



February 13, 2006

Mr. Hamilton S. Oven
Siting Coordination Office
Florida Department of Environmental Protection
2600 Blair Stone Road, MS 48
Tallahassee, FL 32399-2400

Re: Seminole Electric Cooperative, Inc.
Power Plant Certification No. PA78-10
Units 1 and 2 Pollution Control Upgrade Projects
Request for Modification of Certification
Seminole Generating Station
Putnam County, Florida

Dear Mr. Oven:

Pursuant to Section 403.516(1)(b), Florida Statutes and Rule 62-17.211, Florida Administrative Code, please accept this letter and Attachment A hereto as Seminole Electric Cooperative's (Seminole's) Request for Modification of Site Certification for the Seminole Generating Station in Putnam County. As explained in more detail in Attachment A, Seminole requests that the Department of Environmental Protection (DEP) issue a proposed order modifying the conditions of certification, as authorized by the cited statute and regulation, to install significant pollution control upgrades associated with existing Units 1 and 2.

By way of background, Seminole Generating Station Units 1 and 2 originally were certified under the Power Plant Siting Act (PPSA) by the Governor and Cabinet, sitting as the Siting Board, in 1979. Both units were in commercial operation by the end of 1984. The air emission limitations originally applicable to Units 1 and 2 were based on a Best Available Control Technology (BACT) demonstration pursuant to the federal Clean Air Act Prevention of Significant Deterioration (PSD) program, and also Subpart Da of the federal New Source Performance Standards. Seminole has continued to undertake environmental improvements since the original certification. As just one example, in 2000, at Seminole's request, the Conditions of Certification were modified to authorize Seminole to install an oxidation system that converts the output from the Flue Gas Desulfurization (FGD) air pollution control system to gypsum reused for wallboard manufacturing, thereby eliminating the disposal of hundreds of thousands of tons per year of solid waste.

The inter-related pollution control upgrades proposed in this Request for Modification include the following:

- Installation of low NO_x burners and modified overfire air systems on Units 1 and 2, in order to comply with the annual average emission limitation of 0.46 lb/mmBtu that will become applicable in 2008 pursuant to Title IV of the federal Clean Air Act and corresponding state regulations.
- Installation of a state-of-the-art, urea-based selective catalytic reduction (SCR) control system on both units. This will include new urea unloading systems, a urea storage area, and facilities to convert the urea to ammonia for injection into the SCR's. The proposed SCR systems are being designed to be capable of achieving substantial NO_x reductions (to 0.07 lb/mmBtu) so that Seminole will have the option of meeting its projected NO_x allocations under Phases I and II of the federal Clean Air Interstate Rule through actual emission reductions instead of purchasing allowances. (For example, the SCR technology would make it possible for Seminole to reduce current NO_x emissions by approximately 13,000 tons per year to meet its anticipated Phase I allocations.) Reductions associated with the SCR systems also will make it possible to offset NO_x air emission increases that would be associated with a new proposed Unit 3 at the Seminole Generating Station.¹
- Upgrades to the FGD systems for Units 1 and 2 are being proposed so that Seminole will have the capacity to achieve up to 95% post-combustion SO₂ removal efficiency. Related appurtenances will include expansion of the air compressor building, the addition of an air compressor, additional FGD dewatering appurtenances, and additional gypsum conveyance capability. With the improvements to the FGD system, Seminole would have the option of meeting its projected Phase I (in 2010) and Phase II (in 2015) Clean Air Interstate Rule SO₂ allocations through emission reductions instead of purchasing allowances. (For example, with the FGD upgrades Seminole could achieve SO₂ reductions of approximately 10,000 tons per year to meet Phase I requirements.) Once again, this new air pollution control technology will be relied on to offset SO₂ air emission increases associated with Unit 3.
- An alkali injection air pollution control system is proposed for each unit to control for potential SO₃ formation by the SCR systems. The alkali injection technology will be designed to ensure that the installation and operation of the SCR systems do not result in an increase in sulfuric acid mist emissions.

¹ Unit 3 will be the subject of a separate Request for Modification and air permit application. Seminole seeks to install several air pollution control upgrades in advance of Unit 3 certification and construction in order to assure that it will be prepared to meet the requirements of the Clean Air Interstate Rule through emission reductions.

- A carbon burnout (CBO) system is proposed to produce a final fly ash product that will have substantially lower carbon and ammonia levels and therefore will be suitable for beneficial reuse. The CBO system also will recover energy from the high-carbon fly ash from Units 1 and 2 (this will improve the heat rate of Units 1 and 2). The CBO system also will offset the adverse effects that the new NOx control systems otherwise would have on fly ash reuse. The CBO system will minimize the need to landfill solid waste. The CBO system will include a bulk storage facility, silos, loading and conveyance systems, and a small truck rinse station.
- The steam turbines associated with Units 1 and 2 are proposed to undergo blade efficiency improvements that will be designed to obtain greater electric generating output per unit of fuel burned and also accommodate the CBO unit. The current nominal gross MW rating would increase from 714.6 MW to 735.9 MW per unit. These changes will compensate for the energy penalties associated with the pollution control upgrades.
- This project also includes a proposed warehouse expansion, the addition of two new auxiliary transformers and related appurtenances, an parking lot and employee car rinse area.
- Seminole also proposes the installation of wet detention stormwater management and control systems to comply with the requirements of Chapter 40C-42, F.A.C. and the St. Johns River Applicant's Handbook with respect to stormwater management and control. As explained more fully in the attached materials, the stormwater system will be designed such that it will have the capacity to accommodate stormwater associated with the appurtenances proposed in this submittal, and the projected stormwater impacts associated with Unit 3.


The pollution upgrade package will not require additional groundwater usage that is greater than the existing consumptive use limitations in the SGS Conditions of Certification.

In accordance with DEP's regulations, we have forwarded copies of this Request for Modification of Certification to those parties in the original certification proceedings and to the persons and agencies identified below.

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We have enclosed an original and four copies of the Request for Modification of Certification along with an application fee in the amount of \$10,000 payable to DEP.

Sincerely,



James Frauen
Manager, Environmental Affairs

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Enclosures

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