

March 5, 1993

Docket No. 50-395

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

Dear Mr. Skolds:

SUBJECT: ISSUANCE OF AMENDMENT NO. 110 TO FACILITY OPERATING LICENSE NO. NPF-12 REGARDING REMOVAL OF TABLE 3.6-1 AND REFERENCES TO TABLE 3.6-1 - VIRGIL C. SUMMER NUCLEAR STATION, UNIT NO. 1, (TAC NO. M84746)

The Nuclear Regulatory Commission has issued the enclosed Amendment No. 110 to Facility Operating License No. NPF-12 for the Virgil C. Summer Nuclear Station, Unit No. 1. The amendment consists of changes to the Technical Specifications in response to your application dated September 23, 1992.

The amendment removes Technical Specification (TS) Table 3.6-1 that includes lists of components referenced in individual specifications. In addition, the TS requirements have been modified so all references to Table 3.6-1 are removed under guidance provided in Generic Letter 91-08.

A copy of the related Safety Evaluation is enclosed. Notice of Issuance will be included in the Commission's Bi-weekly Federal Register notice.

Sincerely,

Original signed by:
Jocelyn Mitchell for
George F. Wunder, Project Manager
Project Directorate II-1
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Enclosures:

1. Amendment No. 110 to NPF-12
2. Safety Evaluation

cc w/enclosures: 090059
See next page

OFFICE	LA:PD21:DRPE	PM:PD21:DRPE	D:PD21:DRPE	OGC
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DATE	02/8/93	02/11/93	02/19/93	

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Document Name: SUM84746.AMD

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South Carolina Electric & Gas Company

Virgil C. Summer Nuclear Station

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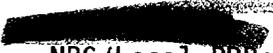
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AMENDMENT NO. 110 TO FACILITY OPERATING LICENSE NO. NPF-12 - SUMMER,
UNIT NO. 1

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

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. 110
License No. NPF-12

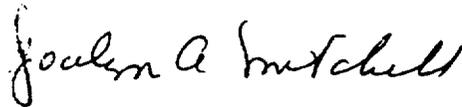
1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by South Carolina Electric & Gas Company (the licensee), dated September 23, 1992, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's 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. 110 , 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 60 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Jocelyn A. Mitchell, Acting Director
Project Directorate II-1
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: March 5, 1993

ATTACHMENT TO LICENSE AMENDMENT NO. 110
TO FACILITY OPERATING LICENSE NO. NPF-12
DOCKET NO. 50-395

Replace the following pages of the Appendix A Technical Specifications with the enclosed pages. The revised pages are indicated by marginal lines.

<u>Remove Pages</u>	<u>Insert Pages</u>
1-2	1-2
3/4 6-1	3/4 6-1
3/4 6-17	3/4 6-17
3/4 6-18	3/4 6-18
3/4 6-19	3/4 6-19
3/4 6-20	---
3/4 6-20a	---
3/4 6-20b	---
3/4 6-20c	---
B 3/4 6-5	B 3/4 6-5

DEFINITIONS

CONTAINMENT INTEGRITY

1.7 CONTAINMENT INTEGRITY shall exist when:

- a. All penetrations required to be closed during accident conditions are either:
 - 1) Capable of being closed by an OPERABLE containment automatic isolation valve system, or
 - 2) Closed by manual valves, blind flanges, or deactivated automatic valves secured in their closed positions, except for valves that are open under administrative control as permitted by Specification 3.6.4,
- b. All equipment hatches are closed and sealed,
- c. Each air lock is in compliance with the requirements of Specification 3.6.1.3,
- d. The containment leakage rates are within the limits of Specification 3.6.1.2, and
- e. The sealing mechanism associated with each penetration (e.g., welds, bellows, or O-rings) is OPERABLE.

CONTROLLED LEAKAGE

1.8 CONTROLLED LEAKAGE shall be that seal water flow supplied to the reactor coolant pump seals.

CORE ALTERATION

1.9 CORE ALTERATION shall be the movement or manipulation of any component within the reactor pressure vessel with the vessel head removed and fuel in the vessel. Suspension of CORE ALTERATION shall not preclude completion of movement of a component to a safe conservative position.

CORE OPERATING LIMITS REPORT

1.9a The CORE OPERATING LIMITS REPORT (COLR) is the unit specific document that provides core operating limits for the current operating reload cycle. The cycle specific core operating limits shall be determined for each reload cycle in accordance with Specification 6.9.1.11. Plant operation within these operating limits is addressed in individual specifications.

DOSE EQUIVALENT I-131

1.10 DOSE EQUIVALENT I-131 shall be that concentration of I-131 (microcurie/gram) which alone would produce the same thyroid dose as the quantity and isotopic mixture of I-131, I-132, I-133, I-134, and I-135 actually present. The thyroid dose conversion factors used for this calculation shall be those listed in Table III of TID-14844, "Calculation of Distance Factors for Power and Test Reactor Sites."

3/4.6 CONTAINMENT SYSTEMS

3/4.6.1 PRIMARY CONTAINMENT

CONTAINMENT INTEGRITY

LIMITING CONDITION FOR OPERATION

3.6.1.1 Primary CONTAINMENT INTEGRITY shall be maintained.

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION:

Without primary CONTAINMENT INTEGRITY, restore CONTAINMENT INTEGRITY within one hour or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.6.1.1 Primary CONTAINMENT INTEGRITY shall be demonstrated:

- a. At least once per 31 days by verifying that all penetrations* not capable of being closed by OPERABLE containment automatic isolation valves and required to be closed during accident conditions are closed by valves, blind flanges, or deactivated automatic valves secured in their positions, except for valves that are open under administrative control as permitted by Specification 3.6.4.
- b. By verifying that each containment air lock is in compliance with the requirements of Specification 3.6.1.3.
- c. After each closing of each penetration subject to Type B testing, except the containment air locks, if opened following a Type A or B test, by leak rate testing the seal with gas at P_a (47.1 psig) and verifying that when the measured leakage rate for these seals is added to the leakage rates determined pursuant to Specification 4.6.1.2.d for all other Type B and C penetrations, the combined leakage rate is less than $0.60 L_a$.

*Except valves, blind flanges, and deactivated automatic valves which are located inside the containment and are locked, sealed or otherwise secured in the closed position. These penetrations shall be verified closed during each COLD SHUTDOWN except that such verification need not be performed more often than once per 92 days.

CONTAINMENT SYSTEMS

3/4.6.4 CONTAINMENT ISOLATION VALVES

LIMITING CONDITION FOR OPERATION

3.6.4 Each containment isolation valve shall be OPERABLE.*

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION:

With one or more of the isolation valve(s) inoperable, maintain at least one isolation valve OPERABLE in each affected penetration that is open and either:

- a. Restore the inoperable valve(s) to OPERABLE status within 4 hours, or
- b. Isolate each affected penetration within 4 hours by use of at least one deactivated automatic valve secured in the isolation position, or
- c. Isolate each affected penetration within 4 hours by use of at least one closed manual valve or blind flange, or
- d. Be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

The provisions of Specification 3.0.4 do not apply.

SURVEILLANCE REQUIREMENTS

4.6.4.1 Each containment isolation valve shall be demonstrated OPERABLE prior to returning the valve to service after maintenance, repair, or replacement work is performed on the valve or its associated actuator, control, or power circuit by performance of a cycling test and verification of isolation time.

4.6.4.2 Each containment isolation valve shall be demonstrated OPERABLE during the COLD SHUTDOWN or REFUELING MODE AT LEAST ONCE PER 18 MONTHS BY:

- a. Verifying that on a Phase A containment isolation test signal, each Phase A isolation valve actuates to its isolation position.
- b. Verifying that on a Phase B containment isolation test signal, each Phase B isolation valve actuates to its isolation position.
- c. Verifying that on a Reactor Building Purge and Exhaust isolation test signal, each Purge and Exhaust valve actuates to its isolation position.

*Locked or sealed closed valves may be opened on an intermittent basis under administrative control.

CONTAINMENT SYSTEMS

SURVEILLANCE REQUIREMENTS (continued)

4.6.4.3 The isolation time of each power operated or automatic containment isolation valve shall be determined to be within its limit when tested pursuant to Specification 4.0.5.

TABLE 3.6-1
CONTAINMENT ISOLATION VALVES

Deleted

Pages 3/4 6-19, 3/4 6-20, 3/4 6-20a, 3/4 6-20b, and 3/4 6-20c deleted

CONTAINMENT SYSTEMS

BASES

3/4.6.4 CONTAINMENT ISOLATION VALVES

The OPERABILITY of the containment isolation valves ensures that the reactor building atmosphere will be isolated from the outside environment in the event of a release of radioactive material to the reactor building atmosphere or pressurization of the reactor building and is consistent with the requirements of GDC 54 through 57 of Appendix A to 10 CFR Part 50. Containment isolation within the time limits required by the safety analysis for those isolation valves designed to close automatically ensures that the release of radioactive material to the environment will be consistent with the assumptions used in the analyses for a LOCA.

The opening of locked or sealed closed containment isolation valves on an intermittent basis under administrative control includes the following considerations: (1) stationing an operator, who is in constant communication with control room, at the valve controls, (2) instructing this operator to close these valves in an accident situation, and (3) assuring that environmental conditions will not preclude access to close the valves.

3/4.6.5 COMBUSTIBLE GAS CONTROL

The OPERABILITY of the equipment and systems required for the detection and control of hydrogen gas ensures that this equipment will be available to maintain the hydrogen concentration within the reactor building below its flammable limit during post-LOCA conditions. Either recombiner unit (or the purge system) is capable of controlling the expected hydrogen generation associated with 1) zirconium-water reactions, 2) radiolytic decomposition of water, and 3) corrosion of metals within containment. These hydrogen control systems are consistent with the recommendations of Regulatory Guide 1.7, "Control of Combustible Gas Concentrations in Containment Following a LOCA," March 1971.

The hydrogen mixing systems are provided to ensure adequate mixing of the containment atmosphere following a LOCA. This mixing action will prevent localized accumulations of hydrogen from exceeding the flammable limit.



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 110 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

1.0 INTRODUCTION

By letter dated September 23, 1992, South Carolina Electric & Gas Company (the licensee), submitted a request for changes to the Virgil C. Summer Nuclear Station, Unit No. 1 (Summer Station), Technical Specifications (TS). The proposed amendment would remove TS Table 3.6-1 that includes lists of containment isolation valves. In addition, the TS requirements are modified so all references to this table have been removed. Guidance on the proposed TS changes was provided by Generic Letter (GL) 91-08.

2.0 EVALUATION

The licensee has proposed the removal of Table 3.6-1, "Containment Isolation Valves," that is referenced in TS 3/4.6.4. With the removal of this Table, the licensee has proposed to include the following statement of the Limiting Condition for Operation (LCO) under TS 3.6.4:

Each containment isolation valve shall be OPERABLE.

In addition, the licensee has revised the definition of Containment Integrity, TS 4.6.1.1, and TS 4.6.4.1 through 4.6.4.3 are also revised to remove all references to Table 3.6-1. The definition of Containment Integrity and TS 4.6.1.1 refer to TS 3.6.4 for an exception that is now covered by a footnote to the LCO rather than by the Table removed from the TS. With the removal of the reference to Table 3.6-1, the licensee has proposed to state this exception as:

..., except for valves that are open under administrative control as permitted by Specification 3.6.4.

The surveillance requirements of TS 4.6.4.1 through 4.6.4.3 have been revised to state "Each containment isolation shall. . ." rather than stating the requirements in relation to the valves specified in Table 3.6-1. In order to model the TS after the guidance in GL-91-08, the following statement has been added to the LCO for TS 3.6.4:

The provisions of Specification 3.0.4 do not apply.

This is acceptable because it is consistent with the guidance provided in GL 87-09 as noted in GL 91-08. The Table of containment isolation valves identified specific manually-operated locked or sealed closed valves with a footnote stating that these valves may be opened on an intermittent basis under administrative control. These valves are locked or sealed closed consistent with the regulatory requirements for manually-operated valves that are used as containment isolation valves. Because opening these valves would be contrary to the operability requirements of these valves, the following footnote to the LCO has been proposed:

Locked or sealed closed valves may be opened on an intermittent basis under administrative control.

This change is consistent with the guidance in GL 91-08 and is, therefore, acceptable.

The licensee has proposed changes to the above TS that are consistent with the guidance provided in GL 91-08. In addition, the licensee has provided an updated copy of Bases Section of TS 3.6.4 that addresses appropriate considerations for opening locked or sealed closed valves on an intermittent basis. Finally, the licensee has confirmed that component lists removed from the TS have been updated to identify all components for which the TS requirements apply and are located in controlled plant procedures.

On the basis of its review of this matter, the staff finds that the proposed changes to the TS for Summer Station are primarily administrative changes that do not alter the requirements set forth in the existing TS. However, the applicability of the operability requirements will extend to all containment isolation valves as noted in this evaluation. These changes will allow the licensee to make corrections and updates to the list of components for which these TS requirements apply under the provisions that control changes to plant procedures as specified in the Administrative Controls Section of the TS. Therefore, the staff finds that the proposed TS changes are acceptable.

3.0. 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.

4.0. 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 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 (57 FR 55590). 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.

5.0 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: T. Dunning

Date: March 5, 1993