



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
SUPPORTING AMENDMENT NO. 151 TO FACILITY OPERATING LICENSE NO. DPR-71
AND AMENDMENT NO. 181 TO FACILITY OPERATING LICENSE NO. DPR-62

CAROLINA POWER & LIGHT COMPANY

BRUNSWICK STEAM ELECTRIC PLANT, UNITS 1 AND 2

DOCKET NOS. 50-325 AND 50-324

1.0 INTRODUCTION

By letter dated May 22, 1990, Carolina Power & Light Company (the licensee) submitted a request for an amendment to the Brunswick Steam Electric Plant, Units 1 and 2 (Brunswick), Technical Specifications (TS). Additional information was also provided by a letter dated December 27, 1990, which provided TS pages that did not change the proposed no significant hazards consideration published in the Federal Register.

The proposed amendment deletes Item 7, residual heat removal (RHR) head spray flow, from TS Tables 3.3.5.2-1 and 4.3.5.2-1, which deals with remote shutdown monitoring instrumentation. The head spray mode of RHR is no longer in use at Brunswick.

2.0 EVALUATION

During reactor shutdown, the purpose of the head spray mode of the RHR is to spray water in the reactor vessel head area, thus providing a rapid vessel head cooldown. The head spray mode of RHR is a low flow, low pressure system designed to supply 615 gpm of water to the vessel steam dome, through the head spray nozzle, at less than 129 psig. Brunswick was designed with this capability when it was anticipated that reactor vessel head conditions would be the critical path for beginning a refueling outage. There are no safety-related functions associated with the head spray mode of the RHR, nor is use of this capability addressed in the Emergency Operating Procedures. The head spray mode of the RHR is not used for accident mitigation, normal operation, or shutdown at Brunswick. In addition, its use for shutting down the unit was optional.

In Unit 2, the head spray piping to the reactor head is already removed. By FSAR Amendment No. 7, dated June 1, 1989, the licensee deactivated the head spray mode of the RHR for both units. Even though the head spray mode was deactivated, the TS required periodic surveillance for the flow transmitter FT 3339 on both units. We have reviewed the information submitted for deletion of flow transmitter FT 3339 of the Brunswick, Units 1 and 2. Based on this review, we conclude that appropriate documentation was submitted to justify the proposed TS changes.

Table 3.3.5.2-1 of the TS lists the remote shutdown instrumentation required to be operable when the unit is in Operational Conditions 1, 2, or 3. Table 4.3.5.2-1 provides the surveillance requirements associated with this instrumentation. Currently, Item 7 of these tables requires the RHR heat removal head spray flow instrumentation FT 3339 to be operable and establishes monthly and quarterly surveillance requirements to demonstrate this operability. As stated above, the head spray mode of the RHR is no longer in use at Brunswick and has been deactivated on both units.

Therefore, operability of the RHR head spray flow instrumentation is not required and performing the required surveillance constitutes unnecessary personnel radiation exposure. Hence the licensee's proposal to delete Item 7 of the RHR head spray flow from Tables 3.3.5.2-1 and 4.3.5.2-1 dealing with remote and shutdown instrumentation is acceptable.

3.0 ENVIRONMENTAL CONSIDERATIONS

These amendments change a requirement with respect to installation or use of a facility component located within the restricted areas as defined in 10 CFR Part 20 and change the surveillance requirements. The staff has determined that these amendments involve no significant increase in the amounts, and no significant change in the types, of any effluents that may be released off site and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that these amendments involve no significant hazards consideration, and there has been no public comment on such finding. Accordingly, these amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR 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 these amendments.

4.0 CONCLUSION

The Commission made a proposed determination that these amendments involve no significant hazards consideration which was published in the Federal Register (55 FR 30292) on July 25, 1990, and consulted with the State of North Carolina. No public comments or requests for hearing were received, and the State of North Carolina did not have any comments.

The staff has 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, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendments will not be inimical to the common defense and security or to the health and safety of the public.

Dated: January 9, 1991

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