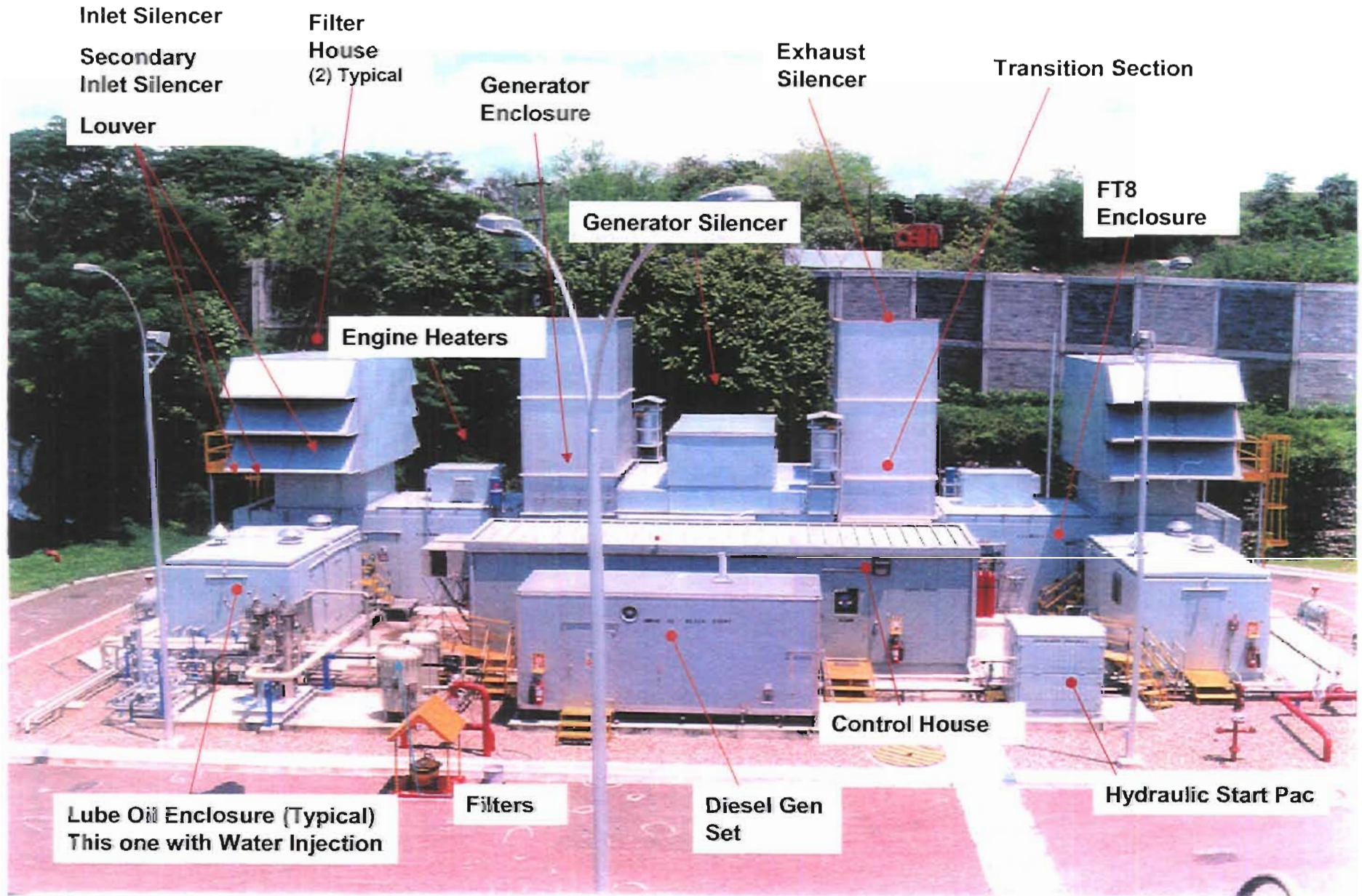
BUREAU OF AIR REGULATION

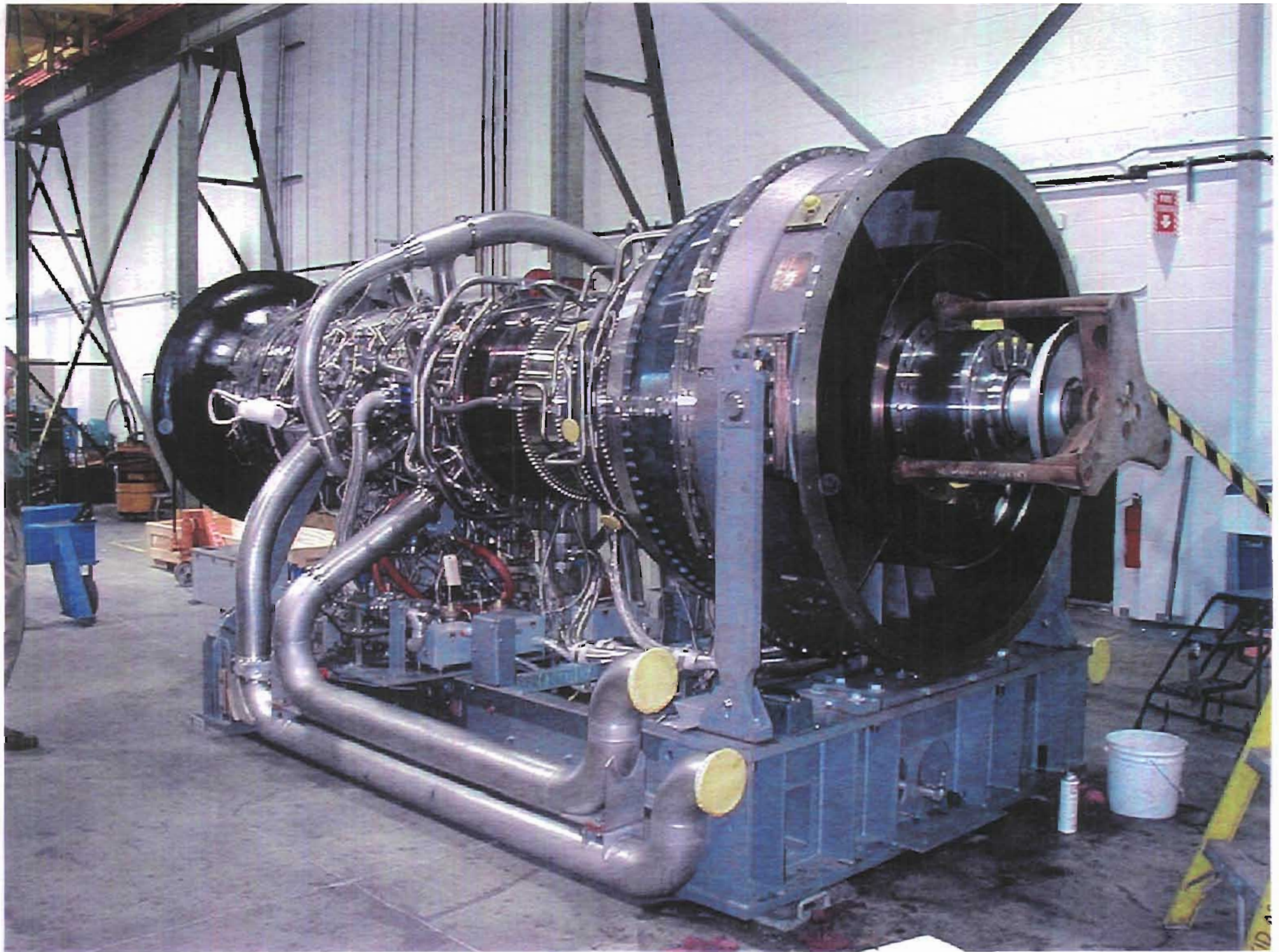
Dept. of Environmental Protection
Division of Air Resources Mgt.
Bureau of Air Regulation, NSR
2600 Blair Stone Rd., MS 5505
Tallahassee, FL 32399-2400



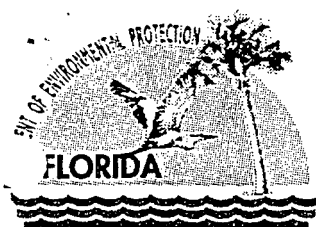


Typical FT8 TWINPAC





Department of Environmental Protection



Jeb Bush
Governor

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

Colleen M. Castille
Secretary

September 23, 2004

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Michael Opalinski, VP Technical Services
Seminole Electric Cooperative, Inc.
16313 North Dale Mabry Highway
Tampa, FL 33688-2000

Re: Request for Additional Information
Payne Creek Generating Station
Peaker Project
File No. 0490340-003-AC; PSD-FL-344; PA 89-25

Dear Mr. Opalinski:

The Department is in receipt of your PSD application, however in order to continue processing the application, we will need the additional information below. Should your response to any of the below items require new calculations, please submit the new calculations, assumptions, reference material and appropriate revised pages of the application form.

I. BACT Determination for NO_x

Seminole has rejected SCR based upon a calculated cost effectiveness of \$16,052 per ton of NO_x removed. A total equipment cost of \$11,277,500 was estimated for the 10 simple cycle combustion turbines (five Swift Pacs). Based upon the submitted information, it appears that the basis for this estimate was a Pratt & Whitney price quote for a combined SCR/Oxidation Catalyst System at \$12,013,000, less a deduct of \$785,500 for removal of the CO catalyst. Given that the submittal incorporates the application and corresponding sunk cost of an Oxidation Catalyst System in order to comply with 40 CFR 63. Subpart YYYYY (compliance with which has currently been stayed), it seems more appropriate to estimate the SCR cost as only the incremental cost of the SCR catalyst. Accordingly, the Department requests:

- 1) As a measure of the price of the Oxidation Catalyst System, Seminole obtain a price quote from Pratt & Whitney for the same SCR/Oxidation Catalyst System, but which specifically includes a deduct for the SCR catalyst (rather than the oxidation catalyst).
- 2) Written clarification from Pratt & Whitney as to whether any of these items are included (either completely or partially) within the \$12,013,000 SCR/Oxidation Catalyst System price quote:
 - a) Sales tax
 - b) Freight
 - c) Base instrumentation
 - d) Installation costs (foundations, electrical, piping, insulation, etc.)
- 3) Since the calculated cost effectiveness includes annual catalyst replacement costs, the cost of the initial catalyst charge should be deducted from the provided "Equipment Cost".
- 4) Seminole consider obtaining one or more additional price quotes for combined SCR/Oxidation Catalyst systems, in order to ensure the competitiveness of the OEM quote.

In addition to reviewing Seminole's submittals, the applicant should be aware that the Department intends to internally estimate the cost effectiveness of SCR based upon all information at its disposal.

II. BACT Determination for SO₂

Seminole has rejected the use of 0.0015% sulfur oil based upon a calculated cost effectiveness of \$15,231 per ton of SO₂ removed. This calculation appears to be based upon the forecasted annual incremental cost of 0.0015%

"More Protection, Less Process"

Printed on recycled paper.

sulfur oil above 0.05% sulfur oil (\$542,237) divided by the annual incremental tons of SO₂ generated (35.6 tons). The Department requests the following:

- 1) Please provide the CT manufacturer (Pratt & Whitney)'s worst case distillate oil specifications, particularly with regards to the maximum sulfur content.
- 2) Please provide the basis for the requested 500 hours of operation on distillate oil. Based upon the submitted data, it appears that approximately 300 hours per year (or 60% of the requested annual distillate oil throughput) would allow Seminole to avoid a BACT review for SO₂.
- 3) Please evaluate the cost effectiveness of using 0.0065% sulfur fuel (or similar), or more specifically a liquid fuel with sulfur content between 0.05% and 0.0015%. The Department notes that it recently permitted JEA Brandy Branch for the use of 0.0065% liquid fuel.
- 4) Please provide the Department with alternatives for reducing the maximum change in light extinction at the Chassahowitzka NWR below 5.0%. By way of example, potential solutions include limiting the daily hours of liquid fuel operation, limiting the daily throughput of liquid fuel consumed, or limiting the sulfur content of the liquid fuel.

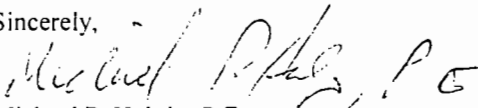
The Department wishes to point out that although the data source cited by Seminole supports an average \$0.054 per gallon of fuel incremental cost difference between 0.05% and 0.0015% sulfur oils, the estimated costs are \$1.243 versus \$1.297 per gallon, representing only slightly more than a 4% increase in fuel cost. Also, Seminole should be advised that in a recent Draft BACT Determination by the Department (FPL Turkey Point), the use of 0.0015% sulfur oil was considered as BACT.

Please note that EPA and NPS have been copied on your application, and should FDEP receive questions or comments from them, we will forward you a copy.

Rule 62-4.050(3), F.A.C. requires that all applications for a Department permit must be certified by a professional engineer registered in the State of Florida. This requirement also applies to responses to Department requests for additional information of an engineering nature. Please note that per Rule 62-4.055(1): "The applicant shall have ninety days after the Department mails a timely request for additional information to submit that information to the Department..... Failure of an applicant to provide the timely requested information by the applicable date shall result in denial of the application."

If you have any questions, please call Michael P. Halpin, P.E. at 850/921-9519.

Sincerely,

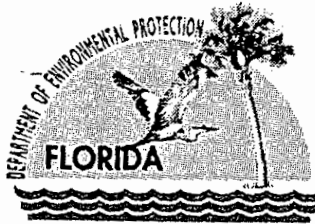


Michael P. Halpin, P.E.
DARM/BAR

✓ Mike Roddy, SECI
✓ Tom Davis, ECT
✓ Jerry Kissel, SWD
✓ Buck Oven, PPSO
✓ Gregg Worley, EPA Region 4
✓ John Bunyak, NPS

DATE	Fax Sent to and Location (Fax Number must be included)	# of Pages	Person Sending
3/17/05	TO: Michelle Warky FAX #: 880 4363	4	Phil Schneider
3/21	TO: Robert Manning FAX #: 224-8551	3	Vicki
3/21	TO: Len Kostov FAX #: 477-975963	1	Teresa
3/22	TO: Sandra Vezev FAX #: 502 695-8096	14	Vicki
3/22	TO: DOUG BEASLEY FAX #: 245-2302	4	Harold
3/22	TO: PAT COMOL FAX #: 245-2302	4	Harold
3/22	TO: MIKE OPALINSKI FAX #: 813-264-7906	4	Harold
3/22	TO: 1465 - ROBERT MANNING FAX #: 224-8551	4	Harold
3/22	TO: 1465 - JIM ALVES FAX #: 224-8551	4	Harold
	TO: FAX #:		
	TO: FAX #:		
	TO: FAX #:		
	TO: FAX #:		
	TO: FAX #:		
	TO: FAX #:		

PLEASE remember to log ALL fax transmittals. Thank you!!



Department of Environmental Protection

Jeb Bush
Governor

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

Colleen M. Castille
Secretary

March 22, 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

*Duplicates
7/8/2005*

Re: Issuance of Intent to Deny 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. ("Seminole Electric") submitted an application for a Prevention of Significant Deterioration ("PSD") permit 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.

On February 4, 2005, The Department of Environmental Protection issued an Intent to Issue Air Permit and a Draft Permit for the above-referenced project. On March 7, 2005, Seminole Electric filed a Petition for Administrative Hearing pursuant to sections 120.569 and 120.57, Florida Statutes, challenging the issuance of the Department's Draft Permit.

Upon receipt of the Petition for Administrative Hearing, the Department re-evaluated its proposed agency action and made a determination that Seminole Electric's application for a PSD permit should be denied. Accordingly, the Department hereby withdraws the Intent to Issue Air Permit and the Draft Permit and issues the attached Written Notice of Intent to Deny Air Permit.

The "Written Notice of Intent to Deny Air Permit" provides important information regarding the Permitting Authority's Intent to Deny an air permit for the proposed project including the process for filing a petition for an administrative hearing.

If you have any questions, please contact my office at 850/921-9503.

Sincerely,

Trina Vielhauer, Chief
Bureau of Air Regulation

Enclosures

HGS

*224-8551
fax*

Post-it® Fax Note		7671	Date <i>3-22</i>	# of pages <i>4</i>
To	<i>HGS</i>	From	<i>FOEP - OARM</i>	
Co./Dept.	<i>JTM ALVES</i>	Co.	<i>Tallahassee</i>	
Phone #		Phone #	<i>921-9503</i>	
Fax #	<i>224-8551</i>	Fax #		

"More Protection, Less Process"

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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

Authorized Representative:

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

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

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 Pratt-Whitney FT8 Twin Pac Combustion Turbine (nominal 60 MW) gas turbine-electrical generator sets and other miscellaneous support equipment. Upon completion of this project, the plant would 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 permit application.

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 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 project file 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).

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Written Notice of Intent to Deny Air Permit: The Permitting Authority hereby gives Written Notice of its Intent to Deny a PSD permit to the applicant for the project described above. The applicant has failed to provide reasonable assurance that the operation of the proposed FT8 Twin Pac Combustion Turbines and related equipment will comply with all applicable provisions of Chapters 62-4, 62-210, and 62-212, F.A.C. Specifically, the applicant has failed to provide reasonable assurance to demonstrate that a NOx emission rate of 25 parts per million (ppm) using water injection represents Best Available Control Technology for simple cycle combustion turbines. Therefore, the applicant has failed to provide reasonable assurance that the proposed project will meet the requirements of Rule 62-212.400, F.A.C., which requires the application of Best Available Control Technology.

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 Deny Air Permit. 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 Deny 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 Deny Air Permit" was sent by certified mail (*), facsimile (**) and copies were mailed by U.S. Mail before the close of business on 3/22/05 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
Robert Manning, Jim Alves, HGS **
Doug Beason, Pat Comer, OGC **
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.

Victoria Gibson
(Clerk)

3/22/05
(Date)



Department of Environmental Protection

Jeb Bush
Governor

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

Colleen M. Castille
Secretary

March 22, 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: Issuance of Intent to Deny 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. ("Seminole Electric") submitted an application for a Prevention of Significant Deterioration ("PSD") permit 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.

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If you have any questions, please contact my office at 850/921-9503.

Sincerely,

Trina Vielhauer, Chief
Bureau of Air Regulation

Post-it® Fax Note	7671	Date	3-22	# of pages	4
To	DOUG BENSON	From	FDEP-DARM		
Co./Dept.		Co.			
Phone #		Phone #			
Fax #		Fax #			

Post-it® Fax Note	7671	Date	3-22	# of pages	4
To	PAT COMOL	From	DARM		
Co./Dept.	OC	Co.			
Phone #		Phone #			
Fax #		Fax #			

245-2302
Doug & Pat

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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

Authorized Representative:

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

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

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

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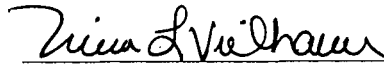
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Executed in Tallahassee, Florida.



Trina Vielhauer, Chief
Bureau of Air Regulation

CERTIFICATE OF SERVICE

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Jerry Kissel, DEP-SWD
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Doug Beason, Pat Comer, OGC **
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.

Victoria Nelson (Clerk) 3/22/05 (Date)



Department of Environmental Protection

Jeb Bush
Governor

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

Colleen M. Castille
Secretary

March 22, 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: Issuance of Intent to Deny 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:

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Trina Vielhauer, Chief
Bureau of Air Regulation

Enclosures

Post-it® Fax Note		7671	Date	3-22	# of pages	4
To	AGS		From	FDEP-DAPM		
Co./Dept	ROBERT MANNING		Co.	TALLAHASSEE		
Phone #			Phone #	921-9503		
Fax #	224-8551		Fax #			

"More Protection, Less Process"

Printed on recycled paper.

*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

Authorized Representative:

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

Permit Application No. PSD-FL-344
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Facility Location: Seminole Electric Cooperative, Inc. (SECI) operates an existing power plant located in Bowling Green, Hardee, Florida.

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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 Written Notice of Intent to Deny 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 Deny Air Permit" was sent by certified mail (*), facsimile (**), and copies were mailed by U.S. Mail before the close of business on

3/22/05 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
Robert Manning, Jim Alves, HGS **
Doug Beason, Pat Comer, OGC **
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.

Victoria Gibson
(Clerk)

3/22/05
(Date)



Department of Environmental Protection

Jeb Bush
Governor

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

Colleen M. Castille
Secretary

March 22, 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: Issuance of Intent to Deny 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. ("Seminole Electric") submitted an application for a Prevention of Significant Deterioration ("PSD") permit 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.

On February 4, 2005, The Department of Environmental Protection issued an Intent to Issue Air Permit and a Draft Permit for the above-referenced project. On March 7, 2005, Seminole Electric filed a Petition for Administrative Hearing pursuant to sections 120.569 and 120.57, Florida Statutes, challenging the issuance of the Department's Draft Permit.

Upon receipt of the Petition for Administrative Hearing, the Department re-evaluated its proposed agency action and made a determination that Seminole Electric's application for a PSD permit should be denied. Accordingly, the Department hereby withdraws the Intent to Issue Air Permit and the Draft Permit and issues the attached Written Notice of Intent to Deny Air Permit.

The "Written Notice of Intent to Deny Air Permit" provides important information regarding the Permitting Authority's Intent to Deny an air permit for the proposed project including the process for filing a petition for an administrative hearing.

If you have any questions, please contact my office at 850/921-9503.

Sincerely,

Trina Vielhauer, Chief
Bureau of Air Regulation

Enclosures

Post-it® Fax Note	7671	Date	3-22	# of pages	4
To	M. P. OPALINSKI	From	FDPEP-D.A.M.		
Co./Dept.	SEMINOLE	Co.	TALLAHASSEE		
Phone #	813-963-0994	Phone #	850-921-9503		
Fax #	813-264-7900	Fax #			

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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

Authorized Representative:

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

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

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 Pratt-Whitney FT8 Twin Pac Combustion Turbine (nominal 60 MW) gas turbine-electrical generator sets and other miscellaneous support equipment. Upon completion of this project, the plant would 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 permit application.

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 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 project file 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 Withdrawal of Written Notice of Intent to Issue Air Permit: On February 4, 2005, the Department issued a Written Notice of Intent to Issue Air Permit and a Draft Permit for the above-referenced project. Seminole Electric has filed a Petition for Administrative Hearing with respect to the Department's proposed agency action. The Department has re-evaluated its proposed agency action and has concluded that Seminole Electric's application for a PSD permit should be denied. Accordingly, the Department hereby withdraws the Written Notice of Intent to Issue Air Permit. The Department's Notice of Withdrawal renders moot the pending Petition for Administrative Hearing. The Department's Written Notice of Intent to Deny Air Permit provides Seminole Electric with a separate point-of-entry in the event it should elect to administratively challenge the Department's permitting decision.

Written Notice of Intent to Deny Air Permit: The Permitting Authority hereby gives Written Notice of its Intent to Deny a PSD permit to the applicant for the project described above. The applicant has failed to provide reasonable assurance that the operation of the proposed FT8 Twin Pac Combustion Turbines and related equipment will comply with all applicable provisions of Chapters 62-4, 62-210, and 62-212, F.A.C. Specifically, the applicant has failed to provide reasonable assurance to demonstrate that a NOx emission rate of 25 parts per million (ppm) using water injection represents Best Available Control Technology for simple cycle combustion turbines. Therefore, the applicant has failed to provide reasonable assurance that the proposed project will meet the requirements of Rule 62-212.400, F.A.C., which requires the application of Best Available Control Technology.

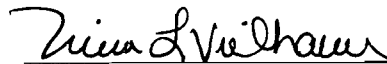
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Trina Vielhauer, Chief
Bureau of Air Regulation

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(Clerk)

3/22/05
(Date)