



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 64 TO FACILITY OPERATING LICENSE NO. DPR-23
CAROLINA POWER AND LIGHT COMPANY
H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2
DOCKET NO. 50-261

Introduction

By letter of June 11, 1980 the staff requested that licensees of all operating pressurized water reactors amend their Technical Specifications with respect to reactor decay heat removal capability. The basis for this request was founded in a number of events where decay heat removal capability was seriously degraded due to inadequate administrative controls when the plants were in shutdown modes of operation. We believe that such degradation would have been prevented if redundancy in decay heat removal capability had been maintained.

In its response dated September 26, 1980, Carolina Power and Light Company (the licensee) proposed revisions to the Technical Specifications of H. B. Robinson Unit No. 2 to resolve the staff's concerns.

Evaluation

H. B. Robinson Unit No. 2 (Robinson-2) does not have Standard Technical Specifications. Consequently, the format of Technical Specification revisions provided in the staff's letter of June 11, 1980 could not be followed. Appropriate changes have been made, however, to Limiting Conditions of Operations pertaining to the Reactor Cooling System (Section 3.1), Emergency Core Cooling Systems (Section 3.3) and to Refueling (Section 3.8). A comparison of capabilities is presented in Table 1 and shows that, with the new revisions, Robinson-2 meets all of the requirements provided in the staff's guidance.

The licensee has also committed in Section 3.8 to maintain the water level in the refueling cavity to \geq plant elevation 272 feet whenever fuel assemblies are being moved within the reactor pressure vessel. This commitment is in response to the staff's letter of August 15, 1980 in which we requested that Technical Specifications ensure that the core flange is covered by at least 23 feet of water when fuel is being transferred from the reactor so as to prevent excessive radiation exposure. At Robinson-2 the required depth of water is attained when the surface of the water is at plant elevation 272 feet.

The licensee has also clarified a requirement to deenergize certain pumps related to the ECCS system during plant operation. A previous review (Amendment 13 issued October 17, 1975) had identified a need to eliminate the need for operators to leave the control room to reestablish power to some of these pumps to initiate the recirculation cooldown phase associated with a LOCA. The licensee has completed the necessary modifications to permit this control power to be removed and restored from the control room.

The revisions to the decay heat removal systems provide an acceptable response to the staff's concerns related to this capability.

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 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 not 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: March 8, 1982

TABLE 1

DECAY HEAT REMOVAL CAPABILITIES

<u>MODE OF OPERATION</u>	<u>STANDARD PWR TECHNICAL SPECIFICATIONS</u>	<u>ROBINSON-2 TECHNICAL SPECIFICATIONS</u>
Operation and Startup	All RCP loops in operation	All RCP loop in operation 2 RHR loops operable
Hot Standby ^(a) (<u>>350°F</u>)	2 RCP loops operable 1 RCP loop in operation	1 RCP loop in operation All RCP loops in service 2 RHR loops operable
Hot Shutdown (200-300°F)	2 RCP or 2 RHR loops operable 1 RCP or 1 RHR loop in operation	1 RHR loop in operation All RCP loops in service
Cold Shutdown (<u><200°F</u>)	2 RCP or 2 RHR loops operable 1 RCP or 1 RHR loop in operation	1 RHR loop normally in operation 2 RHR loops operable (1 RCP loop in operation) ^(b)
Refueling (Water > 23 ft)	1 RHR loop in operation	1 RHR loop normally in operation
Refueling (Water < 23 ft)	2 RHR loops operable	2 RHR loops operable

(a) Robinson-2 does not use Hot Standby Mode. Hot Shutdown extends from $T_{avg} = 200^\circ$ to 547°F with the reactor not critical. A RHR loop is used $< 350^\circ\text{F}$ and a RCP loop $> 350^\circ$.

(b) Reactor coolant pumps are started in Cold Shutdown during plant heatup.