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Detroit Edison
A DTE Energy Company

10 CFR 50.46

July 3, 2007
NRC-07-0038

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) General Electric "Notification Letter 2006-01," dated July 28, 2006

3) Detroit Edison Letter to NRC "2006 Annual Reports for Fermi 2," NRC-07-0019, dated April 24, 2007

Subject: 30-Day 10 CFR 50.46 Report, Plant Specific ECCS Evaluation Changes

In accordance with 10 CFR 50.46(a)(3)(ii), this letter reports a significant change in the General Electric (GE) Plant Specific Emergency Core Cooling System (ECCS) evaluation for Fermi 2. A change in methodology resulted in a 55°F increase in the licensing basis Peak Cladding Temperature (PCT) for GE14 fuel. There is no safety issue since a substantial margin of 525°F remains to the 2200°F limit for PCT for the most limiting fuel type used at Fermi 2. This letter is being issued within thirty days of the discovery on June 8, 2007 by our reactor engineering personnel that GE / Global Nuclear Fuel (GNF) had issued Reference 2 on July 28, 2006.

Past small break ECCS-LOCA analyses assumed a mid-peaked power shape, consistent with the design basis accident (DBA) break analysis. The change discussed in Reference 2 requires the performance of the small break analysis considering both mid-peaked and top-peaked axial power shapes with the most limiting results reported for the small break analysis. The DBA large break ECCS-LOCA analysis

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was assessed by GE and determined not to be significantly affected by the axial power shape assumption. The Fermi 2 limiting transient for the licensing basis peak cladding temperature (PCT) remains the same for GE11 fuel, and has increased by 55°F for GE14 fuel. Thus, the PCT is unchanged at 1650°F for the GE11 fuel in the Fermi 2 core, and has increased to 1675°F for the GE14 fuel in the core. This results in a margin of 525°F to the 2200°F PCT limit in 10 CFR 50.46.

Reference 3 was submitted in accordance with 10 CFR 50.46(a)(3)(ii) and contains a report of ECCS cooling performance evaluation model changes or errors. It did not include the methodology changes discussed in Reference 2, since the existence of Reference 2 was unknown to the Fermi reactor engineering staff at that time.

GE / GNF issued Reference 2 on July 28, 2006. However, this information was not sent to the correct Fermi 2 recipient, and its receipt was not verified by GE / GNF. Fermi 2 and GE / GNF have initiated corrective actions to prevent recurrence.

Detroit Edison will continue to track future methodology changes and errors in the SAFER/GESTR-LOCA Loss-of-Coolant Accident Analysis evaluation models to ensure that the analyzed PCT remains below the 10 CFR 50.46 limits, and to ensure that the 10 CFR 50.46 reporting requirements are met. Detroit Edison has no immediate plans to re-perform the SAFER/GESTR-LOCA Loss-of-Coolant Accident Analysis for Fermi 2, as a substantial 525°F margin remains between the calculated PCT and the 2200°F limit in 10 CFR 50.46 using the modified methodology.

Should you have any questions or require additional information, please contact Mr. Ronald W. Gaston of my staff at (734) 586-5197.

Sincerely,

for Joe Plona

cc: NRC Project Manager
NRC Resident Office
Reactor Projects Chief, Branch 4, Region III
Regional Administrator, Region III
Supervisor, Electric Operators,
Michigan Public Service Commission