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

April 16, 2003

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BUREAU OF AIR REGULATION

Mr. Al Linero
Professional Administrator
New Source Review Section
Florida Department of Environmental Protection
MS 5505, Mail Center 5515
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Re: Control Systems Replacement Project
Seminole Generating Station, Units 1 and 2

Dear Mr. Linero:

Seminole Electric Cooperative, Inc. (Seminole), is developing plans to replace the existing analog and digital controls of several different plant systems with current technology systems at the Seminole Generating Station (SGS) located in Palatka, Florida. Parts are becoming increasingly unavailable for the existing outdated systems, potentially jeopardizing future unit operation. Seminole believes that this replacement project is routine, and, therefore, does not constitute a *modification* as defined by Rule 62-210.200(169), F.A.C. Moreover, this project will not result in an increase in either actual or potential emission rates. Accordingly, Seminole considers the control replacement project to be exempt from the permitting requirements specified in Chapter 62-4, *Permits*, Rule 62-210.300, *Permits Required*, Chapter 62-212, *Stationary Sources - Preconstruction Review*, and Chapter 62-213, *Operation Permits for Major Sources of Air Pollution*. Seminole requests the Department's concurrence that no permitting action is required.

Facility and Project Overview

The SGS contains two 714.6 MW (nameplate) units, permitted to burn coal, coal/petcoke blend, No. 2 fuel oil, and on-specification used oil. This facility received a PSD permit and a Power Plant Siting Act Certification in late 1979, a Title V permit, effective January 1, 2000, and is subject to NSPS Subpart Da and the Acid Rain Program. Emission control technologies employed at each unit include an electrostatic precipitator (ESP), flue gas desulfurization (FGD) system, low-NOx burners, overfire airports and low excess-air firing. Both units operate in a baseload condition with annual capacity factors of greater than 80% and provide over 65% of the energy to Seminole's member systems.

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

The existing control systems currently in use at the SGS were installed during initial construction, and have been in use for approximately 20 years. Maintenance of these controls has become increasingly difficult because many repair parts are no longer available. The primary systems proposed to be replaced are Plant-wide Data Acquisition, Boiler Controls, Burner Management and Safety, Interposing Logic and Main Control Room Annunciation. Auxiliary systems include the interface with the turbine driven boiler feed pump controls, turbine vibration monitoring, fan and pump vibration monitoring, performance monitoring, interface with the combustion optimization system, soot blower controls, waste water treatment and water pretreatment controls and new controls for the flue gas desulfurization system. The project is scheduled to be completed during normal length (three to four weeks in duration) planned outages in 2004, 2005 and 2006. The goals of this project are to utilize serviceable/repairable control systems as much as practicable, maintain generation reliability, optimize process management, optimize field equipment maintenance and upgrade existing data collection and documentation capabilities of each unit. The cost is projected to be approximately $10 to $12 million (approximately $5 to $6 million per unit).

Routine Replacement

This replacement project is routine based on its purpose, nature/extent, frequency and cost, and, therefore, does not constitute a physical change or a change in the method of operation. Accordingly, the control systems replacement is not considered to be a *modification* as defined by Rule 62-210.200(169), F.A.C. and, therefore, is exempt from preconstruction permitting. The project's purpose is to replace the existing controls with current technology systems. The existing control systems are obsolete – they are the original equipment installed when the facility was constructed approximately 20 years ago, and parts and manufacturers service support to repair the existing systems are increasingly difficult to find, or simply not available. Moreover, the controls available now are far superior in terms of efficiency, precision, and reliability, which will improve the amount and quality of data collected, optimize operator response, consolidate auxiliary and equipment maintenance activities, and maintain generation reliability. The nature/extent of the project involves the controls for various systems at the facility, as described above, and does not involve changing any equipment that generates or controls air emissions. The SGS facility's existing control systems are regularly repaired and maintained. Seminole understands that replacing the antiquated controls with modern digital systems is very common in the utility industry for units that were constructed in the 1970's and early 1980's. The cost to replace the controls for these two units, equates to significantly less than one percent of the cost of a single new unit of similar output, and is less than one-third of Seminole's annual maintenance budget. Accordingly, no permitting action should be required for this project because it is exempt as routine.

Impact on Emissions

This project modernizes the control systems of the facility and does not involve changes to any equipment that generates or controls air emissions. The project will not affect the units' design heat input capacity or future utilization rate. Accordingly, there should be no direct affect on short term or annual air emissions; any change in utilization/generation will not be a result of the controls replacement. The Seminole Generating Station will continue to comply with all emission limitations contained in FINAL Permit No.: 1070025-001-AV. Regarding possible indirect affects on emissions, several important factors must be considered:

1. The two units at the Palatka facility are base-loaded; they have operated at capacity factors in excess of 80 percent for the last five years.

2. Replacing the controls would not impact (or decrease) the forced outage rate.

3. The new controls will allow for more responsive and precise boiler operations, which should increase the efficiency of the units (i.e., decrease boiler heat rate) and, therefore, reduce the quantity of fuel needed to generate a unit of electricity. Accordingly, the replacement controls project is expected to lower the short term emission rates in units of lb/mmBtu and lb/MW-hr.

In sum, Seminole's planned replacement of the existing control systems with modern technology control systems at the SGS is a routine replacement with no resulting increase in air emissions. If you have any questions after you have reviewed this information, please call me at (813) 739-1233. Thank you for your prompt attention to this matter.

Sincerely,

M. P. Opalinski, Director of Environmental
and Engineering Services
Title V Responsible Official

cc: Trina Vielhauer, DEP
Tom Davis, ECT
Robert Manning, HGS
Chris Kirts, DEP Northeast District Office