

May 17, 1990

Dbcket No. 50-395

DISTRIBUTION

See attached sheet

Mr. O. S. Bradham
Vice President, Nuclear Operations
South Carolina Electric & Gas Company
Virgil C. Summer Nuclear Station
P. O. Box 88
Jenkinsville, South Carolina 29065

Dear Mr. Bradham:

SUBJECT: ISSUANCE OF AMENDMENT NO. 92 TO FACILITY OPERATING LICENSE NO. NPF-12 - VIRGIL C. SUMMER NUCLEAR STATION, UNIT NO. 1, REGARDING CHANGE IN THE CLOSURE TIME FOR THE MAIN STEAM LINE ISOLATION VALVES (TAC NO. 75360)

The Nuclear Regulatory Commission has issued the enclosed Amendment No. 92 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 (TS) in response to your application dated November 20, 1989.

Your November 20, 1989 submittal requested a revision to TS 4.7.1.5, Main Steam Line Isolation Valves (MSIV). This revision changes the acceptable full closure time for the MSIV from five seconds to seven seconds.

This amendment approves this TS change. A copy of the related Safety Evaluation is enclosed. The Notice of Issuance will be included in the Commission's bi-weekly Federal Register notice.

Sincerely,

Original Signed By:

John J. Hayes, Jr., Project Manager
Project Directorate II-1
Division of Reactor Projects I/II

Enclosures:

1. Amendment No. 92 to NPF-12
2. Safety Evaluation

cc w/enclosures
See next page

OFC	:LA:PD21:DRPR	PM:PD21:DRPR	:D:PD21:DRPR	:	:	:	:
NAME	:PAnderson	:JHayes, Jr	:EAdams	:	:	:	:
DATE	:5/16/90	:5/17/90	:5/17/90	:	:	:	:

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Document Name: SUMMER AMENDMENT 75360

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Mr. O. S. Bradham
South Carolina Electric & Gas Company

Virgil C. Summer Nuclear Station

cc:

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Executive Vice President
S.C. Public Service Authority
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South Carolina Electric & Gas Company
Mr. A. R. Koon, Jr., Manager
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Jenkinsville, South Carolina 29065

AMENDMENT NO. 92 TO FACILITY OPERATING LICENSE NO. NPF-12 - SUMMER, UNIT 1

Docket File

NRC PDR

Local PDR

PDII-1 Reading

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G. Lainas

E. Adensam

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T. Barnhart (4) (P1-137)

W. Jones (P-130A)

J. Calvo

ACRS (10)

GPA/PA

ARM/LFMB

cc: Licensee/Applicant Service List



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. 92
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 licensees), dated November 20, 1989, 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:

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(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A, as revised through Amendment No. 92, 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

Original Signed By: :

Elinor G. Adensam, Director
Project Directorate II-1
Division of Reactor Projects I/II

Attachment:
Changes to the Technical
Specifications

Date of Issuance: May 17, 1990

OFC	: LA: PD21: DRPR: PM: PD21: DRPR: DET: EMEB	: SCIB: NRR	: SPLB: NRR	: OGC	: D: PD21: DRPR
NAME	: PAnderson	: J Hayes	: L Marsh	: S Newberry	: C McCracken
DATE	: 4/1/90	: 4/4/90	: 4/13/90	: 4/14/90	: 4/10/90

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SRXB: NRR
R. C. Jones
4/13/90

ATTACHMENT TO LICENSE AMENDMENT NO. 92
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 identified by amendment number and contain vertical lines indicating the areas of change.

Remove Pages

3/4 7-9

Insert Pages

3/4 7-9

PLANT SYSTEMS

MAIN STEAM LINE ISOLATION VALVES

LIMITING CONDITION FOR OPERATION

3.7.1.5 Each main steam line isolation valve shall be OPERABLE.

APPLICABILITY: MODES 1, 2 and 3.

ACTION:

MODE 1 - With one main steam line isolation valve inoperable but open, POWER OPERATION may continue provided the inoperable valve is restored to OPERABLE status within 4 hours;

Otherwise, reduce power to less than or equal to 5 percent of RATED THERMAL POWER within the next 2 hours.

MODES 2 - With one main steam line isolation valve inoperable, subsequent and 3 operation in MODES 2 or 3 may proceed provided:

- a. The isolation valve is maintained closed.
- b. The provisions of Specification 3.0.4 are not applicable.

Otherwise, be in HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.

SURVEILLANCE REQUIREMENTS

4.7.1.5 Each main steam line isolation valve shall be demonstrated OPERABLE by verifying full closure within 7 seconds when tested pursuant to Specification 4.0.5.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
SUPPORTING AMENDMENT NO. 92 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 November 20, 1989, South Carolina Electric & Gas Company (the licensee) proposed a change to the Surveillance Requirement for the full closure time for the main steam line isolation valves (MSIV) for V. C. Summer Nuclear Station (Summer). Surveillance Requirement 4.7.1.5, Main Steam Line Isolation Valves, requires that the each MSIV be demonstrated OPERABLE by verifying full closure within five seconds. The licensee is proposing to change the Surveillance Requirement to demonstrate full closure within seven seconds.

2.0 BACKGROUND

Surveillance Requirement 4.0.5 addresses the inservice testing (IST) program for ASME Code Class 1, 2, and 3 components. The MSIV is one of those components and a stroke time test is one of the applicable tests. The MSIV are required to be operable to ensure that no more than one steam generator will blowdown in the event of a steam line rupture.

The closure time of the Surveillance Requirement is required to stay consistent with the assumptions made by the licensee in the accident analysis presented in the Summer Final Safety Analysis Report (FSAR).

The MSIV were designed with a specified closure time of five seconds. The TS limit is also the same as the design, five seconds. The change to a seven second limit on stroke time would remain within the bounds of the actuation times assumed in the accident analyses. The actuation times assumed in the accident analyses were ten seconds for both the main steam isolation on reactor building pressure, high-2 and main steam isolation on steam line pressure, low. No credit was taken for closure of the MSIV in the accident analysis for high steam line flow coincident with Low-Low T_{avg} .

Because the TS time limit and the design closure times are the same, there is no allowance for stroke time degradation. Thus, a meaningful trend of valve performance for the IST program cannot be established to allow problem analysis or to pre-plan corrective maintenance. The change to

seven seconds would allow trending, permit planning and analysis and would decrease challenges to safety-related equipment and reduce the inherent exposures resulting from maintenance necessary to bring the valve closure time back to five seconds.

3.0 EVALUATION

The engineered safety feature actuation system (ESFAS) response times are used to assure actuation times are maintained within accident analyses. The most limiting ESFAS response time is nine seconds. The licensee's proposed change will not alter the ESFAS response time limits. Therefore, the assumptions in the accident analyses will not be affected by the change.

The proposed change to the surveillance requirement affects a surveillance requirement which is performed as part of the IST program. The proposed change does not alter the requirements for identifying corrective actions or declaring the MSIV inoperable. Approval of the proposed TS change may actually enhance the IST program since the change would allow the license to trend the degradation of the MSIV. The TS change could also result in a decrease in the potential for cycling the plant through a cooldown and subsequent heatup as a result of declaring MSIV inoperable due to closure times that are within the accident analyses. Thus, challenges to safety-related equipment would be reduced and in-plant exposures, as a result of maintaining the five second closure time, would also be reduced.

A review of the Section 10.3.2.3 of the Summer FSAR indicates that the MSIV have a closure time of 5 seconds upon receipt of the signal. In addition, a review of the steamline break analyses in Chapter 15 of the FSAR also indicates that the total elapsed time for the MSIV to close is 10 seconds in one case and 12 seconds in another. Based upon the above information, it is clear that the stroke time results are within the design basis of the facility as presented in the FSAR.

The staff finds the proposed change in MSIV full closure time to be acceptable.

5.0 ENVIRONMENTAL CONSIDERATION

This amendment changes a requirement with respect to the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 and changes the Surveillance Requirement. 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 off site and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that this amendment involves no

significant hazards consideration and there has been no public comment on such finding. Accordingly, this amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR Section 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 this amendment.

6.0 CONCLUSION

The Commission has issued a "Notice of Consideration of Issuance of Amendment to Facility Operating License and Propose No Significant Hazards Consideration Determination and Opportunity for Hearing" which was published in the Federal Register on January 10, 1990 (55 FR 940) and consulted with the State of South Carolina. No public comments or request for hearing were received, and the State of South Carolina did not have comments.

The staff has concluded, based upon 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 this amendment will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: J. Hayes

Dated: May 17, 1990