



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
SUPPORTING AMENDMENT NO. 96 TO FACILITY LICENSE NO. DPR-71 AND  
AMENDMENT NO. 121 TO FACILITY 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 July 1, 1985, the Carolina Power & Light Company (CP&L), the licensee) requested a change to the surveillance requirements for Brunswick Steam Electric Plant, Units 1 and 2 as set forth in the Technical Specifications (TS) of Facility Operating License Nos. DPR-71 and DPR-62. The proposed revision would affect the surveillance requirements for the Reactor Protection System Instrumentation and the Control Rod Withdrawal Block Instrumentation as given in Tables 4.3.1-1 and 4.3.4-1 of the Brunswick 1 and Brunswick 2 TS.

2.0 EVALUATION

Changes by the licensee are proposed in Table 4.3.1-1, "Reactor Protection System Instrumentation Surveillance Requirements", and in Table 4.3.4-1 "Control Rod Withdrawal Block Instrumentation Surveillance Requirements." The changes are discussed individually below.

1. Table 4.3.1-2, Intermediate Range Monitors

A requirement for performance of a weekly Channel Functional Test of the Intermediate Range Monitor Neutron Flux-High and Inoperative Trips in Operational Conditions 2 through 5 has been added. This additional test serves to increase the assurance that this equipment is operating properly. In addition, this change is consistent with NUREG-0123, BWR/4,5 Standard Technical Specifications. Therefore, the change is acceptable.

2. Table 4.3.1-2, Average Power Range Monitor (APRM)

Two footnotes are added to the table which pertains to the APRM surveillance. The first (footnote (m)) would permit placing the Reactor Mode Switch in Operational Condition 2 (Startup/Hot Standby) for the purpose of performing surveillance (a channel functional test) on the neutron Flux-High 15% and APRM Inoperative trips prior to withdrawing rods for the purpose of going critical. The surveillance is currently performed by circuit jumping.

Footnote # on Table 1.2 of the current specifications permits such RMS switching provided that a second licensed operator or other qualified person verify that the control rods are all inserted. We find this change (footnote (m) to Table 4.3.1-1) to be acceptable since the provision for verification by a second person is required.

The second (footnote (n)) would permit placing the RMS in shutdown or refuel position when all control rods are fully inserted and the vessel bolts are tensioned when surveillance (a channel functional test) is being performed on the APRM Neutron Flux - High 15% trip and on the APRM Inoperative Trip. Footnotes ## and \*\*\* of Table 1.2 of the Specification permit placement of the Mode Switch in the refuel position for performance of certain tests when in Modes 3 and 4. Also Specification 4.9.1 permits placing the Mode Switch in Mode 2 when performing certain surveillance in Mode 5. Placing the Reactor Mode Switch in modes other than the one which the plant actually is, has therefore been previously found acceptable to permit equipment testing in tightly controlled situations such as this. We have reviewed the implications of this change and based on our review we find its extension to surveillance of the APRM to be acceptable in view of the requirement that all control rods be inserted.

### 3. Table 4.3.1-1, Intermediate Range Detectors

A reference to existing footnote (d) has been added to the required weekly surveillance of the IRM high flux trip. This footnote permits this surveillance to be performed within 12 hours after entering Mode 2 from Mode 1. This provision is currently applicable to the surveillance of the APRM 15% power trip. We have reviewed the implications of this change and based on this review we find its use on the similar IRM trip to be acceptable.

### 4. Table 4.3.4-1, Average Power Range Monitor (APRM)

Footnote (e), which is identical to footnote (m) above is added to the start-up channel functional test surveillance for the inoperative and fixed upscale trips. Footnote (f) which is identical to footnote (n) above is added to the quarterly surveillance for these trips. These additions are acceptable for the reasons given for the (m) and (n) footnotes above.

### 5. Table 4.3.4-1, Intermediate Range Monitors

Footnote (e) is added to the start-up channel functional test surveillance for the "Detector not full in" trip and footnote (f) is added to the weekly surveillance for this trip. This is acceptable for the reasons given above for the (m) and (n) footnotes.

#### 6. Table 4.3.4-2, Source Range Monitors

Footnote (d) which is identical to footnote (d) of Table 4.3.1-1 has been added to the weekly channel functional test surveillance for the source range monitor rod block trips. The footnote is currently applicable to the weekly surveillance requirements for the IRM trips. We have reviewed the implication of this change and based on our review we find its use for the source range monitor trips to be acceptable.

In addition to the changes described above to Tables 4.3.1-1 and 4.3.4-1 certain editorial changes have been made for purposes of clarification. We find these changes to be acceptable since they do not alter the substance of the specifications.

Based on our review, which is described above, we conclude that the proposed changes to the Technical Specifications for Brunswick Units 1 and 2 are acceptable.

#### 3.0 ENVIRONMENTAL CONSIDERATIONS

The amendments involve changes in surveillance requirements. The staff has determined that the amendments involve 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 amendments involve no significant hazards consideration and there has been no public comment on such finding. Accordingly, the 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 the amendments.

#### 4.0 CONCLUSION

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 amendments will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: W. Brooks

Dated: March 26, 1986