



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 69 TO FACILITY OPERATING LICENSE NO. DPR-50

METROPOLITAN EDISON COMPANY
JERSEY CENTRAL POWER AND LIGHT COMPANY
PENNSYLVANIA ELECTRIC COMPANY

THREE MILE ISLAND NUCLEAR STATION, UNIT NO. 1

DOCKET NO. 50-289

Introduction

By letter dated July 23, 1981 (LIL 215, TSCR No. 106), Metropolitan Edison Company (Met-Ed) requested an amendment to Appendix A of the Operating License No. DPR-50 for Three Mile Island Nuclear Power Station Unit No. 1 (TMI-1). The amendment would permit the licensee to conduct Hot Functional Testing prior to Cycle 5 criticality with a modification to the containment isolation system. Met Ed is required by the existing Technical Specification (TS) to have the 4 psig Reactor Building pressure instrument channels operable to isolate applicable system lines penetrating containment in the event of a need for containment isolation whenever the reactor coolant system is above 200°F and 300 psig and there is fuel in the core. Prior to Hot Functional Testing, 30 psig Reactor Building pressure instrument channels will be installed and tested. Isolation valves in the reactor coolant pump seal injection return line, reactor coolant pump motor cooling water (Nuclear Services Closed Cycle Cooling Water) supply and return lines, and the Intermediate cooling water supply and return lines, will receive a 30 psig closure signal and not the 4 psig signal.

Discussion and Evaluation

The change in closure signals for isolation valves in the above lines is part of a containment isolation system modification to institute diverse parameters for containment isolation signals. We have reviewed and accepted the licensee's design and our safety evaluation is provided in NUREG-0680 Supplement 3 "TMI-1 Restart," Section 2.1.4, pages 30-33. The purpose of changing the isolation signals is to permit use of the reactor coolant pumps under certain accident conditions (such as a small break loss of coolant accident) and in the case of the seal injection line, to prevent pump seal damage and unnecessary leakage of primary coolant into containment.

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We have determined that with the change in closure signals from 4 psig to 30 psig, the reactor coolant pump signal injection return line, the reactor coolant pump motor cooling lines and the Intermediate cooling water lines still satisfy the explicit isolation requirements of General Design Criteria (GDC) 55 and 56 of 10 CFR Part 50 Appendix A. In addition, the seal injection system is a closed safety grade system outside containment and the reactor coolant pump motor cooling lines and the Intermediate cooling water lines are closed to the reactor coolant system. Also, all of the above lines have remote manual isolation capability.

For the above reasons, we conclude that there are acceptable isolation provisions for these containment penetrations. On this basis, we find the licensee's proposed change to the containment isolation system to support Hot Functional Testing prior to Cycle 5 criticality is acceptable.

Environmental Consideration

We have determined that the amendment does not authorize a change in effluent types or total amounts nor an increase in power level and will not result in any significant environmental impact. Having made this determination, we have further concluded that the amendment involves an action which is insignificant from the standpoint of environmental impact and, pursuant to 10 CFR §51.5(d)(4), that an environmental impact statement, or negative declaration and environmental impact appraisal need not be prepared in connection with the issuance of this amendment.

Conclusion

We have concluded, based on the considerations discussed above, that: (1) because the amendment does not involve a significant increase in the probability or consequences of accidents previously considered and does not involve a significant decrease in a safety margin, the amendment does not involve a significant hazards consideration, (2) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (3) 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.

Dated: July 27, 1981