Seminole Electric
COOPERATIVE, INC.
IN PARTNERSHIP WITH THOSE WE SERVE

December 18, 2008

Trina Vielhauer, Chief
Bureau of Air Regulation
Florida Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, FL 32399

RE: Seminole Electric Cooperative, Inc.
Revisions to Seminole Generating Station (SGS) Unit 3 Air Construction Permit
DEP File No. 1070025~~-005~~-AC; PSD-FL-~~375~~
011 3254

Dear Ms. Vielhauer:

Attached is an application for several revisions to the air construction permit for Seminole Electric Cooperative's (Seminole) SGS Unit 3 project, referenced above. Specifically, this application addresses hazardous air pollutant (HAP) emissions from Unit 3, and requests (1) an updating of the permit's expiration date, (2) incorporation of the March 19, 2007 Agreement between the Sierra Club and Seminole, (3) revisions to update or delete references to the Clean Air Interstate Rule and the Clean Air Mercury Rule, and (4) revisions to address comments from the U.S. EPA.

Regarding Unit 3's HAP emissions, on February 8, 2008, the D.C. Circuit vacated EPA's Clean Air Mercury Rule (CAMR), as well as their delisting of coal-fired electric utility steam generating units from the Section 112(c) list. EPA has not issued guidance regarding the effect of the D.C. Circuit's vacatur of EPA's previous delisting of coal-fired electric generating units from the MACT source list and, therefore, Seminole is not concluding that such analysis is required. Nonetheless, as referenced in the Unit 3 permit's response to comments document and as requested by DEP on September 19, 2008 Seminole is submitting the attached air permit application and associated analysis addressing HAP emissions from Unit 3.

Section 112(g) and the implementing regulations are clear that these requirements only apply to a *major* source of HAPs. During the course of our HAPs assessment, Seminole obtained additional recent information that was used to evaluate and to better understand the ability of the proposed air pollution control equipment train to control HAPs associated with the SGS Unit 3 project. As we have consistently maintained, Seminole is confident that SGS Unit 3 will have the best available controls, and we stand by the design of the plant and the conclusions reached in issuing the above-referenced air construction permit.

As a result of our analysis, Seminole has concluded that the control systems that have been designed for SGS Unit 3 will result in potential HAP emissions that will be *below* the applicable major-source thresholds that trigger case-by-case MACT determinations. Therefore, Seminole is submitting this HAPs emission assessment, with documentation for your review, to demonstrate that Section 112(g) does not apply to this *minor* source of HAPs.

16313 North Dale Mabry Highway P.O. Box 272000 Tampa, Florida 33688-2000
Telephone 813.963.0994 Fax 813.264.7906 www.seminole-electric.com

Seminole appreciates the Department's consideration of this application and supporting documents and we look forward to discussing them further with you and your staff. If you have any questions in the meantime, please do not hesitate to contact me.

Sincerely,

Mike Roddy,
Manager of Environmental Affairs

cc: Al Linero, DEP

APPLICATION FORMS

Department of Environmental Protection

Division of Air Resource Management

APPLICATION FOR AIR PERMIT - LONG FORM

I. APPLICATION INFORMATION

Air Construction Permit – Use this form to apply for an air construction permit:

- For any required purpose at a facility operating under a federally enforceable state air operation permit (FESOP) or Title V air operation permit;
- For a proposed project subject to prevention of significant deterioration (PSD) review, nonattainment new source review, or maximum achievable control technology (MACT);
- To assume a restriction on the potential emissions of one or more pollutants to escape a requirement such as PSD review, nonattainment new source review, MACT, or Title V; or
- To establish, revise, or renew a plantwide applicability limit (PAL).

Air Operation Permit – Use this form to apply for:

- An initial federally enforceable state air operation permit (FESOP); or
- An initial, revised, or renewal Title V air operation permit.

To ensure accuracy, please see form instructions.

Identification of Facility

1. Facility Owner/Company Name: **Seminole Electric Cooperative, Inc.**	
2. Site Name: **Seminole Generating Station**	
3. Facility Identification Number: **1070025**	
4. Facility Location... **890 North U.S. Highway 17** Street Address or Other Locator: **7 miles north of Palatka** County: **Putnam** Zip Code: **32177**	
5. Relocatable Facility? ☐ Yes ☒ No	6. Existing Title V Permitted Facility? ☒ Yes ☐ No

Application Contact

1. Application Contact Name: **Mike Roddy, Manager of Environmental Affairs**
2. Application Contact Mailing Address... Organization/Firm: **Seminole Electric Cooperative, Inc.** Street Address: **16313 North Dale Mabry Highway** City: **Tampa** State: **FL** Zip Code: **33618**
3. Application Contact Telephone Numbers... Telephone: **(813) 963-0994** ext. Fax: **(813) 264- 7906**
4. Application Contact E-mail Address: **wmroddy@seminole-electric.com**

Application Processing Information (DEP Use)

1. Date of Receipt of Application: 12/22/08	3. PSD Number (if applicable): 375 A
2. Project Number(s): 1070025-011-AC	4. Siting Number (if applicable):

APPLICATION INFORMATION

Purpose of Application

This application for air permit is being submitted to obtain: (Check one)

Air Construction Permit

☒ Air construction permit.

☐ Air construction permit to establish, revise, or renew a plantwide applicability limit (PAL).

☐ Air construction permit to establish, revise, or renew a plantwide applicability limit (PAL), and separate air construction permit to authorize construction or modification of one or more emissions units covered by the PAL.

Air Operation Permit

☐ Initial Title V air operation permit.

☐ Title V air operation permit revision.

☐ Title V air operation permit renewal.

☐ Initial federally enforceable state air operation permit (FESOP) where professional engineer (PE) certification is required.

☐ Initial federally enforceable state air operation permit (FESOP) where professional engineer (PE) certification is not required.

Air Construction Permit and Revised/Renewal Title V Air Operation Permit (Concurrent Processing)

☐ Air construction permit and Title V permit revision, incorporating the proposed project.

☐ Air construction permit and Title V permit renewal, incorporating the proposed project.

Note: By checking one of the above two boxes, you, the applicant, are requesting concurrent processing pursuant to Rule 62-213.405, F.A.C. In such case, you must also check the following box:

☐ I hereby request that the department waive the processing time requirements of the air construction permit to accommodate the processing time frames of the Title V air operation permit.

APPLICATION INFORMATION

Application Comment

This application serves to request several revisions to the Final PSD/Air Construction Permit for Unit 3, including the following:

1. **Verification of HAP Minor Source Status. On February 8, 2008, the D.C. Circuit Court vacated CAMR and invalidated EPA's delisting of coal-fired electric utility steam generating units from the Section 112(c) list. EPA has not issued guidance regarding the effect of the D.C. Circuit Court's vacatur of EPA's previous delisting of coal-fired electric generating units from the MACT source list. Nonetheless, Seminole is submitting the attached HAP assessment (see Attachment 1) and requesting specific conditions to verify that Unit 3 is a minor source of HAPs and, therefore, Section 112(g) does not apply.**

2. **Incorporate the March 9, 2007 Sierra Club Agreement: The referenced Agreement is included in this application package (see Attachment 2), and Seminole reiterates its request that DEP incorporate this Agreement into the air construction permit. Seminole's preference is to have the Agreement be an Attachment or Appendix to the permit, including language in the Statement of Basis that any conflict between the Agreement and conditions in the permit is controlled by the Agreement. The authority for the Agreement is "applicant's request".**

3. **Extend the Expiration Date of the Construction Permit: The Final Permit includes an expiration date of December 31, 2012, which was based on the application statements (in March 2006) that the unit was anticipated to begin commercial operation in May 2012. Due to intervening events since March 2006, Seminole requests that the December 31, 2012 expiration date be extended to December 31, 2016, which should be sufficient to allow the unit to finish construction, go through the initial shakedown period and apply for the Title V operating permit.**

4. **Respond to EPA comments: The Department stated in the Final Determination that it would respond to EPA's comments in a subsequent permit revision process. While no action is needed from Seminole in this regard, Attachment 3 of this application package provides a summary of Seminole's understanding of the revisions that the Department intends to make.**

5. **Clean up obsolete references: As the Department did not make any changes from the Draft Permit to the Final Permit, the permit contains obsolete references to CAMR and CAIR that require revision.**

APPLICATION INFORMATION

Scope of Application

Emissions Unit ID Number	Description of Emissions Unit	Air Permit Type	Air Permit Processing Fee
003	Steam Electric Generator No. 3	AC1A	See Below

Application Processing Fee

Check one: ☐ Attached - Amount: $_____ ☒ Not Applicable

APPLICATION INFORMATION

Owner/Authorized Representative Statement

Complete if applying for an air construction permit or an initial FESOP.

1. Owner/Authorized Representative Name :
   Mike Roddy, Manager of Environmental Affairs
2. Owner/Authorized Representative Mailing Address...
   Organization/Firm: **Seminole Electric Cooperative, Inc.**
   Street Address: **16313 North Dale Mabry Highway**
   City: **Tampa** State: **FL** Zip Code: **33618**
3. Owner/Authorized Representative Telephone Numbers...
   Telephone: **(813) 963-0994** ext. Fax: **(813) 264-7906**
4. Owner/Authorized Representative E-mail Address: **wmroddy@seminole-electric.com**
5. Owner/Authorized Representative Statement:

   I, the undersigned, am the owner or authorized representative of the corporation, partnership, or other legal entity submitting this air permit application. To the best of my knowledge, the statements made in this application are true, accurate and complete, and any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. I understand that a permit, if granted by the department, cannot be transferred without authorization from the department.

   Signature

   12/18/08
   Date

APPLICATION INFORMATION

Application Responsible Official Certification

Complete if applying for an initial, revised, or renewal Title V air operation permit or concurrent processing of an air construction permit and revised or renewal Title V air operation permit. If there are multiple responsible officials, the "application responsible official" need not be the "primary responsible official."

1. Application Responsible Official Name:

2. Application Responsible Official Qualification (Check one or more of the following options, as applicable):

   ☐ For a corporation, the president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit under Chapter 62-213, F.A.C.

   ☐ For a partnership or sole proprietorship, a general partner or the proprietor, respectively.

   ☐ For a municipality, county, state, federal, or other public agency, either a principal executive officer or ranking elected official.

   ☐ The designated representative at an Acid Rain source, CAIR source, or Hg Budget source.

3. Application Responsible Official Mailing Address...
   Organization/Firm:
   Street Address:
   City: State: Zip Code:

4. Application Responsible Official Telephone Numbers...
   Telephone: ( ) - ext. Fax: ( ) -

5. Application Responsible Official E-mail Address:

6. Application Responsible Official Certification:

   I, the undersigned, am a responsible official of the Title V source addressed in this air permit application. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof and all other applicable requirements identified in this application to which the Title V source is subject. I understand that a permit, if granted by the department, cannot be transferred without authorization from the department, and I will promptly notify the department upon sale or legal transfer of the facility or any permitted emissions unit. Finally, I certify that the facility and each emissions unit are in compliance with all applicable requirements to which they are subject, except as identified in compliance plan(s) submitted with this application.

   Signature Date

APPLICATION INFORMATION

Professional Engineer Certification

1. Professional Engineer Name: **Scott H. Osbourn**
   Registration Number: **57557**
2. Professional Engineer Mailing Address...
   Organization/Firm: **Golder Associates**
   Street Address: **5100 West Lemon St., Suite 114**
   City: **Tampa** State: **FL** Zip Code: **33609**
3. Professional Engineer Telephone Numbers...
   Telephone: **(813) 287-1717** ext.**53304** Fax: **(813) 287-1716**
4. Professional Engineer E-mail Address: **sosbourn@golder.com**
5. Professional Engineer Statement:

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

(1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollution control equipment described in this application for air permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in the Florida Statutes and rules of the Department of Environmental Protection; and

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

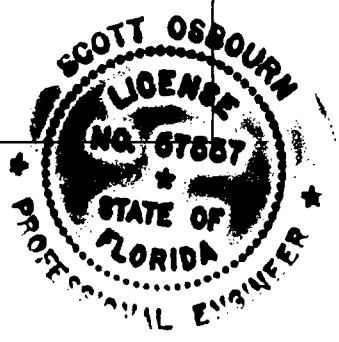
(3) If the purpose of this application is to obtain a Title V air operation permit (check here ☐, if so), I further certify that each emissions unit described in this application for air permit, when properly operated and maintained, will comply with the applicable requirements identified in this application to which the unit is subject, except those emissions units for which a compliance plan and schedule is submitted with this application.

(4) If the purpose of this application is to obtain an air construction permit (check here ☒, if so) or concurrently process and obtain an air construction permit and a Title V air operation permit revision or renewal for one or more proposed new or modified emissions units (check here ☐, if so), I further certify that the engineering features of each such emissions unit described in this application have been designed or examined by me or individuals under my direct supervision and found to be in conformity with sound engineering principles applicable to the control of emissions of the air pollutants characterized in this application.

(5) If the purpose of this application is to obtain an initial air operation permit or operation permit revision or renewal for one or more newly constructed or modified emissions units (check here ☐, if so), I further certify that, with the exception of any changes detailed as part of this application, each such emissions unit has been constructed or modified in substantial accordance with the information given in the corresponding application for air construction permit and with all provisions contained in such permit.

Signature — Date: 12/18/08

(seal)



* Attach any exception to certification statement.

**** Board of Professional Engineers Certificate of Authorization #00001670**

II. FACILITY INFORMATION

A. GENERAL FACILITY INFORMATION

Facility Location and Type

1. Facility UTM Coordinates... Zone **17** East (km) **438.80** North (km) **3289.20**		2. Facility Latitude/Longitude... Latitude (DD/MM/SS) Longitude (DD/MM/SS)	
3. Governmental Facility Code: **0**	4. Facility Status Code: **A**	5. Facility Major Group SIC Code: **49**	6. Facility SIC(s):
7. Facility Comment :			

Facility Contact

1. Facility Contact Name: **Ms. Brenda Shiver, Environmental Compliance Specialist**
2. Facility Contact Mailing Address... Organization/Firm: **Seminole Electric Cooperative, Inc.** Street Address: **890 North U.S. Hwy 17** City: **Palatka** State: **FL** Zip Code: **32177-8647**
3. Facility Contact Telephone Numbers: Telephone: (**386**) **328-9255** ext.**2174** Fax: (**386**) **328-5571**
4. Facility Contact E-mail Address: **BShiver@seminole-electric.com**

Facility Primary Responsible Official

Complete if an "application responsible official" is identified in Section I that is not the facility "primary responsible official."

1. Facility Primary Responsible Official Name:
2. Facility Primary Responsible Official Mailing Address... Organization/Firm: Street Address: City: State: Zip Code:
3. Facility Primary Responsible Official Telephone Numbers... Telephone: ( ) - ext. Fax: ( ) -
4. Facility Primary Responsible Official E-mail Address:

FACILITY INFORMATION

Facility Regulatory Classifications

Check all that would apply *following* completion of all projects and implementation of all other changes proposed in this application for air permit. Refer to instructions to distinguish between a "major source" and a "synthetic minor source."

1. ☐ Small Business Stationary Source	☐ Unknown
2. ☐ Synthetic Non-Title V Source	
3. ☒ Title V Source	
4. ☒ Major Source of Air Pollutants, Other than Hazardous Air Pollutants (HAPs)	
5. ☐ Synthetic Minor Source of Air Pollutants, Other than HAPs	
6. ☒ Major Source of Hazardous Air Pollutants (HAPs)	
7. ☐ Synthetic Minor Source of HAPs	
8. ☒ One or More Emissions Units Subject to NSPS (40 CFR Part 60)	
9. ☒ One or More Emissions Units Subject to Emission Guidelines (40 CFR Part 60)	
10. ☐ One or More Emissions Units Subject to NESHAP (40 CFR Part 61 or Part 63)	
11. ☐ Title V Source Solely by EPA Designation (40 CFR 70.3(a)(5))	
12. Facility Regulatory Classifications Comment:	
The existing SGS power plant is a major spource of HAPs; however, the proposed SGS Unit 3 does not exceed major source HAPs thresholds (see Attachment 1).	

FACILITY INFORMATION

List of Pollutants Emitted by Facility

1. Pollutant Emitted	2. Pollutant Classification	3. Emissions Cap [Y or N]?
CO	A	
NOX	A	
PM10	A	
PM	A	
SO2	A	
VOC	A	
SAM	A	
Fluorides	B	
HCl	B	Y
Mercury	B	Y
Total HAPs	B	Y

B. EMISSIONS CAPS

Facility-Wide or Multi-Unit Emissions Caps

1. Pollutant Subject to Emissions Cap	2. Facility-Wide Cap [Y or N]? (all units)	3. Emissions Unit ID's Under Cap (if not all units)	4. Hourly Cap (lb/hr)	5. Annual Cap (ton/yr)	6. Basis for Emissions Cap
Mercury		**001, 002 and 003**		**118 lb/yr**	**OTHER**
HCl		**003**		**< 10 TPY**	**OTHER**
Total HAPs		**003**		**< 25 TPY**	**OTHER**

7. Facility-Wide or Multi-Unit Emissions Cap Comment:

Mercury cap requested by applicant to confirm facility-wide reduction after Unit 3 commences operation.

C. FACILITY ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

1. Facility Plot Plan: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)
   ☐ Attached, Document ID:_____ ☒ Previously Submitted, Date: **March 6, 2006**
2. Process Flow Diagram(s): (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)
   ☐ Attached, Document ID:_____ ☒ Previously Submitted, Date: **March 6, 2006**
3. Precautions to Prevent Emissions of Unconfined Particulate Matter: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)
   ☐ Attached, Document ID:_____ ☒ Previously Submitted, Date: **March 6, 2006**

Additional Requirements for Air Construction Permit Applications

1. Area Map Showing Facility Location:
   ☐ Attached, Document ID:_____ ☒ Not Applicable (existing permitted facility)
2. Description of Proposed Construction, Modification, or Plantwide Applicability Limit (PAL):
   ☐ Attached, Document ID: **NA**
3. Rule Applicability Analysis:
   ☐ Attached, Document ID: **Attachment 1**
4. List of Exempt Emissions Units:
   ☐ Attached, Document ID:_____ ☒ Not Applicable (no exempt units at facility)
5. Fugitive Emissions Identification:
   ☐ Attached, Document ID:_____ ☒ Not Applicable
6. Air Quality Analysis (Rule 62-212.400(7), F.A.C.):
   ☐ Attached, Document ID:_____ ☒ Not Applicable
7. Source Impact Analysis (Rule 62-212.400(5), F.A.C.):
   ☐ Attached, Document ID:_____ ☒ Not Applicable
8. Air Quality Impact since 1977 (Rule 62-212.400(4)(e), F.A.C.):
   ☐ Attached, Document ID:_____ ☒ Not Applicable
9. Additional Impact Analyses (Rules 62-212.400(8) and 62-212.500(4)(e), F.A.C.):
   ☐ Attached, Document ID:_____ ☒ Not Applicable
10. Alternative Analysis Requirement (Rule 62-212.500(4)(g), F.A.C.):
    ☐ Attached, Document ID:_____ ☒ Not Applicable

C. FACILITY ADDITIONAL INFORMATION (CONTINUED)

Additional Requirements for FESOP Applications

1. List of Exempt Emissions Units:
   ☐ Attached, Document ID:_____ ☐ Not Applicable (no exempt units at facility)

Additional Requirements for Title V Air Operation Permit Applications

1. List of Insignificant Activities: (Required for initial/renewal applications only)
   ☐ Attached, Document ID:_____ ☐ Not Applicable (revision application)

2. Identification of Applicable Requirements: (Required for initial/renewal applications, and for revision applications if this information would be changed as a result of the revision being sought)
   ☐ Attached, Document ID:_____
   ☐ Not Applicable (revision application with no change in applicable requirements)

3. Compliance Report and Plan: (Required for all initial/revision/renewal applications)
   ☐ Attached, Document ID:_____
   Note: A compliance plan must be submitted for each emissions unit that is not in compliance with all applicable requirements at the time of application and/or at any time during application processing. The department must be notified of any changes in compliance status during application processing.

4. List of Equipment/Activities Regulated under Title VI: (If applicable, required for initial/renewal applications only)
   ☐ Attached, Document ID:_____
   ☐ Equipment/Activities Onsite but Not Required to be Individually Listed
   ☐ Not Applicable

5. Verification of Risk Management Plan Submission to EPA: (If applicable, required for initial/renewal applications only)
   ☐ Attached, Document ID:_____ ☐ Not Applicable

6. Requested Changes to Current Title V Air Operation Permit:
   ☐ Attached, Document ID:_____ ☐ Not Applicable

C. FACILITY ADDITIONAL INFORMATION (CONTINUED)

Additional Requirements for Facilities Subject to Acid Rain, CAIR, or Hg Budget Program

1. Acid Rain Program Forms:

   Acid Rain Part Application (DEP Form No. 62-210.900(1)(a)):
   ☐ Attached, Document ID:_____ ☒ Previously Submitted, Date: **March 6, 2006**
   ☐ Not Applicable (not an Acid Rain source)

   Phase II NO_X Averaging Plan (DEP Form No. 62-210.900(1)(a)1.):
   ☐ Attached, Document ID:_____ ☐ Previously Submitted, Date:_____
   ☐ Not Applicable

   New Unit Exemption (DEP Form No. 62-210.900(1)(a)2.):
   ☐ Attached, Document ID:_____ ☐ Previously Submitted, Date:_____
   ☐ Not Applicable

2. CAIR Part (DEP Form No. 62-210.900(1)(b)):
   ☐ Attached, Document ID:_____ ☐ Previously Submitted, Date:_____
   ☐ Not Applicable (not a CAIR source)

3. Hg Budget Part (DEP Form No. 62-210.900(1)(c)):
   ☐ Attached, Document ID:_____ ☐ Previously Submitted, Date:_____
   ☐ Not Applicable (not a Hg Budget unit)

Additional Requirements Comment

Revisions are needed to the permit to reflect the current status of the CAIR and CAMR programs.

III. EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Application - For Title V air operation permitting only, emissions units are classified as regulated, unregulated, or insignificant. If this is an application for an initial, revised or renewal Title V air operation permit, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each regulated and unregulated emissions unit addressed in this application. Some of the subsections comprising the Emissions Unit Information Section of the form are optional for unregulated emissions units. Each such subsection is appropriately marked. Insignificant emissions units are required to be listed at Section II, Subsection C.

Air Construction Permit or FESOP Application - For air construction permitting or federally enforceable state air operation permitting, emissions units are classified as either subject to air permitting or exempt from air permitting. The concept of an "unregulated emissions unit" does not apply. If this is an application for an air construction permit or FESOP, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit subject to air permitting addressed in this application for air permit. Emissions units exempt from air permitting are required to be listed at Section II, Subsection C.

Air Construction Permit and Revised/Renewal Title V Air Operation Permit Application – Where this application is used to apply for both an air construction permit and a revised or renewal Title V air operation permit, each emissions unit is classified as either subject to air permitting or exempt from air permitting for air construction permitting purposes, and as regulated, unregulated, or insignificant for Title V air operation permitting purposes. A separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit addressed in this application that is subject to air construction permitting and for each such emissions unit that is a regulated or unregulated unit for purposes of Title V permitting. (An emissions unit may be exempt from air construction permitting but still be classified as an unregulated unit for Title V purposes.) Emissions units classified as insignificant for Title V purposes are required to be listed at Section II, Subsection C.

If submitting the application form in hard copy, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application must be indicated in the space provided at the top of each page.

EMISSIONS UNIT INFORMATION
Section [1] of [1]

A. GENERAL EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Emissions Unit Classification

1. Regulated or Unregulated Emissions Unit? (Check one, if applying for an initial, revised or renewal Title V air operation permit. Skip this item if applying for an air construction permit or FESOP only.)

☒ The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.

☐ The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

Emissions Unit Description and Status

1. Type of Emissions Unit Addressed in this Section: (Check one)

☒ This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

☐ This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

☐ This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

2. Description of Emissions Unit Addressed in this Section:

Seminole Electric Generator No. 3

3. Emissions Unit Identification Number: **003**

4. Emissions Unit Status Code:	5. Commence Construction Date:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code:
C	**2/10**	**12/16**	**49**

8. Federal Program Applicability: (Check all that apply)

☒ Acid Rain Unit

☐ CAIR Unit

☐ Hg Budget Unit

9. Package Unit:
Manufacturer: Model Number:

10. Generator Nameplate Rating: **750 (net)** MW

11. Emissions Unit Comment:

Unit No. 3 is a "regulated" emissions unit.
Generator nameplate rating will be 750 MW (net) and approximately 820 MW (gross).

EMISSIONS UNIT INFORMATION
Section [1] of [1]

Emissions Unit Control Equipment/Method: Control **1** of **6**

1. Control Equipment/Method Description:

Low Nox Burners

2. Control Device or Method Code: **205**

Emissions Unit Control Equipment/Method: Control **2** of **6**

1. Control Equipment/Method Description:

Low Excess Air Firing

2. Control Device or Method Code: **204**

Emissions Unit Control Equipment/Method: Control **3** of **6**

1. Control Equipment/Method Description:

Selective Catalytic Reduction or SCR

2. Control Device or Method Code: **139**

Emissions Unit Control Equipment/Method: Control **4** of **6**

1. Control Equipment/Method Description:

Electrostatic Precipitator or ESP

2. Control Device or Method Code: **10**

Emissions Unit Control Equipment/Method: Control **5** of **6**

1. Control Equipment/Method Description:

Wet Limestone Flue Gas Desulfurization or FGD

2. Control Device or Method Code: **67**

Emissions Unit Control Equipment/Method: Control **6** of **6**

1. Control Equipment/Method Description:

Wet ESP

2. Control Device or Method Code: **146**

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 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 operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted: **HCl**	2. Total Percent Efficiency of Control: **>99.7%**
3. Potential Emissions: lb/hour **<10.0** tons/year	4. Synthetically Limited? ☐ Yes ☒ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: **3.01 E-4 lb/MMBtu** Reference: **OTHER**	7. Emissions Method Code:
8.a. Baseline Actual Emissions (if required): tons/year	8.b. Baseline 24-month Period: From: To:
9.a. Projected Actual Emissions (if required): tons/year	9.b. Projected Monitoring Period: ☐ 5 years ☐ 10 years
10. Calculation of Emissions: **See Attached Replacement Table 2-4.**	
11. Potential, Fugitive, and Actual Emissions Comment: **Potential emissions are set equal to allowable emissions.**	

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions **1 of 1**

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour **<10.0** tons/year
5. Method of Compliance: **Initial EPA Reference Method 26A; Continuous-monitoring for SO2 compliance.**	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions __ of __

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions __ of __

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 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 operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted: **Total HAPs**	2. Total Percent Efficiency of Control: *
3. Potential Emissions: * lb/hour **< 25*** tons/year	4. Synthetically Limited? ☐ Yes ☒ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: * Reference: **OTHER**	7. Emissions Method Code:
8.a. Baseline Actual Emissions (if required): tons/year	8.b. Baseline 24-month Period: From: To:
9.a. Projected Actual Emissions (if required): tons/year	9.b. Projected Monitoring Period: ☐ 5 years ☐ 10 years
10. Calculation of Emissions: *** See Attached Replacement Tables 2-3 through 2-6.**	
11. Potential, Fugitive, and Actual Emissions Comment:	

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions **1 of 1**

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: *	4. Equivalent Allowable Emissions: * lb/hour **< 25*** tons/year
5. Method of Compliance: *	
6. Allowable Emissions Comment (Description of Operating Method): *** See Attached Replacement Tables 2-3 through 2-6.**	

Allowable Emissions Allowable Emissions __ of __

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions __ of __

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

EMISSIONS UNIT INFORMATION
Section [1] of [1]

I. EMISSIONS UNIT ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

1. Process Flow Diagram: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)
   ☐ Attached, Document ID: _____ [x] Previously Submitted, Date **March 6, 2006**

2. Fuel Analysis or Specification: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)
   ☐ Attached, Document ID: _____ [x] Previously Submitted, Date **March 6, 2006**

3. Detailed Description of Control Equipment: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)
   ☐ Attached, Document ID: _____ [x] Previously Submitted, Date **March 6, 2006**

4. Procedures for Startup and Shutdown: (Required for all operation permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)
   ☐ Attached, Document ID: _____ ☐ Previously Submitted, Date _____
   [x] Not Applicable (construction application)

5. Operation and Maintenance Plan: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)
   ☐ Attached, Document ID: _____ ☐ Previously Submitted, Date _____
   [x] Not Applicable

6. Compliance Demonstration Reports/Records:

☐ Attached, Document ID: _____

Test Date(s)/Pollutant(s) Tested: _____

_____

☐ Previously Submitted, Date: _____

Test Date(s)/Pollutant(s) Tested: _____

_____

☐ To be Submitted, Date (if known): _____

Test Date(s)/Pollutant(s) Tested: _____

_____

☒ Not Applicable

Note: For FESOP applications, all required compliance demonstration records/reports must be submitted at the time of application. For Title V air operation permit applications, all required compliance demonstration reports/records must be submitted at the time of application, or a compliance plan must be submitted at the time of application.

7. Other Information Required by Rule or Statute:

☐ Attached, Document ID: _____ ☒ Not Applicable

I. EMISSIONS UNIT ADDITIONAL INFORMATION (CONTINUED)

Additional Requirements for Air Construction Permit Applications

1. Control Technology Review and Analysis (Rules 62-212.400(10) and 62-212.500(7), F.A.C.; 40 CFR 63.43(d) and (e)): ☐ Attached, Document ID: _____ ☒ Not Applicable
2. Good Engineering Practice Stack Height Analysis (Rules 62-212.400(4)(d) and 62-212.500(4)(f), F.A.C.): ☐ Attached, Document ID: _____ ☒ Not Applicable
3. Description of Stack Sampling Facilities: (Required for proposed new stack sampling facilities only) ☐ Attached, Document ID: _____ ☒ Not Applicable

Additional Requirements for Title V Air Operation Permit Applications -- NA

1. Identification of Applicable Requirements: ☐ Attached, Document ID: _____
2. Compliance Assurance Monitoring: ☐ Attached, Document ID: _____ ☐ Not Applicable
3. Alternative Methods of Operation: ☐ Attached, Document ID: _____ ☐ Not Applicable
4. Alternative Modes of Operation (Emissions Trading): ☐ Attached, Document ID: _____ ☐ Not Applicable

Additional Requirements Comment

ATTACHMENT 1

HAP Assessment

ATTACHMENT 1

HAP Assessment

Seminole Electric Cooperative, Inc. (Seminole) owns and operates the Seminole Generating Station (SGS) located north of Palatka in Putnam County, Florida. Seminole has applied for and received an air construction permit to add a new 750 MW coal-fired steam electric generating unit (Unit 3) to the existing two units at SGS. This Attachment 1 is submitted to address Unit 3 hazardous air pollutant (HAP) emissions in light of the recent vacatur of the U.S. Environmental Protection Agency's (EPA) Clean Air Mercury Rule (CAMR) and its affect on the previously issued air construction permit (DEP File No. 1070025-005-AC; PSD-FL-375).

1.0 BACKGROUND

Pursuant to section 112 of the Clean Air Act (CAA), 40 CFR 63.40 – 63.44 requires major sources of hazardous air pollutants (HAPs) to meet maximum achievable control technology (MACT) standards. Under these rules, a major source is defined as one that has the potential to emit 10 tons per year or more (TPY) of any HAP or 25 TPY or more of any combination of HAPs. EPA is required to develop categories and subcategories of sources in accordance with a defined schedule, and establish MACT emissions standards for each of the categories and subcategories in accordance with a separate defined schedule.

In the December 20, 2000 Federal Register (FR), EPA noticed its finding that regulation of HAPs from coal- and oil-fired electric utility steam generating units is appropriate and necessary, and added coal- and oil-fired electric utility steam generating units to the list of source categories to be regulated by MACT standards. Proposed MACT standards were published by EPA on January 30, 2004, which would have established a new Subpart UUUUU under the Code of Federal Regulations, Title 40 (40 CFR), Part 63. In the alternative, EPA proposed to delist coal- and oil-fired electric utility boilers and to conduct rulemaking under Section 111 of the Clean Air Act. Specifically, EPA proposed to set New Source Performance Standards (NSPS) for mercury emissions from coal-fired electric utility steam generating units, which would amend 40 CFR 60, Subpart Da and would establish a mercury cap-and-trade program as Subpart HHHH under 40 CFR 60.

On March 29, 2005, EPA reversed its previous finding that regulation of HAPs from coal- and oil-fired electric utility steam generating units was appropriate and necessary. This action, in EPA's analysis, effectively delisted coal- and oil-fired electric utility steam generating units from the CAA Section 112(c) source category list. In a companion rulemaking on May 18, 2005, EPA promulgated the Clean Air mercury Rule (CAMR), which established NSPS for mercury emissions from coal-fired electric steam generating units under 40 CFR 60, Subpart Da. As a result of reconsideration petitions, EPA revised the NSPS on June 9, 2006.

However, on February 8, 2008, the D.C. Circuit vacated CAMR and invalidated EPA's delisting of coal-fired electric utility steam generating units from the Section 112(c) list. EPA has not issued guidance regarding the effect of the D.C. Circuit's vacatur of EPA's previous delisting of coal-fired electric generating units from the MACT source list. Nonetheless, as referenced in the Unit 3 permit's response to comments document and as requested by DEP on September 19, 2008, Seminole is submitting the attached air permit application and associated analysis addressing HAP emissions from Unit 3.

2.0 HAP ASSESSMENT APPROACH

Pursuant to 40 CFR 63.43, Section 112(g) requirements only apply to a ***major*** source of HAPs. EPA's regulations limit the scope of § 112(g)'s applicability at existing HAP sources to the construction or reconstruction of a major-emitting process unit – *i.e.*, "a new process or production unit which in and of itself emits or has the potential to emit 10 TPY of any HAP or 25 TPY of any combination of HAPs." 40 C.F.R. § 63.41 (definition of "construct a major source"). In turn, the term "process or production unit" is defined to mean "any collection of structures and/or equipment, that processes assembles, applies, or otherwise uses material inputs to produce or store an intermediate or final product. A single facility may contain more than one process or production unit." 40 C.F.R. § 63.41 (definition of "process or production unit"). Thus, SGS Unit 3 constitutes a "process or production unit." This means that § 112(g) applies only if potential HAP emissions from SGS Unit 3 exceed the 10/25 TPY major source thresholds. Based on the best available information, discussed below, the SGS Unit 3 project does not exceed the HAP major source thresholds and therefore is not subject to § 112(g).

At least two permits for proposed electric steam generating units (ESGU) contain limitations to confirm minor status and exemption from 112(g) applicability. One is the permit for the Big Stone II unit in South Dakota. As proposed for adoption by the South Dakota Board of Minerals and Environment, the Big Stone II permit has limits on HAPs of 9.5 TPY of any single HAP and 23.8 TPY of any combination of HAPs to stay below the major source thresholds. Compliance is to be determined by stack tests, mass balances, emissions factors or other approved methods. The permit provides expressly for an exception from the case-by-case MACT requirement based on the unit-wide HAP limitations. A case-by-case MACT analysis as if construction had not begun is required if those limitations are relaxed or exceeded. The second is the draft permit for the Duke Cliffside Unit 6, issued by the North Carolina Division of Air Quality on December 15, 2008, which limits HAP emissions to less than the 10/25 tpy major source thresholds. Compliance is to be determined by annual stack tests. Accordingly, neither of these new units are subject to 112(g).

2.1 Currently Permitted Emission Limits and Control Equipment

The permit Seminole obtained for SGS Unit 3 includes specific equipment for control of individual air pollutants. In addition to controlling the primary pollutants for which they were intended, the selected equipment will have an effect on emissions of Mercury and other HAPs. The following sections describe the equipment identified in the permit and the effect on HAP emissions.

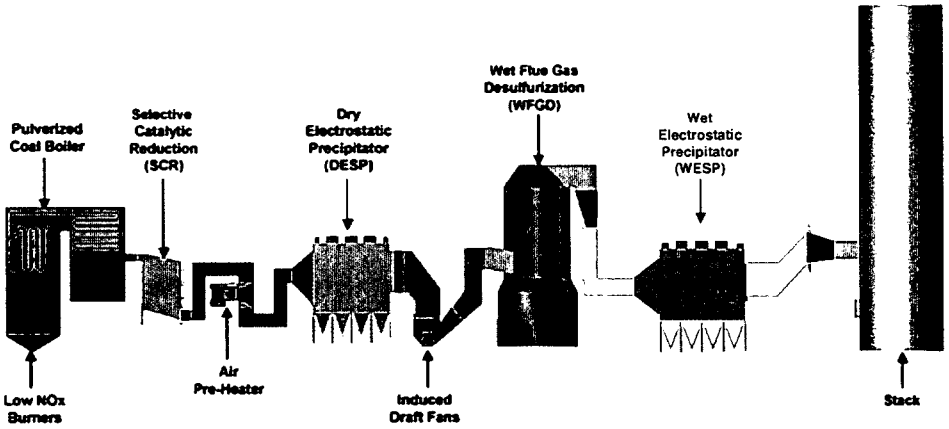


Figure 1. Permitted APC Equipment Configuration: SCR – ESP – Wet FGD – Wet ESP

NO_x Control Equipment-- SGS Unit 3 will include a Selective Catalytic Reduction (SCR) system to control NO_x emissions. This requires the introduction of ammonia or urea reagent into the flue gas downstream of the boiler. The technology is based on a selective reaction between the reagent and NO_x on the surface of a catalyst. The SCR system would be located between the convection section and the air preheater. A grid of injection nozzles in the flue gas is used to achieve the required reagent distribution.

The SCR catalyst increases the extent of mercury oxidation, which enhances the ability of the wet FGD system to capture mercury. New SCR catalysts are under development that may prove beneficial in optimizing the extent of mercury oxidation that occurs across the SCR, thus further enhancing the overall mercury capture by the air pollution control (APC) equipment train.

Particulate Control Equipment-- The particulate control equipment identified as BACT in the permit for SGS Unit 3 is a dry electrostatic precipitator (ESP). The dry ESP is very effective in collecting particulate matter (PM), as well as trace metal HAPs , including mercury. The mechanism for mercury control is the condensation of the gaseous mercury on the PM upstream of the dry ESP. Finally, both the wet flue gas desulfurization (FGD) and the wet ESP (WESP) will provide for additional PM control.

SO_2 Control Equipment-- SGS Unit 3 will include a wet FGD system for control of emissions of sulfur dioxide (SO_2). Wet FGD systems provide high levels of control of acid gas HAPs (HCl and HF), as well as the oxidized forms of mercury, and also provide a moderate degree of co-benefit capture of other HAPs. The initial permit application was based on the expectation that at least 90 percent co-benefit mercury control would be achieved through the combination of the SCR and wet FGD.

SAM Control Equipment-- The SGS Unit 3 permit includes the use of WESP technology for the control of SAM. Installing a WESP after the FGD system is considered a practical alternative to limit sulfuric acid mist (SAM) emissions. A WESP can be utilized following a wet FGD, where the flue gas is saturated and is used to collect $PM_{2.5}$, H_2SO_4 and liquid droplets remaining in the flue gas.

Mercury Control Considerations-- The permit does not identify any specific control technology dedicated solely for mercury, but indicates that the control equipment for the criteria pollutants will provide co-benefit control for mercury. A WESP also provides some scrubbing efficiency for acid gases and, based upon limited test data, some mercury removal of all mercury species. Particulate and oxidized mercury, usually in the form of HgO, HgS or $HgCl_2$, are water soluble particles, which accounts for their being able to be removed in either a FGD system or a WESP device.

2.2 HAP Emission Estimates

During the course of our HAP assessment, Seminole obtained additional recent information that was used to evaluate and to better understand the ability of the proposed APC equipment train to control HAPs associated with the SGS Unit 3 project. As we have consistently maintained, Seminole is confident that SGS Unit 3 will have the best available controls, and we stand by the design of the plant and the conclusions reached in the issuance of our current air construction permit.

As a result of our analysis, Seminole has concluded that the control systems that have been designed for SGS Unit 3 will result in potential HAP emissions that will be *below* the applicable major-source thresholds that trigger case-by-case MACT determinations. Accordingly, Seminole is submitting the attached air permit application and associated analysis addressing HAP emissions from Unit 3. A summary of the estimated potential HAP emissions is presented below by HAP category. The four categories are trace metal HAPs (including mercury), organic HAPs, acid gas HAPs, and dioxin/furan

HAPs. Detailed calculations of each of the HAPs within these categories are provided in the attached ***Replacement*** Tables 2-3 through 2-6.

SGS Unit 3 HAP Emissions Summary

TOTAL HAPs	
Acid Gas HAPs[a]	9.46 TPY
Metal HAPs[b]	2.24 TPY
Organic HAPs[c]	6.14 TPY
Dioxin/Furan HAPs[d]	2.45E-06 TPY
Total	**17.84 TPY**
Highest Individual HAP (HCl) =	**8.70 TPY**
Main Boiler Heat Input =	7,500 MMBtu/hr
Main Boiler Hours of Operation =	8,760 hours/year
Heat Content of Coal, HHV =	11,780 Btu/lb
Maximum Coal Consumption =	318.4 TPH
Notes: [a] Refer to Table 2-4 for emission calculations. [b] Refer to Table 2-3 for emission calculations. [c] Refer to Table 2-6 for emission calculations. [d] Refer to Table 2-5 for emission calculations.	

In Seminole's original air application, submitted on March 6, 2006, a removal rate for acid gases of 97 percent was assumed, based on knowledge available at that time. HCl and HF acid gases are formed in the combustion process as the result of trace amount of chlorine and fluorine in the coal. Seminole has re-evaluated the ability of the air emission control equipment on SGS Unit 3 to remove acid gases, and in particular, hydrochloric acid (HCl) and hydrofluoric acid (HF). Performance predictions for HCl and HF emissions were originally based on the assumption that these species are removed in the same percentage as SO_2. Thus, if the SO_2 removal efficiency is 97 percent, it was assumed that HCl and HF removal efficiencies were also 97 percent.

Several developments have occurred since the initial application. First, the Agreement between Seminole and the Sierra Club requires 98 percent SO_2 removal from the Unit 3 FGD. Also, not only has the wet FGD SO_2 design removal efficiency increased slightly, but the above assumption on removal of acid gas HAPs is known to be conservative as both HCl and HF are stronger acids and more reactive than SO_2, which would tend to produce higher removal efficiencies than SO_2, all other parameters being equal.

Second, the overwhelming majority of the HCl and HF that is formed will be removed by the wet FGD system. The wet FGD system is a highly efficient "scrubbing" technology for HCl and HF because both of these acid gases are so highly water soluble. Any very small percentage of HCl and/or HF that escapes the wet FGD system must be an aerosol because of the wetting action of the wet FGD system and the flue gas temperature (on the order of 130 °F). The WESP is a highly efficient technology for collecting fine particles and aerosols. Thus, the WESP can be thought of as a polishing control technology for any HCl and HF that is able to escape the wet FGD system. In other words, the wet FGD system coupled with the WESP will eliminate virtually all of the acid gas emissions.

Further, at the time of initial submittal of the air application, actual operating experience for WESPs was limited, particularly with respect to control efficiencies on HCl and HF. A recent report on emissions controls at Duke Energy's newly scrubbed Marshall Steam Station, as well as discussions with APC vendors demonstrate that emissions of HCl and HF will be far lower than originally projected. More specifically:

- Recent data show that Duke Energy's Marshall Steam Station achieved 99.9 percent removal of acid gases using a wet FGD system manufactured by ALSTOM.
- Duke Energy reviewed coal quality and refined its calculation of non-acid gas HAPs and other HAPs and determined that potential HAP emissions from the new Unit 6 at its Cliffside Steam Station are less than the 10/25 TPY threshold.
- A letter report in the Duke submittal, provided by ALSTOM, confirms the high removal efficiency of the air emissions control equipment at Marshall Unit 4 and at another unidentified unit (Plant A) with a similar ALSTOM wet FGD system, as tabulated below.

	Duke Energy Marshall Unit 4	**Plant A**
SO_2 Removal (%)	95-96	95-96
HCl Inlet (lb/MMBtu)	0.096	0.087
HCl Emissions (lb/MMBtu)	Avg. 0.000128	Avg. 0.000214
HCl Removal (%)	99.7-99.9 (Avg. 99.87)	99.7-99.8 (Avg. 99.75)
HF Inlet (lb/MMBtu)	Avg. 0.0070	Avg. 0.0093
HF Emissions (lb/MMBtu)	Avg. 0.0000125	Avg. 0.0000463
HF Removal (%)	99.8-99.9	99.7-99.8

It is evident from the data that (1) the HCl and HF removal efficiencies are higher than SO_2 in all cases and (2) very high removal efficiencies/low emissions are achievable.

ALSTOM explains that Marshall Unit 4 includes ALSTOM's most current design features - dual orifice nozzles and performance enhancement plates (wall rings). Dual orifice nozzles provide extremely good contact between the flue gas and scrubbing slurry, and increase liquid residence time in the absorber. Performance enhancement plates ensure that no unscrubbed flue gas bypasses the spray zone along the vessel walls. These two features are responsible for the extremely low emissions at Marshall.

Significantly, as referenced above, the N.C. DAQ issued a draft permit on December 15, 2008 accepting Duke's calculations and imposing conditions to verify this new unit's minor source status. Specifically, N.C. DAQ accepted the use of a 99.9 percent removal efficiency to calculate potential acid gas emissions, and used a 99.95 percent removal efficiency to calculate/project actual acid gas emissions. This resulted in total potential HAP emissions of 17.39 tpy and total expected actual emissions of 9.33 tpy.

The proposed SGS Unit 3 will incorporate a state-of-the-art wet FGD system absorber design that can be expected to achieve acid gas removal efficiencies equivalent to or better than those reported by ALSTOM. For example, from the tabulation above, an SO_2 removal of 95 to 96 percent at these ALSTOM FGD units resulted in a HF and HCl removal not less than 99.7 percent. SGS Unit 3 is required to have a SO_2 removal of 98 percent, which would imply corresponding increases in the level of HCl and HF control. In addition, SGS Unit 3 will feature a WESP that will contribute to further enhancement of HAP control compared to the ALSTOM units. Consequently, the calculation of expected acid gas (HCl and HF) HAP emissions from SGS Unit 3, as shown in the ***Replacement*** Table 2-4 has

been modified to conservatively increase the removal efficiency from 97 percent to 99.7 percent, which is still less than the estimates for Duke Cliffside.

In addition to the acid gas HAP discussion above, Seminole also conducted a more extensive review of data available for estimating emissions of organic HAPs. The initial air application submittal had relied exclusively on AP-42 emission factors. However, as a result of the electric utility air toxics study, the Electric Power Research Institute (EPRI) had conducted an extensive organic HAP testing program. Unlike trace substances present in coal, the emission of organic compounds was not correlatable to the type of control technology that is utilized or to the rank of the coal that is burned. Boilers with ESPs and/or wet FGD systems have reported both low and high organic measurements. In addition, for a number of substances there were few quantifiable results, even though many sites were tested. Therefore, all of the average site values were pooled to develop the EPRI emission factors for organic compounds.

All of the data that make up the EPRI factors came from either the EPRI Power Plant Integrated System Chemical Emissions Study (PISCES) or the companion field study sponsored by DOE.

Emission factor ratings (analogous to AP-42 emission factor ratings) are assigned to the EPRI emission factors used in ***Replacement*** Table 2-6. The EPRI Data Quality (DQ) Ratings for Organic Compounds from Coal-Fired Boilers are described as follows:

A = Five or more detected values, no more than 50 percent non-detects in the statistics.
B = Four or more detected values, no more than 67 percent non-detects in the statistics.
C = Two or more detected values, no more than 75 percent non-detects in the statistics.
D = One of more detected values, no limit on non-detects in the statistics.
E = Substance was not detected.

Seminole also updated its Table regarding HAP metal emissions to use a PM limit of .013, which is imposed by the PSD permit, instead of the .015 limit requested in the initial application.

With this reasonable (and more accurate) adjustment to the estimation of HAP emissions from SGS Unit 3, it can be seen from ***Replacement*** Tables 2-3 through 2-6 that no individual HAP will exceed 10 TPY and the total emissions of all HAPs will not exceed 25 TPY.

3.0 PROPOSED MINOR SOURCE VERIFICATION METHODS

Seminole proposes to verify Unit 3's status as a minor source of HAPs through a combination of initial testing, periodic (annual) testing, and continuous monitoring of mercury and surrogates for categories of HAPs. Seminole proposes that the existing permit limits be used as surrogates for verification of the emissions of mercury and three of the four categories of HAPs: trace metal HAPs, acid gas HAPs, and organic HAPs. The EPA has consistently used the surrogate approach in establishing emission limits and compliance requirements[1] [2]. This same type of categorization has been proposed and used in similar reviews in some other states. This categorization was also used previously in permitting two boilers for

[1] National Emission Standards for Hazardous Air Pollutants for the Pulp and Paper Industry, (April 15, 1998) 63 Fed. Reg. 18504; National Emission Standards for Hazardous Air Pollutants: Final Standards for Hazardous Air Pollutants for Hazardous Waste Combustors (Phase I Final Replacement Standards and Phase II), 64 Fed. Reg. 52828 (September 30, 1999).

[2] The application submitted by Santee Cooper cited several cases in support of using surrogate pollutants (*Sierra Club v. EPA*, 353 F.3d 976, 982 (D.C. Cir. 2004) and 3 others). The S.C. DHEC issued the draft permit for this unit on December 16, 2008, and utilized surrogates as requested. In addition, the Department's review of other case-by-case MACT applications included use of surrogate pollutants.

the Santee Cooper Cross Generating Station and is considered to be a valid categorization based on how each category is controlled. Such categorization can provide a reasonable approach for establishing limits and monitoring for demonstrating compliance. Each of these categories will be discussed in the following sections of this review.

3.1 Emission Estimates for Mercury

Mercury emission limits and monitoring are already provided in the existing permit. Compliance will be demonstrated with the lb/MWh emission limit using a mercury CEMS (i.e., a sorbent trap method or other alternative allowed under 40 CFR Part 75) on a 12-month rolling average. Annual estimates will be demonstrated using an approved mercury monitoring method on a 12-month rolling sum.

3.2 Emission Estimates for Trace Metal HAPs

Seminole proposes that the filterable portion of PM_{10} be considered as a surrogate for trace metal HAPs. This correlation is made on the premise that controlling filterable PM_{10} emissions will also result in controlling trace metal HAPs as well. Based on previous similar use of surrogate limits including agreement from EPA and court rulings, it has been determined that the use of filterable PM_{10} is an appropriate surrogate for trace metal HAPs.

Compliance with the filterable PM_{10} BACT emission limit in the current permit will be demonstrated by an initial and annual source test, as well as the implementation of a PM_{10} CAM Plan.

3.3 Emission Estimates for Acid Gas HAPs

Seminole proposes that SO_2 be considered as a surrogate pollutant for acid gas HAPs. This correlation is made on the premise that controlling SO_2 emissions will also result in controlling acid gas HAPs; therefore the removal of SO_2 emissions through the wet FGD controls would also result in removal of HCl and HF emissions. In a calcium-based scrubber system, such as a wet FGD, SO_2 removal correlates well with the removal of acid gas HAPs.[3] Based on previous similar use of surrogate limits including agreement from EPA and court rulings, it has been determined that the use of SO_2 is an appropriate surrogate for acid gas HAPs.

The currently permitted SO_2 emission limit for SGS Unit 3 is 0.165 lb/MMBtu, utilizing an SO_2 CEMS on a 24-hr rolling average basis. The use of a CEMS for SGS Unit 3 is considered to be a more rigorous monitoring requirement than a 3 hour performance testing requirement. Testing for HCl and HF is appropriate to confirm the proposed emission levels and provide a direct comparison of the surrogate and acid gas HAPs. Initial source testing for HCl and HF using EPA Methods 26A and 13A/13B, respectively, would be conducted within 60 days of full operation, but not more than 180 days from start of operation. In addition, Seminole proposes an annual compliance test for HCl. Compliance with the existing HF limit will be in accordance with the existing permit requirements.

3.4 Emission Estimates for Organic HAPs

Seminole proposes that CO be considered as a surrogate pollutant for organic HAPs. This correlation is made on the premise that CO emissions will vary in the same manner as organic HAP emissions. Organic HAP emissions, as well as CO emissions, are a function of the coal combustion process, with good combustion practices minimizing the organic HAPs and CO emissions. Based on previous similar use of

[3] *Recommendations For The Utility Air Toxics*, MACT Final Working Group Report, October 2002.

surrogate limits, including agreement from EPA[4] and court rulings, it has been determined that use of CO is an appropriate surrogate for organic HAPs.

The CO currently permitted emission limit for SGS Unit 3 is 0.15 lb/MMBtu, utilizing a CO CEMS on a 30-day rolling average basis. The use of a CEMS for SGS Unit 3 is considered to be a more rigorous monitoring requirement than a 3 hour performance testing requirement.

4.0 PROPOSED MINOR SOURCE VERIFICATION REQUIREMENTS

Table 1 below provides a summary of the specific performance testing, monitoring, reporting and record keeping requirements designed to ensure verification of minor source status.

Table 1
EMISSION ESTIMATE VERIFICATION

Pollutant	Emission Limit	Measurement Method (Averaging Period)
Filterable PM_{10} (as a surrogate for Trace Metal HAPs)	0.013 lb/MMBtu	Stack Test (3-hour)
SO_2 (as a surrogate for Acid Gas HAPs)	0.165 lb/MMBtu	CEMS (24-hr rolling)
CO (as a surrogate for Organic HAPs)	0.15 lb/MMBtu	CEMS (30-day rolling)
Mercury	7.05E-06 lbs/MWh	40 CFR Part 75 (12 month rolling average)
Hydrogen Chloride (HCl)	<10 TPY (equivalent emissions of 3.01E-04 lb/MMBtu) [***Replacement*** Table 2-4]	Stack Test (3-hour)

In order to demonstrate initial minor source status, as summarized in Table 1, Seminole will conduct performance tests and conduct monitoring equipment performance evaluations within 60 days after achieving the maximum production rate at which the facility will be operated, but not later than 180 days after initial startup. To demonstrate continuous compliance with the filterable PM_{10} emission limitation in Table 1, Seminole will implement a PM CAM Plan.

Seminole does not believe that HCl CEMS are appropriate or reasonable for Unit 3 emission verification purposes. We have not identified a single federal regulation that requires HCl CEMS, in spite of EPA's clear preference for CEMS in recent years. EPA's primary rationale for not imposing CEMS is that EPA has yet to promulgate a Performance Specification, and because parametric monitoring and using SO2 CEMS as a surrogate has been deemed reliable and sufficient. [*See e.g.*, 73 Fed. Reg. 72962, 72986 and

[4] In the EPA Boiler MACT, EPA established that CO is considered a good indicator of incomplete combustion, and as such there is a direct correlation between CO emissions and the formation of organic HAP emissions. Monitoring equipment for CO is readily available, which is not the case for organic HAPs. Also, it is significantly easier and less expensive to measure and monitor CO emissions than to measure and monitor emissions of each individual organic HAP.

70 Fed. Reg. 75348, 75354.] Neither of the two recent minor source permits, for Big Stone and Duke Cliffside, require HCl CEMs.

Accordingly, Seminole is confident that it has provided reasonable assurance to verify its minor source status.

5.0 CONCLUSIONS

Based on the best available information, SGS Unit 3 is a minor source of HAPs, and therefore a Section 112(g) case-by-case MACT determination is not required. Seminole is proposing specific conditions to provide reasonable assurance of Unit 3's minor HAP status.

SUMMARY OF HAP EMISSIONS
SECI SGS UNIT 3

Total HAPs		
	Acid Gas HAPs [a]	9.46 TPY
	Trace Metal HAPs [b]	2.24 TPY
	Organic HAPs [c]	6.14 TPY
	Dioxin/Furan HAPs [d]	2.45E-06 TPY
	TOTAL	**17.84 TPY**
Highest Individual HAP (HCl) =		**8.70 TPY**
Main Boiler Heat Input Rate =		7,500 MMBtu/hr
Main Boiler Hours of Operation =		8,760 hours/year
Heat Content of Coal, HHV =		11,780 Btu/lb
Maximum Coal Consumption =		318.3 TPH

[a] Refer to Table 2-4 for emission calculations.

[b] Refer to Table 2-3 for emission calculations.

[c] Refer to Table 2-6 for emission calculations.

[d] Refer to Table 2-5 for emission calculations.

***REPLACEMENT* TABLE 2-3**
TRACE METAL HAP EMISSION ESTIMATES
SECI SGS UNIT 3

	Trace Metal in Coal										
	Antimony	**Arsenic**	**Beryllium**	**Cadmium**	**Chromium**	**Cobalt**	**Lead**	**Manganese**	**Mercury**	**Nickel**	**Selenium**
Emissions-EPA Factors (EF = a x (C/A x PM) [b]											
Multiplier - a	0.92	3.1	1.2	3.3	3.7	1.7	3.4	3.8		4.4	
Exponent - b	0.63	0.85	1.1	0.5	0.58	0.69	0.8	0.6		0.48	
Concentration (C) (ppm)	1.64	29.72	3.330	0.72	19.21	8.39	22.890	44.97		172.057	4.08
Actual PM Concentration (PM) (lb/mmBtu)	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013		0.013	
Ash Concentration (A) (fraction)	0.1273	0.1273	0.1273	0.1273	0.1273	0.1273	0.1273	0.1273		0.1273	
Emission Factor (lb/10^12 Btu)	0.298	7.965	0.366	0.895	5.469	1.528	6.706	9.484	0.705	17.416	17.317
Heat Input (mmBtu/hr)	7,500	7,500	7,500	7,500	7,500	7,500	7,500	7,500	7,500	7,500	7,500
Maximum Fuel Input (lb/hr)	636,672	636,672	636,672	636,672	636,672	636,672	636,672	636,672	636,672	636,672	636,672
Controlled Emissions (lb/hr)	0.0022	0.060	0.0027	0.0067	0.041	0.011	0.050	0.071	0.005	0.131	0.130
Controlled Emissions (tons/yr)	0.010	0.262	0.012	0.029	0.180	0.050	0.220	0.312	0.023	0.572	0.569
Uncontrolled Emissions (lb/hr)	1.044	18.922	2.120	0.458	12.230	5.342	14.573	28.631		109.544	2.598
Removal Efficiency	99.79%	99.68%	99.87%	98.54%	99.66%	99.79%	99.65%	99.75%		99.88%	95.00%
										TOTAL	**2.24**

Sources: EPA,1998, AP-42, Table 1.1-16 (all metals except mercury and selenium), Trace Metal Concentration based on upper 95% Confidence Interval from USGS COALQUAL Database Trace Elements for the Central Appalachian Region
http://energy.er.usgs.gov/coalqual.htm
Heating value for coal - 11,780 Btu/lb
Controlled Mercury emissions based on 7.05E-06 lb/MW-hr
Controlled Selenium emissions based on 95% control from FGD system
EPA Emission Factor Rating: A-Excellent

Souce:	EIR	NAPP	EIR	EIR	NAPP	EIR	EIR	EIR

Legend for source: EIR = Eastern Interior Region (Illinois, Indiana, Western Kentucky), CAPP = Central Appalachian, NAPP = Northern Appalachian

REPLACEMENT TABLE 2-4
ACID GAS HAP EMISSION ESTIMATES
SECI SGS UNIT 3

	HCl	HF
Halogen Emission Calculation		
Concentration (ppm)	1040.5	89.9
Maximum Fuel Input (lb/hr)	636,672	636,672
Uncontrolled Emissions (lb/hr)	662	57
Removal	99.7%	99.7%
Emissions (lb/hr)	1.99	0.172
Heat Input (MMBtu/hr)	7,500	7,500
Emissions (lb/MMBtu)	2.65E-04	2.29E-05
Net Power Output (MW)	750.0	750.0
Emissions (lb/MW-hr)	0.00265	0.000229
Estimated Emissions (tons/year)	8.70	0.75
TOTAL ACID GAS =	**9.46 TPY**	
Potential Emissions (lb/MMBtu) [a]	3.01E-04	2.30E-04

[a] Rates correspond to the current permit limit for HF and < 10 TPY for HCl

Sources: CL and F Concentrations based on upper 95% Confidence Interval from USES COEQUAL Database Trace Elements for the Central Appalachian Region http://energy.er.usgs.gov/coalqual.htm.

REPLACEMENT TABLE 2-5
DIOXIN/FURAN AND RADIONUCLIDES HAP EMISSIONS ESTIMATES
SECI SGS UNIT 3

Organic Compound	Emission Factor	Emisson Factor Units	Rating	Emissions per Unit Amount	Emissions per Unit Units	Emissions per Unit Amount	Emissions per Unit Units
Total PCDD/PCDF	1.8E-09	lb/ton	D	5.6E-07	lb/hr	2.45E-06	tons/year
Radionuclides	52.8	picoCuri/gram PM	NA	2.34E+06	piC/hr	2.05E+10	piC/yr
Data used in Calculation:							
Maximum Fuel Input (lb/hr)	636,672						
Maximum Fuel Input (ton/hr)	318.3						
Heat Input (MMBtu/hr)	7,500						
PM Emissons (lb/MMBtu)	0.013						
PM Emissons (lb/hr)	97.5						
PM Emissons (grams/hr)	44,226						

Note: ESP = Electrostatic precipitator.
FF = Fabric Filter.
PCDD = Polychlorinated Dibenzo-P-Dioxins and PCDF=Polychlorinated Dibenzofurans.
pico = 10^{-12}.

Sources: EPA, AP-42 1998, Table 1.1-12 for PCDD and PCDF (with ESP or FF); EPRI, 1994 for Radionuclides

REPLACEMENT TABLE 2-6
ORGANIC HAP EMISSION ESTIMATES
SECI SGS UNIT 3

Organic Compound	Emission Factor (lb/ton) [a]	Rating	Emissions (lb/hr)	Emissions (TPY)	Emission Factor Reference
Acetaldehyde	8.87E-05	A	0.028	0.12	EPRI Emission Factor Handbook - 1995, revised 2002
Acetophenone	3.33E-05	A	0.011	0.05	EPRI Emission Factor Handbook - 1995, revised 2002
Acrolein	5.27E-05	B	0.017	0.07	EPRI Emission Factor Handbook - 1995, revised 2002
Benzene	1.08E-04	A	0.034	0.15	EPRI Emission Factor Handbook - 1995, revised 2002
Benzyl chloride	7.77E-06	C	0.002	0.01	EPRI Emission Factor Handbook - 1995, revised 2002
Biphenyl	4.44E-06	B	0.001	0.01	EPRI Emission Factor Handbook - 1995, revised 2002
Bis(2-ethylhexyl)phthalate (DEHP)	9.98E-05	A	0.032	0.14	EPRI Emission Factor Handbook - 1995, revised 2002
Bromoform	4.23E-05	E	0.013	0.06	EPRI Emission Factor Handbook - 1995, revised 2002
Carbon disulfide	3.05E-05	B	0.010	0.04	EPRI Emission Factor Handbook - 1995, revised 2002
2-Chloroacetophenone	7.00E-06	E	0.002	0.01	EPA, AP-42 1998; Tables 1.1-13 and 1.1-14.
Chlorobenzene	4.44E-06	D	0.001	0.01	EPRI Emission Factor Handbook - 1995, revised 2002
Chloroform	2.21E-05	D	0.007	0.03	EPRI Emission Factor Handbook - 1995, revised 2002
Cumene	5.30E-06	E	0.002	0.01	EPA, AP-42 1998; Tables 1.1-13 and 1.1-14.
Cyanide	2.50E-03	D	0.796	3.49	EPA, AP-42 1998; Tables 1.1-13 and 1.1-14.
2,4-Dintrotoluene	5.54E-06	C	0.002	0.01	EPRI Emission Factor Handbook - 1995, revised 2002
Dimethly sulfate	4.80E-05	E	0.015	0.07	EPA, AP-42 1998; Tables 1.1-13 and 1.1-14.
Ethyl benzene	2.21E-05	C	0.007	0.03	EPRI Emission Factor Handbook - 1995, revised 2002
Ethyl chloride	1.46E-05	D	0.005	0.02	EPRI Emission Factor Handbook - 1995, revised 2002
Ethylene dichloride	4.00E-05	E	0.013	0.06	EPA, AP-42 1998; Tables 1.1-13 and 1.1-14.
Ethylene dibromide	1.20E-06	E	0.000	0.00	EPA, AP-42 1998; Tables 1.1-13 and 1.1-14.
Formaldehyde	7.20E-05	B	0.023	0.10	EPRI Emission Factor Handbook - 1995, revised 2002
Hexane	6.70E-05	D	0.021	0.09	EPA, AP-42 1998; Tables 1.1-13 and 1.1-14.
Isophorone	3.33E-05	D	0.011	0.05	EPRI Emission Factor Handbook - 1995, revised 2002
Methyl bromide	2.46E-05	C	0.008	0.03	EPRI Emission Factor Handbook - 1995, revised 2002
Methyl chloride	3.05E-05	C	0.010	0.04	EPRI Emission Factor Handbook - 1995, revised 2002
Methyl hydrazine	1.70E-04	E	0.054	0.24	EPA, AP-42 1998; Tables 1.1-13 and 1.1-14.
Methyl Methacrylate	3.05E-05	D	0.010	0.04	EPRI Emission Factor Handbook - 1995, revised 2002
Methyl tert butyl ether	3.50E-05	E	0.011	0.05	EPA, AP-42 1998; Tables 1.1-13 and 1.1-14.
Methylene chloride	9.98E-05	C	0.032	0.14	EPRI Emission Factor Handbook - 1995, revised 2002
Napthalene	1.71E-05	A	0.005	0.02	EPRI Emission Factor Handbook - 1995, revised 2002
Phenol	9.14E-05	B	0.029	0.13	EPRI Emission Factor Handbook - 1995, revised 2002
Propionaldehyde	5.27E-05	B	0.017	0.07	EPRI Emission Factor Handbook - 1995, revised 2002
Styrene	1.94E-05	C	0.006	0.03	EPRI Emission Factor Handbook - 1995, revised 2002
Tetrachloroethylene	1.16E-05	C	0.004	0.02	EPRI Emission Factor Handbook - 1995, revised 2002
Toluene	4.71E-05	A	0.015	0.07	EPRI Emission Factor Handbook - 1995, revised 2002
1, 1, 1 - Trichloroethane	2.00E-05	E	0.006	0.03	EPA, AP-42 1998; Tables 1.1-13 and 1.1-14.
Vinyl acetate	8.59E-06	D	0.003	0.01	EPRI Emission Factor Handbook - 1995, revised 2002
Xylenes	1.21E-05	C	0.004	0.02	EPRI Emission Factor Handbook - 1995, revised 2002
Total Non-Metal HAP Emissions	NA	NA	**1.40**	**6.14**	
Maximum Fuel Input (lb/hr)	636,672				
Maximum Fuel Input (ton/hr)	318.3				
Heat Input (MMBtu/hr)	7,500				

EPA Emission Factor Ratings: A-Excellent; B-Above Average; C-Average; D-Below Average; E-Poor

[a] Emission factors from EPRI modified by heat content ratio of coal fuel.

The EPRI Data Quality (DQ) Ratings for Organic Compounds from Coal-Fired Boilers

ATTACHMENT 2

Sierra Club Agreement

Seminole Electric
COOPERATIVE, INC.
IN PARTNERSHIP WITH THOSE WE SERVE

March 28, 2007

Trina Vielhauer
Florida Department of Environmental Protection
Division of Air Resource Management
111 South Magnolia Drive, Suite 23
Tallahassee, FL 32399

RE: Incorporation of Agreement into Seminole Unit 3 PSD Permit
Draft Permit No. PSD-FL-375

Dear Ms. Vielhauer:

Seminole Electric Cooperative, Inc. (Seminole) and the Sierra Club entered into the attached Agreement regarding the issuance of a PSD permit for the construction of Unit 3 at the Seminole Generating Station in Putnam County, Florida. As reflected in the Agreement, and with Sierra Club's concurrence, Seminole requests that the terms of this Agreement be incorporated into the final PSD permit.

Thank you for your attention to this matter, and please contact me if there are any questions.

Sincerely,

James R. Frauen, Project Director SGS3
Seminole Electric Cooperative, Inc.

cc: Mike Halpin, DEP
Rebecca Robinette, DEP
Robert Manning, HGS
Joanne Spalding, Sierra Club

16313 North Dale Mabry Highway P.O. Box 272000 Tampa, Florida 33688-2000
Telephone 813.963.0994 Fax 813.264.7906 www.seminole-electric.com

SETTLEMENT AGREEMENT

This Settlement Agreement ("Agreement") is entered into by and between Seminole Electric Cooperative, Inc, ("Seminole") and the Sierra Club ("Sierra Club"). Seminole and Sierra Club shall be referred to herein collectively as the "Parties" for the purposes of this Agreement.

RECITALS

A. Seminole operates two existing electrical generating units at the Seminole Generating Station site ("Site") in unincorporated Putnam County, Florida. Those existing units, referred to as Units 1 and 2, originally were licensed pursuant to the Florida Power Plant Siting Act (PPSA) Certification Order PA-10 and PSD permit PSD-FL-018.

B. On March 9, 2006, Seminole filed a site certification application ("SCA") under the PPSA, with the Florida Department of Environmental Protection ("FDEP") seeking approval for the construction and operation of the proposed Unit 3 Project. The new proposed Unit 3 will be located adjacent to the existing two units and will utilize some of the existing facilities and infrastructure at the Site. The SCA was assigned FDEP number PA78-10A2; FDEP OGC Case No. 06-0780 and Florida Division of Administrative Hearings Case No. 06-0929EPP.

C. The Sierra Club was a party to the original PPSA site certification proceeding for the existing two units at the Site as well as the current site certification proceeding for the proposed Unit 3 Project.

D. On March 9, 2006, Seminole also filed with FDEP a separate application for a prevention of significant deterioration ("PSD") permit to authorize construction of Unit 3. The PSD permit is being processed by FDEP pursuant to its authority to issue such federally-required PSD permits in Florida. A draft PSD permit was issued by FDEP on August 24, 2006; the FDEP PSD permit number is PSD-FL-375.

E. On October 9, 2006, the Sierra Club submitted written comments to the FDEP Bureau of Air Regulation concerning FDEP's proposed PSD permit for the Unit 3 Project.

F. In a separate Settlement Agreement signed by both Parties on January 7, 2007, the Parties resolved all issues raised or which could be raised concerning Seminole's Unit 3 Project in the PPSA proceeding, except for issues related to the PSD permit. The Parties also set a framework for continued settlement negotiations concerning the PSD permit.

G. This Agreement reflects the Parties agreement to settle all remaining issues related to the PSD permit for Unit 3. The Parties concur that this Agreement consists of full and fair consideration for the release of all claims of the Sierra Club with respect to issuance of the PSD permit for Unit 3. Provided that the final PSD permit is issued in accordance with the terms and conditions of this Agreement, Sierra Club agrees not to contest FDEP's issuance of the final PSD permit in any administrative or judicial forum. Seminole agrees not to contest any conditions in the final PSD permit if it is issued in accordance with the terms and conditions of this Agreement.

TERMS AND CONDITIONS

1. Following the commencement of commercial operation of Unit 3, it is agreed that Seminole will be subject to the following system-wide emission rates for Units 1, 2, and 3, combined:

(a) Sulfur Dioxide (SO2)	95 percent control efficiency across the scrubbers based on a 30-day rolling average, including periods of start-up and shut down, and annual emissions of no more than 17,900 tons per year based on a 12-month rolling average, including periods of start-up and shut down.
(b) Nitrogen Oxides (NOx)	0.07 lb/MMBtu based on 30-day rolling average, and annual emissions of no more than 5,450 tons per year based on a 12-month rolling average. The tons per year limit includes periods of startup and shutdown; the lb/MMBtu does not.
(c) Sulfuric Acid Mist (H2SO4)	1,665 Tons Per Year
(d) Mercury (Hg)	118 Pounds Per Year
(e) Particulate Matter (PM)	1,470 Tons Per Year
(f) Volatile Organic Compounds (VOC)	259 Tons Per Year
(g) Carbon Monoxide (CO)	17,493 Tons Per Year

2. Following the commencement of full-time commercial operation of Unit 3, the following emission rates shall apply specifically to Unit 3:

(a) Sulfur Dioxide (SO2)	98 percent control efficiency across the scrubber based on a 30-day rolling average, including periods of start-up and shut down.
(b) Nitrogen Oxides (NOx)	0.05 lb/MMBtu, based on a 30-day rolling average, excluding periods of start-up and shut down
(c) Total PM (filterable + condensable)	0.030 lb/MMBtu, based on a 3-hour performance test, based on modified Method 202 test

(d) Opacity 10 percent

3. The last sentence of Draft Permit Condition III.A.4. shall be amended to read as follows: "The steam generator ~~shall be designed for a maximum heat input of~~ maximum heat input rate shall not exceed 7,500 MMBtu per hour of coal, based on fuel sampling and analysis."

4. Draft Permit Condition III.A.5. shall be deleted.

5. Draft Permit Condition III.7.c. shall be revised as follows: "SAM removal shall be accomplished by the use of the FGD system and the wet ESP, which shall be operated at all times, including startup and shutdown, in accordance with good operating practices and manufacturer requirements."

6. Draft Permit Condition III.A.9.a. shall be amended to read as follows: "Coal-SGS Unit 3 may combust bituminous coal, up to 318.3 tons per hour based upon ~~11,300~~ 11,780 Btu/lb HHV."

7. In Draft Permit Condition III.A.10., the "lb/hr equivalent VOC emission limit" shall be changed from 16.7 to 25.5.

8. Draft Permit Condition III.A.13. shall be amended to read as follows: "Sulfur Dioxide (SO_2): Emissions of SO_2 from SGS Unit 3 shall not exceed 1.4 pounds per megawatt hour (lb/MW-hr) gross energy output or 98% reduction on a 30-day rolling average basis including periods of start-up and shut down, nor 0.165 lb/MMBtu, based upon a 24-hour rolling average as determined by CEMS. In addition, SO_2 emissions shall not exceed ~~29,074~~ 17,900 tons per 12-month rolling period (facility-wide), based upon CEMS. [62-210.200 (Net Emissions Increase), and 62-212.400(12) (Source Obligation), F.A.C.]

9. New Permit Condition III.A.20.c. shall be included as follows: "The permittee shall maintain monthly records describing actions taken to comply with this condition."

10. The parties agree that all other conditions in the Draft Permit shall be included in the Final Permit.

11. Seminole agrees to ask FDEP to include the foregoing limits and conditions in the Final PSD permit for Seminole Unit 3 and agrees to be bound to these limits and conditions. Sierra Club agrees to not object, challenge, appeal, or initiate or assist in any challenge or appeal by others, or in any other way impede or interfere with the issuance of a final PSD permit in accordance with the terms and conditions identified in this Agreement.

12. By September 1, 2007, Seminole agrees to publish a Request for Proposal (RFP) soliciting bids for up to 100 MW of renewable energy, which may include solar, wind, geothermal and/or biomass. Seminole is committed to pursuing renewable energy opportunities, and agrees to evaluate and implement, in good faith, viable bids. In accordance with Seminole's existing bid evaluation policy, a viable bid is one that is reasonable based on an analysis of

technical, commercial and economic issues, including reliability, fuel supply (as applicable), siting issues, transmission, and financial viability of vendor, and whether the project is in the best interest of Seminole and its members. If Seminole does not receive viable bids in response to this RFP, Seminole will publish another such RFP within eighteen months of the first. Seminole will continue to actively pursue renewable energy opportunities, and will evaluate and implement, in good faith, viable bids in the manner described above.

GENERAL PROVISIONS

13. This Settlement Agreement represents a complete settlement of all Unit 3 issues related to issuance of the PSD permit.

14. Each of the signatories hereto warrants and represents that he or she is competent and authorized to enter into this Agreement on behalf of the party for whom he or she purports to sign.

15. This Agreement shall never at any time or for any purpose be considered an admission of liability or responsibility on the part of any party herein released.

16. This Agreement is the product of negotiation and preparation by and among each party hereto and his or her respective attorneys. Accordingly, all Parties hereto acknowledge and agree that the Agreement shall not be deemed prepared or drafted by one party or another, or the attorneys for one party or another, and the Agreement shall be construed accordingly.

17. This Agreement shall be interpreted in accordance with and governed in all respects by the laws of the State of Florida. Exclusive jurisdiction and venue for any litigation brought to enforce this Agreement shall be in the Circuit Court for Putnam County, Florida, and the Parties do hereby specifically waive any other jurisdiction and venue. In any such litigation, the parties shall seek only declaratory or injunctive relief or specific performance. Neither party shall file any lawsuit to enforce this Agreement unless it has first provided written notice of the alleged violation to the other party thirty days prior to filing suit and the other party has failed to cure the alleged violation.

18. If any provision or any part of any provision of this Agreement is for any reason held by a court of competent jurisdiction to be invalid, unenforceable or contrary to public policy or any law, then the remainder of this Agreement shall not be affected thereby and shall remain in full force and effect.

19. No amendments or modifications of this Settlement Agreement shall be valid unless set forth in writing and signed by the duly authorized representatives of each Party.

20. This Agreement shall be deemed to be effective immediately upon its full execution by all Parties.

21. This Agreement contains the entire understanding among the Parties with regard to the matters herein set forth, and is intended to be and is a final integration thereof. There are no representations, warranties, agreements, arrangements, undertakings, oral or written, between or among the Parties hereto relating to this Agreement which are not fully expressed herein.

SEMINOLE ELECTRIC COOPERATIVE, INC.

Date: 3/28/07

By: W. P. Oglesby

Its: VP, Technical Services

SIERRA CLUB

Date: 3/9/07

By: Kristin A. Henry

Its: Staff attorney

ATTACHMENT 3

DEP Responses to EPA Comments

ATTACHMENT 3

Department Responses to EPA Comments

Seminole understands that the Department is considering several revisions to the Final PSD/Air Construction Permit for Unit 3 in response to EPA comments on the draft permit. The Department stated in the Final Determination that it would respond to EPA's comments when the permit was revised. While no action is needed from Seminole in this regard, this Attachment provides a summary of Seminole's understanding of the changes that the Department intends to make.

1. Clarify that the heat input value is an enforceable restriction. This is also included in the Sierra Club Agreement (which further clarifies that compliance is based on fuel sampling and analysis).

2. Correct the VOC "equivalent" lb/hr value (for informational purposes only) from 16.7 to 25.5. This revision is also part of the Sierra Club Agreement.

3. In Condition III.A.15, which imposes the .013 filterable PM limit, delete the words "while firing 100% coal." This clarifies that this PM limit applies to co-firing petcoke as well.