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 CUTTER, A. B. Carolina Power & Light Co.  
 RECIP. NAME RECIPIENT AFFILIATION  
 RUBENSTEIN, L. S. PWR Project Directorate 2

SUBJECT: Application for amend to License DPR-23. Rev will incorporate new heatup & cooldown curves replacing existing Figures 3.1-1 & 3.1-2, respectively. Fee paid.

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# 786244



Carolina Power & Light Company

DEC 1 8 1986

SERIAL: NLS-86-442

Director of Nuclear Reactor Regulation  
Attention: Mr. Lester S. Rubenstein, Director  
PWR Project Directorate #2  
Division of PWR Licensing - A  
United States Nuclear Regulatory Commission  
Washington, DC 20555

H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2  
DOCKET NO. 50-261/LICENSE NO. DPR-23  
REQUEST FOR LICENSE AMENDMENT  
HEATUP AND COOLDOWN CURVES

Dear Sir:

**SUMMARY**

In accordance with the Code of Federal Regulation, Title 10, Parts 50.90 and 2.101, Carolina Power & Light Company hereby requests a revision to the Technical Specifications (TS) for the H. B. Robinson Steam Electric Plant, Unit No. 2 (HBR-2). This revision will incorporate new Heatup and Cooldown curves which will replace the existing Figures 3.1-1 and 3.1-2, respectively. The applicability of the current curves will expire shortly after our planned refueling outage in March of 1987 as 10 Effective Full Power Years (EFPY) of integrated power operation is reached. This request would remove the existing set of curves and replace them with two sets of curves applicable for up to 12.5 and 15 EFPY, respectively. The new curves will retain the same figure numbers which currently apply to the Heatup (Figure 3.1-1) or Cooldown (Figure 3.1-2) curves with an additional (a) or (b) designation to differentiate between the 12.5 and 15 EFPY curves. Changes are provided in the text of the TS to direct the use of the appropriate set of curves.

**DISCUSSION**

The basis for these curves was provided by the NSSS vendor (Westinghouse Electric Corporation) in the report "Analysis of Capsule T from the H. B. Robinson Unit No. 2 Reactor Vessel Surveillance Program" and previously submitted to the Commission by letter dated August 19, 1983 (Serial: LAP-83-301). That previous submittal provided the basis for the Heatup and Cooldown curves for operation up to 10 EFPY of integrated power. Westinghouse has affirmed that the metal thermal conductivity range used for their calculations is satisfactory though it differs from values in Section III of the ASME Boiler and Pressure Vessel Code. This Westinghouse procedure has been approved by the NRC staff for other plant submittals.

The same Westinghouse report provides the basis for the fluence projections and resulting embrittlement for integrated power periods through 15 EFPY. This submittal uses these projections with the same analytical basis to extend the operating limits through the subsequent integrated power periods. The new curves employ the guidance provided by Regulatory Guide 1.99 and incorporate procedures required by the May 27, 1983, revisions to Appendices G and H to 10 CFR 50. A conservatism of 10°F and 60 psi is contained in the revised curves to account for instrument location and possible errors in instrumentation reading or calibration.

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### SIGNIFICANT HAZARDS ANALYSIS

Carolina Power & Light Company has reviewed this amendment request in accordance with the standards set forth in 10 CFR 50.92 and determined that the proposed change would not involve a significant hazard consideration. This conclusion is based on a determination that operation of the facility in accordance with the proposed change would not:

1. Involve a significant increase in the probability or consequences of an accident previously evaluated because the change simply updates existing operating limits with new limits which compensate for continuing neutron fluence. The basis for the analysis and the method of analysis remain unchanged; or
2. Create the possibility for a new or different kind of accident from any accident previously evaluated because the change does not alter facility operation in such a manner or to such an extent as to generate a new or different kind of accident from any previously analyzed. Slightly more restrictive operating limits are not expected to significantly change the operation of the facility; or
3. Involve a significant reduction in a margin of safety because the same analysis techniques and margins have been applied as were previously used. Only the fluence-dependent parameters have been changed to update the analysis to compensate for the increased integrated power value.

### ADMINISTRATIVE INFORMATION

The revised version of the TS pages affected by this request are enclosed for your use.

In accordance with 10 CFR 170.12, a check in the amount of \$150 in payment of a license amendment application fee is attached.

If you have any questions concerning this request, please contact Mr. S. R. Zimmerman at (919) 836-6242.

Yours very truly,




A. B. Cutter - Vice President  
Nuclear Engineering & Licensing

ABC/MDM/bmc (5076MDM)

Enclosures

cc: Dr. J. Nelson Grace (NRC-RII)  
Mr. G. Requa (NRC)  
Mr. H. Krug (NRC Resident Inspector - RNP)  
Mr. Heyward G. Shealy (SC)  
Attorney General (SC)

A. B. Cutter, having been first duly sworn, did depose and say that the information contained herein is true and correct to the best of his information, knowledge and belief; and the sources of his information are officers, employees, contractors, and agents of Carolina Power & Light Company.

  
Notary (Seal)

My commission expires: 5/18/88

