NOV 2 0 1986

Docket Nos. 50-266
and 50-301

Mr. C. W. Fay, Vice President
Nuclear Power Department
Wisconsin Electric Power Company
231 W. Michigan Street, Room 308
Milwaukee, Wisconsin 53201

Dear Mr. Fay:

SUBJECT: RESOLUTION OF TMI ACTION ITEM II.K.3.31 RELATED TO THE SMALL BREAK LOCA ANALYSIS FOR THE POINT BEACH NUCLEAR PLANT UNITS 1 AND 2

On June 26, 1985 we issued our Safety Evaluation (SE), for resolution of TMI Action Plan Item II.K.3.30 for the Point Beach Nuclear Plant. We indicated that within one year of that date all licensees and applicants of Westinghouse NSSS design were required to submit plant specific analysis with NOTRUMP as required by TMI Action Plant Item II.K.3.31. Additional guidance contained in Generic Letter 83-35 stated that this analysis may be submitted generically as long as the generic submittal included validation that the limiting break location has not shifted away from the cold legs to the hot or pump suction legs.

By letter dated July 1, 1986 you indicated that resolution of II.K.3.31 for Point Beach Units 1 and 2 would be based upon generic NOTRUMP analysis submitted to the NRC as WCAP 11145 by the Westinghouse Owner's Group (WOG). This WCAP was sent to the NRC by letter dated June 11, 1986 by L. D. Butterfield of the WOG. The NRC staff approved use of WCAP 11145 by letter to Mr. Butterfield dated October 6, 1986.

We have reviewed the WOG submittal and have determined that the submittal adequately addresses TMI Action Plan Item II.K.3.31 for your facilities including that the limiting break location has not shifted. The details of our review are contained in the enclosed SE.

Sincerely,

/s/

Timothy G. Colburn, Project Manager
Project Directorate #1
Division of PWR Licensing-A

Enclosure:
As Stated

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SUPPLEMENTAL SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION POINT BEACH NUCLEAR PLANT UNITS 1 AND 2 II.K.3.31 PLANT-SPECIFIC CALCULATIONS TO SHOW COMPLIANCE WITH 10 CFR 50.46

BACKGROUND

Section II.K.3.30 of the NUREG-0737 outlines the Commission requirements for the industry to demonstrate that its small break LOCA methods continue to comply with the requirements of Appendix K to 10 CFR 50. The technical issues to be addressed were listed in NUREG-0611 including comparison with semiscale experimental test results. In response to Section II.K.3.30, the Westinghouse Owners Group elected to reference the NOTRUMP code as the new licensing small break LOCA model. The NOTRUMP code and methodology are described in WCAP-10079 and WCAP-10054. The staff reviewed and approved NOTRUMP as the new licensing tool for calculating small break LOCA response for Westinghouse plant designs. The staff further concluded that the Westinghouse Owners Group had met the requirements of Section II.K.3.30. Our Safety Evaluation containing the staff's approval of NOTRUMP was issued to Wisconsin Electric Power Company, licensee for the Point Beach Nuclear Plant Units 1 and 2 on June 26, 1985.

Referencing the new computer code did not imply deficiencies in the WFLASH code (which was previously utilized for small break LOCA analysis) such that the code did not comply with Appendix K to 10 CFR 50. The decision to use NOTRUMP was based on desires of the industry to perform licensing evaluations with a computer program specifically designed to calculate small break LOCAs with greater phenomenological accuracy than capable by WFLASH.

DISCUSSION

Section II.K.3.31 of NUREG-0737 required that each licensee holder or applicant submit a new small break analysis using the model approved under II.K.3.30. NRC Generic Letter 83-35 provided clarification for the II.K.3.31 requirements by allowing license holders and applicants to comply on a generic basis by demonstrating that the WFLASH analyses are conservative when compared to analyses performed using NOTRUMP.

In response to this guidance, the Westinghouse owners submitted WCAP-11145 which contains generic comparisons to WFLASH analyses for various plant types. These include comparisons for 2-loop plants of the Point Beach design. In particular, the two-loop plant category results showed that the NOTRUMP computer program calculated a peak cladding temperature (PCT) 917 degrees F lower than the 1713 degree F PCT calculated by the WFLASH computer program for the most limiting plant in the two-loop plant category.

The generic results documented in WCAP 11145 demonstrate that a plant specific reanalysis of the two-loop Point Beach Nuclear Plant small break LOCA using NOTRUMP would result in the calculation of a significantly lower PCT than the 992°F PCT calculated using the WFLASH computer program.

Although the calculated peak temperatures are significantly lower for the NOTRUMP analyses than for the WFLASH analyses, the 4 inch break remains the limiting break size.

CONCLUSION

Staff review of WCAP-11145 has been completed and accepted as a licensing basis for SBLOCA analysis. The applicant has referenced WCAP-11145 (which consists of the results from calculations using approved methodology) in lieu of submitting a plant specific analysis and meets the criteria as stated in NRC Generic Letter 83-35. The staff, therefore, concludes that the Point Beach FSAR analyses of small break LOCA have been demonstrated to be conservative in comparison with the NOTRUMP Evaluation Model. This meets the requirements of II.K.3.31 and 10 CFR 50.46 for Point Beach.

Principal Contributors:

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Date:

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