



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 73 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 May 18, 1981 (LIL 125, TSCR No. 103), Metropolitan Edison Company (Met Ed) requested an amendment to Appendix A of the Operating License No. DPR-50 for Three Mile Island Nuclear Station, Unit No. 1 (TMI-1). This letter requested a number of Technical Specification (TS) changes to reflect equipment, administrative and analytical changes which are being accomplished prior to Cycle 5 criticality. One TS change in this request involves a setpoint change to the low Reactor Coolant System (RCS) pressure channel setpoint which is used as an input to the Engineered Safety Features Actuation System (ESFAS) logic. The existing low pressure setpoint of 1500 psig is being changed to 1600 psig to correspond to the setpoint assumed in a generic Emergency Core Cooling System analysis for Babcock and Wilcox (B&W) plants. This amendment is being processed separately from the other TS changes requested in Met Ed's letter of May 18, 1981 to support Hot Functional Testing prior to Cycle 5 criticality.

Discussion and Evaluation

The low RCS pressure channel setpoint, which is used as an input to the ESFAS logic, is determined based on a generic Emergency Core Cooling System analysis. The generic Emergency Core Cooling System analysis for TMI-1, "ECCS Analysis of B&W's 177-FA Lowered-Loop NSS", BAW-10103, referenced the low RCS pressure setpoint as 1600 psig vice the TS limit of 1500 psig. Our Safety Evaluation accepting TMI-1's ECCS analysis was issued May 18, 1976. Our evaluation of additional small break LOCA analysis including the above setpoint change is provided in NUREG-0680, "TMI-1 Restart Evaluation", Section 1.d, Page C1-12 to C1-16. In the event of a LOCA, the impact of the 100 psig increase in the minimum low RCS pressure setpoint would be to initiate actions, based on this signal, at an earlier time in the accident.

The trip functions of the ESFAS system are bypassed whenever the reactor is to be depressurized below the trip setpoints of the ESFAS system bistables. Bypassing is initiated manually within a fixed pressure band (150 psig) above the bistable trip setpoint. In order to maintain this fixed pressure band to prevent inadvertent ESFAS initiation, bypassing is permitted when RCS pressure is less than 1750 psig instead of the existing limit of 1650 psig.

For the above reasons, we conclude that it is acceptable to revise the low RCS pressure ESFAS setpoint to 1600 psig and permit bypass at RCS pressures of less than 1750 psig.

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: August 28, 1981