



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 78 TO FACILITY OPERATING LICENSE NO. NPF-43

DETROIT EDISON COMPANY

FEPMI-2

DOCKET NO. 50-341

1.0 INTRODUCTION

By letter dated September 25, 1991, the Detroit Edison Company (DECo or the licensee) requested an amendment to the Technical Specifications (TSs) appended to Facility Operating License No. NPF-43 for Fermi-2. The proposed amendment would revise TS Surveillance Requirement 4.8.4.4.a which requires that a channel functional test be performed on the reactor protection system (RPS) electrical protection assemblies (EPA) at least once per six months. The purpose of the proposal is to change the EPA channel functional test surveillance interval in TS Surveillance Requirement 4.8.4.4.a to each time the plant is in cold shutdown for a period of more than 24 hours, unless the channel functional test has been performed in the previous six months. This change is in accordance with the guidance in NRC Generic Letter 91-09, "Modification of Surveillance Interval for the Electrical Protective Assemblies in Power Supplies for the Reactor Protection System."

2.0 EVALUATION

To protect RPS equipment from abnormal operating voltage or frequency produced by RPS motor generator (MG) sets or an alternate power supply, EPAs will trip a breaker between the MG sets and the RPS. TS 4.8.4.4 addresses the surveillance requirements for EPAs. This TS specifies that licensee perform a channel functional test every 6 months.

To functionally test an EPA channel, the licensee transfers the power for the RPS from the associated MG set to the alternate power supply. Because the transfer of RPS power involves a dead-bus transfer, power is momentarily interrupted which causes a half scram or group isolations. As an alternative, the licensee could perform tests without a bus transfer, but this procedure also results in a momentary interruption of power to the RPS when each EPA channel is tripped during the channel functional test. At many BWR plants, licensees have encountered problems with the reset of the half-trip in inadvertent scrams and group isolations that challenge safety systems.

An alternative to testing the EPAs every six months during power operation is to test them each time the plant is in cold shutdown for more than twenty-four hours if the test has not been performed within the previous six months. This alternative eliminates the need to test the EPAs during power operation and thereby reduces the possibility of inadvertent challenges to the protection systems. This surveillance requirement retains testing within a six month interval when the unit is in cold shutdown for more than twenty-four hours.

If Fermi 2 is not placed in cold shutdown during the fuel cycle, the effect of not testing the EPAs during this interval is a small risk to safety because of the safety benefits of reducing the possibility of inadvertent scrams and challenges to safety systems. GI 91-09 concludes that the benefit to safety by reducing the frequency of testing during power operation and the attendant possible challenges to safety systems more than offsets any risk to safety from relaxing the surveillance requirement to test the EPAs during power operation. The implementation of this line-item TS improvement will produce a net benefit for safety. Therefore, the staff finds, the proposed change acceptable.

3.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Michigan State official was notified of the proposed issuance of the amendment. The State official had no comments.

4.0 ENVIRONMENTAL CONSIDERATION

The amendment changes surveillance requirements. The staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents which may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendment involves no significant hazards consideration and there has been no public comment on such finding (56 FR 60115). Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR Section 51.22(c)(9). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendment.

5.0 CONCLUSION

The staff has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

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DATED: ~~December 27, 1991~~

AMENDMENT NO. 78 TO FACILITY OPERATING LICENSE NO. NPF-43-FERMI-2

Docket File

NRC & Local PDRs

PDIII-1 Reading

Fermi Plant File

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