July 20, 1984

DMB 016

Docket No. 50-346

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Mr. Richard P. Crouse
Vice President, Nuclear
Toledo Edison Company
Edison Plaza - Stop 712
300 Madison Avenue
Toledo, Ohio 43652

Dear Mr. Crouse:

SUBJECT: AMENDMENT NO. 72 TO FACILITY OPERATING LICENSE NO. NPF-3; MAIN STEAM ISOLATION VALVE SURVEILLANCE TESTING

The Commission has issued Amendment No. 72 to Facility Operating License No. NPF-3 for the Davis-Besse Nuclear Power Station, Unit No. 1. This amendment modifies the Appendix A Technical Specifications in response to Item 3 of your application dated May 2, 1983 (No. 938). Item 2 of your application was considered with the issuance of Amendment No. 68. Item 1 is under review and will be acted upon separately.

This amendment modifies Table 3.6-2, which relates to containment isolation valves, to permit delaying surveillance testing of the main steam isolation valves, MS 100 and MS 101, until after entering Mode 3. These changes will allow surveillance testing of the valves when there is sufficient steam in the main steam lines to lubricate the valve piston rings, thereby minimizing the potential for damage to the valve.

A copy of the Safety Evaluation supporting this amendment is enclosed. The Notice of Issuance will be included in the Commission's Monthly Notice in the Federal Register.

Sincerely,

"ORIGINAL SIGNED BY:"
Albert W. De Agazio, Project Manager
Operating Reactors Branch #4
Division of Licensing

Enclosures:
1. Amendment No. 72
2. Safety Evaluation

cc w/enclosures:
See next page

ORB#2:DL	ORB#4:DL	ORB#4:DL	AD:OR:DL	OELD
SNorris	ADe Agazio;cf	GRivenbark	GLainas	
7/5/84	7/5/84	7/6/84	7/19/84	7/9/84

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Toledo Edison Company

cc w/enclosure(s):

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

THE 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. 72
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 May 2, 1983, 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.(2) of Facility Operating License No. NPF-3 is hereby amended to read as follows:

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Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 72, 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.

FOR THE NUCLEAR REGULATORY COMMISSION

George W Rivenbark

George W. Rivenbark, Acting Chief
Operating Reactors Branch #4
Division of Licensing

Attachment:
Changes to the Technical
Specifications

Date of Issuance: July 20, 1984

ATTACHMENT TO LICENSE AMENDMENT NO.72

FACILITY OPERATING LICENSE NO. NPF-3

DOCKET NO. 50-346

Replace page 3/4 6-17 of the Appendix "A" Technical Specifications with the enclosed page. The revised page is identified by Amendment number and contains a vertical line indicating the area of change. The corresponding overleaf page is also provided to maintain document completeness.

TABLE 3.6-2

CONTAINMENT ISOLATION VALVES (Continued)

PENETRATION NUMBER	VALVE NUMBER	FUNCTION	ISOLATION TIME (seconds)
16	RC1719A	Containment Vessel Vent Header	10
16	RC1719B	Containment Vessel Vent Header	10
18 #	SS598	Steam Generator Secondary Water Sample Line	10
19	MU33	Normal RCS Makeup Line	10
19 #	HP2A	High Pressure Injection Line	15
20 #	HP2B	High Pressure Injection Line	15
21	DW6831A	Demineralized Water Supply Line	10
21	DW6831B	Demineralized Water Supply Line	10
22 #	HP2D	High Pressure Injection Line	15
25	CS1531	Containment Spray Line	35
26	CS1530	Containment Spray Line	35
30 #	DH9A	Containment Sump Emergency Recirc Line	71
31 #	DH9B	Containment Sump Emergency Recirc Line	71
32	RC1773A	RCS Drain to RC Drain Tank	10
32	RC1773B	RCS Drain to RC Drain Tank	10
37 #	FW601	Main Feedwater Line	15
38 #	FW612	Main Feedwater Line	15
**39 #	MS100	Main Steam Line	5
**39 #	ICS11A	Main Steam Line	10
39 #	MS375	Main Steam Line	10
39 #	MS100-1	Main Steam Line	10
**40 #	MS101	Main Steam Line	5
**40 #	ICS11B	Main Steam Line	10
40 #	MS394	Main Steam Line	10
40 #	MS101-1	Main Steam Line	10

TABLE 3.6-2

CONTAINMENT ISOLATION VALVES (Continued)

PENETRATION NUMBER	VALVE NUMBER	FUNCTION	ISOLATION TIME (seconds)
41	RC232	Pressurizer Quench Tank Circulating Inlet Line	10
42A	SA2010	Service Air Supply Line	10
42B	CV5010E	Containment Vessel Air Sample Return	15
43A	IA2011	Instrument Air Supply Line	10
43B	CV5011E	Containment Vessel Air Sample Return	15
44A	CF1541	Core Flood Tank Fill and N2 Supply Line	10
44B	NN236	Pressurizer Quench Tank N2 Supply Line	10
47A	CV1545	Core Flood Tank Sample Line	10
47B	CV1542	Core Flood Tank Vent Line	10
48	RC229A	Pressurizer Quench Tank Circulating Outlet Line	10
48	RC229B	Pressurizer Quench Tank Circulating Outlet Line	10
50 #	HP2C	High Pressure Injection Line	15
51	CV5037	Hydrogen Purge System Exhaust Line	60
51	CV5038	Hydrogen Purge System Exhaust Line	60
52	MU66A	Reactor Coolant Pump Seal Supply	12
53	MU66B	Reactor Coolant Pump Seal Supply	12
54	MU66C	Reactor Coolant Pump Seal Supply	12
55	MU66D	Reactor Coolant Pump Seal Supply	12
56	MU38	Reactor Coolant Pump Seal Return	12
56	MU59A	Reactor Coolant Pump Seal Return	30
56	MU59B	Reactor Coolant Pump Seal Return	30
56	MU59C	Reactor Coolant Pump Seal Return	30
56	MU59D	Reactor Coolant Pump Seal Return	30

TABLE 3.6-2

CONTAINMENT ISOLATION VALVES (Continued)

PENETRATION NUMBER	VALVE NUMBER	FUNCTION	ISOLATION TIME (seconds)
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43A	IA2011	Instrument Air Supply Line	10
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44A	CF1541	Core Flood Tank Fill and N2 Supply Line	10
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47A	CV1545	Core Flood Tank Sample Line	10
47B	CV1542	Core Flood Tank Vent Line	10
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48	RC229B	Pressurizer Quench Tank Circulating Outlet Line	10
50 #	HP2C	High Pressure Injection Line	15
51	CV5037	Hydrogen Purge System Exhaust Line	60
51	CV5038	Hydrogen Purge System Exhaust Line	60
52	MU66A	Reactor Coolant Pump Seal Supply	12
53	MU66B	Reactor Coolant Pump Seal Supply	12
54	MU66C	Reactor Coolant Pump Seal Supply	12
55	MU66D	Reactor Coolant Pump Seal Supply	12
56	MU38	Reactor Coolant Pump Seal Return	12
56	MU59A	Reactor Coolant Pump Seal Return	30
56	MU59B	Reactor Coolant Pump Seal Return	30
56	MU59C	Reactor Coolant Pump Seal Return	30
56	MU59D	Reactor Coolant Pump Seal Return	30

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 72 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

Introduction

By letter dated May 2, 1983, Toledo Edison Company (TED) transmitted a Technical Specification Change Request to amend Appendix A of Facility Operating License NPF-3. The change under consideration is item three in the letter of application concerning revision to Table 3.6-2, Containment Isolation Valves. The requested change is to permit cycle testing of the Main Steam Isolation Valves (MSIV) in Mode 4, Hot Shutdown instead of Mode 5, Cold Shutdown.

Evaluation

The MSIVs are installed in the two main steam lines between the steam generators (SG) and the turbine to provide isolation of the SG in the event of a steamline break. Automatic closure of the MSIVs is initiated by either the Safety Features Actuation System (SFAS) upon a High-High containment pressure or by the Steam and Feedwater Rupture Control System (SFRCS) upon low pressure in a steam line or upon a high differential pressure between the steam generator and the main feedwater. Closure isolates the SG to maintain it as a heat sink and also to isolate the steam line as a part of the containment integrity. In this latter case the main steam lines along with the feedwater lines are considered Type III containment penetrations since they are not a part of the reactor coolant boundary (Type I) and are not connected directly to the containment vessel atmosphere (Type II). The MSIVs can also be closed by manual push button.

Automatic closure of the MSIVs by the SFRCS can be bypassed below 650 psig (498°F) during shutdown. The bypass is automatically removed during startups when the pressure exceeds 650 psig (Technical Specification (TS) Table 3.3-11). Per TS Section 3.3.2.2, the SFRC system operation is required only in Modes 1, 2 and 3, and therefore, the instrumentation which initiates MSIV closure by the SFRCS is only required to be operable in Modes 1, 2 and 3.

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The other automatic closure of the MSIVs by the SFAS is initiated by High-High Containment Pressure (38.4 psia). The instrumentation system that actuates this closure is required to be operable only in Modes 1, 2 and 3 (Table 3.3-3 TS Section 3.3.2.1).

Operability of the MSIVs is specified in TS Section 3.6.3, Containment Isolation Valves. This TS requires the MSIVs to be operable in Modes 1, 2, 3 and 4. Operability must be demonstrated prior to returning the valve to service after maintenance, repair, or replacement and at least once every 18 months during Cold Shutdown (Mode 5) or Refueling Mode (Mode 6).

TED has indicated in their application that performing the surveillance tests on the MSIVs in Modes 5 and 6 when no steam is present to lubricate the MSIV piston rings and cylinder bore could damage the valve. A previous TS change, Amendment 3, has permitted surveillance of the atmospheric vent valves (ICS 11A and 11B) to be made in Mode 4 prior to entering Mode 3 to prevent valve damage. This change was permitted because the vent valves were normally closed and only opened during the operability test and also by the fact that TED, by letter dated April 7, 1977, had committed to have the Decay Heat Removal System (DHRS) in operation while in Mode 4. In Mode 4, the average coolant temperature is maintained between 200 and 280°F which corresponds to a maximum pressure of 35 psig. With the facility on the DHRS, the maximum coolant pressure that can be attained before automatic pressure relief is 320 psig. Thus in Mode 4 the reactor coolant is maintained less than 35 psig by administrative control, and by an engineered safety feature, to less than 320 psig, well below the 650 psig pressure where the SFRCS is automatically unbypassed.

In Mode 4 the SGs are not needed as a heat sink and the main steam lines are isolated by the turbine stop and governor valves so that any reactor coolant leakage into the secondary system would be contained within the main steam lines without operation of the MSIVs. Therefore, we agree that this Technical Specification change is not an unreviewed safety question and does not decrease the safety at the facility since the automatic closure of the MSIVs is not necessary in Mode 4.

Environmental Consideration

This amendment involves a change in the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. We have determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that this amendment involves no significant hazards consideration and there has been no public comment on such finding. Accordingly, this amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of this amendment.

Conclusion

We have 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 these amendments will not be inimical to the common defense and security or to the health and safety of the public.

Dated: July 20, 1984

The following NRC personnel have contributed to this Safety Evaluation: K. R. Ridgway, T. N. Tambling.