



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
SUPPORTING AMENDMENT NO. 48 TO FACILITY LICENSE NO. DPR-71 AND  
AMENDMENT NO. 72 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

Author: Kenneth T. Eccleston

1.0 Introduction

As a result of events involving common cause failures of scram discharge volume (SDV) limit switches and SDV drain valve operability, the NRC staff issued IE Bulletin 80-14 on June 12, 1980. In addition, the staff sent a letter dated July 7, 1980 to all operating BWR licensees requesting that they propose Technical Specification changes to provide surveillance requirements for SDV vent and drain valves and limiting conditions for operation (LCO) surveillance requirements on SDV limit switches. Model Technical Specifications were enclosed with the July 7 letter to provide guidance to licensees for preparation of the submittals.

2.0 Evaluation

The enclosed report (TER-C5506-77/75) was prepared by Franklin Research Center (FRC) as part of a technical assistance contract program. The FRC report provides FRC's technical evaluation of the compliance of Carolina Power & Light Company's (licensee) submittal with NRC provided criteria.

FRC has concluded that the licensee's response does not meet the explicit requirements of paragraph 3.3-6 and Table 3.3.6-1 of the Model Technical Specifications. However, the FRC report concludes that technical bases are defined on p.50 of the staff's "Generic Safety Evaluation Report BWR Scram Discharge System," dated December 1, 1980 that permit consideration of this departure from the explicit requirements of the Model Technical Specifications. We conclude that these technical bases justify a deviation from the explicit requirements of the Model Technical Specifications.

In addition, FRC has also concluded that the proposed Brunswick Units 1 and 2 Technical Specifications do not meet the Model Technical Specifications requirements of paragraph 4.3.1.1 and Table 4.3.1.1-1 for SDV water level high channel functional test requirements. However, the FRC TER concludes that the proposed surveillance requirements for SDV water level high are acceptable, since the licensee is installing a second instrument volume at each unit and the licensee is providing four reactor protection system (RPS) level instruments for each of the two instrument volumes, for a total of eight instruments for the

RPS. The model Technical Specifications were developed for plants which have only one instrument volume (four level instruments); therefore, the second instrument volume significantly improves the design and reliability of the SDV. Taking this into account, we conclude that these technical bases justify a deviation from the explicit requirements of the Model Technical Specifications.

FRC has concluded that the licensee's proposed Technical Specifications revisions (as modified by subsequent discussions with the licensee) meet our criteria without need for further revision.

### 3.0 Summary

Based upon a review of the contractor's evaluation report, we conclude that the licensee's proposed Technical Specifications satisfy the requirements for surveillance of SDV vent and drain valves and for LCOs and surveillance requirements for SDV level instrumentation. Consequently, we find the licensee's proposed Technical Specifications acceptable.

### 4.0 Environmental Considerations

We have determined that the amendments do not authorize a change in effluent types or total amounts nor an increase in power level and will not result in any significant environmental impact. Having made this determination, we have further concluded that the amendments involve an action which is insignificant from the standpoint of environmental impact and, pursuant to 10 CFR 51.5(d)(4), that an environmental impact statement, or negative declaration and environmental impact appraisal need not be prepared in connection with the issuance of these amendments.

### 5.0 Conclusions

We have concluded, based on the considerations discussed above, that: (1) because the amendments do not involve a significant increase in the probability or consequences of an accident previously evaluated, do not create the possibility of an accident of a type different from any evaluated previously, and do not involve a significant reduction in a margin of safety, the amendments do not involve a significant hazards consideration, (2) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (3) 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.

Enclosure:  
FRC Report (TER-C5506-77/75)

Date: August 5, 1982