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May 8, 2000
LD-2000-0027

U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555-0001

Subject: Methodology Constraint Affirmation and Minimum Criteria for a Licensee Performing Licensing Basis Analyses Using the ABBD1.0 CPR Correlation

Reference:

1. Letter, I. C. Rickard (ABB) to Document Control Desk, "Transmittal for NRC Staff Review of CENPD-392-P, "10x10 SVEA Fuel Critical Power Experiments and CPR Correlations: SVEA-96," LD-99-031, May 28, 1999
2. NRC Generic Letter 83-11, Supplement 1, "Licensee Qualification for Performing Safety Analyses," (TAC No. MA4540), June 24, 1999

This letter is submitted to respond to staff requests; information in this letter is non-proprietary. By this letter, CE Nuclear Power (CENP) acknowledges that it will adhere to the following constraint regarding the application of the ABBD1.0 BWR Critical Power Ratio (CPR) correlation:

"If CENP wishes to extend the range of applicability of the ABBD1.0 CPR correlation beyond the data range documented in Section 7, Table 7.1, of CENPD-392-P, it will either revalidate or develop a new correlation and submit one or the other for NRC staff review and approval."

In addition, during the review of Reference 1 the staff requested that CENP provide controls which CENP intends to implement to assure that the ABBD1.0 CPR correlation is applied to licensing analyses in an appropriate manner when these analyses are performed by licensees.

The controls on the use of the ABBD1.0 CPR correlation when used by licensees to perform licensing basis analyses are intended to assure that the correlation is applied in a manner which satisfies the intent of the analysis. For example, a steady-state application should provide SVEA-96 CPR values consistent with the correlation uncertainty determined in Reference 1, and applications to non-equilibrium transient conditions should provide conservative estimates of the change in CPR during a transient. This goal is satisfied with a set of controls consistent with the guidance provided by the NRC in Reference 2.

Accordingly, the following set of controls will be implemented for licensee use of ABBD1.0 for licensing basis analyses:

1. Applicability

The ABBD1.0 CPR correlation should be applied to the SVEA-96 assembly. Any other application should be approved by CENP.

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2. Implementation

The ABBD1.0 CPR correlation should be used for licensing analyses only in conjunction with codes and methods which have been reviewed and approved generically or have been accepted as part of the plant's licensing basis. Further, all licensing basis calculations using the ABBD1.0 CPR correlation will be conducted under the control of a quality assurance program which meets the requirements of 10 CFR 50, Appendix B.

3. Training

A training program consistent with the guidelines in Reference 2 will be implemented for licensee personnel intending to use the ABBD1.0 CPR correlation. This program will include background information supporting a good understanding of the correlation itself as well as input parameters and the manner in which the resulting CPR values are used. The training will also include limitations on the use of the correlation as well as uncertainties associated with its use. Initial training will be provided by qualified CENP personnel. Subsequent training can be provided by qualified licensee personnel who have received the CENP training.

4. Comparison Calculations

Comparisons to benchmark information provided by CENP will be performed by the licensee to assure that the ABBD1.0 CPR correlation has been correctly implemented in the licensee codes. CENP will provide predictions of the ABBD1.0 CPR correlation for a sufficient range of input parameters to support the expected range of application of the correlation. These comparisons will be documented in a report, which will become part of the licensee's quality assurance records. CENP will assist the licensee in the review of the comparisons to assure that any significant deviations from the results provided by CENP are justified.

5. Change Control

CENP will notify the licensee of any changes or modifications to the correlation. In addition, the licensee will notify CENP of any problems or errors discovered while using the correlation.

Please feel free to contact Virgil Paggen of my staff at 860-285-4700 or me if you have any questions.

Sincerely,
CE Nuclear Power LLC

Ian C. Rickard, Director
Nuclear Licensing

copy: J. S. Cushing (OWFN, 4 D7)
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