

September 5, 1990

Docket No. 50-346

Mr. Donald C. Shelton
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Dear Mr. Shelton:

SUBJECT: ENVIRONMENTAL ASSESSMENT RELATED TO AN APPLICATION FOR AMENDMENT TO
FACILITY OPERATING LICENSE NO. NPF-3 FOR THE DAVIS-BESSE NUCLEAR
POWER STATION (TAC M68250)

Enclosed for your information is a copy of an Environmental Assessment and
Finding of No Significant Impact related to the license amendment requested in
your application dated March 4, 1988 as supplemented by letters dated May 4 and
December 6, 1988.

The portion of the license amendment request related to the main steam
safety valve setpoints and ASME Code requirements was issued as Amendment
Number 117 on August 24, 1988 (TAC Number 67394). The remaining portion related
to the main steam safety valve relief capacity, the high flux trip setpoint, and
elimination of Technical Specification Tables 3.7-1 and 4.7-1 is the subject of
the current review under TAC Number 68250.

This Environmental Assessment has been forwarded to the Office of the
Federal Register for publication.

Sincerely,

Original Signed By:

M. D. Lynch, Project Manager
Project Directorate III-3
Division of Reactor Projects - III,
IV, V and Special Projects
Office of Nuclear Reactor Regulation

Enclosure: As stated

cc w/enclosure:
See next page

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U.S. NUCLEAR REGULATORY COMMISSIONTOLEDO EDISON COMPANYANDTHE CLEVELAND ELECTRIC ILLUMINATING COMPANYDOCKET NO. 50-346ENVIRONMENTAL ASSESSMENT ANDFINDING OF NO SIGNIFICANT IMPACT

The U. S. Nuclear Regulatory Commission (the Commission) is considering issuance of an amendment to Facility Operating License No. NPF-3, issued to Toledo Edison Company and The Cleveland Electric Illuminating Company (the licensees), for operation of the Davis-Besse Nuclear Power Station, Unit No. 1 located in Ottawa County, Ohio.

ENVIRONMENTAL ASSESSMENTIdentification of Proposed Action

The proposed amendment would revise the provisions in the Technical Specifications (TS's) relating to incorporation of ASME Section III, 1971 Edition, code requirements for the Main Steam Safety Valves' (MSSV's) setpoints versus citing specific setpoints for each of the MSSVs in accordance with Toledo Edison Company's application dated March 4, 1988 and supplemented by letters dated May 4 and December 6, 1988. Specifically, the proposed amendment would:

- (1) revise the Technical Specification Basis 3/4.7.1.1 to reflect the ASME Section III, 1971 Edition code requirements and how they are met;

(2) revise Technical Specification 3.7.1.1 to incorporate the ASME Section III, 1971 Edition code requirements by specifying

- a) a minimum of two OPERABLE safety valves per steam generator, at least one with a setpoint not greater than 1050 psig ($\pm 1\%$), and
- b) a maximum setpoint of 1100 psig ($\pm 1\%$) for any OPERABLE safety valve.

(3) modify Technical Specification Table 4.7-1 to reflect:

- 2 lower capacity (583,574 lb/hr or approximately 5% rated capacity) MSSVs with lift setting at 1050 psig ($\pm 1\%$);
- 7 higher capacity (845,759 lb/hr or approximately 7% rated capacity) MSSVs with lift setting at 1100 psig ($\pm 1\%$);

(4) delete Technical Specification Table 4.7-1, "Main Steam Line Safety Valve Lift Settings";

(5) remove the reference to Table 4.7-1 from the Technical Specification Surveillance Requirement 4.7.1.1;

(6) revise Technical Specification 3.7.1.1 to specify that the High Flux Trip Setpoint is reduced per Equation 3.7-1;

(7) delete Technical Specification Table 3.7-1, "Maximum Allowable High Flux Trip Setpoint with Inoperable Steam Line Safety Valves";

(8) revise the Technical Specification Basis 3/4.7.1.1 to incorporate Equation 3.7-1 and its graphic representation for the Reduced High Flux Trip Setpoint.

Items (1), (2) and (3) have been amended through Amendment Numbers 117 (TAC No. 67394) dated August 24, 1988. Items (4) through (8) are addressed by the current amendment (TAC No. 68250).

The Need for the Proposed Action

The proposed changes are needed to support greater flexibility in the requirements for valve set pressure and in valve replacement, while maintaining required overpressure protection for the steam generators and main steam system consistent with the requirements of ASME Boiler and Pressure Vessel Code, Section III, 1971 Edition.

Environmental Impacts of the Proposed Action

The Davis-Besse MSSVs provide steam generator and main steam system overpressure protection following turbine trip from rated power coincident with a total loss of condenser heat sink. This overpressure protection is accomplished by assuring that the total relieving capacity of the MSSVs is at least as large as the steam produced during operation at rated thermal power, and that the valve lift settings are in accordance with the ASME Code. With the proper relieving capacity of the valves, the pressure will not exceed 110 percent of the design pressure for any system upset conditions. The proposed amendment would only incorporate the requirements of ASME Boiler and Pressure Vessel Code, Section III, 1971 Edition into the ACTION statement for Limiting Condition for Operation (LCO) 3.7.1.1 in place of Technical Specification Table 4.7.-1. The reduced High Flux Trip Setpoint, by using Equation 3.7-1, eliminates the unnecessary conservatism while maintaining the required level of main steam system overpressure protection and does not impact any analyzed events in Chapter 15 of USAR. The integrated steam mass released through the MSSVs to the atmosphere is independent of this change and, therefore, previously postulated off-site doses due to the mass release are unaffected by these changes.

The Commission has evaluated the environmental impact of the proposed amendment and has determined that post-accident radiological releases would not be greater than previously determined and occupational radiation exposure is unaffected. Neither does the proposed amendment otherwise affect radiological plant effluents during normal operation. Therefore, the Commission concludes that there are no significant radiological environmental impacts associated with this proposed amendment.

With regard to potential nonradiological impacts, the proposed amendment involves changes to the Main Steam Safety Valve setpoints and the reduced High Flux Trip setpoint. 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 amendment.

The Notice of Consideration of Issuance of Amendment and Opportunity for Hearing in connection with this action was published in the Federal Register on May 24, 1988 (53 FR 18631). No request for hearing or petition for leave to intervene was filed following this notice.

Alternatives to the Proposed Action

Since the Commission has concluded that the environmental effects of the proposed action are not significant, any alternative with equal or greater environmental impacts need not be evaluated.

The principal alternative would be to deny the requested amendment. This would not reduce the environmental impacts attributable to this facility and would result in the MSSV setpoints remaining as they are specifically cited presently in the Technical Specifications.

Alternative Use of Resources

This action does not involve the use of resources not previously considered in the Final Environmental Statement related to operation of the Davis-Besse facility.

Agencies and Persons Consulted

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

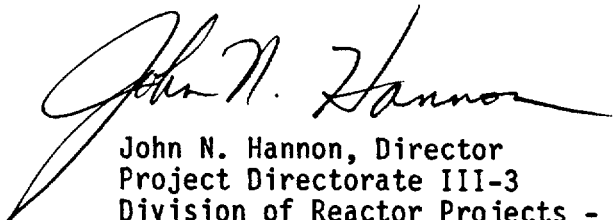
FINDING OF NO SIGNIFICANT IMPACT

The Commission has determined not to prepare an environmental impact statement for the proposed amendment. 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 application for amendment dated March 4, 1988 and supplemental letters dated May 4 and December 6, 1988 which are 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 5th day of September 1990.

FOR THE NUCLEAR REGULATORY COMMISSION

A handwritten signature in dark ink, appearing to read "John N. Hannon", is written over a horizontal line.

John N. Hannon, Director
Project Directorate III-3
Division of Reactor Projects - III,
IV, V and Special Projects
Office of Nuclear Reactor Regulation