

UNITED STATES NUCLEAR REGULATORY COMMISSIONGPU NUCLEAR CORPORATIONJERSEY CENTRAL POWER AND LIGHT COMPANYMETROPOLITAN EDISON COMPANYPENNSYLVANIA ELECTRIC COMPANYTHREE MILE ISLAND NUCLEAR STATION, UNIT NO. 1DOCKET NO. 50-289ENVIRONMENTAL ASSESSMENT AND FINDING OF NO SIGNIFICANT IMPACT

The U. S. Nuclear Regulatory Commission (the Commission) is considering issuance of an exemption from the requirements of Appendix J to 10 CFR Part 50 in response to a request filed by the GPU Nuclear Corporation (the licensee), for Three Mile Island Nuclear Station, Unit No. 1, located in Dauphin County, Pennsylvania.

ENVIRONMENTAL ASSESSMENTIdentification of Proposed Action:

The proposed action would grant an exemption from a requirement in Section III.D.1(a) of Appendix J to 10 CFR Part 50, which requires in part that the third test in each set of three tests intended to measure the primary reactor containment overall integrated leakage rate (Type A tests) shall be conducted when the plant is shutdown for the 10-year plant inservice inspections (ISI).

The proposed action is in accordance with the licensee's request for exemption dated August 30, 1990.

The Need for the Proposed Action:

The proposed exemption is needed because the requirement cited above would force the licensee to perform an additional Type A integrated leak rate test (ILRT) during the forthcoming refueling outage presently scheduled to start in

October 1991 within a relatively short time interval after performing the previous ILRT (during the last refueling outage) at a significant cost but without any significant increase in public health and safety.

Environmental Impacts of the Proposed Action:

The proposed exemption would not affect the integrity of the plant's primary containment with respect to potential radiological releases to the environment in the event of a severe transient or an accident up to and including the design basis accident (DBA). Under the assumed conditions of the DBA, the licensee must demonstrate that the calculated offsite radiological doses at the plant's exclusion boundary and low population zone outer boundary meet the guidelines in 10 CFR Part 100. Part of the licensee's demonstration is accomplished by the periodic ILRTs conducted about every 40 months to verify that the primary containment leakage rate is equal to or less than the design basis leakage rate used in its calculations demonstrating compliance with the guidelines in 10 CFR Part 100.

The licensee has successfully conducted a number of these ILRTs to date. The most recent ILRT was completed in January 1990 during the last refueling outage and was the sixth Type A test since the plant started operation in 1974. The next ILRT will most probably be conducted in late 1993 assuming approval of the subject exemption. The 10-year ISI is scheduled during the forthcoming eighth refueling outage, which is presently scheduled to start in October 1991. This schedule for the 10-year ISI is in compliance with the provisions of Section XI of the ASME Boiler and Pressure Vessel Code and Addenda as required by 10 CFR 50.55a.

The proposed exemption request to decouple the schedule of the third Type A test (ILRT) from that of the 10-year ISI will not in any way compromise the leak-tight integrity of the primary containment required by Appendix J to 10 CFR Part 50 since the leaktightness of the containment will continue to be demonstrated by the periodic ILRTs. Additionally, the proposed exemption will not affect the existing requirement in Section III.D.1(a) of Appendix J that three ILRTs be performed at approximately equal 40-month intervals during each 10-year service period. Further, the proposed uncoupling does not affect the structural integrity of the structures, systems and components subject to the requirements of 10 CFR 50.55a. Accordingly, there will be no increase in either the probability or the amount of radiological release from TMI-1 in the event of a severe transient or accident. Therefore, the Commission concludes that there are no significant radiological environmental impacts associated with the proposed exemption.

With regard to potential nonradiological impacts, the proposed exemption involves a change to surveillance and testing requirements. It does not affect nonradiological plant effluents and has no other environmental impact. Therefore, the Commission concludes that there are no significant nonradiological environmental impacts associated with the proposed exemption.

Alternatives to the Proposed Action:

Since the Commission concluded that there are no significant environmental impacts associated with the proposed action, any alternatives have either no or greater environmental impact.

The principal alternative would be to deny the requested exemption. This would not reduce the environmental impacts attributed to the facility but would result in the expenditure of resources and increased radiation exposures without any compensating benefit.

Alternative Use of Resources:

This action does not involve the use of any resources not previously considered in the Final Environmental Statement for the TMI-1 plant, dated December 1972.

Agencies and Persons Consulted:

The NRC staff reviewed the licensee's request and did not consult other agencies or persons.

FINDING OF NO SIGNIFICANT IMPACT

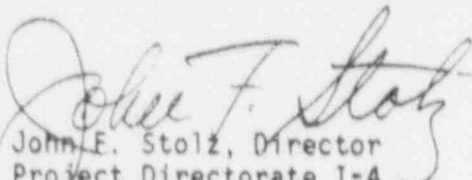
The Commission has determined not to prepare an environmental impact statement for the proposed exemption.

Based upon the foregoing environmental assessment, we conclude 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 request for exemption dated August 30, 1990, which is available for public inspection at the Commission's Public Document Room, 2120 L Street, N.W., Washington, D.C., and at the Government Publications Section, State Library of Pennsylvania, Walnut Street and Commonwealth Avenue, Box 1601, Harrisburg, Pennsylvania, 17105.

Dated at Rockville, Maryland, this 16th day of January 1991.

FOR THE NUCLEAR REGULATORY COMMISSION


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