

November 24, 1986

Docket No. 50-395

DISTRIBUTION

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Dear Mr. Nauman:

The Commission has issued the enclosed Amendment No. 55 to Facility Operating License No. NPF-12 for the Virgil C. Summer Nuclear Station, Unit No. 1. The amendment consists of a change to the Technical Specifications in response to your application dated September 11, 1986.

The amendment deletes the maximum total weight of uranium limitation per fuel rod. This amendment is effective as of its date of issuance and shall be implemented within 30 days of issuance.

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

Sincerely,

Original Signed by

Jon B. Hopkins, Project Manager
PWR Project Directorate #2
Division of PWR Licensing-A
Office of Nuclear Reactor Regulation

Enclosures:

- 1. Amendment No. 55 to NPF-12
- 2. Safety Evaluation

cc w/enclosures:

See next page

LA:PAD#2
DM:er
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Mr. D. A. Nauman
South Carolina Electric & Gas Company

Virgil C. Summer Nuclear Station

cc:

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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. 55
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 and South Carolina Public Service Authority (the licensees) dated September 11, 1986 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

The Technical Specifications contained in Appendix A, as revised through Amendment No. 55 , are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

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



Lester S. Rubenstein, Director
PWR Project Directorate #2
Division of PWR Licensing-A
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: November 24, 1986

ATTACHMENT TO LICENSE AMENDMENT

AMENDMENT NO. 55 TO FACILITY OPERATING LICENSE NO. NPF-12

DOCKET NO. 50-395

Replace the following page of the Appendix "A" Technical Specifications as follows:

Remove Pages

5-6

Insert Pages

5-6

DESIGN FEATURES

5.3 REACTOR CORE

FUEL ASSEMBLIES

5.3.1 The reactor core shall contain 157 fuel assemblies with each fuel assembly containing 264 fuel rods clad with (Zircaloy -4). Each fuel rod shall have a nominal active fuel length of 144 inches. The initial core loading shall have a maximum enrichment of 3.2 weight percent U-235. Reload fuel shall be similar in physical design to the initial core loading and shall have a maximum enrichment of 4.3 weight percent U-235.

CONTROL ROD ASSEMBLIES

5.3.2 The reactor core shall contain 48 full length control rod assemblies. The full length control rod assemblies shall contain a nominal 142 inches of absorber material. The nominal values of absorber material shall be 80 percent silver, 15 percent indium and 5 percent cadmium. All control rods shall be clad with stainless steel tubing.

5.4 REACTOR COOLANT SYSTEM

DESIGN PRESSURE AND TEMPERATURE

5.4.1 The reactor coolant system is designed and shall be maintained:

- a. In accordance with the code requirements specified in Section 5.2 of the FSAR, with allowance for normal degradation pursuant to the applicable Surveillance Requirements,
- b. For a pressure of 2485 psig, and
- c. For a temperature of 650°F, except for the pressurizer which is 680°F.

VOLUME

5.4.2 The total water and steam volume of the reactor coolant system is 9407 ± 100 cubic feet at a nominal T_{avg} of 586.8°F.

5.5 METEOROLOGICAL TOWER LOCATION

5.5.1 The meteorological tower shall be located as shown on Figure 5.1-1.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 55 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

INTRODUCTION

By letter dated September 11, 1986, South Carolina Electric and Gas Company (the licensee) requested a change to Operating License NPF-12.

At present, the Design Features Section 5.3.1, "Fuel Assemblies," of the Virgil C. Summer Nuclear Station Technical Specifications identifies a maximum total fuel rod weight of 1,766 grams of uranium. Recent changes by Westinghouse to the fuel design, including chamfered pellets with a reduced dish and use of the integrated dry route process, have increased fuel weights slightly. The proposed change will delete the weight limits from the Technical Specifications to allow use of the slightly heavier fuel.

EVALUATION

The important safety related parameters which are indirectly affected by fuel weight, such as reactor criticality, power level, power distribution and the rate of decay heat production, are all regulated by requirements in the Limiting Condition for Operation sections of the Technical Specifications. In addition, the fuel weight is implicitly included in the nuclear design analysis performed for each reactor operating cycle and used to evaluate conformance with established limits for Design Basis Events. For small future fuel weight increases without a significant change in fuel design, there is no impact on the safety analysis. A significant change in the fuel design would be the subject of review and may require changes to other Technical Specifications or may be an unreviewed safety question as defined in 10 CFR 50.59.

We therefore conclude that there will be no significant safety impact in deleting the maximum fuel weight from Technical Specification 5.3.1. We also find this action preferable to changing the Specification each cycle to accommodate the applicant weight, or to specifying an artificial upper value of the weight to bound future variations. The proposed change is therefore acceptable.

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ENVIRONMENTAL CONSIDERATION

This amendment involves a change in the installation 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 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.

CONCLUSION

We have 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, and
(2) 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.

Dated: November 24, 1986

Principal Contributors:

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