



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

AMENDMENT NO. 27 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. 50-289

Introduction

By letter dated February 18, 1977 (Serial No. 0235), Metropolitan Edison Company (the licensee) requested amendment of Appendix A to Operating License No. DPR-50 for Three Mile Island Nuclear Station, Unit No. 1 (TMI-1). This proposed amendment would modify the provisions relating to repairs and adjustments which are permissible prior to conducting a leakage test of the containment pursuant to Appendix J to 10 CFR 50. By letter of the same date (Serial No. 0248) the licensee proposed an additional amendment which would allow greater flexibility in the means employed to assure maintenance of containment integrity during refueling operations.

Discussion

1. Leak Testing of Containment

Section III.A.1.(a) of Appendix J to 10 CFR 50 provides in part as follows:

"During the period between one Type A test and the initiation of the containment inspection for the subsequent Type A test, repairs or adjustments shall be made to components whose leakage exceeds that specified in the Technical Specification as soon as practical after identification."

A Type A test is an overall integrated leakage rate test of the containment. The containment inspection referred to is an inspection required by Section V.A of Appendix J to uncover evidence of structural deterioration which could affect either the containment structural integrity or leak tightness. Section V.A. requires repair of structural deterioration prior to conducting a Type A test.

In contrast with the above, the licensee's present Technical Specifications governing conduct of integrated leakage rate tests (Section 4.4.1.1.4.a) state:

"No repairs or adjustments shall be made prior to a periodic integrated leakage rate test unless the preliminary containment inspection uncovers deterioration which could significantly affect the structural integrity of the containment or which could be increased in severity during the performance of the test."

The licensee states that this Specification, as presently worded, makes no provision for repairs or adjustments other than those related to structural deterioration of the containment. That is, if repairs or adjustments to components such as penetrations and isolation valves are required during normal operation, there is no provision for such corrective action because such action, whenever taken, would be "prior to a periodic integrated leakage rate test."

We agree with the licensee that the present Technical Specification is subject to the above interpretation. We also note that such an interpretation would be in conflict with the provision in Section III.A.1.(a) of Appendix J quoted above, which requires that in the interim between tests repairs and adjustments to components be made as soon as practical after the need is identified.

In his letter of February 18, 1977, the licensee proposed revised wording for Technical Specification 4.4.1.1.4.a, intended to make the specification conform with the previously referenced provision of Section III.A.1.(a) of Appendix J. We have reviewed the proposed revised wording and have determined that certain additional changes were necessary. These changes have been discussed with the licensee and found acceptable. With these changes, we conclude that the proposed revised Technical Specification 4.4.1.1.4.a will conform to the requirements of Appendix J to 10 CFR 50 and is therefore acceptable.

## 2. Containment Isolation During Refueling

Section 3.8.7 of Appendix A of the TMI-1 Technical Specifications which applies to fuel handling operations in the Reactor Building presently states:

"Isolation valves in lines containing automatic containment isolation valves shall be operable, or at least one shall be closed."

The licensee has requested that the following wording, drawn from the Standard Technical Specifications for Babcock & Wilcox reactors, be substituted for the present wording:

"During the handling of irradiated fuel in the Reactor Building, each penetration providing direct access from the containment atmosphere to the outside atmosphere shall be either:

1. Closed by an isolation valve, blind flange or manual valve, or
2. Be capable of being closed by an operable automatic containment purge and exhaust isolation valve."

The licensee states that this change is requested because the present Technical Specification does not allow use of other types of leakage control which would provide reliability equivalent to that of a closed or operable automatic containment isolation valve. The licensee also states that the present Technical Specification restricts his flexibility of operations during refueling.

We have compared the proposed revised wording with that of the present Technical Specifications and conclude that operation in accordance with the proposed revision would provide effective isolation by means of automatic containment isolation valves, closed valves and/or blind flanges; and thus would provide containment isolation during refueling equivalent to that provided by the present Technical Specifications. Accordingly, we find the proposed change 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: March 23, 1977

UNITED STATES NUCLEAR REGULATORY COMMISSION

DOCKET NO. 50-289

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

NOTICE OF ISSUANCE OF AMENDMENT TO FACILITY  
OPERATING LICENSE

The U. S. Nuclear Regulatory Commission (the Commission) has issued Amendment No. 27 to Facility Operating License No. DPR-50, issued to Metropolitan Edison Company, Jersey Central Power and Light Company and Pennsylvania Electric Company (the licensees), which revised Technical Specifications for operation of the Three Mile Island Nuclear Station, Unit No. 1 (the facility) located in Dauphin County, Pennsylvania. The amendment is effective as of its date of issuance.

This amendment modifies the provisions of the Technical Specifications relating to repairs and adjustments which are permissible prior to conducting a leakage test of the containment pursuant to Appendix J of 10 CFR Part 50. The amendment also allows greater flexibility in the means employed to assure maintenance of containment integrity during refueling operations.

The applications for the amendment comply with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations. The Commission has made appropriate findings as required by the Act and the Commission's rules and regulations in 10 CFR Chapter I, which are set forth in the license amendment. Prior public notice of this amendment was not required since the amendment does not involve a significant hazards consideration.

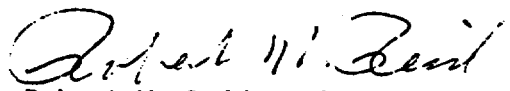
The Commission has determined that the issuance of this amendment will not result in any significant environmental impact and that pursuant to 10 CFR §51.5(d)(4) an environmental impact statement or negative declaration and environmental impact appraisal need not be prepared in connection with issuance of this amendment.

For further details with respect to this action, see (1) the applications for amendment dated February 18, 1977, (2) Amendment No. 27 to License No. DPR-50, and (3) the Commission's related Safety Evaluation. All of these items are available for public inspection at the Commission's Public Document Room, 1717 H Street, N. W., Washington, D. C. and at the Government Publications Section, State Library of Pennsylvania, Box 1601 (Education Building), Harrisburg, Pennsylvania.

A copy of items (2) and (3) may be obtained upon request addressed to the U. S. Nuclear Regulatory Commission, Washington, D. C. 20555, Attention: Director, Division of Operating Reactors.

Dated at Bethesda, Maryland, this 23rd day of March 1977.

FOR THE NUCLEAR REGULATORY COMMISSION

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