UNITED STATES NUCLEAR REGULATORY COMMISSION

TOLEDO EDISON COMPANY

AND

THE CLEVELAND ELECTRIC ILLUMINATING COMPANY

DAVIS-BESSE NUCLEAR POWER STATION, UNIT NO. 1

DOCKET NO. 50-346

ENVIRONMENTAL 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 Toledo Edison Company and The Cleveland Electric Illuminating Company (the licensees), for the Davis-Besse Nuclear Power Station, Unit No. 1, located in Ottawa County, Ohio.

ENVIRONMENTAL ASSESSMENT

Identification of Proposed Action

The proposed action would grant an exemption from a requirement of 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.

The proposed action is in accordance with the licensee's request for exemption dated November 20, 1987.

The Need for the Proposed Action

The proposed exemption is needed because the present requirement cited above would force the licensee to perform an additional integrated leak rate test (ILRT) during the forthcoming refueling outage presently scheduled to start in February 1990 within a relatively short time interval after performing the previous ILRT at 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 September 1988 during the last refueling outage and was the third of the required Type A

tests. The next ILRT will most probably be conducted in January 1992 but no later than November 1992. The 10-year ISI is scheduled to start during the forthcoming sixth refueling outage presently scheduled to start in February 1990. 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 (i.e., an 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 leak-tightness 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 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 the Davis-Besse plant 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.

Alternative 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 increase 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 Davis-Besse Nuclear Power Station, Unit 1, dated March 1973 and its supplement dated October 1975.

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 November 20, 1987 which is available for public inspection at the Commission's Public Document Room, 2120 L Street, N.W., Washington, D.C., and at the University of Toledo Library, Documents Department, 2801 Bancroft Avenue, Toledo, Ohio 43606.

Dated at Rockville, Maryland, this 17th day of January 1990.

FOR THE NUCLEAR REGULATORY COMMISSION

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