



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 48 TO FACILITY

OPERATING LICENSE NO. DPR-23

H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2

DOCKET NO. 50-261

Introduction

By letter dated August 1, 1980, Carolina Power and Light Company (the licensee) requested an amendment to license No. DPR-23 for H. B. Robinson Steam Electric Plant, Unit No. 2, which would change the control rod position indication (RPI) systems misalignment limits in the Technical Specifications. These changes were in response to NRC request dated October 29, 1979.

Background

The staff recently completed a review of the LER's and Technical Specification requirements related to the Control Rod Position Indication Systems (RPI) at Westinghouse PWRs and determined that a wide variation exists in the number of LER's received and the Technical Specification requirements.

Discussion and Evaluation

Westinghouse has performed safety analyses for control rod misalignment up to 15 inches or 24 steps (one step equals 5/8 inch). Since analysis of misalignments in excess of this amount have not been submitted, we have imposed an LCO restricting continued operation with a misalignment in excess of 15 inches. Because the analog control rod position indication system has an uncertainty of 7.5 inches (12 steps), when an indicated deviation of 12 steps exists, the actual misalignment may be 15 inches. This is because one of the coils, spaced at 3.75 inches, may be failed without the operator's knowledge. The Standard Technical Specifications were written to eliminate any confusion about this, and restrict deviations to 12 indicated steps. Surveillance requirements, on the indication accuracy of 12 steps, were also prepared to ensure that the 15 inch LCO is met. Since there is no difference intended in requirements issued for any Westinghouse reactor, plants with Technical Specifications written in different terms of misalignment should consider the 12 step instrument inaccuracy when monitoring rod position.

A related problem is that the installed analog control rod position indicating system equipment may not, in some areas, be adequate to maintain the control rod misalignment specification requirement because of drift problems in the calibration curves. This is evidenced by numerous LER's concerning rod position indication accuracy. In these cases, the uncertainty may be more than 12 steps.

The licensee was requested by letter dated October 29, 1979 to review the Robinson Technical Specifications to ensure that the control rods are required to be maintained with  $\pm 12$  steps indicated position and that the rod position indication system is accurate to within  $\pm 12$  steps.

Based on our review of the licensee's submittal, we find that the proposed changes are acceptable.

#### Environmental Considerations

We have determined that the amendment does 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 amendment involves 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 this amendment.

#### Conclusion

We have concluded, based on the consideration discussed above, that: (1) because the amendment does not involve a significant increase in the probability or consequences of accidents previously considered and does not involve a significant decrease in a safety margin, the amendment does 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 this amendment will not be inimical to the common defense and security or to the health and safety of the public.

Date: August 29, 1980