

May 26, 2006

VIA HAND DELIVERY

Blanca S. Bayó, Director
Division of the Commission Clerk &
Administrative Services
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, Florida 32399-0850

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COMMISSION CLERK

Re: **Docket No.: 060220-EC**

Dear Ms. Bayó:

In lieu of errata sheets, enclosed for filing on behalf of Seminole Electric Cooperative, Inc. are the original and fifteen (15) copies of revised pages of its Need Study and various direct testimonies. The following revised pages should be substituted:

- (1) Need Study – pages 2, 19, 33, 34, 43, 50, 73, 74, 78, and 81; *04646-06*
- (2) Direct Testimony of Timothy S. Woodbury – page 17; *04647-06*
- (3) Direct Testimony of Michael P. Opalinski – pages 8, 10, 12 and 13; *04648-06*
- (4) Direct Testimony of William T. Lawton - pages 3 and 7; *04649-06*
- (5) Direct Testimony of Lane Mahaffey – pages 8 and 21; and *04650-06*
- (6) Direct Testimony of Wm. Jack Reid – page 5 *04657-06*

If there are any questions regarding this transmittal, please contact me at 222.2300.

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Blanca S. Bayó, Director
May 26, 2006
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SQUIRE, SANDERS & DEMPSEY L.L.P.
Including
STEEL HECTOR & DAVIS LLP

Very truly yours,

SQUIRE, SANDERS & DEMPSEY L.L.P.



Charles A. Guyton
Partner

CAG:gcm

Enclosure

Copy to: Martha Carter Brown, Esq. (w/enclosures)
Lee Colson (w/enclosures)

TALLAHASSEE/55458.1

1 **II. THE SEMINOLE GENERATING STATION**

2 **Q. Please describe the Seminole Generating Station.**

3 A. The SGS is a 1,922 acre site located in northeast Putnam County, approximately five
4 miles north of the City of Palatka. My Exhibit MPO-1 is a map showing the location
5 of the SGS.

6
7 The SGS currently accommodates two 650 MW class pulverized coal units (SGS
8 Units 1 and 2). SGS Unit 1 began commercial operation in February 1984, and SGS
9 Unit 2 began commercial operation in December 2004. The existing site contains all
10 the facilities necessary for the operation of the existing units, including coal
11 unloading and storage facilities, pollution control equipment and solid waste disposal
12 areas for flyash and other solid waste materials. Both units are equipped with
13 electrostatic precipitators and wet flue gas desulfurization systems for particulate and
14 sulfur dioxide removal. Flue gas desulfurization waste is processed into wall board
15 grade synthetic gypsum and conveyed to a wall board facility located on a parcel of
16 land adjacent to the SGS.

17
18 **Q. Please address Seminole's plans for the location of SGS Unit 3.**

19 A. My Exhibit MPO-2 is a Site Map showing the preliminary site arrangement of SGS
20 Unit 3. The design of SGS Unit 3 will use existing site facilities to the maximum
21 extent possible. As a project at an existing site, SGS Unit 3 avoids not only the cost
22 of developing a new site, but also the costs of numerous facilities already at the SGS
23 that will be co-used by SGS Unit 3. Additionally, the use of the existing site avoids

1 **Cooling and Service Water Supply** - Makeup water to the existing unit cooling
2 tower and service water systems is supplied from the St. Johns River. The addition of
3 SGS Unit 3 will increase intake flow by approximately 30%. No changes to the river
4 intake structure, which is already equipped with fine mesh screen technology, will be
5 required. An additional pipe from the river intake structure to SGS Unit 3 will be
6 required.

7
8 **Cooling Water Discharge** - The existing permitted wastewater discharge line has
9 sufficient capacity to accommodate the increased discharge of cooling tower
10 blowdown from SGS Unit 3.

11
12 **Limestone Handling** - The current limestone unloading facility has sufficient
13 capacity to accommodate the increase in limestone required for SGS Unit 3 flue gas
14 desulfurization system.

15
16 **Plant Egress/Ingress** - The existing plant entrance off of U.S. Highway 17 will
17 continue to be utilized for existing facility traffic, as well as all SGS Unit 3
18 construction traffic. To accommodate peak construction traffic and maintain an
19 adequate level of service, a traffic signal and additional approach lane will be
20 constructed on U.S. Highway 17 at the plant entrance. Also, the plant entrance road
21 will be widened.

1 The addition of SGS Unit 3 will increase intake flow from the river by approximately
2 30%. However, cooling water discharge levels from SGS Unit 3 will be offset
3 partially by reductions in process waste water discharge. No changes to the river
4 intake structure, which is already equipped with fine mesh screen technology, will be
5 required. However, an additional pipe from the river intake structure to SGS Unit 3
6 will be needed.

8 **IV. SGS UNIT 3 ENVIRONMENTAL COMPLIANCE**

9 **Q. What pollution control measures will be employed in the design and operation of**
10 **SGS Unit 3?**

11 A. As I have noted previously, the supercritical design at SGS Unit 3 is more efficient
12 and has lower emissions rates than a subcritical design. In addition, SGS Unit 3 will
13 employ state-of-the-art emission control equipment to further reduce emissions,
14 including:

- 15 • Low NO_x Burners and Staged Combustion / Overfire Air (OFA) for NO_x
16 control.
- 17 • Selective Catalytic Reduction (SCR) for NO_x control.
- 18 • Electrostatic Precipitator (ESP) for particulate (PM) control.
- 19 • Wet Flue Gas Desulfurization (WFGD) for SO₂ control.
- 20 • Wet ESP for sulfuric acid mist (H₂SO₄) control.
- 21 • Mercury removal through application of the above technologies.

22 As a result of the emission control equipment that will be installed at SGS Unit 3 and
23 emission-reduction measures that are planned for SGS Units 1 and 2 independent of

1 Unit 3's construction, the combined NO_x, SO₂ and mercury emissions from all three
2 units will be less than the current emissions from Units 1 and 2.

3
4 Most process wastewater streams will be treated and recycled as make-up water to the
5 wet scrubber. Blowdown from the wet scrubber will be treated in a new zero liquid
6 discharge system consisting of brine concentrators and a spray dryer system. Site
7 runoff will be integrated into the site drainage system which will be expanded to
8 accommodate Unit 3. Sanitary discharge will be to a sanitary treatment system.

9
10 Coal combustion by-products not sold for reuse will be disposed of in the permitted
11 on-site landfill or an offsite permitted landfill. A monitoring well system is currently
12 in place to monitor ground water quality adjacent to the landfill area and around the
13 SGS property. The ground water monitoring system will be modified as necessary to
14 evaluate the impact of SGS Unit 3.

15
16 **Q. Does Seminole plan to reuse by-products from SGS Unit 3 as it does for SGS**
17 **Units 1 and 2?**

18 A. Yes. Coal combustion by-products produced as a result of the addition of Unit 3 will
19 be sold for reuse to the maximum extent possible. The waste products from the flue
20 gas desulfurization unit (wet scrubber) will be treated to produce commercial-grade
21 gypsum for use in the manufacture of wallboard. As noted earlier, there is a
22 wallboard facility located on a parcel of land adjacent to the SGS. Bottom ash and
23 flyash can be used to produce concrete block, high quality concrete and cement.