

January 13, 2000

Mr. Ian C. Rickard, Director
Nuclear Licensing
ABB Combustion Engineering Nuclear Operations
Post Office Box 500
2000 Day Hill Road
Windsor, Connecticut 06095-0500

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION (RAI) REGARDING
CENPD-392-P, "10X10 SVEA FUEL CRITICAL POWER EXPERIMENTS AND
CPR CORRELATIONS" (TAC NO. MA5999)

Dear Mr. Rickard:

CENPD-392-P, "10x10 SVEA Fuel Critical Power Experiments and CPR Correlations" was submitted for staff review by ABB Combustion Engineering (ABB-CE) letter LD-99-047 dated June 30, 1999. As a result of the review, the staff has determined that additional information is needed to complete the review. The information needed is detailed in the enclosure.

The enclosed request was discussed with Mr. Paggen of your staff on January 6, 2000. A mutually agreeable target date of February 29, 2000, was established for responding to the RAI. If circumstances result in the need to revise the target date, please call me at your earliest opportunity at (301) 415-1424.

Sincerely,

/RA/

Jack Cushing, Project Manager, Section 2
Project Directorate IV & Decommissioning
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Project No. 692

Enclosure: Request for Additional Information

cc w/encl: See next page

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REQUEST FOR ADDITIONAL INFORMATION

CENPD-392-P, 10X10 SVEA FUEL CRITICAL POWER EXPERIMENTS

AND CPR CORRELATIONS

1. On page 27 of the submittal, the last sentence of the first paragraph states that not all the data points were obtained at precisely the target condition. Please clarify.
2. Please explain why full bundle data is not considered necessary to confirm (validate) sub-bundle mismatch factor accuracies and full bundle correlation predictions.
3. Please provide additional information regarding the equation (on page 72) for calculating the sub-bundle power, $FSUB_S$, (i.e., where does the value of the total bundle power come from?).
4. Is Figure 5.2 representative of all the data, i.e., evaluation and validation data?
5. Please explain the scattering of data in Figures 5.4 through Figure 5.8.
6. In chapter 6, Section 6.1, page 114, please provide clarification for the 3rd and 4th paragraphs.
7. Please provide additional technical justification as to why 5 data points constitute an "adequate" data base for validating the ABBD1.0 correlation in a transient mode.
8. In Table 6.3, what is the difference between the Initial and the Minimum columns?
9. Mis-rotation of sub-bundles. Please comment on the possibility of mis-loading/orienting a sub-bundle while preparing a full bundle during a fuel reload situation.