

March 12, 2002

Mr. Stephen A. Byrne
Senior 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, UNIT NO. 1 - INCLUSION OF TWO
UPGRADED INSTRUMENT CARDS INTO RESPONSE TIME TESTING
ELIMINATION CATEGORY (TAC NO. MB2236)

Dear Mr. Byrne:

The Nuclear Regulatory Commission has issued the enclosed Amendment No. 158 to Facility Operating License No. NPF-12 for the Virgil C. Summer Nuclear Station, Unit No. 1. The amendment changes the Technical Specifications (TS) in response to your application dated June 19, 2001.

This amendment approves inclusion of two upgraded 7300 Process Protection System instrument cards (NLP - Loop Power Supply and Isolator card, and NSA - Summing Amplifier card) into the response time testing elimination population. The associated Bases for TS 3/4.3.1 is being revised to reflect this change.

A copy of the related Safety Evaluation is enclosed. Notice of Issuance will be included in the Commission's Bi-weekly Federal Register notice. This completes the staff's efforts on TAC No. MB2236.

Sincerely,

/RA/

Gordon E. Edison, Sr. Project Manager, Section 1
Project Directorate II
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket No. 50-395

Enclosures:

1. Amendment No. 158 to NPF-12
2. Safety Evaluation

OFFICE	PM:PDII/S1	LA:PDII/S2	SC(A):PDII/S1	OGC	
NAME	GEdison	EDunnington	RMartin for RLaufer	RHoefling	
DATE	2/25/02	2/19/02	3/12/02	3/5/02	
COPY	Yes/No	Yes/No	Yes/No	Yes/No	

OFFICIAL RECORD COPY

SOUTH CAROLINA ELECTRIC & GAS COMPANY

SOUTH CAROLINA PUBLIC SERVICE AUTHORITY

DOCKET NO. 50-395

VIRGIL C. SUMMER NUCLEAR STATION, UNIT NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 158

License No. NPF-12

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by South Carolina Electric & Gas Company (the licensee), dated June 19, 2001, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the license is amended by changes to the Technical Specifications, as indicated in the attachment to this license amendment; and paragraph 2.C.(2) of Facility Operating License No. NPF-12 is hereby amended to read as follows:

(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A, as revised through Amendment No. 158 , and the Environmental Protection Plan contained in Appendix B, are hereby incorporated in the license. South Carolina Electric & Gas Company shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This amendment is effective as of its date of issuance and shall be implemented within 30 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA by Robert Marting for/

Richard J. Laufer, Acting Chief, Section 1
Project Directorate II
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: March 12, 2002

ATTACHMENT TO LICENSE AMENDMENT NO. 158

TO FACILITY OPERATING LICENSE NO. NPF-12

DOCKET NO. 50-395

Replace the following pages of the Appendix A Technical Specifications with the attached revised pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

Remove Pages

B 3/4 3-1a
B 3/4 3-1b
B 3/4 3-1c

Insert Pages

B 3/4 3-1a
B 3/4 3-1b
B 3/4 3-1c

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 158 TO FACILITY OPERATING LICENSE NO. NPF-12

SOUTH CAROLINA ELECTRIC & GAS COMPANY

SOUTH CAROLINA PUBLIC SERVICE AUTHORITY

VIRGIL C. SUMMER NUCLEAR STATION, UNIT NO. 1

DOCKET NO. 50-395

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1.0 INTRODUCTION

By letter dated June 19, 2001, South Carolina Electric & Gas Company (licensee) submitted a request for a Technical Specifications (TS) change. The proposed change supports inclusion of two newer and upgraded 7300 Process Protection System (PPS) instrument cards (NLP - Loop Power Supply and Isolator card, and NSA - Summing Amplifier card) into the response time testing elimination population. In October 1998, the NRC approved Westinghouse Topical Report WCAP-14036-P-A, Revision 1, "Elimination of Periodic Response Time Tests," which allowed certain instruments in the protection system identified in the WCAP to be replaced without response time testing. The licensee has submitted its review of two 7300 PPS instrument cards that were part of the original Failure Modes and Effect Analysis (FMEA), but have been redesigned since the approval of the WCAP. The intention of this review is to demonstrate that the differences between the upgraded version and the older version of these cards are insignificant with respect to the conclusions of the FMEA performed for the response time.

2.0 BACKGROUND

In Amendment No. 146, dated August 29, 2000, to Facility Operating License No. NPF-12, V.C. Summer Nuclear Station Unit No. 1, the staff approved the TS Bases B3/4 3-1 wording changes. B3/4 3-1 states that WCAP 14036-P-A, Revision 1, "Elimination of Periodic Response Time Tests," provides the basis and methodology for using allocated signal processing and actuating logic response times in the overall verification of the protection system channel response time. The allocations for sensor, signal conditioning, and actuation logic response time must be verified prior to placing the component into operational service and re-verified following maintenance or modification that may adversely affect response time. In general, electrical repair work does not impact response time provided the parts used for the repair are of the same type and value. Specific components identified in the WCAP may be replaced without verification testing. One example where response time could be affected is replacing the sensing element of a transmitter.

3.0 EVALUATION

The licensee proposes to install two upgraded 7300 Process Protection System cards - 11NLP and 6NSL cards at V.C. Summer Nuclear Station Unit 1 during the next refueling outage. The older version of these cards were included in the population of circuit cards in the original FMEA performed for WCAP-14036-P-A, Revision 1. The newer cards were upgraded for enhancement of performance after WCAP-14036-P-A was approved. Westinghouse letter CGE-00-018, dated March 28, 2000, provided an evaluation of the Group 5 (11NLP and 6NSA) 7300 process cards. This letter concluded that the failure modes and effects analysis performed for the older versions of these cards and documented in WCAP-14036-P-A, Revision 1, is applicable for the newer Group 05 cards. The bounding time response values determined by test and evaluation and reported in the WCAP are valid for these redesigned cards.

The staff has reviewed the Westinghouse proprietary information and the schematic diagrams for the Loop Power Supply (NLP) card and Summing Amplifier (NSA) card. Basically, the new version of design is to extend the life and enhance the performance of the equipment by taking advantage of the availability of new state-of-the-art components. The new version of design will reduce card power consumption and heat dissipation, enhance temperature stability and reduce draft, improve testing and calibration provisions, and improve the reliability rating or mean time between failure. The circuit signal path is maintained as the original design. Based on its review, the staff agrees with the conclusion stated in Westinghouse letter CGE-00-018.

The staff has reviewed the licensee's request and the supporting evaluation of the Group 05 (11NLP and 6NSA) 7300 process cards. The supporting evaluation concluded that the FMEA performed for the older versions of these cards and documented in WCAP-14036-P-A, Revision 1, is applicable for the newer Group 05 cards. The bounding time response values determined by test and evaluation and reported in the WCAP are valid for these upgraded cards. The staff finds the proposed changes acceptable.

4.0 STATE CONSULTATION

In accordance with the Commission's regulations, the State of South Carolina official was notified of the proposed issuance of the amendment. The State official had no comments.

5.0 ENVIRONMENTAL CONSIDERATION

The amendment changes a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The NRC staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendment involves no significant hazards consideration, and there has been no public comment on such finding (66 FR 38766). Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the

issuance of the amendment.

6.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above, that (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: H. Li

Date: March 12, 2002

Mr. Stephen A. Byrne
South Carolina Electric & Gas Company

VIRGIL C. SUMMER NUCLEAR STATION

cc:

Mr. R. J. White
Nuclear Coordinator
S.C. Public Service Authority
c/o Virgil C. Summer Nuclear Station
Post Office Box 88, Mail Code 802
Jenkinsville, South Carolina 29065

Ms. Kathryn M. Sutton, Esquire
Winston & Strawn Law Firm
1400 L Street, NW
Washington, DC 20005-3502

Resident Inspector/Summer NPS
c/o U.S. Nuclear Regulatory Commission
576 Stairway Road
Jenkinsville, South Carolina 29065

Chairman, Fairfield County Council
Drawer 60
Winnsboro, South Carolina 29180

Mr. Henry Porter, Assistant Director
Division of Waste Management
Bureau of Land & Waste Management
Department of Health & Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

Mr. Gregory H. Halnon, General Manager
Nuclear Plant Operations
South Carolina Electric & Gas Company
Virgil C. Summer Nuclear Station, Mail Code 303
Post Office Box 88
Jenkinsville, South Carolina 29065

Mr. Melvin N. Browne, Manager
Nuclear Licensing & Operating Experience
South Carolina Electric & Gas Company
Virgil C. Summer Nuclear Station, Mail Code 830
Post Office Box 88
Jenkinsville, South Carolina 29065