



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 52 TO

FACILITY OPERATING LICENSE NO. DPR-50

METROPOLITAN EDISON COMPANY

THREE MILE ISLAND NUCLEAR STATION, UNIT NO. 1

DOCKET NO. 50-289

Introduction

By letter dated October 11, 1979 (GQL 1231), Metropolitan Edison Company (Met-Ed) requested amendment to the Facility Operating License No. DPR-50 for Three Mile Island, Unit No. 1 (TMI-1). The proposed amendment would incorporate the monitoring program for Secondary Water Chemistry in the body of the license.

Discussion & Evaluation

In August 1976, we sent letters to the majority of licensees who operate Pressurized Water Reactors (PWRs) regarding the control of secondary water chemistry to inhibit corrosion of steam generator tubes. The letters requested the licensees to propose Technical Specification changes to incorporate limiting conditions for operation and surveillance requirements for secondary water chemistry parameters. This request was sent to Met-Ed by letter dated August 23, 1976.

Many licensees objected to the Model Technical Specifications principally on the basis that they could unnecessarily restrict plant operation. The majority of these licensees submitted alternative approaches that were directed more toward monitoring and record keeping rather than specific limits on chemistry parameters. At the time of our request, we recognized that a major disadvantage of the Technical Specifications was a potential decrease in operational flexibility, but our request was motivated by an overriding concern for steam generator tube integrity. Our objective was to provide added assurance that licensees would properly monitor and control secondary water chemistry to limit corrosion of steam generator tubes.

However, based on the experience and knowledge gained since 1976, we concluded in mid-1979 that Technical Specification limits would not be the most effective way of accomplishing this objective. Due to the complexity of the corrosion phenomena involved, and the state-of-the-art as it exists today, we believe that a more effective approach would be to institute a license condition that requires the implementation of a secondary water chemistry monitoring and control program containing appropriate procedures and administrative controls. The required program

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and procedures would be developed by the licensees, with any needed input from their reactor vendors or other consultants, and thus could more readily account for site and plant specific factors that affect chemistry conditions in the steam generators. In our view, such a license condition would provide assurance that licensees would devote proper attention to controlling secondary water chemistry while also providing the needed flexibility to allow them to more effectively deal with any off-normal conditions that might arise.

Consequently, by letter dated August 2, 1979, we requested the licensee to propose such a license condition for TMI-1. The licensee responded to our request by letter dated October 11, 1979 (GQL 1231) and agreed to implement the program within 60 days from the issuing date of the proposed amendment. The proposed amendment complies with the guidance we provided to the licensee in our August 3, 1979 request. The NRC staff has made minor changes to the wording of the proposed license condition for the purpose of clarification. These changes were discussed with and concurred in by the licensee.

Based on our review, we have concluded that the addition of this license condition, in conjunction with existing Technical Specifications on steam generator tube leakage and inservice inspection, would provide the most practical and comprehensive means of assuring that steam generator tube integrity is maintained; and thus, the proposed amendment 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: February 20, 1980