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10CFR21.21

February 6, 1997
NRC-97-0005

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

Reference: Fermi 2
NRC Docket No. 50-341
NRC License No. NPF-43

Subject: 10CFR21 Interim Report for Emergency Diesel Generator
Automatic Voltage Regulator Printed Circuit Board

On November 13, 1996 at 0037 hours Emergency Diesel Generator (EDG) number 11 failed surveillance test 24.307.01 (i.e., Technical Specification 4.8.1.1.2) for Loss of Offsite Power coincident with Loss of Coolant Accident (LOP/LOCA). The electrical system voltage dropped to approximately 50% when Residual Heat Removal (RHR) system pump A was auto initiated. Deviation Event Report (DER) 96-1655 was written to determine a root cause and corrective actions for the problem.

Analysis of EDG number 11 components in the Automatic Voltage Regulator (AVR) board revision B determined that the operational amplifier U8 chip had failed. Voltage regulator system testing was conducted. The AVR was again replaced with a revision B board and surveillance 24.307.01 run with the same failure occurring. AVR board revision B was replaced with the earlier revision A board. On November 26, 1996 surveillance 24.307.01 was performed successfully with the revision A board installed.

As part of the continuing investigation to determine the root cause, the AVR board revision B was sent offsite to an independent engineering test facility. On December 9, 1996 Detroit Edison determined that a 10CFR21 reportability evaluation should be performed. On January 30, 1997 Detroit Edison received a

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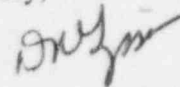
report from the testing facility on the U8 chip and the report is being analyzed for its applicability to the AVR failure.

The AVR boards and U8 chips were supplied by Parsons Peebles as a safety related component under 10CFR50 Appendix B requirements. Parsons Peebles is now Peebles Electric Inc. and no longer supplies 10CFR50 Appendix B components. If the AVR board (revision B) or U8 chip is defective, it would create a substantial safety hazard because the ability of the EDGs to perform their safety function would be adversely affected.

Corrective actions include more analysis and testing of the AVR board and operational amplifier U8 chips. The 10CFR21 report should be completed by June 30, 1997.

If you have any questions, please contact Joseph M. Pendergast, Licensing Engineer at (313) 586-1682.

Sincerely,



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