



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
SUPPORTING AMENDMENT NO. 145 TO FACILITY OPERATING LICENSE NO. DPR-71
AND AMENDMENT NO. 176 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 letters dated July 9, 1990, as supplemented August 16, and August 21 and September 18, 1990, Carolina Power & Light (CP&L) Company requested a revision to the Technical Specifications (TS) on the Electrical Power Systems for Brunswick Steam Electric Plant, Units 1 and 2 (Brunswick). The proposed change adds a footnote to Action Statement 3.8.1.1.a of the operating unit which permits one of the two required offsite circuits of the shutdown unit to be inoperable for 45 days instead of 72 hours. In addition, this proposal includes changes to TS 3.8.1.1 and 3.8.1.2 to clarify the existing requirements.

The September 18, 1990, letter provided clarifying information that did not change the initial determination of no significant hazards consideration as published in the FEDERAL REGISTER.

Until recently, CP&L interpreted the two offsite circuits required under TS to be the four transmission lines coming into the switchyard and as such, experienced no problems meeting the TS requirements. However, during the NRC Diagnostic Evaluation Team (DET) inspection, it was identified that CP&L's interpretation was incorrect and it was determined that the two offsite power circuits required under the TS should be the paths containing the unit auxiliary transformer (UAT) and the startup auxiliary transformer (SAT). This interpretation requires both Unit 1 and Unit 2 being shut down in order to perform maintenance on either the UAT or SAT if that maintenance takes more than 72 hours to complete.

Therefore, CP&L is requesting a revision to the TS since interpretation with the current TS is overly restrictive and CP&L estimates that future planned, necessary maintenance on the transformers could take as much as 45 days to complete.

2.0 EVALUATION:

A. Action 3.8.1.1.a

The onsite electric distribution at Brunswick is designed to share safety loads between the two units. The existing TS 3.8.1.1 requires that two offsite power sources be available for a unit in Operational Condition 4 or 5 if the other unit is in Operational Condition 1, 2, or 3 and provides an allowable out of service time of 72 hours if one of the sources is inoperable.

The licensee has proposed to add a footnote to Action Statement 3.8.1.1.a of the operating unit which will permit an offsite circuit of the shutdown unit to be inoperable for up to 45 days from its current 72 hours. If the offsite circuit of the shutdown unit is not operable at the end of 45 day period, Action Statement 3.8.1.1.a will be initiated; and the operating unit will be placed in hot shutdown within 12 hours and in cold shutdown within the following 24 hours. The licensee needs this flexibility in order to perform transformer maintenance, inspections, and bus duct inspections in upcoming Brunswick unit outages. Similar maintenance will be required on a more frequent basis during future Brunswick refueling outages.

For operation to continue on the operating unit while one of the shutdown unit's offsite sources is out of service, the existing TS require all four diesel generators and the remaining offsite power sources of both units to be operable. Action Requirement 3.8.1.1.c or 3.8.1.1.d will be applicable to the operating unit upon loss of a diesel generator or loss of an additional offsite circuit. Thus, the operability of the two offsite circuits on the operating unit is not affected during this maintenance work. Based on the above, we find the proposed changes to the Brunswick unit 1 and 2 TS to be acceptable.

B. TS 3.8.1.1 and 3.8.1.2

- a) The headings for TS 3.8.1.1 and 3.8.1.2 are changed from "Operating of one or both units" and "Shutdown of both units." to "Operating" and "Shutdown", respectively.
- b) The words "per unit" have been inserted into TS 3.8.1.1.a to read "Two physically independent circuits, per unit, between the offsite transmission network and the onsite Class 1E distribution system." This is to assure that four offsite transmission circuits are available whenever either unit is in operation.
- c) TS 3.8.1.2.b has been modified by inserting "one of which shall be diesel generator 1 or 2 (3 or 4)." This is to clarify that there shall be one operable diesel generator assigned to the shutdown unit.

- d) The word "operational" has been added in the applicability section of shutdown unit TS 3.8.1.2 Limiting Condition for Operation (LCO) to be consistent with TS 3.8.1.1 LCO of the operating unit.

The staff has reviewed the above proposed TS changes and finds that the proposed changes merely clarify existing TS and make them more consistent with the rest of the TS. Therefore, the staff finds these changes to be 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 or 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 35971) on September 4, 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: October 5, 1990

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