



UNITED STATES  
ATOMIC ENERGY COMMISSION  
WASHINGTON, D.C. 20545

SAFETY EVALUATION BY THE  
DIRECTORATE OF LICENSING  
SUPPORTING AMENDMENT NO. 2  
TO LICENSE NO. DF-50  
(Change No. 2 to Appendix A  
of Technical Specifications)

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

THREE MILE ISLAND NUCLEAR STATION - UNIT 1  
DOCKET NO. 50-289

Introduction

By letter dated June 3, 1974, Metropolitan Edison Company (MetEd) requested a change to the Technical Specifications appended to Facility Operating License No. DPR-50 for the Three Mile Island Nuclear Station - Unit 1 (TMI-1). The proposed change would temporarily permit plant warmup and low power (less than 5% of rated power) operation while any one of the emergency feedwater (EFW) pumps is out of commission. The Technical Specifications, Appendix A, section 3.4, presently require at least one of the motor-driven EFW pumps and the turbine-driven EFW pump to be in service before the plant is heated to more than 250°F.

Discussion

The EFW System in TMI-1 is designed to provide cooling water to the steam generators for the removal of reactor decay heat in the event the main feedwater system fails, and in spite of potential single active failures of components in the EFW and related systems. The EFW system design is based on a decay heat load equal to about 5% of rated reactor power, using one, full-capacity (920 gpm), turbine-driven pump and two, half-capacity (460 gpm), electric motor-driven pumps. The turbine-driven pump is served by control power from both emergency busses; the motor-driven pumps are normally aligned one on each emergency bus. Thus, with the common feedwater header to the steam generators, any pair selected from these three pumps provides redundant emergency feedwater capability up to half of the design decay heat load. Beyond that all three pumps are needed since both half-size motor-driven pumps are needed to be redundant to the full-size turbine-driven pump.

The possible decay heat load in the plant is limited by the peak power at which the plant has operated. Thus, if the plant is never permitted to operate above 50% of rated power, the decay heat load will never be

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dated May 10, 1974. All of these are available for public inspection at the Commission's Public Document Room, 1717 H Street, N. W., Washington, D. C., and at the Government Publication Section, State Library of Pennsylvania, Box 1601 (Education Building), Harrisburg, Pennsylvania.

A copy of items (2), (3) and (4) may be obtained upon request addressed to the United States Atomic Energy Commission, Washington, D. C. 20545, Attention: Deputy Director for Reactor Projects, Directorate of Licensing - Regulation.

Dated at Bethesda, Maryland, this 4 day of JUN 1974.

FOR THE ATOMIC ENERGY COMMISSION

Original Signed by  
A. Schwencer

A. Schwencer, Chief  
Light Water Reactors Branch 2-3  
Directorate of Licensing

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