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 AUTH. NAME: AUTHOR AFFILIATION
 CUTTER, A.B. Carolina Power & Light Co.
 RECIP. NAME: RECIPIENT AFFILIATION
 VARGA, S.A. Operating Reactors Branch 1

SUBJECT: Application for amend to License DPR-23, changing method for
 data collection during ex-core symmetrical offset detector
 calibr w/o incurring reduction in safety. Fee paid.

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Carolina Power & Light Company
OCT 09 1985

SERIAL: NLS-85-289

Director of Nuclear Reactor Regulation
Attention: Mr. Steven A. Varga, Chief
Operating Reactors Branch No. 1
Division of Licensing
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
CALIBRATION OF EXCORE SYMMETRICAL OFFSET DETECTOR

Dear Mr. Varga:

SUMMARY

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 Technical Specifications (TS) for the H. B. Robinson Steam Electric Plant, Unit 2 (HBR-2). This amendment request changes the allowable method for data collection during excore detector calibration without incurring any reduction in safety. In conjunction with the changed methodology, the amendment provides some clarification of the existing aspects of the TS sections. The specific nature and a brief discussion of the justification for each change is presented below. The Significant Hazards Issue is addressed separately in a subsequent section.

DISCUSSION

The various aspects of this change request are addressed separately below:

1. At a number of locations throughout Section 3.10, the phrase "90 percent or 0.9 x APL (whichever is less) of rated power" is used. This has been clarified to read "90 percent of rated power or 0.9 x APL (whichever is less)." APL is defined as the Allowable Power Level.
2. Section 3.10.2.9 (page 3.10.7) - The change to this section is fundamentally a clarification of the operational requirements necessary during calibration of the excore detectors. The existing wording of this criterion (as recently provided by Amendment 87 to the TS) was misstated in such a way as to impose an inappropriate restriction which prohibited calibration of the detectors at power levels greater than 90 percent of rated power or 0.9 x APL (whichever is less). The pre-Amendment 87 criterion allowed calibration to be performed at any power regardless of axial flux deviation conditions. The intent of Amendment 87 was to restrict calibration to operating conditions where the axial flux deviation was within: a) the target band at reactor power greater than 90 percent of rated power or 0.9 x APL, or b) the operating limits shown in Figure 3.10-5 when power was below the 90 percent rated power or 0.9 x APL. However, the wording used inadvertently prohibited calibration at power ranges above 90 percent rated power or 0.9 x APL. This proposed change reinstates the pre-Amendment 87 provisions of the TS which allow calibration at the higher power ranges and imposes the intended restrictions addressing allowable axial flux deviation during calibration.

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3. Section 3.10.2.11 (page 3.10-7a) - The reference to Figure 3.10-4 has been corrected to refer to Figure 3.10-5.
4. Section 3.11.1 (page 3.11-1) - This change reduces the required minimum number of accessible, operable thimbles from 16 to 15 during recalibration of the excore detectors. These requirements have been replaced by those stated in the Basis for this section as discussed below.
5. Basis for Section 3.11 (page 3.11-1) - This change revises the method used to calibrate the excore detectors. The revised methodology reflects the NRC-approved guidance established in WCAP-8648-A, "Excore Detector Recalibration Using Quarter-Core Flux Maps."
6. Reference (page 3.11-2) - This change incorporates an additional technical reference pertaining to the excore detector recalibration method.

SIGNIFICANT HAZARDS DETERMINATION

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 changes would involve no significant hazards considerations. The criteria established in 10 CFR 50.92 are restated here and will be referred to in subsequent discussion.

A proposed amendment would involve no Significant Hazard Consideration if 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,*
- (2) *create the possibility of a new or different kind of accident from any accident previously evaluated, or*
- (3) *involve a significant reduction in the margin of safety.*

In part, the Significant Hazards determination was based upon consideration of the guidance concerning application of these standards provided by "Examples of Amendments Considered Not Likely to Involve Significant Hazards Considerations" as published in the Federal Register (48 FR 14864). In those cases where these examples are representative of the changes addressed herein, those appropriate examples have been identified to provide supporting justification for the Significant Hazards conclusions.

Administrative/Editorial Changes

With the exception of the specific items addressed in subsequent discussion, the changes requested provide clarification of the terminology and intent of the specification. Specifically, items 1, 3, and 6 are purely editorial changes addressing consistency of terminology, correcting a figure number, and adding a reference document. These items clearly are consistent with the criteria provided by example (i) of the aforementioned NRC guidance which allows that "a proposed amendment . . . will likely be found to involve no significant hazards consideration, if operation of the facility in accordance with the proposed amendment involves . . . a purely administrative change to the TS: for example, a change to achieve consistency throughout the TS, correction of an error, or a

change in nomenclature." As such, these changes satisfy the previously listed, 10 CFR 50.92 criteria by virtue of the fact that these editorial changes in no way affect the requirements, actions, surveillances, or operation of the plant equipment or systems. Furthermore, these changes do not affect the organizations, procedures, or qualifications of personnel involved in the operation of the plant. Therefore, the changes have no effect on the analysis of any previous accident or any previously defined margin of safety. Likewise, no new accident scenerios are created.

Allowable Power During Calibration

Item 2, which addresses the axial flux conditions allowed during calibration of the excore detectors, is also considered an administrative change by virtue of its correspondence to the "correction of an error" clause in the examples of administrative changes discussed above. However, due to the complexity of the circumstances leading to this change (as discussed in the previous section) additional justification of the No Significant Hazards conclusion will be presented to further substantiate that contention.

The relief requested herein would be granted from a restriction which was inadvertently imposed by the Amendment 87 wording. No safety concerns or margins of safety have been reanalyzed in which this inappropriate restriction was considered critical in limiting the probability or consequences of any postulated accident. The proposed changes would impose tighter restrictions on plant operating conditions than required by the pre-Amendment 87 version which allowed calibration at any power regardless of axial flux band deviation. Plant safety parameters would not be adversely affected since the allowable plant conditions would be bounded by the more lenient provisions of any previously analyzed conditions. Therefore, this change would not impact the plant's ability to respond to postulated accident scenarios or mitigate the consequences of an accident. The more restrictive limits would not reduce any margin of safety and, due to the limited scope and conservative nature of the change, no new potential accident scenarios have been identified. Therefore, the proposed change does not adversely affect any of the parameters addressed in the previously listed 10 CFR 50.92 criteria and does not constitute a Significant Hazards Consideration.

To provide further substantiation of this conclusion, CP&L has reviewed the guidance provided by example in the Federal Register (48 FR 14864) and determined that this change is comparable to example (ii) of the aforementioned NRC guidance which provides that the change would likely be found to involve no significant hazard consideration if it "constitutes an additional limitation, restriction, or control not presently included in the Technical Specification." When the overall change is compared to the pre-Amendment 87 version, this is clearly the case.

Revised Data Collection Methodology

Items 5 and 6 of the proposed change provide a slightly revised methodology for use of the incore instrumentation for calibration of the excore detectors. The proposed methodology is consistent with the NRC-approved provisions of WCAP-8648-A, "Excore Detector Recalibration Using Quarter-Core Flux Maps, February 1979."

This proposed change to the calibration methodology does not adversely affect the previously defined 10 CFR 50.92 criteria and, therefore, does not constitute a Significant Hazard Consideration. Although the proposed change may, in some cases, reduce the number of data points collected (from a minimum of 16 to 15) and slightly change the calibration data, this is not considered statistically significant in light of the number of readings taken and the uncertainty inherent in fitting a final calibration curve to the

data points. Furthermore, this change is consistent with the NRC approved methodology provided in WCAP-8648-A, "Excore Detector Recalibration Using Quarter Core Flux Maps, February 1979." Therefore, this change will not result in any significant degradation of the accuracy of the calibration which could subsequently result in any reduced margin of safety, increased possibility of an accident or create a new accident scenerio.

This change does not impact the operation of the plant during calibration. The plant's ability to respond to challenges during the calibration period is unaffected by the change in methodology. Therefore, no increased accident possibilities, reduced margins of safety, or new accident scenarios are postulated as a result of any altered plant configurations or parameters during the recalibration period.

ADMINISTRATIVE

The revised version of the TS pages affected by this report are included as an enclosure 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

MDM/crs (1798MDM)

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.

My commission expires: 11/27/89


Notary (Seal)

