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

September 16, 2010

Mr. Michael Halpin, P.E.
Program Administrator
Office of Siting Coordination
Department of Environmental Protection
3900 Commonwealth Boulevard
Tallahassee, FL 32399-3000

Re: Seminole Electric Cooperative, Inc.
Seminole Generating Station, Putnam County, Florida
Power Plant Certification No. PA78-10
Post-Certification Amendment to Application

Dear Mr. Halpin:

Pursuant to Section 403.5113(1)(a), Florida Statutes, and Rule 62-17.205, Florida Administrative Code, please accept this letter and attachment hereto as a post-certification amendment to the Seminole Electric Cooperative, Inc. ("Seminole") Site Certification Application ("Application") for the Seminole Generating Station in Putnam County, Florida. This post-certification amendment addresses replacement of the existing wet bottom ash handling system (sluice type) at the site with a dry handling system (enclosed mechanical conveyor). As explained more fully below, this project will improve environmental performance at the existing plant and does not require new Conditions of Certification.

Units 1 and 2 at the Seminole Generating Station (SGS) currently utilize sluice water to remove the bottom ash from the bottom of the boiler on each generating unit. A small amount of the sluice water, after separation from the solids, ultimately is discharged into the combined wastewater treatment system (consisting of the equalization basin, the neutralization basin, and the clarifier) where it is commingled with other waste streams prior to discharge via NPDES outfall D-001. Currently, the volume of the bottom ash sluice water is treated and then discharged in this manner is approximately 5.5 gallons per minute (gpm), or 0.008 million gallons per day (MGD). There are no air emissions associated with the existing wet bottom ash handling system.

Seminole is proposing to modify the existing bottom ash system by using mechanical conveyors, instead of sluicing, to remove and transport bottom ash. More specifically, the new system will collect bottom ash from an ash hopper at the bottom of each boiler. The ash hopper can either collect the ash and store it for a limited time, or

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forward it immediately to the new dry bottom ash conveyer. The dry bottom ash conveyer conveys the ash from under the boiler and cools it, while also burning out some of the carbon in the ash. The dry bottom ash conveyer is sealed and air is admitted to it to provide the oxygen to burn out the carbon in the ash. This air is then pulled into the combustion system of each unit as part of the boiler draft. The dry bottom ash and ash collected from the economizer section of the boiler will then be transported on the primary conveyor to a primary crusher where the ash size is reduced. The discharged ash is then transported on a transfer conveyor, which, depending on the specific design, may feature additional cooling. The transfer conveyer then delivers the ash to a secondary crusher. The secondary crusher again reduces the size of the ash clinkers for transport to a storage silo. As the ash is released into the dry ash storage silo it will displace the air inside the silo, which will be vented from the silo through a vent filter to the atmosphere. Transfer of the dry bottom ash from the storage silo into trucks can be conducted as either a wet or dry process depending upon the transport vehicle utilized. In the wet process, the dry bottom ash will be mixed with water in a pug mill and then transferred via a chute into covered trucks for offsite reuse or disposal. The dry transfer of bottom ash would be an enclosed process that uses a telescoping chute and sealed trucks. Truck loading is accomplished by transferring bottom ash from the storage silo, through the telescoping spout, and into the truck. The telescoping spout would be equipped with a ventilation system to capture fugitive PM that would otherwise occur during the truck loading operation. The captured PM is routed to the dry bottom ash storage silo which is equipped with a baghouse for control of PM emissions.

Air Emission Considerations

Potential PM/PM10/PM2.5 emissions from the dry bottom ash storage silo are estimated to be 1.5 tons/yr assuming continuous operation, as set forth in the following table.

Emission Unit	Operating Hours (hrs/yr)	Exhaust Parameters			Potential PM/$PM_{10}$$PM_{2.5}$ Emissions		
		Temperature (°F)	Flow (acfm)	Flow (dscfm)[1]	(gr/dscf)[2]	(lb/hr)	(tpy)
Dry Bottom Ash Storage Silo	8,760	70.0	4,000	3,985	0.010	0.34	1.5

[1] At 68 °F.

Sources: Black & Veatch, 2010.
ECT, 2010.

Because the project is not subject to any unit-specific applicable requirements under the Department's air quality regulations, and also because potential air emissions will be less than 5.0 tons/yr, the project qualifies for an exemption under Rule 62-210.300(3)(b)1., F.A.C. from air construction permitting.

The dry bottom ash project also qualifies as an *insignificant emission unit or pollutant-emitting activity* pursuant to Rule 62-213.430(6)(b), F.A.C. The criteria to qualify as an insignificant emission unit are the same as described above for the generic

emission unit exemption; i.e., the emission unit must not be subject to any unit-specific applicable requirement and must have potential air emissions of less than 5.0 tons per year of any regulated pollutant. Pursuant to Rule 62-213.430(6)(a), F.A.C., insignificant emission units that are added to a Title V source after a Title V permit has been issued shall be incorporated into the Title V permit at its next renewal.

Water Impact Considerations

With respect to water discharges, the plant's existing discharge of bottom ash transport water will be eliminated. Because there will not be a wastewater stream associated with the dry bottom ash handling system, this project will result in an improvement to water quality. Elimination of a wastewater stream in this manner is not a "modification" requiring a permit "revision" under Rule 62-620.200(26), F.A.C.

Additionally, this conversion of the bottom ash handling system will not result in any addition of impervious surface at the existing site or require any additional consumptive use of water.

Conclusion

Based on the foregoing, Seminole requests concurrence from the Office of Siting Coordination that the dry ash handling system as described herein are accepted as a post-certification amendment to the Site Certification Application.

Very truly yours,

Mike Roddy
Manager of Environmental Affairs
Seminole Electric Cooperative, Inc.

cc: Anne Seiler, Environmental Specialist, DEP - Siting Coordination
Trina Vielhauer, Bureau Chief, DEP - Bureau of Air Regulation
Allen Hubbard, Administrator, DEP - Industrial Wastewater
James Alves, Hopping Green & Sams