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DTE Energy



10CFR50.46

May 30, 2003
NRC-03-0051

U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington D C 20555-0001

- References:
- 1) Fermi 2
NRC Docket No. 50-341
NRC License No. NPF-43
 - 2) Detroit Edison Letter, Douglas R. Gipson to USNRC,
"30-Day 10CFR50.46 Special Report
Plant Specific ECCS Evaluation Changes",
dated May 28, 1996 (NRC-96-0052)
 - 3) Detroit Edison Letter, W. T. O'Connor, Jr. to USNRC,
"ECCS Cooling Performance Evaluation Model Report",
dated December 19, 2000 (NRC-00-0074)
 - 4) Detroit Edison Letter, W. T. O'Connor, Jr. to USNRC,
"ECCS Cooling Performance Evaluation Model Report",
dated June 7, 2001 (NRC-01-0046)
 - 5) Detroit Edison Letter, W. T. O'Connor, Jr. to USNRC,
"ECCS Cooling Performance Evaluation Model Report",
dated July 10, 2002 (NRC-02-0071)

Subject: ECCS Cooling Performance Evaluation Model Report

In accordance with 10CFR50.46, "Acceptance criteria for emergency core cooling systems for light-water nuclear power reactors," this report is being submitted to describe changes to or errors in an acceptable evaluation model used for calculating

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Emergency Core Cooling Systems (ECCS) performance. References 2, 3, 4, and 5 describe errors in the evaluation model previously reported to the NRC.

On May 6, 2003, Global Nuclear Fuel (GNF) informed Detroit Edison, in General Electric (GE) 10CFR50.46 Notification Letter 2003-01 of an additional error found in the GE SAFER/GESTR-LOCA Analysis code. The error consisted of using too low of a value for the Reactor Pressure Vessel (RPV) initial liquid mass. The effect of the error results in a decrease in the peak clad temperature (PCT) by 5 degrees Fahrenheit. With the 5 degrees Fahrenheit decrease in PCT, the current Licensing Basis PCT for Fermi 2 is 1752 degrees Fahrenheit and there is 448 degrees Fahrenheit margin to the 2200 degrees Fahrenheit PCT limit given in 10CFR50.46.

Detroit Edison will continue to track future changes and errors in the SAFER/GESTR-LOCA Loss-of-Coolant Accident Analysis evaluation models to ensure that the analyzed PCT remains below the 10CFR50.46 limits, and to ensure that the 10CFR50.46 reporting requirements are met. Detroit Edison has no immediate plans to reanalyze the SAFER/GESTR-LOCA Loss-of-Coolant Accident Analysis for Fermi 2.

Should you have any questions or require additional information, please contact Mr. Norman K. Peterson of my staff at (734) 586-4258.

Sincerely,

A handwritten signature in black ink, appearing to read "William J. Peterson". The signature is fluid and cursive, with a large loop at the end.

cc: M. A. Ring
J. F. Stang, Jr.
NRC Resident Office
Regional Administrator, Region III
Supervisor, Electric Operators,
Michigan Public Service Commission