

February 4, 1983

Docket No. 50-395

Mr. O. W. Dixon, Jr.
Vice President Nuclear Operations
South Carolina Electric & Gas Company
P.O. Box 764
Columbia, South Carolina 29218

Dear Mr. Dixon:

Subject: Issuance of Amendment No.10 to Facility Operating License NPF-12 Virgil C. Summer Nuclear Station, Unit No. 1

The Nuclear Regulatory Commission has issued Amendment No.10 to Facility Operating License NPF-12 for the Virgil C. Summer Nuclear Station, Unit No. 1 located in Fairfield County, South Carolina. The amendment is issued in response to your application dated January 20, 1983.

The amendment authorizes a change in the Technical Specifications related to the engineered safety feature actuation system instrumentation.

A copy of the related safety evaluation supporting Amendment No.10 to Facility Operating License NPF-12 is enclosed. Also enclosed is a copy of a related notice which has been forwarded to the Office of the Federal Register for publication.

Sincerely,

Elinor G. Adensam, Chief,
Licensing Branch No. 4
Division of Licensing

Enclosures:

- 1. Amendment No. 10
- 2. Safety Evaluation
- 3. Federal Register Notice

cc w/enclosure:
See next page

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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. 10
License No. NPF-12

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment to the Virgil C. Summer Nuclear Station, Unit No. 1 (the facility) Facility Operating License No. NPF-12 filed by the South Carolina Electric & Gas Company acting for itself and South Carolina Public Service Authority (the licensees), dated January 20, 1983, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act) and the Commission's regulations as set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, as amended, the provisions of the Act, and the 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 set forth in 10 CFR Chapter I;
 - D. The issuance of this license amendment will not be inimical to the common defense and security or to the health and safety of the public;
 - E. The issuance of this license 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 hereby amended by page change to the Technical Specifications as indicated in the attachments to this license amendment. Paragraph 2.C(2) of Facility Operating License No. NPF-12 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 10, are hereby incorporated into this license. South

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Carolina Electric & Gas Company shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This license amendment is effective as of its date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

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Elinor G. Adensam, Chief
Licensing Branch No. 4
Division of Licensing

Enclosure:
Technical Specification
Change

Date of Issuance: February 4, 1983

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ATTACHMENT TO LICENSE AMENDMENT NO. 10

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.

Amended
Page

3/4 3-19

3/4 3-21

3/4 3-22

TABLE 3.3-3 (Continued)

ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION

<u>FUNCTIONAL UNIT</u>	<u>TOTAL NO. OF CHANNELS</u>	<u>CHANNELS TO TRIP</u>	<u>MINIMUM CHANNELS OPERABLE</u>	<u>APPLICABLE MODES</u>	<u>ACTION</u>
4. STEAM LINE ISOLATION					
a. Manual					
i. One Switch/line	1/steam line	1/steam line	1/operating steam line	1, 2, 3	23
ii. One Switch/all lines	1	1	1	1, 2, 3	23
b. Automatic Actuation Logic and Actuation Relays	2	1	2	1, 2, 3	24
c. Reactor Building Pressure--High-2	3	2	2	1, 2, 3	15*
d. Steam Flow in Two Steam Lines--High	2/steam line	1/steam line any 2 steam lines	1/steam line	1, 2, 3	15*
COINCIDENT WITH T _{avg} --Low-Low	1 T _{avg} /loop	1 T _{avg} any 2 loops	1 T _{avg} any 2 loops	1, 2, 3	15*

TABLE 3.3-3 (Continued)

ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION

<u>FUNCTIONAL UNIT</u>	<u>TOTAL NO. OF CHANNELS</u>	<u>CHANNELS TO TRIP</u>	<u>MINIMUM CHANNELS OPERABLE</u>	<u>APPLICABLE MODES</u>	<u>ACTION</u>
6. EMERGENCY FEEDWATER					
a. Manual Initiation	1 per pump	1 per pump	1 per pump	1, 2, 3	22
b. Automatic Actuation Logic and Actuation Relays	2	1	2	1, 2, 3	21
c. Stm. Gen. Water Level-Low-Low					
i. Start Motor Driven Pumps	3/stm. gen.	2/stm. gen. any stm gen.	2/stm. gen.	1, 2, 3	15*
ii. Start Turbine-Driven Pump	3/stm. gen.	2/stm. gen. any 2 stm. gen.	2/stm. gen	1, 2, 3	15*
d. Undervoltage-both ESF Busses Start Turbine-Driven Pump	2-1/bus	2	2	1, 2, 3	19
e. S.I. Start Motor-Driven Pumps	See 1 above (all S.I. initiating functions and requirements)				
f. Undervoltage-one ESF bus Start Motor-Driven Pumps	2-1/bus	1	2	1, 2	22
g. Trip of Main Feedwater Pumps Start Motor-Driven Pumps	3-1/pump	3-1/pump	3-1/pump	1, 2	19
h. Suction Transfer on Low Pressure	4	2	3	1, 2, 3	16

TABLE 3.3-3 (Continued)

ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION

<u>FUNCTIONAL UNIT</u>	<u>TOTAL NO. OF CHANNELS</u>	<u>CHANNELS TO TRIP</u>	<u>MINIMUM CHANNELS OPERABLE</u>	<u>APPLICABLE MODES</u>	<u>ACTION</u>
7. LOSS OF POWER					
a. 7.2 kv Emergency Bus Undervoltage (Loss of Voltage)	2-1/bus	1	2	1, 2, 3, 4	18
b. 7.2 kv Emergency Bus Undervoltage (Degraded Voltage)	2-1/bus	1	2	1, 2, 3, 4	18
8. AUTOMATIC SWITCHOVER TO CONTAINMENT SUMP					
a. RWST level low-low	4	2	3	1, 2, 3	16
b. Automatic Actuation Logic and Actuation Relays	2	1	2	1, 2, 3	14
9. ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INTERLOCKS					
a. Pressurizer Pressure, P-11	3	2	2	1, 2, 3	20
b. Low-Low T_{avg} , P-12	3	2	2	1, 2, 3	20
c. Reactor Trip, P-4	2	2	2	1, 2, 3	22

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 10 TO OPERATING LICENSE NO. NPF-12

SOUTH CAROLINA ELECTRIC & GAS COMPANY

VIRGIL C. SUMMER NUCLEAR STATION

DOCKET NO. 50-395

INTRODUCTION

By letter dated January 20, 1983, South Carolina Electric & Gas Company (the licensee) requested an amendment to the Appendix A Technical Specifications appended to License No. NPF-12 for the Virgil C. Summer Nuclear Station. The amendment would change the action statements for engineered safety feature actuation instrumentation to be consistent with the Westinghouse Standard Technical Specifications.

BACKGROUND AND DISCUSSIONS

Table 3.3-3, "Engineered Safety Feature Actuation System Instrumentation", identifies functional units of the protection system including action statements which must be met when channels are inoperable. In general the action statements require that inoperable sensing channels be placed in a tripped condition. For safety actions initiated on 2 out of 4 coincidence, placing a channel in trip results in safety action being initiated on a trip of one of the three remaining channels. Where inadvertent initiation of a safety function could be detrimental to plant safety, inoperable sensing channels are bypassed, rather than placed in a trip condition. This precludes inadvertent initiation of a safety function due to a single failure since two of the remaining sensing channels must trip to initiate safety actions. When one of two logic trains are inoperable, action statements require placing the plant in a hot shutdown condition if this type of channel cannot be returned to an operable status within a short period of time, generally 6 to 12 hours.

EVALUATION

The licensee has proposed to change the Action Statement for the steam line isolation automatic actuation logic and actuation relays from Statement 19 to Statement 21. This changes the action from placing an inoperable logic train in trip to a shutdown action. We find the change to be acceptable since it is consistent with the recommendations of the Standard Technical Specifications for Westinghouse Pressurized Water Reactors, NUREG-0452, Revision 4.

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The licensee has proposed to change the Action Statement for emergency feedwater suction transfer on low pressure from Statement 19 to Statement 16. This changes the action from placing an inoperable channel in trip to placing it in bypass. We find this change to be acceptable since it is consistent with the Westinghouse Standard Technical Specifications for channels which could produce an action detrimental to plant safety if inadvertently tripped.

The licensee has proposed to change the Action Statement for automatic switchover to containment sump on RWST level low-low from Statement 19 to Statement 16. This changes the action from placing an inoperable channel in trip to placing it in bypass. We find this change acceptable since it is consistent with the Westinghouse Standard Technical Specifications for channels which could produce an action detrimental to plant safety if inadvertently tripped.

Finally, the licensee has proposed to change the Action Statement for automatic switchover to containment sump automatic actuation logic and actuation relays from Statement 19 to Statement 14. This changes the action from placing an inoperable logic train in trip to a shutdown action. We find this change acceptable since it is consistent with the Westinghouse Standard Technical Specifications.

The proposed changes in the Technical Specifications are consistent with the actions recommended in the Standard Technical Specification which have been reviewed and approved by the staff for Westinghouse plants and are, therefore, acceptable.

ENVIRONMENTAL CONSIDERATION

We have determined that the amendment does not authorize a change in effluent types or total amounts nor an increase in power level and will not result in any significant environmental impact. Having made this determination, we have further concluded that the amendment involves an action which is insignificant from the standpoint of environmental impact and, pursuant to 10 CFR §51.5(d)(4), that an environmental impact statement or negative declaration and environmental impact appraisal need not be prepared in connection with the issuance of this amendment.

CONCLUSION

We have concluded, based on the considerations discussed above, that: (1) because the amendment does not involve a significant increase in the probability or consequences of accidents previously considered, does not create the possibility of an accident of a type different from any evaluated

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previously, and does not involve a significant decrease in a safety margin, the amendment does not involve a significant hazards consideration, (2) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (3) such activities will be conducted in compliance with the Commission's regulations and the issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public.

Date: February 4, 1983

Principal Contributors: Jon Hopkins, Licensing Branch No. 4, DL
T. Dunning, Instrumentation and Control
Systems Branch, DSI

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UNITED STATES NUCLEAR REGULATORY COMMISSION

DOCKET NO. 50-395

VIRGIL C. SUMMER NUCLEAR STATION, UNIT NO. 1

NOTICE OF ISSUANCE OF AMENDMENT TO

FACILITY OPERATING LICENSE NO. NPF-12

The U.S. Nuclear Regulatory Commission (the Commission) has issued Amendment No. 10 to Facility Operating License No. NPF-12, issued to South Carolina Electric & Gas Company and South Carolina Public Service Authority (the licensees) for the Virgil C. Summer Nuclear Station, Unit No. 1 (the facility) located in Fairfield County, South Carolina. The amendment authorizes a change in the Technical Specifications related to the engineered safety feature actuation system instrumentation. The amendment is effective as of its date of issuance.

The application for the amendment complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's regulations. The Commission has made appropriate findings as required by the Act and the Commission's regulations in 10 CFR Chapter I, which are set forth in the license amendment. Prior public notice of this amendment was not required since the amendment does not involve a significant hazards consideration.

The Commission has determined that the issuance of this amendment will not result in any significant environmental impact and that pursuant to 10 CFR §51.5(d)(4) an environmental impact statement or negative declaration and environmental impact appraisal need not be prepared in connection with issuance of this amendment.

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For further details with respect to this action, see (1) South Carolina Electric & Gas Company letter, dated January 20, 1983, (2) Amendment No.10 to Facility Operating License No. NPF-12 with Appendix A Technical Specifications page change, and (3) the Commission's related Safety Evaluation.

All of these items are available for public inspection at the Commission's Public Document Room, 1717 H Street, N.W., Washington, D. C. 20555 and the Fairfield County Library, Garden and Washington Streets, Winnsboro, South Carolina 29180. A copy of Amendment No.10 may be obtained upon request addressed to the U.S. Nuclear Regulatory Commission, Washington, D. C. 20555, Attention: Director, Division of Licensing.

Dated at Bethesda, Maryland, this 4th day of February 1983.

FOR THE NUCLEAR REGULATORY COMMISSION



Elinor G. Adensam, Chief
Licensing Branch No. 4
Division of Licensing

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

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February 10, 1983

Docket No. 50-395

Docketing and Service Section
Office of the Secretary of the Commission

SUBJECT: **Virgil C. Summer Nuclear Station, Unit No. 1 (South Carolina Electric & Gas Company; South Carolina Public Service Authority)**

One **is**

~~Two~~ signed originals of the Federal Register Notice identified below ~~are~~ enclosed for your transmittal to the Office of the Federal Register for publication. Additional conformed copies (**12**) of the Notice are enclosed for your use.

- Notice of Receipt of Application for Construction Permit(s) and Operating License(s).
- Notice of Receipt of Partial Application for Construction Permit(s) and Facility License(s): Time for Submission of Views on Antitrust Matters.
- Notice of Availability of Applicant's Environmental Report.
- Notice of Proposed Issuance of Amendment to Facility Operating License.
- Notice of Receipt of Application for Facility License(s); Notice of Availability of Applicant's Environmental Report; and Notice of Consideration of Issuance of Facility License(s) and Notice of Opportunity for Hearing.
- Notice of Availability of NRC Draft/Final Environmental Statement.
- Notice of Limited Work Authorization.
- Notice of Availability of Safety Evaluation Report.
- Notice of Issuance of Construction Permit(s).
- Notice of Issuance of Facility Operating License(s) ~~or~~ Amendment(s).
- Other: _____

Office of Nuclear Reactor Regulation

Enclosure:
As Stated

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February 4, 1983

AMENDMENT NO. 10 TO FACILITY OPERATING LICENSE NPF-12 - Virgil C. Summer Unit 1

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