

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
SUPPORTING AMENDMENT NO. 7 TO FACILITY OPERATING LICENSE NO. DPR-50
(CHANGE NO. 7 TO THE TECHNICAL SPECIFICATIONS)
METROPOLITAN EDISON COMPANY
THREE MILE ISLAND NUCLEAR STATION, UNIT 1

Introduction

On April 16, 1975, Metropolitan Edison Company (MetEd) made application to amend the operating license for Three Mile Island Unit 1. The proposed amendment changes Technical Specifications 3.1.3.5 and 3.5.2.5 which provide for revised control rod withdrawal limits. These revised limits are required to assure that the maximum, hypothetical, ejected control rod reactivity worth will not exceed the values contained in Technical Specification 3.5.2.3; these values of rod worth are 0.65% $\Delta K/K$ and 1.00% $\Delta K/K$ for conditions of full power and hot zero power, respectively.

Discussion

By letter dated March 31, 1975, the Nuclear Regulatory Commission (NRC) informed MetEd that deficiencies had been identified in the ejected rod worth calculation on which the control rod withdrawal limits for Three Mile Island Unit 1 had been based. This letter further stated that following control rod interchange*, potential ejected control rods might exist which would violate the limits specified in Technical Specification 3.5.2.3.

On April 9, 1975, MetEd submitted a Nonroutine 30 Day Report 74-04 which confirmed the existence of a deficiency in the control rod withdrawal limits.

Evaluation

MetEd has provided additional information via a letter dated May 29, 1975, in response to our request dated May 7, 1975. MetEd indicated that their proposed changes in Technical Specifications provide control rod withdrawal

*Control rod interchange is a process by which the control rods are re-sequenced for operation during the latter part of the fuel cycle.



limits which assure that the ejected control rod worth limits, as specified in Technical Specification 3.5.2.3, will not be violated. Moreover, by adoption of the revised control rod withdrawal limits, additional shutdown margin is provided in the event of the hypothetical ejected control rod accident.

With regard to that portion of the revised control rod withdrawal limit curves in which ECCS considerations are limiting, above 82.5% of rated full power, the restrictions provided are at least as conservative as those presently provided for Three Mile Island Unit 1. Therefore, no reduction in operating margin relative to the ECCS limits will result upon adoption of the revised control rod withdrawal limits.

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.

Dated: JUN 6 1975