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 FACIL: 50-261 H. B. Robinson Plant, Unit 2, Carolina Power & Light C 05000261
 AUTH. NAME AUTHOR AFFILIATION
 MCDUFFIE, M. A. Carolina Power & Light Co.
 RECIP. NAME RECIPIENT AFFILIATION
 Document Control Branch (Document Control Desk)

SUBJECT: Application for amend to License DPR-23. Proposed amend suppl
 880224 request to restrict allowable operation to power
 level of no more than 1380 MW thermal unless 3 safety
 injection pumps are available for automatic initiation.

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Carolina Power & Light Company

P. O. Box 1551 • Raleigh, N. C. 27602

FEB 26 1988

SERIAL: NLS-88-052

M. A. McDUFFIE
Senior Vice President
Nuclear Generation

United States Nuclear Regulatory Commission
ATTENTION: Document Control Desk
Washington, DC 20555

H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2
DOCKET NO. 50-261/LICENSE NO. DPR-23
SUPPLEMENT TO EMERGENCY REQUEST FOR LICENSE AMENDMENT
SAFETY INJECTION SYSTEM

Gentlemen:

In accordance with the Code of Federal Regulations, Title 10, Parts 50.90 and 2.101, Carolina Power & Light Company (CP&L) hereby requests a revision to the Operating License for the H. B. Robinson Steam Electric Plant, Unit No. 2 (HBR2). The proposed amendment supplements our February 24, 1988 request to restrict allowable operation to a power level of no more than 1380 megawatts thermal unless three safety injection (SI) pumps are available for automatic initiation to mitigate the effects of the spectrum of Loss of Coolant Accidents (LOCAs) at 2300 megawatts thermal.

This supplement proposes a reduction of the maximum allowable Fq from 2.32 to 2.26 at full power conditions. The corresponding value for less than 50% power decreases from 4.64 to 4.52. The corresponding Axial Power Distribution Monitoring System (APDMS) value is reduced proportionally from 2.103 to 2.049.

These changes are required to match the assumptions in a large break Loss-of-Coolant Accident (LOCA) analysis performed to support Plant Modification 951 which removes the automatic actuation feature of Safety Injection Pump "B." A discussion of the circumstances regarding the need for Modification 951 are contained in our February 24, 1988 letter. A safety analysis regarding this proposed change is included as Attachment B, a discussion of the LOCA analysis is included as Attachment C.

This supplemental request should be considered in conjunction with our February 24, 1988 request. This Significant Hazards Analysis provided below addresses both requests.

SIGNIFICANT HAZARDS ANALYSIS

The following analysis supersedes that submitted in our February 24, 1988 letter.

Carolina Power & Light Company has reviewed the subject license amendment request in accordance with the standards set forth in 10CFR50.92 and determined that this change does not constitute a significant hazard based upon the following considerations:

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- 1.a. Operation of the facility, in accordance with the proposed amendment, would not involve a significant increase in the probability of an accident previously analyzed because the SI system serves a mitigating function only after an accident event has been initiated. The probability of initiating any of the Chapter 15 accidents is unaffected by the availability of the SI pumps. Therefore, the probability of a previously analyzed accident has not been increased.

The reduction in power and the power peaking limits are not related to the probability of previously analyzed accidents.

- 1.b. Operation of the facility, in accordance with the proposed amendment, would not involve a significant increase in the consequences of an accident previously analyzed because the change provides appropriate compensatory measures in the form of a power restriction and decreased power peaking limits to ensure that the SI system is capable of meeting its functional requirements (including single failure considerations). Therefore, the safety criteria are met and the consequences of any of these events are not significantly increased.
2. Operation of the facility in accordance with the proposed amendment would not create the possibility of a new or different kind of accident from any accident previously evaluated because the operation of the SI pumps is solely a mitigating action in response to the previously analyzed accident scenarios. Therefore, the availability of the SI pumps has been addressed as a change to the existing accident analysis as reflected by a corresponding reduction to maximum allowed power level and power peaking limits.
3. Operation of the facility, in accordance with the proposed amendment, would not involve a significant reduction in a margin of safety because the analysis of reduced power operation has shown that postulated failures with the changed parameters will not produce plant conditions which exceed the safety parameters specified in Chapter 15 of the UFSAR, 10CFR50.46, or Technical Specifications. Specifically:
 - o Calculated peak fuel clad temperature remains below 2200°F.
 - o Less than 1 percent of the total amount of Zircaloy in the core reacts chemically with water or steam.
 - o Less than 17 percent of cladding is oxidized at any location.
 - o The core geometry remains amenable to long-term cooling.

Although some results of these new LOCA analyses differ from the results of the current licensing basis; these differences do not constitute a significant reduction of any safety margins.

Since these criteria remain satisfied and in consideration of the safety margin built into the limits themselves, CP&L concludes that the margins of safety have not been significantly reduced.

ADMINISTRATIVE

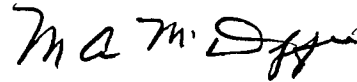
Carolina Power & Light Company requests that this issue be handled as an emergency license amendment. The conditions of this request are consistent with 10CFR50.91(a)(5) in that the plant must remain shut down until this amendment is processed. During a review of the SI power and control logic (in response to an NRC request), several scenarios were identified which had existed since original plant license which could make the SI system vulnerable to a single failure. As the initial problems were being resolved, the need for our February 25, 1988 emergency request was identified; since this is a supplement to that request, emergency processing is appropriate.

The license pages reflecting the power restriction is provided for your use; changes are indicated by a single bar in the right margin.

In accordance with 10CFR170.12, a check in the amount of \$150 in payment of a license amendment application fee is enclosed.

If you have any questions concerning this request, please contact Mr. L. I. Loflin at (919) 836-6242.

Yours very truly,



M. A. McDuffie
Senior Vice President
Nuclear Generation

JSK/bmc (5386JSK)

Enclosure

cc: Dr. J. Nelson Grace
Mr. R. Lo
Mr. L. Garner
Mr. Heyward G. Shealy (SC)
Attorney General (SC)

M. A. McDuffie, 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.

My commission expires: 10/23/91


Notary (Seal)

