



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

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

DETROIT EDISON COMPANY

WOLVERINE POWER SUPPLY COOPERATIVE, INCORPORATED

FERMI-2

DOCKET NO. 50-341

1.0 INTRODUCTION

By letter dated November 14, 1988, the Detroit Edison Company (DECo or the licensee) requested amendment to the Technical Specifications (TSs) appended to Facility Operating License No. NPF-43 for Fermi-2. The proposed amendment would delete the mass flow rate values associated with the Steam Line Flow - High trip function of both the Reactor Core Isolation Cooling (RCIC) system isolation and High Pressure Coolant Injection (HPCI) system isolation as listed in Table 3.3.2-2, Items 3.a.1 and 4.a.1.

2.0 EVALUATION

Technical Specification 3.4.3.2 - Isolation Actuation Instrumentation, Table 3.3.2-1 provides isolation actuation instrumentation requirements for the Reactor Core Isolation Cooling (RCIC) system in Item 3 and similar requirements for High Pressure Coolant Injection (HPCI) system in Item 4. Those requirements for both systems are applicable in OPERATIONAL CONDITIONS 1, 2, and 3. Setpoints for these isolation signals are provided in Table 3.3.2-2.

The proposed amendment would change Items 3.a.1 and 4.a.1 of Table 3.3.2-2, in that the mass flow rate number, in both the Trip Setpoint and Allowable Value columns, is deleted in each item. Also deleted is reference to ** footnote on the Trip Setpoint for each Item as the existing value has been found to be acceptable.

The RCIC (HPCI) Steam Line Flow - High differential pressure (dp) signal acts to isolate the RCIC (HPCI) system upon a high dp as measured across an orifice located in the steam supply line near the source. Excessive steam flow develops a high dp signal that closes both RCIC (HPCI) steam supply valves, one inside and one outside containment, and trips the turbine stop valves closed. The purpose of the dp measurement is to detect a down stream line break and isolate the leakage.

The installed instrumentation provides analog signals to a signal conditioner where a trip signal is produced when the dp exceeds the fixed value as stated in Item 3.a.1 (4.a.1). There is no conversion to a mass flow rate value by the instrumentation.

Design calculations by Detroit Edison validate that the existing Trip Setpoints and Allowable Values for Items 3.a.1 and 4.a.1 are adequate. Start up tests have been conducted which verified that the Trip Setpoints and Allowable Values for differential pressure are conservative with respect to the mass flow rate values being deleted in the proposed amendment. Therefore, the condition for the ** notation on the Trip Setpoints for Items 3.a.1 and 4.a.1 has been fulfilled. This proposed Technical Specification change deletes the ** notation from the Trip Setpoints in Items 3.a.1 and 4.a.1.

Based on the above evaluation the staff finds the deletion of the value for mass flow rate and associated ** for items 3.a.1 and 4.a.1 to be acceptable.

3.0 ENVIRONMENTAL CONSIDERATION

This amendment involves a change in a requirement with respect to the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 and changes in surveillance requirements. We have determined that this 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 this amendment involves no significant hazards consideration and there has been no public comment on such finding. Accordingly, this amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 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 this amendment.

4.0 CONCLUSION

We have 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, and (2) such activities will be conducted in compliance with the Commission's regulations, and the issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: John Stang, NRR

Date: November 14, 1989