

September 1, 1988

Docket No. 50-346
Serial No. DB-88-040

Mr. Donald C. Shelton
Vice President, Nuclear
Toledo Edison Company
Edison Plaza - Stop 712
300 Madison Avenue
Toledo, Ohio 43652

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Dear Mr. Shelton:

SUBJECT: AMENDMENT NO. 119 TO FACILITY OPERATING LICENSE NO. NPF-3
MAIN STEAM ISOLATION VALVE CLOSURE AND RESPONSE TIMES (TAC 65858)

The Commission has issued the enclosed Amendment No. 119 to Facility Operating License No. NPF-3 for the Davis-Besse Nuclear Power Station, Unit No. 1. This amendment consists of changes to the Technical Specifications (TS's) in response to your application dated July 27, 1987 (Serial No. 1387). Information contained in your letter dated March 31, 1988 (Serial No. 1501) was used as supplemental information in the staff's review of the proposed changes. Your application fulfills Toledo Edison Company's commitment made in a letter dated December 22, 1986 (Serial No. 1-698).

This amendment revises Section 4.7.1.5 Surveillance Requirements [for Main Steam Isolation Valves], and Section 3.3.2.2, Table 3.3-13, Steam and Feedwater Rupture Control System Response Times. Your proposed revisions to Section 3.3.2.1, Table 3.3-5, Safety Features System Response Times, and Section 3.6.3.1, Table 3.6-2, Containment Isolation Valves, are no longer required because of changes made by Amendment 114, issued August 2, 1988. Copies of the Safety Evaluation and of the notice of issuance are also enclosed.

Sincerely,

151

Albert W. De Agazio, Sr. Project Manager
Project Directorate III-3 Division of
Reactor Projects - III, IV, V
& Special Projects

Enclosures:

1. Amendment No. 119 to License No. NPF-3
2. Safety Evaluation
3. Notice of issuance

cc w/enclosures:
See next page

Office: LA/PDIII-3
Surname: *PKreutzer*
Date: *8/19/88*

AD
PM/PDIII-3
Adeagazio/vh
8/22/88

DFol
11
OGC-Rockville
R Bachmann
8/26/88

Rec for
PD/PDIII-3
KPerkins
8/27/88

Mr. Donald C. Shelton
Toledo Edison Company

Davis-Besse Nuclear Power Station
Unit No. 1

cc:

David E. Burke, Esq.
The Cleveland Electric
Illuminating Company
P. O. Box 5000
Cleveland, Ohio 44101

Radiological Health Program
Ohio Department of Health
1224 Kinnear Road
Columbus, Ohio 43212

Mr. Robert W. Schrauder
Manager, Nuclear Licensing
Toledo Edison Company
Edison Plaza
300 Madison Avenue
Toledo, Ohio 43652

Attorney General
Department of Attorney
General
30 East Broad Street
Columbus, Ohio 43215

Gerald Charnoff, Esq.
Shaw, Pittman, Potts
and Trowbridge
2300 N Street N.W.
Washington, D.C. 20037

Mr. James W. Harris, Director
(Addressee Only)
Division of Power Generation
Ohio Department of Industrial Relations
2323 West 5th Avenue
P. O. Box 825
Columbus, Ohio 43216

Regional Administrator, Region III
U.S. Nuclear Regulatory Commission
799 Roosevelt Road
Glen Ellyn, Illinois

Ohio Environmental Protection Agency
361 East Broad Street
Columbus, Ohio 43266-0558

Mr. Robert B. Borsum
Babcock & Wilcox
Nuclear Power Generation Division
Suite 525, 1700 Rockville Pike
Rockville, Maryland 20852

President, Board of
County Commissioners of
Ottawa County
Port Clinton, Ohio 43452

Resident Inspector
U.S. Nuclear Regulatory Commission
5503 N. State Route 2
Oak Harbor, Ohio 43449

State of Ohio
Public Utilities Commission
180 East Broad Street
Columbus, Ohio 43266-0573



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

TOLEDO EDISON COMPANY

AND

THE CLEVELAND ELECTRIC ILLUMINATING COMPANY

DOCKET NO. 50-346

DAVIS-BESSE NUCLEAR POWER STATION, UNIT NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 119
License No. NPF-3

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by the Toledo Edison Company and the Cleveland Electric Illuminating Company (the licensees) dated July 27, 1987 complies with the Standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(C) of Facility Operating License No. NPF-3 is hereby amended to read as follows:

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(a) Technical Specification

The Technical Specification contained in Appendices A and B, as revised through Amendment No. 119, are hereby incorporated in the license. The Toledo Edison Company shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of its date of issuance and shall be implemented not later than October 17, 1988.

FOR THE NUCLEAR REGULATORY COMMISSION



Kenneth E. Perkins, Director
Project Directorate III-3
Division of Reactor Projects - III,
IV, V and Special Projects

Attachment: Changes to the Technical
Specifications

Date of Issuance: September 1, 1988

ATTACHMENT TO LICENSE AMENDMENT NO. 119

FACILITY OPERATING LICENSE NO. NPF-3

DOCKET NO. 50-346

Replace the following pages of the Appendix "A" Technical Specifications with the attached pages. The revised pages are identified by amendment number and contain vertical lines indicating the area of change. The corresponding overleaf pages are also provided to maintain document completeness.

Remove

3/4 3-29
3/4 7-9

Insert

3/4 3-29
3/4 7-9

TABLE 3.3-13

STEAM AND FEEDWATER RUPTURE CONTROL SYSTEM RESPONSE TIMES

<u>ACTUATED EQUIPMENT</u>	<u>RESPONSE TIME IN SECONDS</u>
1. Auxiliary Feed Pump	<u>≤ 40</u>
2. Main Steam Isolation Valves*	
a. Main Steam Low Pressure Channels	<u>≤ 6</u>
b. Feedwater/Steam Generator High Differential Pressure Channels	<u>≤ 6.5</u>
3. Main Feedwater Valves	
a. Main Control	<u>≤ 8</u>
b. Startup Control	<u>≤ 13</u>
c. Stop Valve	<u>≤ 16</u>
4. Turbine Stop Valves	<u>≤ 6</u>

* The response time is to be the time elapsed from the monitored variable exceeding the trip setpoint until the MSIV is fully closed.

DAVIS-BESSE, UNIT 1

3/4 3-30

Amendment No. ~~43~~, 46

TABLE 4.3-11

STEAM AND FEEDWATER RUPTURE CONTROL SYSTEM
INSTRUMENTATION SURVEILLANCE REQUIREMENTS

<u>FUNCTIONAL UNIT</u>	<u>CHANNEL CHECK</u>	<u>CHANNEL CALIBRATION</u>	<u>CHANNEL FUNCTIONAL TEST</u>
1. Instrument Channel			
a. Steam Line Pressure - Low	S	R	M+
b. Steam Generator Level - Low	S	R	M
c. Steam Generator - Feedwater Differential Pressure-High	S	R	M
d. Reactor Coolant Pumps-Loss of	S	R	M
2. Manual Actuation	NA	NA	R

+The surveillance period for Steam Line Pressure-Low Instrument is extended to 2400 hours, September 16, 1982.

PLANT SYSTEMS

MAIN STEAM LINE ISOLATION VALVES

LIMITING CONDITION FOR OPERATION

3.7.1.5 Each main steam line isolation valve shall be OPERABLE.

APPLICABILITY: MODES 1, 2 and 3.

ACTION:

MODE 1 - With one main steam line isolation valve inoperable, POWER OPERATION may continue provided the inoperable valve is either restored to OPERABLE status or closed within 4 hours. Otherwise, be in HOT SHUTDOWN within the next 12 hours.

MODES 2

and 3 - With one main steam line isolation valve inoperable, subsequent operation in MODES 1, 2 or 3 may proceed provided:

a. The inoperable isolation valve is maintained closed.

Otherwise, be in HOT SHUTDOWN within the next 12 hours.

b. The provisions of Specification 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.7.1.5 Each main steam line isolation valve shall be demonstrated OPERABLE per the requirements of Specification 3.3.2.2 when tested pursuant to Specification 4.0.5.

PLANT SYSTEMS

SECONDARY WATER CHEMISTRY - Deleted

U. S. NUCLEAR REGULATORY COMMISSIONTOLEDO EDISON COMPANY, ET AL.DOCKET NO. 50-346NOTICE OF ISSUANCE OF AMENDMENT TOFACILITY OPERATING LICENSE

The U. S. Nuclear Regulatory Commission (the Commission) has issued Amendment No. 119 to Facility Operating License No. NPF-3, issued to The Toledo Edison Company and The Cleveland Electric Illuminating Company (the licensee), which revised the Technical Specifications for operation of the Davis-Besse Nuclear Power Station, Unit No. 1 (the facility) located in Ottawa County, Ohio. The amendment was effective as of the date of its issuance.

The amendment changed the Main Steam Line Isolation valve closure time requirements in section 3/4.3.2 and 3/4.7.1 to make them consistent throughout the Technical Specifications.

The application for the amendment complies 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.

Notice of Consideration of Issuance of Amendment and Opportunity for Hearing in connection with this action was published in the FEDERAL REGISTER

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on March 23, 1988 (53 FR 9527). No request for hearing or petition for leave to intervene was filed following this notice.

For further details with respect to this action see (1) the application for amendment dated July 27, 1988, (2) Amendment No. 119 to License-No. NPF-3, (3) the Commission's related Safety Evaluation dated September 1, 1988 and (4) the Environmental Assessment dated August 25, 1988 (53-FR 33562). 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 University of Toledo Library, Documents Department, 2801 Bancroft Avenue, Toledo, Ohio 43606.

A copy of items (2), (3) and (4) may be obtained upon request addressed to the U. S. Nuclear Regulatory Commission, Washington, D. C. 20555, Attention: Director, Division of Reactor Projects - III, IV, V and Special Projects.

Dated at Rockville, Maryland this 1st day of September 1988.

FOR THE NUCLEAR REGULATORY COMMISSION



Albert W. De Agazio, Sr. Project Manager
Project Directorate III-3
Division of Reactor Projects - III,
IV, V and Special Projects

3.0 STAFF POSITION

The staff has reviewed Toledo Edison Company's analyses of the Chapter 15 events and concurs with its assessment that the proposed MSIV closure times are bounded conservatively by the current safety analyses and are acceptable to the staff.

4.0 ENVIRONMENTAL CONSIDERATION

Pursuant to 10 CFR 51.21, 51.32, and 51.35, an environmental assessment and finding of no significant impact has been prepared and published in the Federal Register on August 31, 1988 (53 FR 33562). Accordingly, based upon the environmental assessment, the Commission has determined that the issuance of this amendment will not have a significant effect on the quality of the human environment.

5.0 CONCLUSION

The staff has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (2) 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.

Principal Contributors: Chang Li
George Schwenk
Albert De Agazio

Dated: September 1, 1988



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 119 TO FACILITY OPERATING LICENSE NO. NPF-3
TOLEDO EDISON COMPANY
AND
THE CLEVELAND ELECTRIC ILLUMINATING COMPANY
DAVIS-BESSE NUCLEAR POWER STATION, UNIT NO. 1
DOCKET NO. 50-346

1.0 INTRODUCTION

By letter dated July 27, 1987, Toledo Edison Company (TE) proposed changes to the Technical Specifications (TS's) for Davis-Besse Nuclear Power Station, Unit No. 1. The proposed changes involve Section 3/4.3.2, Table 3.3-5, Safety Features Response Times; Section 3/4.3.2, Table 3.3-13, Steam and Feedwater Rupture Control System Response Times; Section 3/4.6.3, Table 3.6-2, Containment Isolation Valves; and Section 3/4.7.1, Specification 4.7.1.5, Main Steam Line Isolation Valves. The proposed changes are being submitted to make the Main Steam Isolation Valve (MSIV) closure time requirements consistent throughout the Technical Specifications and to remove those requirements on MSIV response time which are not required to satisfy the plant Safety Analysis Report. Toledo Edison Company supplemented the application with a response to a request for additional information by letter dated March 31, 1988.

2.0 EVALUATION

The MSIV's are installed in both main-steam lines between the steam generators (SG's) and the turbine, and provide isolation of the steam generators when required. Automatic closure of these valves is through the Safety Features Actuation System (SFAS) or the Steam and Feedwater Rupture Control System (SFRCS). SFAS will initiate MSIV closure upon a high-high containment pressure signal, and SFRCS will initiate closure upon either low steam pressure, high SG level, or a high pressure differential between the SG and main feedwater line.

Operability and closure time requirements for the MSIV's are specified in four sections of the Technical Specifications; however the closure and response times stated are not consistent between sections because the requirements were developed for certain sections independently of the others. Therefore, the proposed amendment would specify a consistent closure requirement where closure times are necessary to be specified. Where it is not necessary to specify such a requirement for the MSIV's, nonapplicability would be indicated. The proposed changes would be as follows:

Section 3.3.2.1, Table 3.3-5, Safety Features System Response Times. The specified MSIV response time of not greater than 10 seconds would be changed to "not applicable:"

Section 3.6.3.1, Table 3.6-2, Containment Isolation Valves. The required isolation time for the MSIV's would be changed from 5 seconds to "not applicable:"

Section 4.7.1.5 which requires demonstration of MSIV operability by verifying full closure within 5 seconds would be changed to refer to Table 3.3-13 when the valves are tested pursuant to ASME Code Section XI requirements.

Section 3.3.2.2, Table 3.3-13, Steam and Feedwater Rupture Control System Response Times. The specified MSIV response time of not greater than 6 seconds would be changed to not greater than 6.0 seconds for the low Main Steam Line pressure channels of SFRCS and not greater than 6.5 seconds for the Steam Generator/Main Feedwater high reverse differential pressure channels of SFRCS. A footnote would be added to clarify what is included in the response time requirements.

The proposed elimination of the response time requirements from TS Section 3.3.2.1, Table 3.3-5, and from TS Section 3.6.3.1, Table 3.6-2 is consistent with Amendment 114, issued August 2, 1988. By that amendment, the MSIV's were deleted from Tables 3.3-5 and 3.6-2. Therefore, no further action on this proposal is required.

The proposed change to TS Section 4.7.1.5 will refer to Table 3.3-13 which specifies a response time of either 6.0 or 6.5 seconds depending upon the initiating signal. The specified response time includes a 5.0 second closure time (as before) and 1.0 or 1.5 second instrument response time. The change merely clarified the response requirement and is acceptable to the staff.

With regard to the proposed change to TS Section 3.3.2.2, Table 3.3-13, the proposed 6.0 second MSIV response time upon low steam line low pressure remains unchanged from the current requirement which has been accepted by the staff previously.

The SFRCS detects a rupture of the feedwater line by sensing a high reverse differential pressure between the unaffected steam generator and its feedwater line. Toledo Edison Company has assessed the effects of the proposed 6.5 second response time in Table 3.3-13. The calculated increase in containment temperature due to the additional mass and energy release because of the longer closure time is 7°F higher than predicted in previous analyses. Adding this increase directly to the peak temperature for the Main Feedwater line break causes the peak to increase to 250°F. The new calculated peak containment pressure also is greater than that calculated in the previous Main Feedwater Line break analyses (14.1 psig versus 12.9 psig). These new values are bounded by the values presented in the SAR, the loss-of-coolant accident, and a main steam line break and, therefore, the staff finds the proposed change acceptable.