



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 103 TO FACILITY LICENSE NO. DPR-62

CAROLINA POWER & LIGHT COMPANY

BRUNSWICK STEAM ELECTRIC PLANT, UNIT 2

DOCKET NO. 50-324

1.0 Introduction

By letter dated June 29, 1984 the Carolina Power & Light Company (CP&L/the licensee) requested a change to the limiting conditions for operation (LCOs) for Brunswick Unit 2 as set forth in the Technical Specifications (TSs) of Facility Operating License No. DPR-62. The requested change would revise TS Tables 3.3.5.3-1 and 4.3.5.3-1 (Accident Monitoring Instrumentation) and Section 3/4.6.2.1 (Suppression Chamber) to incorporate the inclusion of a suppression pool temperature monitoring system (SPTMS) to meet the acceptance criteria of NUREG-0661, Appendix A. In addition, TSs sections 3/4.6.2.1 and 3/4.6.4.1 (Drywell-Suppression Chamber Vacuum Breakers) have been modified to more closely conform to the guidance of the BWR-4 Standard Technical Specifications (STS), NUREG-0123.

2.0 Evaluation:

The requested TS change reflects the new suppression pool temperature monitoring system being installed on Brunswick Unit 2 during the current refueling outage. This system consists of 24 Class 1E resistance temperature detectors (RTDs) installed about the torus at designated locations to provide accurate measurement of the average pool water temperature. These new RTDs are split into two totally independent channels consisting of 12 RTDs per channel. All new RTDs are Class 1E qualified, seismically analyzed, and the two suppression pool temperature monitoring divisions meet the acceptance criteria of Regulatory Guide 1.97, NUREG-0661, and NUREG-0783. The new suppression pool temperature monitoring system also serves as the accident monitoring instrumentation for suppression chamber water temperature. Tables 3.3.5.3-1 and 4.3.5.3-1 have been changed to reflect the new instrument numbers. A footnote has been added in Table 3.3.5.3-1 to ensure that the dual function of the system is apparent to operations personnel.

In addition, TS Section 3/4.6.2 has been rewritten to make the section more closely conform to the format of the Standard Technical Specifications (STSs). A Limiting Condition for Operation (LCO) and new action items have been added to ensure appropriate requirements exist for various plant conditions. The LCO and Surveillance Requirements pertaining to suppression chamber leakage have been moved from Section 3/4.6.4 to Section 3/4.6.2, consistent with guidance of the STS.

The above proposed modifications are submitted in response to the staff request dated March 19, 1984 which included a Safety Evaluation of the Mark I Long Term Containment Program for the Brunswick facilities. In that Safety Evaluation, the staff concluded that containment modifications made have restored the original design safety margin to the Mark I Containment at the Brunswick plant. That Safety Evaluation is incorporated by reference.

The staff has reviewed the proposed amendment and finds that the new suppression pool temperature monitoring system/accident monitoring instrumentation is subject to LCOs, actions, and surveillances, specified in Section 3/4.6.2 during normal operation, which were not previously required and, therefore, constitute additional limitations. The staff has reviewed the proposed change as discussed above and has concluded that this proposed change is acceptable. The reformatting of Sections 3/4.6.2 and 3/4.6.4 and the changing of instrument numbers in Tables 3.3.5.3-1 and 4.3.5.3-1 represent administrative changes which are consistent with staff requirements and are also acceptable. Therefore, the staff concludes that the proposed amendment is acceptable.

### 3.0 Environmental Considerations

The amendment involves a change in the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 and changes in surveillance requirements. 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 the amendment involves no significant hazards consideration and there has been no public comment on such finding. Accordingly, the amendment meets 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 the amendment.

### 4.0 Conclusions

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 the 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: September 22, 1984