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UNITED STATES NUCLEAR REGULATORY COMMISSION

ENVIRONMENTAL ASSESSMENT AND FINDING OF NO SIGNIFICANT IMPACT

REGARDING PROPOSED AMENDMENT TO FACILITY OPERATING LICENSE

METROPOLITAN EDISON COMPANY
JERSEY CENTRAL POWER AND LIGHT COMPANY
PENNSYLVANIA ELECTRIC COMPANY
GPU NUCLEAR CORPORATION

DOCKET NO. 50-289

The U.S. Nuclear Regulatory Commission (the Commission) is considering the issuance of an amendment to Facility Operating License No. DPR-50 issued to Metropolitan Edison Company, Jersey Central Power and Light Company, Pennsylvania Electric Company, and GPU Nuclear Corporation (the licensees) for operation of the Three Mile Island Nuclear Station, Unit No. 1 (TMI-1 or the facility) located in Dauphin County, Pennsylvania.

ENVIRONMENTAL ASSESSMENT

Identification of and Need for Proposed Action: The proposed amendment would revise the Technical Specifications to recognize and approve for plant operation the steam generator tube kinetic expansion repair technique as an alternative to plugging defective tubes and would permit return to operation of the repaired steam generators, pursuant to the Initial Decision of the Atomic Safety and Licensing Board dated October 31, 1984.

By letter of May 9, 1983, the licensees requested a change in Technical Specification (TS) 4.19 which would permit operation of TMI-1 after repair of the steam generators by any method other than plugging, provided that the repair method was approved by the NRC. It further requested approval of the kinetic expansion process to permit both a non-nuclear heatup of the plant using pump heat for pre-critical testing and subsequent operation using the repaired steam generators.

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Amendment No. 86, issued on August 25, 1983, addressed a portion of the request of May 9, 1983, by modifying TS 4.19 to include only the kinetic expansion repair process as an alternative to plugging defective tubes, only for the period of pre-critical steam generator hot functional testing, and permitted such testing. Similarly, Amendment No. 91, issued on April 9, 1984, further modified TS 4.19 to cover the total period of pre-critical (non-nuclear) hot functional testing of the plant.

In response to the FEDERAL REGISTER Notice of May 31, 1983, a hearing was requested on this matter. Such hearing was held on July 16-18, 1984, and resulted in the aforementioned Initial Decision.

The proposed amendment further modifies TS 4.19 by removing restrictions as to the period of effectiveness of the acceptability of the kinetic expansion repair process as an alternative to plugging defective tubes. This amendment, subject to certain license conditions, would permit the return of the steam generators to operation, in accordance with the October 31, 1984, Initial Decision and is needed in order to permit operation of the facility with the repaired steam generators.

Environmental Impacts of the Proposed Action: The proposed action would permit plant operation with steam generators repaired to the original licensing basis by the kinetic expansion process. There will be no change in net power level. Expected gaseous releases from the condenser air ejector calculated by the licensees have been compared with the NRC staff's estimate of such releases using values of NUREG-0017, "Calculation of Releases of Radioactive Materials in Gaseous and Liquid Effluents from PWR (PWR-GALE Code)", and were found to be reasonable. Liquid or other gaseous releases are not expected to change

significantly. Public radiation exposure from plant operation was estimated by comparing estimated radioactive effluents with average releases and dose estimates from prior operation. Based on this comparison, the offsite environmental impact that may occur is expected to be about the same as that which occurred during prior plant operation. Occupational exposures to radiation are not expected to change significantly. Therefore, the Commission concludes that there are no significant radiological environmental impacts associated with the proposed amendment beyond those previously projected and evaluated in the Final Environmental Statement on the operation of TMI-1 issued in December 1972 (reprinted as NUREG-0552, April 1979).

With regard to potential nonradiological impacts, the proposed change involves systems located within the restricted area as defined in 10 CFR 20. No nonradiological effluents are affected, and no other environmental impact would occur. Therefore, the Commission concludes that there are no significant nonradiological environmental impacts associated with the proposed change.

Alternative Use of Resources: This action does not involve the use of resources not previously considered in connection with the Final Environmental Statement related to TMI-1 operation (Final Environmental Statement dated December 1972).

Agencies and Persons Consulted: The Commission's staff reviewed the licensees' request and did not consult other agencies or persons with regard to environmental impact.

FINDING OF NO SIGNIFICANT IMPACT

The Commission has determined not to prepare an environmental impact statement for the proposed license amendment.

Based upon the foregoing environmental assessment, the Commission concludes that the proposed action will not have a significant effect on the quality of the human environment.

For further details with respect to this action, see the application for amendment dated May 9, 1983, which is 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, Education Building, Commonwealth and Walnut Streets, Harrisburg, Pennsylvania 17126.

Dated at Bethesda, Maryland, this 17th day of December 1984.

FOR THE NUCLEAR REGULATORY COMMISSION

Gus C. Lainas, Assistant Director
for Operating Reactors
Division of Licensing