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

September 27, 2006

VIA HAND DELIVERY

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

RE: Seminole Generating Station (SGS) Unit 3
Draft Air Permit No. PSD-FL-375
Project No. 1070025-005-AC

Dear Mr. Halpin:

Attached is Seminole Electric Cooperative, Inc.'s comments regarding Draft Air Permit No. PSD-FL-375.

Thank you for your attention to this matter, and please call me at your convenience if you wish to discuss these comments.

Sincerely,

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

RAM/kwf
Enclosure:

cc: Trina Vielhauer
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Seminole's Comments on Draft PSD Permit
September 27, 2006

1. Project Description. Seminole requests the following edits to the last sentence of the second paragraph to clarify the use of No. 2 oil: *"No. 2 diesel fuel will be used for startup, shutdown, flame stabilization, limited supplemental load and emergency reserve during statewide capacity shortages, and for the firing the Zero Liquid Discharge (ZLD) Spray Dryers as well as an emergency generator (unregulated emissions unit)."* Also, note that the number of dryers in the ZLD spray dryer system (currently listed as a bank of three) and the number of cells in the mechanical draft cooling tower (currently 26) are based on the initial design of the project. These numbers could change in the final design as Seminole maximizes efficiency of the entire facility (see related discussion in following comment No. 3). The emission impacts associated with any design changes, however, will not exceed those provided in Seminole's application and approved in this permit authorization.

Unit 3 Boiler

2. Condition 2, PSD Netting. The Unit 3 project is not triggering PSD for SO_2, NOx and SAM because it is accepting limits to ensure that (future) projected actual emissions do not exceed the (past) baseline actual emissions. For mercury, however, PSD is not triggered because Unit 3's future potential emissions are below the PSD significance threshold – a limit is not needed to "net-out." Nonetheless, Seminole is voluntarily accepting a facility-wide mercury limit to show that even with the Unit 3 project, facility-wide mercury emissions will decrease at least ten percent below the baseline. Seminole requests that this condition be revised accordingly (and other references to the specific pollutants for which netting is required), as well as revising the authority for Condition 17 from "PSD Avoidance" to "Applicant Request."

3. Condition 5, Capacity. There is no need for a condition or limit on the megawatt (MW) capacity of Unit 3. Environmental impacts (including air emissions) are correlated with heat input, not MW generated, and Condition 4 requires that Unit 3 be designed with a maximum heat input of 7500 MMBtu/hr. As the unit design progresses, Seminole will be looking to maximize the efficiency of the unit (generate more MW with the same amount of fuel). At a minimum, Seminole requests that the unit be referred to as a *"net nominal 750 MW-class unit"* to ensure that the MW rating is not construed as a limit.

4. Condition 9, Authorized Fuels. There is no need for a quantity (tonnage or gallons) limitation on fuel burned. As long as Unit 3 does not exceed 7,500 lb/MMBtu heat input and the specific emission limits, the fuel quantity should not be an issue. Accordingly, Seminole requests that this condition be deleted. At a minimum, the maximum coal process rate could be described as 357 tons per hour, rather than the 318 tons per hour listed in the draft permit, but this number

should not be a limit. This value corresponds to the maximum heat input rating (7,500 MMBtu/hr) and the minimum heating value of the fuel (10,500 Btu/lb). This minimum fuel heating value is representative of Southern Illinois- Indiana bituminous coal, as was presented in Table 2-1 of the air application.

5. Condition 10, Emission Limits. The opacity limit should be moved to the "Non-BACT" limits section because it is not a PSD pollutant. Also, Seminole understands (and requests that the chart be revised to clarify) that the lb/hr "equivalency" numbers are not limits, but rather are included for informational purposes only – Conditions 11 through 19 provide the specific limits. Therefore, it is requested that these values be footnoted with a phrase such as *"for informational purposes only."* Also, the lb/hr number for VOC should be 25.5 rather than 16.7.

6. Condition 11, CO limit. Subparagraph a. should reference EPA Method 10, rather than Methods 25, 25A or 25B.

7. Condition 12, VOC limit. Seminole proposed a BACT limit of 0.004 lb/MMBtu because it was within the range of recent BACT determinations and represented the lowest rate expected for a vendor guarantee. DEP has proposed a lower BACT limit of 0.0034 lbs/MMBtu. DEP's basis for lowering the VOC limit was that of the 14 VOC BACT determinations reviewed, "more than 2/3 of them" resulted in levels less than 0.004 lbs/MMBtu and that the WFGD and WESP planned for Seminole are "well suited for removing large percentages of HAPs and VOCs." Seminole does not agree that a VOC limit less than 0.004 lbs/MMBtu represents BACT for this project.

   First, out of the14 VOC determinations listed in the Technical Evaluation and Preliminary Determination, only one-half (7) had VOC emission limitations lower than 0.004 lbs/MMBtu. More importantly, out of these seven determinations, all but one facility will fire substantially different fuels than have been proposed for Seminole Unit 3. These six facilities are planning to fire PRB (sub-bituminous) or other western fuels. VOC emissions are highly dependent on the type of coal, and it is not reasonable to conclude that similar VOC emissions can be achieved for bituminous coal than can be achieved for sub-bituminous coal. The BACT determinations referenced above are segregated by fuel type below:

Facility	Size/Name of Unit	Emission Rate for Coal	Permit Date	Fuel
Louisiana Generating LLC	675MW Big Cajun II Unit 4	0.0150 lb/MMBtu	Aug. 2005	PRB
PSC Colorado	750MW Comanche Unit 3	0.0035 lb/MMBtu	Jul-05	PRB
Montana Dakota Utilities	220MW Gascoyne Greenfield	0.005 lb/MMBtu	Jun-05	CFB/Lignite
Newmont Nevada	200MW TS Plant Greenfield	NA	May-05	Sub Bit.
Omaha Public Power	660MW Nebraska City Unit 2	0.0034 lb/MMBtu	Mar-05	PRB
Wisconsin Public Service	500MW Weston Greenfield	0.0036 lb/MMBtu	Oct-04	PRB

Utah Intermountain PSC	950MW Intermountain Unit 3	0.0027 lb/MMBtu	Oct-04	PRB/West
West Virginia Longview	600MW Monongahela Greenfield	0.0040 lb/MMBtu	Mar-04	Bit.
S. Carolina Santee Cooper	570MW Cross Units 2 and 3	0.0024 lb/MMBtu (LAER)	Feb-04	Bit./Petcoke
Arkansas Plum Point	800MW Greenfield Unit 1	0.02 lb/MMBtu	Aug-03	PRB
Iowa MidAmerican	765MW MidAmerican Greenfield	0.0036 lb/MMBtu	Jun-03	PRB
Kentucky Thoroughbred	750MW Greenfield Units 1 and 2	0.0072 lb/MMBtu	Oct-02	HS Bit.
Kansas Sand Sage	660MW Holcomb Unit 2	0.0035 lb/MMBtu	Oct-02	PRB
Wyoming Black Hills	500MW Wygen Unit 2	0.01 lb/MMBtu	Sept. 2002	PRB
Pa. AES Beaver Valley	215MW Greenfield	0.0068 lb/MMBtu	Nov. 2001	Bit.

As this shows, there are three facilities that propose to fire bituminous coal and one that proposes a blend of bituminous coal and pet coke. Of these, the most recent determination for the bituminous coal only (West Virginia Longview) was issued in March 2004, at a limit equal to that proposed for Seminole's Unit 3. The other two bituminous coal determinations were higher than proposed for Seminole Unit 3. One facility proposed to fire a blend of bituminous coal and pet coke -- Santee Cooper's Cross Units – and the proposed VOC limit of 0.0024 lbs/MMBtu represents LAER, not BACT. Further, a review of this application and permit indicated that the limit was based entirely on an AP-42 calculation and an initial test to demonstrate compliance with the limit. (Note—this unit has not yet begun operation and testing, so it is unknown whether this proposed limit is achievable). Seminole does not believe that AP-42 emission factors are a proper basis to establish a VOC BACT limit for a new coal-fired boiler. The AP-42 factors are based on historical test data from older facilities that do not include all the combustion controls required to limit NO_x emissions from a new boiler. It is well established that controlling boiler NOx emissions has a negative impact on VOC (and CO) emissions.

The second criteria provided by DEP to lower the VOC limit was that the WFGD and WESP would provide substantial VOC (and HAP) control. Seminole has assumed a relatively high level of control in arriving at our proposed BACT limit of 0.004 lb/MMBtu, based on boiler design and combustion characteristics, rather than post-combustion controls. Seminole has asked the Department to provide the source for its statement that "wet FGD's and WESP's are well suited for removing large percentages of HAPs and VOCs" so that we can understand and analyze the assumed (or demonstrated) removal efficiencies.

Finally, Seminole contacted IHI, a potential supplier of combustion and emission control equipment that could be potentially used on Seminole Unit 3. Their response was that VOC emission levels below 0.004 lbs/MMBtu may not be achievable and that they would not offer a guarantee below that level. Based on all of the above, it is Seminole's position that the VOC BACT limit for Unit 3 should be established at 0.004 lbs/MMBtu.

8. Condition 13, SO_2. To clarify the SO_2 limits, Seminole requests the following edits: *"Emissions of SO_2 from SGS Unit 3 shall not exceed 1.4 pounds per megawatt hour (lb/MW-hr) gross energy output or 95 % reduction on a 30-day rolling average basis, nor 0.165 lb/mmBtu, based upon a 24-hour rolling average". This clarification is consistent with the recent revisions to the NSPS promulgated on February 27, 2006 (71 FR 9866).*

9. Condition 14, SAM. For clarification, Seminole requests the following edit: *"Emissions of Sulfuric Acid Mist from SGS Unit 3 shall not exceed 0.005 lb/MMBtu as determined by EPA Method 8A, or another method approved by the Administrator."*

10. Condition 15, PM/PM_{10}. The requirement to test and report condensables should only apply during the initial test, not annually. Also, for clarification, Seminole requests the following edits: *"Emissions of filterable Particulate Matter (PM and PM_{10}) from SGS Unit 3 shall not exceed 0.013 lb/MMBtu while firing 100 percent coal as determined by EPA Method 5, or another method approved by the Administrator. Condensables shall be captured (from the impingers) and reported (only) in accordance with EPA Method 202, or another method approved by the Administrator. . . . For opacity, the method of compliance shall be COMS or EPA Method 9 ~~when the COMS data is unavailable~~."*

11. Condition 16, Ammonia. For clarification, Seminole requests the following edit: *"Ammonia slip shall not exceed 5 ppmvd @ 6% O_2 as determined by EPA Conditional Test Method CTM-027, or another method approved by the Administrator."*

12. Condition 19, Flourides. The testing requirement should only apply initially, not every five years (which is also referenced in Condition 23), and should also allow for Test Method 26A as well as 13A or 13B.

13. Condition 20, Unconfined Particulate Emissions. Seminole requests the following clarification: *"All conveyors and conveyor transfer points will be enclosed to the extent practical, or utilize covers and wind skirts, so as to ~~preclude~~ minimize PM emissions".*

14. Condition 23, Subsequent Testing. Unit 3 will have a CEMS for mercury and a COMS for opacity, so an annual test should not be necessary for these parameters. The required QA/QC (e.g., RATA) should be sufficient.

15. Condition 24. Opacity should be added to this list of constituents that are monitored by continuous methods.

16. Condition 27, Definitions. The rule cites should be corrected to Rule 62-210.200(165, 242 and 258), F.A.C.

17. Condition 29, Excess Emissions. Since this Condition is based on the state rule, Seminole requests the addition of the following phrase from Rule 62-210.700: *"unless specifically authorized by the Department for longer duration."*

18. Condition 30, Data Exclusion Procedures. For clarification, Seminole requests the following edit to this condition: *"Limited amounts of CEMS emissions data collected during startup, shutdown, and malfunction may be excluded from compliance demonstrations (not including annual emissions caps) ~~as approved by the Compliance Authority~~, provided that best operational practices to minimize emissions are adhered to, they are authorized by this permit and the duration of data excluded is minimized."*

19. Condition 31, Ammonia Injection. Because BACT is not triggered for NOx (or ammonia), Seminole requests that the authority for this condition be edited as follows: *"(Design; Rules 62-4.070(3) ~~Rules 62-210.200(BACT), 62-212.400(PSD),~~ and 62-210.700, F.A.C."*

20. Condition 34, Continuous Flow Monitor. Seminole understands that the third sentence refers to the ability, under Appendix D of Part 75, to utilize a fuel flow meter when burning oil.

21. Condition 37, Ammonia Monitoring Requirements. For clarification, Seminole requests the following edit to the last sentence: *"During NOx monitor downtimes or malfunctions, the permittee shall operate at the ammonia flow rate that is consistent with the documented flow rate for the load condition that shows compliance."*

Cooling Tower

22. Condition 2, Cooling Tower. Seminole understands that the parameters referenced in this condition represent design values, not limits -- the actual operating values may be higher or lower.

Technical Evaluation and Preliminary Determination

The comments above should also be reflected in the Department's Technical Evaluation and Preliminary BACT Determination. In addition, the following specific comments are offered:

23. Page 2 -- Units 1 and 2 are regulated under Acid Rain, Phase II, not Phase I.

24. Pages 5-6 – The PSD application, Table 3-3, listed the mercury baseline and projections as .066 tons per year, and the TEPBD lists it as .065.

25. Page 11 – The discussion of the CAIR program should be updated to reflect recent developments;

26. Page 11 – Because a state's CAIR allowance allocation does not represent an emission limit, please delete the word "limits" in the title of the chart;

27. Page 18, Section 6.1 -- Air quality impacts were required by the Department as listed except for the analyses for PSD increment and AAQS. These were required for SO2 only. Therefore, the analyses should be listed as follows:

The air quality impact analyses required by the Department regulations for this project include:
- An analysis of existing air quality for PM_{10}, CO, HF and VOC;
- A significant impact analysis for PM_{10}, CO, NO_x and VOC;
- A PSD increment analysis for SO_2;
- An Ambient Air Quality Standards (AAQS) analysis for SO_2;
- An analysis of impacts on soils, vegetation, and visibility and growth-related impacts to air quality.

28. Page 19, Section 6.2 -- In the table, the annual SO_2 background concentration is listed correctly. The 24-hour and 3-hour average SO_2 concentrations are listed as 28 and 134 ug/m^3, respectively, which are incorrect. The 24-hour and 3-hour average background concentrations should be listed as 34 and 128 ug/m^3, respectively.

29. Page 19, Section 6.3.1 -- Comment to be inserted between 1st and 2nd paragraphs:

The air modeling analyses that were included in the permit application submitted in February 2006 demonstrated that the project's impacts were predicted to be less than PSD Class II significant impact levels and in compliance with the SO_2 AAQS and PSD Class II increments in the area of Seminole Generating Station using meteorological data from the Jacksonville International Airport from 1986 to 1990. These data were the recommended dataset by the Department at the time of the analyses. In May 2006, the Department developed meteorological data for the Jacksonville International Airport for 2001 to 2005 to be used for AERMOD applications. These meteorological data were subsequently used in the air modeling analyses in the response to the Department's request for additional information to confirm that the project's maximum predicted impacts were less

than the significant impact levels and in compliance with the SO_2 AAQS and PSD Class II increments.

30. Page 20, Section 6.3.2 -- Comment to be inserted in 2nd paragraph after 3rd sentence:

The air modeling analyses that were included in the permit application submitted in February 2006 demonstrated that the project's impacts were predicted to be less than PSD Class I significant impact levels at the PSD Class I areas using meteorological data for 1990, 1992, and 1996. These data were the recommended dataset by the Department at the time of the analyses. In April 2006, CALMET data were made available by Visibility Improvement State and Tribal Association of the Southeast (VISTAS) for 2001 to 2003 as part of the modeling that the Department is requiring for Best Available Retrofit Technology (BART) evaluations. These meteorological data were subsequently used in the air modeling analyses in the response to the Department's request for additional information to confirm that the cumulative SO_2 impacts from PSD sources are in compliance with the SO_2 PSD Class I increments.

31. Page 20 – Change the word "mill" to "project".

32. Page 21, Section 6.4 -- In the table that summarizes the maximum predicted project impacts in the PSD Class I areas for comparison to the PSD Class I significant impact levels, the maximum predicted PM_{10} impact for the 24-hour averaging period is 0.14 ug/m^3, instead of 0.09 ug/m^3.