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115 Colwell Avenue, San Jose, CA 95128

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MFN 058-92
PWM 92-051

Office of Nuclear Reactor Regulation
US Nuclear Regulatory Commission
Mail Station P1-137
Washington, DC 20555

ATTENTION: Document Control Desk

SUBJECT: **REPORTING OF CHANGES AND ERRORS
IN ECCS EVALUATION MODELS**

REFERENCE: 1. Letter, PW Marriott to the Director of Nuclear Reactor Regulation,
"Reporting of Changes and Errors in ECCS Evaluation Models",
March 12, 1991.

The purpose of this letter is to report, in accordance with 10CFR50.46(a)(3)(ii), the impact of changes and errors in the Emergency Core Cooling System (ECCS) evaluation methodology used by GE. This report covers the period from the last report (Reference 1) to the present. It is noted that peak cladding temperature (PCT) variations resulting from plant specific system or fuel changes are not addressed in this letter. These should be treated, as appropriate, on a plant specific basis in accordance with other sections of 10CFR50.

There have been no changes or errors identified for the SAFE/REFLOOD model described in NEDE 20566-P-A, "Analytical Model for Loss-of-Coolant Analysis in Accordance with 10CFR50 Appendix K" or the SAFER/GESTR methodology described in NEDE 23785-1-P-A, "The GESTR-LOCA and SAFER Models for the Evaluation of Loss-of-Coolant Accidents", and NEDE 30996-P-A, "SAFER Model for Evaluation of Loss-of-Coolant Accident for Jet Pump and Non-Jet Pump Plants".

It has been observed that ECCS evaluation model results can be sensitive to changes in the computer operating system or small changes in input parameters. Test cases have been run for a change in the operating system and procedure for defining jet-pump loss coefficients for SAFER/GESTR. The range of impact of these changes on the predicted PCT was found for the cases analyzed to be less than $\pm 50^\circ\text{F}$. Similarly, a change in the computer system for part of the SAFE/REFLOOD package (CHASTE) resulted in an estimated range of impact on predicted PCT of $+ 10^\circ\text{F}$ and $- 25^\circ\text{F}$. Potential PCT variations of this magnitude should be anticipated when future ECCS analyses are performed on the new computer system; however, existing PCT predictions are valid and no change to any plant specific evaluation is required.

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By copy of this letter, licensees utilizing the GE ECCS methodology in their plant licensing are informed of the status of changes in the evaluation methodology. Since no reanalysis or technical specification modifications are required, this submittal is believed to satisfy 10CFR50.46(a)(3)(ii) for evaluation model changes without further reporting on the part of individual utilities.

If you have any questions or comments, please call me or HC Pfefferlen at (408) 925-3392.

Sincerely,

A handwritten signature in dark ink, appearing to read "S.J. Stark". The signature is fluid and cursive, with the first name "S.J." and the last name "Stark" clearly distinguishable.

S.J. Stark, Acting Manager
Regulatory & Analysis Services
Mail Code 482 Phone (408) 925-6948

PWM:jz