



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

METROPOLITAN EDISON COMPANY

JERSEY CENTRAL POWER AND LIGHT COMPANY

PENNSYLVANIA ELECTRIC COMPANY

DOCKET NO. 50-289

THREE MILE ISLAND NUCLEAR STATION, UNIT NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 21
License No. DPR-50

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Metropolitan Edison Company, Jersey Central Power and Light Company, and Pennsylvania Electric Company (the licensees) dated June 17, 1976, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment.

3. This license amendment is effective as of the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Robert W. Reid, Chief
Operating Reactors Branch #4
Division of Operating Reactors

Attachment:
Changes to the Technical
Specifications

Date of Issuance: September 15, 1976

ATTACHMENT TO LICENSE AMENDMENT NO. 21

FACILITY OPERATING LICENSE NO. DPR-50

DOCKET NO. 50-289

Remove pages 3-21 and 3-22 from the Appendix A Technical Specifications and insert the attached replacement pages. The changed areas on the revised page are shown by marginal lines. Page 3-22 is unchanged and is included for convenience only.

3.3 EMERGENCY CORE COOLING, REACTOR BUILDING EMERGENCY COOLING AND REACTOR BUILDING SPRAY SYSTEMS

Applicability

Applies to the operating status of the emergency core cooling, reactor building emergency cooling, and reactor building spray systems.

Objective

To define the conditions necessary to assure immediate availability of the emergency core cooling, reactor building emergency cooling and reactor building spray systems.

Specification

3.3.1 The reactor shall not be made critical unless the following conditions are met:

3.3.1.1 Injection Systems

- a. The borated water storage tank shall contain a minimum of 350,000 gallons of water having a minimum concentration of 2,270 ppm boron at a temperature not less than 40 F.
- b. Two makeup pumps are operable in the engineered safeguards mode powered from independent essential busses.
- c. Two decay heat removal pumps are operable.
- d. Two decay heat removal coolers and their cooling water supplies are operable. (See Specification 3.3.1.4)
- e. Two BWST level instrument channels are operable.
- f. The two reactor building sump isolation valves (DHV6A/B) shall be either manually or remote-manually operable.

3.3.1.2 Core Flooding System

- a. Two core flooding tanks each containing $1040 \pm 30 \text{ ft}^3$ of borated water at 600 ± 25 psig shall be available.
- b. Core flooding tank boron concentration shall not be less than 2,270 ppm boron.
- c. The electrically operated discharge valves from the core flood tank will be assured open by administrative control and position indication lamps on the engineered safeguards status panel. Respective breakers for these valves shall be open and conspicuously marked.
- d. One core flood tank pressure instrumentation channel and one core flood tank level instrumentation channel per tank shall be operable.

3.3.1.3 Reactor Building Spray System and Reactor Building Emergency Cooling System

The following components must be operable:

- a. Two reactor building spray pumps and their associated spray nozzles headers and two reactor building emergency cooling fans and associated cooling units (one in each train).
- b. The sodium thiosulfate tank shall contain not less than 34,000 pounds of sodium thiosulfate and not more than 36,000 pounds of sodium thiosulfate. The sodium thiosulfate will be stored at a nominal 30 weight percent solution with nominal 1.5 weight percent boric acid-sodium hydroxide buffer at a pH of approximately 9 to 10. The sodium hydroxide tank shall contain not less than 16,000 pounds of sodium hydroxide and not more than 17,000 pounds of sodium hydroxide. The sodium hydroxide will be stored at a nominal 20 weight percent solution.
- c. All manual valves in the discharge lines of the sodium thiosulfate and sodium hydroxide tanks shall be locked open.

3.3.1.4 Cooling Water Systems

- a. Two nuclear service closed cycle cooling water pumps must be operable.
- b. Two nuclear service river water pumps must be operable.
- c. Two decay heat closed cycle cooling water pumps must be operable.
- d. Two decay heat river water pumps must be operable.
- e. Two reactor building emergency cooling river water pumps must be operable.

3.3.1.5 Engineered Safeguards Valves and Interlocks Associated with the Systems in Specifications 3.3.1.1, 3.3.1.2, 3.3.1.3, 3.3.1.4 are operable.

3.3.2 Maintenance shall be allowed during power operation on any component(s) in the makeup and purification, decay heat, RB emergency cooling water, RB spray, CFT pressure instrumentation, CFT level instrumentation, BWST level instrumentation, or cooling water systems which will not remove more than one train of each system from service. Components shall not be removed from service so that the affected system train is inoperable for more than 48 consecutive hours. If the system is not restored to meet the requirements of Specifications 3.3.1 within 48 hours, the reactor shall be placed in a cold shutdown condition within twelve hours.



UNITED STATES
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WASHINGTON, D. C. 20555

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

AMENDMENT NO. 21 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. 50-333

Introduction

By letter dated June 17, 1976, Metropolitan Edison Company (MetEd) requested a change in the Technical Specifications appended to the Three Mile Island Nuclear Station, Unit No. 1 (TMI-1) Facility Operating License No. DPR-50. The proposed change would delete a requirement for locking open a nonexistent manual valve on the discharge of the Borated Water Storage Tank (BWST).

Discussion

The proposed change is intended to correct an apparent error in the TMI-1 Technical Specifications. Section B.3.1.1.a of the Technical Specifications (Appendix A) states, in part, "The manual valve on the discharge of the BWST shall be locked open." MetEd states that this is inappropriate because there are no manual valves on the discharge of the BWST. On the basis it was never intended that there be a manual valve in this discharge line, we agree that the subject provision is inappropriate.

With respect to whether the apparently inappropriate provision could have arisen because of a construction error which resulted in omission of a manual valve, we conclude that this is unlikely since such a valve, if inadvertently closed could block a safety function. Further, even if installation of a manual valve had been intended, its omission would not affect the safety of the plant since with the BWST performing its intended safety function, the absence of a manual valve in the discharge line is functionally equivalent to the presence of a manual valve which is locked open. Hence from the standpoint of safety, the absence of a manual valve in the BWST discharge line, whether by design or error, is an acceptable condition.

Based on the foregoing, we conclude that the proposed change corrects an inappropriate provision of the Technical Specifications, does not reduce plant safety and therefore is acceptable.

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, negative declaration, or 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: September 15, 1976