March 15, 2006

Mr. Jeffery Archie
Vice President, Nuclear Operations
South Carolina Electric & Gas Company
Virgil C. Summer Nuclear Station
Post Office Box 88
Jenkinsville, South Carolina 29065

SUBJECT: VIRGIL C. SUMMER NUCLEAR STATION — REQUEST FOR ADDITIONAL INFORMATION REGARDING ALTERNATE POWER SUPPLY (TAC NO. MC8798)

Dear Mr. Archie:

The Nuclear Regulatory Commission staff is reviewing the license amendment application for the Virgil C. Summer Nuclear Station dated October 28, 2005, concerning an alternate power supply and find that we need additional information as identified in the enclosure.

This request for additional information was discussed with your staff on March 8, 2006. Please contact me if you have any questions.

Sincerely,

/RA/

Robert E. Martin, Senior Project Manager
Plant Licensing Branch II-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-395

Enclosure: Request for Additional Information

cc: See next page

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REQUEST FOR ADDITIONAL INFORMATION

TECHNICAL SPECIFICATIONS 3.8.1, AC SOURCES - OPERATING, EXTENSION OF THE

EMERGENCY DIESEL GENERATOR ALLOWED OUT OF SERVICE TIME

VIRGIL C. SUMMER NUCLEAR STATION (VCSNS)

1. The Nuclear Regulatory Commission staff has identified that the licensee's compensatory measures do not sufficiently address the availability of needed systems or components. Provide a discussion on the following topics:

   a. Verification of the operability of the turbine driven emergency feedwater pump before entering the extended emergency diesel generator (EDG) allowable outage time (AOT).

   b. Maintain daily communication with the system dispatcher regarding the status of the EDG along with the power needs of the facility.

   c. Control of discretionary maintenance on the main and unit auxiliary transformers associated with the unit during the extended out of service time.

   d. A test program for the black-start diesel at the Parr Hydro station to assure reliability and availability of that portion of the system.

   e. The development and completion of a test to assure availability and capability prior to declaring the alternate ac (AAC) system available the first time.

   f. Dedication of the Parr Hydro units as an AAC power source each time the 14-day AOT is entered.

2. Provide a discussion regarding the licensee's administrative processes, including its commitment management program, that will provide reasonable controls for the implementation and for subsequent evaluation of proposed changes pertaining to the regulatory commitments.

3. Provide a single line diagram showing emergency buses and offsite and AAC power sources including Parr Hydro and Parr Combustion Turbine Generators. Also, indicate overhead and underground installations.

4. Discuss what types of communication protocol have been established between the control room operator at VCSNS and transmission system operator (TSO). Discuss whether the TSO is notified in advance that an EDG is going to be taken out for extended period of time.

5. Discuss whether the TSO will notify the plant operators when degraded grid conditions could occur and what action will be taken if degraded grid conditions occur during the EDG extended AOT.

6. One of the commitments states that “The design of the AAC meets the requirements of NUMARC 8700, Appendix B.” Provide a brief description how NUMARC 8700, Appendix B criteria B1 through B13 are met. Criterion B.9 states that “The AAC power system shall be sized to carry the required shutdown loads and be capable of maintaining voltage and frequency within limits consistent with established industry standards that will not degrade the performance of any shutdown system or component.” Provide supporting calculations for the above requirements.

7. Provide the current reliability and unavailability of the EDGs at VCSNS. Also, evaluate how these actual values relate to the target values committed for station blackout conditions.

8. The VCSNS license has been extended to 60 years. Provide a discussion regarding the impact of AAC power source (specifically cables and connections) on the extended license.

9. On page 3 of Enclosure 1, it is stated that “An agreement is being made with the management of Parr. Personnel will be available to staff the plant during preplanned maintenance activities and personnel will be able to staff the plant within one hour for emergent conditions.” Discuss whether the Parr Hydro station is manned 24 hours per day, 7 days a week. Explain how the AAC power will be available within one hour if Parr Hydro Station is not manned 24 hours per day, 7 days a week.

10. On page 2 of Enclosure 1, it is stated that “There are six 3.0 MVA units at Parr and only three are required...” Please clarify whether any three units will be adequate for the AAC source. If not, please explain how the capacity of the AAC power source will be verified.

11. On page 2 of Enclosure 1, it is indicated that, “An underground cable will be installed between the Parr switchgear and a new weather protected transformer at the VCSNS switchyard. From the transformer, a cable will be run into 1DX switchgear...” Provide the following:

    a) Parr switchgear voltage rating and its location (indoor or outdoor).
    b) Transformer rating (MVA, Voltages).
    c) How the cable from transformer to 1DX switchgear will be protected against severe weather.
    d) Location of 1DX switchgear.

Mr. Jeffrey B. Archie
South Carolina Electric & Gas Company

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