

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

METROPOLITAN EDISON COMPANY

JERSEY CENTRAL POWER AND LIGHT COMPANY

PENNSYLVANIA ELECTRIC COMPANY

DOCKET NO. 50-320

THREE MILE ISLAND NUCLEAR STATION, UNIT NO. 2

Introduction

Metropolitan Edison Company, Jersey Central Power and Light Company and Pennsylvania Electric Company (collectively, the Licensee) are the holders of Facility Operating License No. DPR-73, which had authorized operation of the Three Mile Island Nuclear Station, Unit 2 (TMI-2) at power levels up to 2772 megawatts thermal. By Order for Modification of License, dated July 20, 1979, the Licensee's authority to operate the facility was suspended and the Licensee's authority was limited to maintenance of the facility in the present shutdown cooling mode (44 Fed. Reg. 45271). By further Order of the Director, Office of Nuclear Reactor Regulation, dated February 11, 1980, a new set of formal license requirements were imposed to reflect the post-accident condition of the facility and to assure the continued maintenance of the current safe, stable, long-term cooling condition of the facility (45 Fed. Reg. 11282). These requirements were memorialized in the form of proposed Technical Specifications set forth in an attachment to the Order.

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Several requests for a hearing have been filed in connection with the Order and granted by the presiding Atomic Safety and Licensing Board established to rule on such requests and to preside over any eventual hearings.

These parties have sought to introduce a number of issues involving the proposed Technical Specifications. These include concerns regarding the reactor coolant system pressure safety limit (proposed Technical Specification 2.1.3), remote shutdown monitoring instrumentation (proposed Technical Specification 3.3.3.5), reactor coolant system pressure/temperature limits (proposed Technical Specification 3.4.9.1), and record retention (proposed Technical Specifications 6.10.1 and 6.10.2). Consistent with the Commission's regulations which encourage settlement of potential issues in a proceeding (see 10 CFR §2.759), the Staff has modified the proposed Technical Specifications in a manner agreed upon by the principals and described hereafter.

Evaluation

The February 11, 1980 Order established, in the form of proposed Technical Specification 2.1.3, a reactor coolant system pressure safety limit of 2750 psig. The basis for this safety limit was the design criteria and associated ASME Boiler and Pressure Vessel Code requirements applicable to the reactor coolant system prior to the March 28, 1979 accident. This Order also set a reactor coolant system limiting condition for operation of 600 psig contained in proposed Technical Specification 3.4.9.1. The basis for this limiting condition for operation was to preclude the possibility of a nonductile failure of the reactor coolant system. The accident

subjected portions of the reactor coolant system to unknown environmental conditions and, therefore, the pressure retaining ability of the reactor coolant system is somewhat uncertain. However, the ability of the reactor coolant system to withstand a pressure of 600 psig was demonstrated by its operation for extended time intervals at 800-1050 psig during April 1979 (Reference 1). Furthermore, 10 CFR §50.36(c)(1)(i)(A) of the Commission's regulation requires, in part, that, in the event a safety limit is exceeded, the reactor shall be shut down and that operation shall not be resumed until authorized by the Commission. Since the TMI-2 reactor is already shut down, and since the licensee's authority to operate TMI-2 in other than its present shutdown condition was suspended by the Order for Modification of License dated July 20, 1979, a reactor coolant system safety limit is not required and can be eliminated from the proposed Technical Specifications. Along with eliminating this safety limit, and to clarify the actions to be taken by the licensee in the event the 600 psig limit is exceeded, we have also modified the Action statement for proposed Technical Specification 3.4.9.1 to explicitly identify the responsive action which must be taken if the pressure limit established for the reactor coolant system, 600 psig, is exceeded.

One of the parties in this matter contended that the allowable out-of-service time in the Action statement of proposed Technical Specification 3.3.3.5 was excessively long at 30 days and should be shortened to 7 days. We have not changed this allowable out-of-service time since it is consistent with the requirements of the Standard Technical Specifications for Babcock and Wilcox Pressurized Water Reactors (NUREG-0103). However, we have supplemented the Action statement for proposed Technical Specification 3.3.3.5 to require the licensee to report the inoperability of

one of these channels to the NRC within 24 hours. This additional provision will ensure that the NRC is promptly notified if one or more of the Remote Shutdown Instrumentation channels becomes inoperable. The NRC could then initiate any additional actions which may be appropriate.

Two of the parties seeking a hearing contended that the record retention requirements of proposed Technical Specifications 6.10.1 and 6.10.2 were inadequate and that the subject records should be retained for longer than the requirements of these proposed Technical Specifications. Since some of these records may have historical value, proposed Technical Specification 6.10.2 has been augmented to include most of the records previously included in proposed Technical Specification 6.10.1. The records designated in proposed Technical Specification 6.10.2 must be retained as long as the Licensee has a NRC license to operate or possess the TMI facility.

Environmental Consideration

We have determined that the modification 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 modification involves an action which is insignificant from the standpoint of environmental impact and, pursuant to 10 CFR Section 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 the modification.

Conclusion

As discussed above, the modification to proposed Technical Specifications 3.3.3.5, 3.4.9.1, 6.10.1 and 6.10.2 and the deletion of proposed Technical Specification 2.1.3 do not lessen (and in some cases augment) the affected requirements of the Director's February 11, 1980, Order. Therefore, we have concluded that: (1) the modifications do not involve a significant increase in the probability or consequences of accidents previously considered and do 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 modified manner, and (3) such activities will be conducted in compliance with the Commission's regulations and the issuance of this modification will not be inimical to the common defense and security or to the health and safety of the public.

REFERENCES

1. Graph attached to letter from Steven C. Goldberg, USNRC, to William A. Lochstet, dated August 13, 1980.