



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
SUPPORTING AMENDMENT NO. 21 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 February 24, 1988, the Detroit Edison Company (the licensee) described operational problems associated with returning the Reactor Water Cleanup System (RWCU) to service following an RWCU isolation. Following an isolation of the RWCU system, the large volume of hot water trapped in the system raises the temperature of the smaller volume of colder water at the Non-regenerative Heat Exchanger (NRHX) outlet. This causes the NRHX outlet temperature to rise to greater than the 140°F NRHX outlet temperature high setpoint, resulting in a second closure signal to the same isolation valves. The actuation of the second isolation signal acts to "seal in" the RWCU until both signals are cleared. However, clearing the signals is difficult because flow must be initiated through the isolated valves to cool down the piping. To assure timely restoration of the RWCU following an isolation, the licensee proposed Technical Specification (TS) changes by letter dated March 10, 1988, as supplemented April 21, 1988, to eliminate the NRHX outlet temperature-high isolation signal.

2.0 EVALUATION

The NRHX outlet temperature-high isolation has no accident mitigation function and is not utilized in the RWCU leak detection system. The basis for this isolation is to prevent damage of the filter demineralizer resins if the outlet temperature of the NRHX exceeds 140°F. The elimination of the NRHX outlet temperature-high isolation signal, by jumpering, would then permit opening the isolation valves and energizing the RWCU pumps to restore RWCU flow after the initial containment isolation signal clears. Removal of this isolation signal from the TSs will not prevent isolation of the filter-demineralizer resin vessels on high NRHX outlet temperature. The outermost isolation valve will automatically close to prevent damage to the filter-demineralizer resins if the outlet temperature of the NRHX is high. Elimination of the TS NRHX outlet temperature-high isolation signal will assure returning the RWCU to service in a timely manner to enhance reactor

water level control and reactor water chemistry control without loss of filter-demineralizer high temperature resin protection. We find that the proposed TS changes will enhance timely return of the RWCU system to service without affecting filter-demineralizer resin-high temperature protection and, therefore, are acceptable.

3.0 ENVIRONMENTAL CONSIDERATION

An Environmental Assessment and Finding of No Significant Impact has been issued for this amendment (53FR 25219, July 5, 1988).

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.

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Dated: July 6, 1988