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



SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION SUPPORTING AMENDMENT NO. 132 TO FACILITY OPERATING LICENSE NO. DPR-71

AND AMENDMENT NO. 162 TO FACILITY OPERATING LICENSE NO. DPR-62

CAROLINA POWER & LIGHT COMPANY, et al.

BRUNSWICK STEAM ELECTRIC PLANT, UNITS 1 AND 2

DOCKET NOS. 50-325 AND 50-324

1.0 INTRODUCTION

By letter dated September 27, 1988, Carolina Power & Light Company submitted a request for changes to the Technical Specifications (TS) for the Brunswick Steam Electric Plant, Units 1 and 2.

The proposed amendments would change the Technical Specifications (TS) to: (1) revise TS Section 3/4.3.2 to include Limiting Conditions for Operation and Surveillance Requirements to ensure the capability of the main stack monitor signal circuitry to isolate containment purge and vent valves, and (2) revise pages affected by the above proposed TS changes, as necessary to correct editorial errors and to conform to other formatting requirements.

2.0 BACKGROUND

NUREG-0737, TMI Action Item II.E.4.2, "Containment Isolation Dependability," states that the containment isolation dependability should include position (7), "Containment Purge and Vent Isolation Valves must close on a high radiation signal." As part of this requirement, Enclosure 2 of NUREG-0737 notes that TS should also be provided. By letter dated December 16, 1983, the licensee committed to provide drywell vent and purge valve isolation on primary containment high radiation signal.

By letter dated August 26, 1986, as supplemented December 17, 1986, the licensee provided a description of the plant modification to implement Item II.E.4.2 requirements.

The staff completed the review of the above mentioned submittals on March 5, 1987 and issued a Safety Evaluation (SE), in which the staff determined that using the stack monitor for the high radiation signal to isolate the containment purge and vent valves complies with Item II.E.4.2 (7) of NUREG-0737. However, the staff requested that TS for operability of the high radiation isolation signal circuitry be submitted for staff review.

8907050058 890629 PDR ADOCK 05000324 PDC PDC In a letter dated April 23, 1987, the licensee responded to the staff's request and stated that the main stack radiation setpoints are listed and controlled in the Brunswick Offsite Dose Calculation Manual, which is submitted to the staff as part of the Semi-Annual Radioactive Effluent Release Report in accordance with TS 6.1.3.2. In addition, the licensee revised Abnormal Operating Procedure 6.2 to address this isolation capability. In the same April 23, 1987 submittal, the licensee evaluated the staff's SE of March 5, 1987, and determined that the additional TS on the main stack monitor operability requested by the staff are unnecessary and asserted that the existing TS for the stack radiation monitor are sufficient for demonstrating operability. On June 3, 1988, the staff completed the review of the licensee's April 23, 1987 submittal and issued another SE to the licensee. In this SE, the staff approved the existing stack monitor setpoints because they are more conservative than 10 CFR Part 100. In this SE, the staff again requested that the licensee submit TS for operability of the main stack monitor signal circuitry to isolate containment purge and vent valves.

On September 27, 1988, the licensee submitted a request for a license amendment which involved the following proposed changes:

- Revise Technical Specification Section 3/4.3.2 to include Limiting Conditions for Operation and Surveillance Requirements to ensure the capability of the main stack monitor signal circuitry to isolate containment purge and vent valves.
- Revise pages affected by the above proposed changes to TS Section 3/4.3.2, as necessary to correct editorial errors and to conform to the TS formatting requirements.

2.1 EVALUATION

The staff has reviewed the licensee's September 27, 1988 submittal and the associated background information. The staff has determined that, in addition to the primary containment isolation that would normally be required for the reactor purge and vent valves to close for low reactor water level and high containment pressure isolation signals, the licensee is providing another means to detect and indicate an abnormal degradation of the reactor coolant pressure boundary by sensing the high radiation level in the main stack, and thus by closing the containment purge and vent valves will prevent fission products from releasing into the environment. This proposed circuitry change (to close the purge and vent valves on high radiation) also provides another level of assurance that the consequences of a loss-of-coolant accident will be mitigated. The staff has concluded that the above proposed license amendments will satisfy both the staff requirements, as stated in NUREG-0737 for Item II.E.4.2 on "Containment Isolation Dependability," as well as the 10 CFR Part 50.34a and Part 50, Appendix 1, requirements to keep the release of radioactive material and effluents to unrestricted areas to a level as low as reasonably achievable. The staff has determined that the balance of the changes in the licensee proposed amendments are editorial and will make no changes to the technical content or requirements of the current TS.

2.2 SUMMARY

Based on our review of the licensee's submittal, we conclude that using the proposed revision to TS Section 3/4.3.2 to include Limiting Conditions for Operation and Surveillance Requirements to ensure the capability of the main stack monitor signal circuitry to isolate containment purge and vent valves and the revision to the affected TS pages are acceptable and meet the requirements of NUREG-0737. Item II.E.4.2.(7).

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 changes to 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 <u>Federal</u> <u>Register</u> (54 FR 13759) on April 5, 1989, 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, and (2) such activities will be conducted in compliance with the Commission's regulations, and the issuance of the amendments will not be inimical to the common defense and security or to the health and safety of the public.

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Dated: June 12, 1989

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