



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

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