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U-602765
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Docket No. 50-461

10CFR50.46

Document Control Desk
Nuclear Regulatory Commission
Washington, D.C. 20555

Subject: Reporting of Changes and Errors in the ECCS
Evaluation Models Used for Clinton Power Station

Reference: Letter, General Electric (R. J. Reda) to the Document Control Desk
(R. C. Jones, Jr.), "Reporting of Changes and Errors in ECCS
Evaluation Models," June 28, 1996 (MFN-088-96)

Dear Madam or Sir:

The purpose of this letter is to report, in accordance with 10CFR50.46(a)(3)(ii), the impact of any changes and errors in the Emergency Core Cooling System (ECCS) evaluation methodology, or its application, on the calculated peak fuel cladding temperature for postulated loss-of-coolant accidents for Clinton Power Station (CPS). This report covers the period from the last report (Reference) to the present.

During this reporting period, at the request of Illinois Power (IP), General Electric (GE) assessed the cumulative impact of generic changes and errors potentially applicable to CPS that have occurred since submittal of the original loss-of-coolant accident (LOCA) peak fuel cladding temperature (PCT) analysis and determined the impact to be less than 35°F (GE letter KF-9715, K. Faynshtein to R. Chickering, dated May 16, 1997). These potential impacts were due to a change in the computer system used for CHASTE (core heatup model) which could potentially yield a PCT change in the range of -25°F to 10°F (as reported in GE letter dated June 26, 1992), and bottom head drain line considerations which could potentially yield a PCT change of up to 10°F (as reported in GE letter dated February 20, 1996, that revised GE letter dated June 24, 1995).

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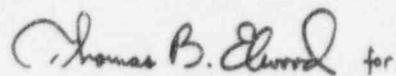
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This potential change of 35°F (based on the sum of the absolute, maximum magnitudes of the changes) was subsequently evaluated for applicability to CPS. With respect to the potential impact due to a change in the computer system for CHASTE, the PCT for GE8B fuel at CPS was calculated using the original Honeywell computer system; whereas for the newer GE10 fuel used at CPS the PCT is calculated using the DEC VAX system. Since there are no fuel PCTs that have been calculated using both computer systems, this transition yielded no change in PCT margin, and therefore this potential impact yielded no change to be included in the cumulative impact of changes for CPS. With respect to the potential impact of up to 10°F due to bottom head drain line considerations, this was also evaluated specifically for CPS. The corresponding PCT impact was found to be only +1.04°F, vice the potential impact of up to 10°F conservatively reported by GE.

Illinois Power is also tracking changes in the calculated LOCA PCT due to other plant-specific impacts and has identified cumulative absolute changes of 8.44°F due to a combination of changes from water-level indication mismatch resolution, MEOD evaluation, boundary conditions due to GE8B fuel, and the previously mentioned bottom head drain effects. Given that the cumulation of the absolute magnitudes of the respective temperature changes is less than 50°F, this is not considered significant per 10CFR50.46(a)(3)(i).

Per a recent (June 19, 1997) teleconference with GE, their 1997 report of changes and errors in the ECCS evaluation models for this reporting period is currently being drafted. The final report is not expected to include any information about changes or errors to the ECCS evaluation models that has not already been provided to IP. To confirm this preliminary information, IP will submit a follow-up 10CFR50.46 report after receiving and reviewing the final GE report. Submittal of that report will establish a reporting schedule for the future such that IP will submit its annual report just after GE issues its annual report.

Sincerely yours,

Handwritten signature of Thomas B. Elwood in cursive, followed by the word "for" in a smaller font.

Joseph V. Sipek
Director-Licensing

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cc: NRC Clinton Licensing Project Manager
NRC Resident Office, V-690
NRC Document Control Desk
Illinois Department of Nuclear Safety