

Douglas R. Gipson
Senior Vice President
Nuclear Generation

Fermi 2
6400 North Dixie Highway
Newport, Michigan 48166
(313) 586-5249

Detroit
Edison

10CFR50.46

May 28, 1996
NRC-96-0052

U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington D. C. 20555

- References: 1) Fermi 2
NRC Docket No. 50-341
NRC License No. NPF-43
- 2) GE Document Number NEDC-31982P (Proprietary) "Fermi-2 SAFER/GESTR-LOCA Loss-of-Coolant Accident Analysis" dated July 1991.
- 3) GE Letter, S. J. Stark to the Office of Nuclear Reactor Regulation, "Reporting of Changes and Errors in ECCS Evaluation Models," dated June 26, 1992 (MFN No. 058-92)
- 4) GE Letter, R.C. Mitchell to the Office of Nuclear Reactor Regulation, "Reporting of Changes and Errors in ECCS Evaluation Models," dated June 30, 1993 (MFN No. 090-93)
- 5) GE Letter, R.J. Reda to the Document Control Desk, "Reporting of Changes and Errors in ECCS Evaluation Models," dated February 20, 1996 (MFN No. 020-96)

Subject: 30-Day 10CFR50.46 Special Report
Plant Specific ECCS Evaluation Changes

In accordance with 10 CFR 50.46, "Acceptance criteria for emergency core cooling systems [ECCS] for light water nuclear power reactors," this special report is being submitted to describe changes to or errors in an acceptable evaluation model used for calculating ECCS performance.

During the preparation of the 1995 Fermi 2 Annual Operating Report, Detroit Edison determined that the ECCS evaluation model change reporting section of the annual report had not been included in previous Annual Operating Reports, from 1989 through 1994, as required by Fermi 2 plant procedures. Detroit Edison believed that the vendor letters to the NRC satisfied the 10 CFR 50.46 reporting requirements.

030054

9606030124 960528
PDR ADOCK 05000341
P PDR

Acc
1/10

May 28, 1996

NRC-96-0052

Page 2

In July 1991, as part of the Fermi 2 Power Uprate Program, the SAFER/GESTR-LOCA Loss-of-Coolant Accident Analysis was performed (Reference 2). This analysis provides a baseline of 1602 degrees Fahrenheit where the impact of any previous change or error notices would have been already considered. Therefore, this Special Report includes change or error notices with potential impact on Fermi 2 subsequent to the July 1991 LOCA Accident Analysis. On April 25, 1996, Detroit Edison confirmed with General Electric that the total accumulation of peak clad temperature (PCT) changes or errors identified as being applicable to Fermi 2 is 65 degrees Fahrenheit (References 3-5). This 65 degrees Fahrenheit change meets the notification requirements per 10CFR50.46(a)(3)(ii) because the change in PCT is greater than the thirty day reporting threshold (50 degrees Fahrenheit) for the accumulation of the absolute magnitude of changes or errors in the evaluation models or their application.

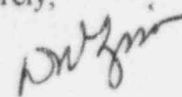
After adding the 65 degrees Fahrenheit to the licensing basis PCT determined in the 1991 SAFER/GESTR analysis, there is still more than 500 degrees Fahrenheit of margin to the 2200 degree Fahrenheit limit specified in 10CFR50.46. The resulting PCT is still well below the temperature range where cladding oxidation and hydrogen generation becomes significant. Therefore, the core-wide metal-water reaction and maximum local oxidation remain well within the 10CFR50.46 limits. Also, the statistical upper bound PCT of 1351 degrees Fahrenheit (Reference 2) plus the 65 degrees Fahrenheit change remains well below the 1600 degrees Fahrenheit limit specified in the NRC acceptance of the SAFER/GESTR methodology.

Detroit Edison will continue to track future changes and errors in the SAFER/GESTR ECCS 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 have the SAFER/GESTR Analysis for Fermi 2 reperformed.

There are no commitments made in this letter.

For further information please contact Ken Riches, Compliance Engineer, at (313) 586-5529.

Sincerely,



cc: T. G. Colburn
M. J. Jordan
H. J. Miller
T. Vogel
Region III