

DMB

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July 23, 1984
EF2-69280

Mr. James G. Keppler
Regional Administrator
Region III
U. S. Nuclear Regulatory Commission
799 Roosevelt Road
Glen Ellyn, Illinois 60137

Dear Mr. Keppler:

Reference: (1) Fermi 2
NRC Docket No. 50-341

(2) Letter, D. A. Wells to J. G. Keppler,
April 4, 1983, EF2-62618

Subject: Final Report of 10CFR50.55(e) Item 87
"Possible ITE Circuit Breaker Failures"

This is Detroit Edison's final report concerning possible ITE circuit breaker failures. Item 87 was originally reported as a potential deficiency on March 4, 1983, and subsequently documented in Reference (2).

Description of the Deficiency

On December 10, 1982, Brown-Boveri Electric (formerly ITE) submitted a report to the NRC identifying a potential problem with ITE 480 volt circuit breakers equipped with solid state (static) trip devices. A potentially defective capacitor, Sprague Type 40D (20 μ f), located in the solid state trip devices could prevent the circuit breaker from opening during an overcurrent condition.

A study by Brown-Boveri of their records found that the use of the Type 40D capacitor was discontinued in August, 1976. At that time, a change was made to a hermetically sealed capacitor, Sprague Type 137D (22 μ f). The study also stated that trip devices with serial numbers below 28300 contain the Type 40D capacitor. Those with serial numbers above 28300 contain the Type 137D capacitor.

Based on this information, Startup surveyed all 480V breakers installed at Fermi 2. This survey identified 130 breakers equipped with solid state trip devices having serial numbers below 28300. Seventy-three breakers were in safety related switchgear and fifty-seven were in non-safety related switchgear.

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Analysis of Safety Implications

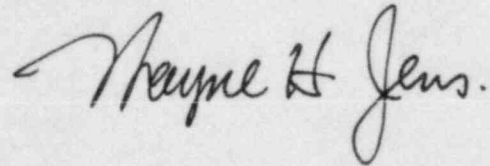
The failure of a Sprague Type 40D capacitor, and in turn the trip device, would result in the failure of a 480V breaker to interrupt a fault.

Corrective Action

Detroit Edison obtained replacement solid state trip devices, with the Sprague Type 137D capacitor, from Brown-Boveri. A Field Modification Request (FMR) was issued to replace the affected trip devices in safety related switchgear. The field work associated with this item is in the final stages of completion.

This is Detroit Edison's final report on this item. If you have questions concerning this matter, please contact Mr. Lewis P. Bregni, (313) 586-5083.

Sincerely,



cc: Mr. P. M. Byron
Mr. R. C. DeYoung
Mr. R. C. Knop