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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 29 TO FACILITY OPERATING LICENSE NPF-12

SOUTH CAROLINA ELECTRIC & GAS COMPANY

SOUTH CAROLINA PUBLIC SERVICE AUTHORITY

VIRGIL C. SUMMER NUCLEAR STATION, UNIT 1

I. INTRODUCTION

By letter dated March 30, 1984, South Carolina Electric and Gas Company (the licensee) requested an amendment to delete license condition 2.C.(15) which requires control room installation of the residual heat removal system (RHRS) suction line isolation valve power lockout capability.

II. EVALUATION

In order to fully comply with NRC Branch Technical Position RSB 5-1, the licensee, by letter dated November 6, 1981, agreed to install by the first refueling power lockout devices inside the control room for the RHRS suction line isolation valves power supply breakers. This was discussed and evaluated in SSER Number 3. However, the licensee now believes that this design modification may violate 10 CFR Part 50, Appendix R. With the proposed modification, a fire in the control room could cause both RHR inlet valves to open while the reactor coolant system is at pressure greater than the RHRS design pressure, which may rupture the low pressure piping and could result in a loss of coolant accident outside containment. The staff agrees with the licensee's conclusion that a control room fire could cause the RHRS suction line isolation valves to open if the power lockout capability were to be provided in the control room. Therefore, the licensee requested an amendment to delete the requirement to implement this design modification, and retain the present design feature. Presently the circuit breakers are administratively locked open at their motor control centers prior to normal operation.

The licensee has provided the location of the motor control centers in which the breakers are located. The licensee estimated that the times required for dispatching an operator from the control room and unlocking and closing the breakers to be 5 minutes for inlet valve 8701 A and 10 minutes for valves 8701 B and 8702 A and B. These times would be less if the auxiliary operators (normally located at various locations inside the Auxiliary and Intermediate Buildings) were to be utilized. The licensee concludes that these additional times would be insignificant when compared with the time available to perform the necessary actions when proceeding to cold shutdown and could not be operationally limiting. The licensee also demonstrated that the operators would not have to pass through areas in which high radiation or other adverse environmental conditions normally exist.

Although our evaluation indicates that the times assumed by the licensee for dispatching the operators from the control room and unlocking and

closing the breakers may be somewhat optimistic based on the guidance of ANSI N660, we concur with the licensee that the times required for these actions are insignificant when compared with the time available when proceeding to cold shutdown. It should also be noted that the normal condensate storage supply for the auxiliary feedwater system is backed up by the safety grade service water pond and therefore, there is no severe constraint with regard to secondary water supply during hot standby. We conclude that the licensee's request for an amendment to the operating license which would delete the requirement for installing power lockout devices inside the control room is acceptable.

III. 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 Sec 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.

IV. CONCLUSION

The Commission made a proposed determination that the amendment involves no significant hazards consideration which was published in the Federal Register (49 FR 29919) on July 24, 1984, and consulted with the state of South Carolina. No public comments were received, and the state of South Carolina did not have any comments.

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.

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Dated: October 15, 1984