

50-346



UNITED STATES  
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

October 18, 1994

Mr. John P. Stetz  
Vice President - Nuclear, Davis Besse  
Centerior Service Company  
c/o Toledo Edison Company  
Davis-Besse Nuclear Power Station  
5501 North State Route 2  
Oak Harbor, OH 43449

SUBJECT: AMENDMENT NO. 193 TO FACILITY OPERATING LICENSE NO. NPF-3 -  
DAVIS-BESSE NUCLEAR POWER STATION, UNIT NO. 1 (TAC NO. M89364)

Dear Mr. Stetz:

The Commission has issued Amendment No. 193 to Facility Operating License No. NPF-3 for the Davis-Besse Nuclear Power Station, Unit No. 1. The amendment revises the Technical Specifications in response to your application dated April 5, 1994.

This amendment revises Technical Specifications 3/4.7.1.2 and 3/4.7.1.7 for the Auxiliary Feedwater (AFW) System and Motor Driven Feedwater Pump (MDFP) System, respectively. Specifically, the licensee has proposed to extend the pump testing frequency to quarterly, in lieu of monthly, as required by the current specifications. The licensee proposed removing an existing TS requirement to station an individual at realigned manual AFW valves during surveillance testing unless the MDFP or the opposite turbine-driven auxiliary feedwater pump are inoperable. A number of other plant specific editorial changes have been made for clarification.

The proposed changes to extend the pump testing interval is a line-item improvement, included in the NRC's Standard Technical Specifications and was identified as such in Generic Letter (GL) 93-05, which addressed reducing surveillance requirements. The remaining changes are all plant specific, and therefore, not subject to the Commission's Final Policy Statement as it relates to line-item improvements.

Several minor changes to the proposed TS were required. These changes included changing "system" to "train" in the new footnote for TS 4.7.1.2.1.a and 4.7.1.2.1.f.2 and changing from "valves AF 599 or AF 608" to "valve AF 599 or AF 608" for TS 3/4.7.1.2, Action statement c and Bases 3/4.7.1.2. Your staff concurred with these changes.

We have reviewed the proposed changes and concluded that both the line-item improvement and the plant specific changes are acceptable.

9410250247 941018  
PDR ADDCK 05000346  
P PDR

NRC FILE CENTER COPY

DAI

J. Stetz

- 2 -

A copy of the Safety Evaluation is also enclosed. Notice of issuance will be included in the Commission's next biweekly Federal Register notice.

Sincerely,  
Original signed by  
Linda L. Gundrum

Linda L. Gundrum, Project Manager  
Project Directorate III-3  
Division of Reactor Projects III/IV  
Office of Nuclear Reactor Regulation

Docket No. 50-346

Enclosures: 1. Amendment No. 193  
to License No. NPF-3  
2. Safety Evaluation

cc w/encls: See next page

Distribution w/encl:

Docket File GH11(2)  
PUBLIC DHagan  
PD3-3 Reading CGrimes  
JRoe ACRS(10)  
OPA OC/LFDCB  
OGC EGreenman, RIII  
WLeFave CMcCracken

DOCUMENT NAME: G:\DAVISBES\DB89364.AMD

\*See previous concurrence

To receive a copy of this document, indicate in the box: "C" = Copy without attachment/enclosure "E" = Copy with attachment/enclosure "N" = No copy

OFFICE	LA:PDIII-3	E	PM:PDIII-3	E	C:SPSB	OGC	D:PDIII-3	E
NAME	MRushbrook		LGundrum:sw	CMcCracken*	EHoller*		CCarpenter	
DATE	10/17/94		10/17/94	10/04/94	10/11/94		10/17/94	

OFFICIAL RECORD COPY

Mr. John P. Stetz  
Toledo Edison Company

cc:

Mary E. O'Reilly  
Centerior Energy Corporation  
300 Madison Avenue  
Toledo, Ohio 43652

Mr. William T. O'Connor, Jr.  
Manager - Regulatory Affairs  
Toledo Edison Company  
Davis-Besse Nuclear Power Plant  
5501 North State - Route 2  
Oak Harbor, Ohio 43449

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

Regional Administrator  
U.S. NRC, Region III  
801 Warrenville Road  
Lisle, Illinois 60523-4351

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

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

Mr. John K. Wood, Plant Manager  
Toledo Edison Company  
Davis-Besse Nuclear Power Station  
5501 North State Route 2  
Oak Harbor, Ohio 43449

Davis-Besse Nuclear Power Station  
Unit No. 1

Robert E. Owen, Chief  
Bureau of Radiological Health  
Service  
Ohio Department of Health  
P. O. Box 118  
Columbus, Ohio 43266-0118

Attorney General  
Department of Attorney  
General  
30 East Broad Street  
Columbus, Ohio 43216

Mr. James W. Harris, Director  
Division of Power Generation  
Ohio Department of Industrial  
Regulations  
P. O. Box 825  
Columbus, Ohio 43216

Ohio Environmental Protection Agency  
DERR--Compliance Unit  
ATTN: Zack A. Clayton  
P. O. Box 1049  
Columbus, Ohio 43266-0149

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

Mr. James R. Williams  
State Liaison to the NRC  
Adjutant General's Department  
Office of Emergency Management Agency  
2825 West Granville Road  
Columbus, Ohio 43235-2712



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

TOLEDO EDISON COMPANY

CENTERIOR SERVICE 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. 193  
License No. NPF-3

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by the Toledo Edison Company, Centerior Service Company, and the Cleveland Electric Illuminating Company (the licensees) dated April 5, 1994, 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:

9410250257 941018  
PDR ADOCK 05000346  
P PDR

(a) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 193, 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 90 days after issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Linda L. Gundrum, Project Manager  
Project Directorate III-3  
Division of Reactor Projects III/IV  
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical  
Specifications

Date of issuance: October 18, 1994

ATTACHMENT TO LICENSE AMENDMENT NO. 193

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.

Remove

3/4 7-4  
3/4 7-5  
3/4 7-5a  
3/4 7-12a  
3/4 7-12b  
3/4 7-12c  
B 3/4 7-1b  
B 3/4 7-2  
B 3/4 7-3

Insert

3/4 7-4  
3/4 7-5  
3/4 7-5a  
3/4 7-12a  
3/4 7-12b  
3/4 7-12c  
B 3/4 7-1b  
B 3/4 7-2  
B 3/4 7-3

## PLANT SYSTEMS

### AUXILIARY FEEDWATER SYSTEM

#### LIMITING CONDITION FOR OPERATION

---

3.7.1.2 Two trains of auxiliary feedwater, each consisting of an auxiliary feedwater pump and associated flow path to both steam generators, shall be OPERABLE.

APPLICABILITY: MODES 1, 2, and 3.

ACTION:

- a. With one train of auxiliary feedwater inoperable to either steam generator, restore the inoperable train to OPERABLE status within 72 hours or be in HOT SHUTDOWN within the next 12 hours.
- b. With any Auxiliary Feed Pump Turbine Inlet Steam Pressure Interlocks inoperable, restore the inoperable interlocks to OPERABLE status within 7 days or be in HOT SHUTDOWN within the next 12 hours.
- c. With steam generator inlet valve AF 599 or AF 608 closed, re-open the closed valve AF 599 or AF 608 within one hour or be in HOT STANDBY within the next 6 hours and HOT SHUTDOWN within the following 6 hours.

#### SURVEILLANCE REQUIREMENTS

---

4.7.1.2.1 Each Auxiliary Feedwater train shall be demonstrated OPERABLE:

- a. At least once per 92 days on a STAGGERED TEST BASIS by:
  1. Verifying that each steam turbine driven pump develops a differential pressure of  $\geq 1070$  psid on recirculation flow when the secondary steam supply pressure is greater than 800 psia, as measured on PI SP 12B for pump 1-1 and PI SP 12A for pump 1-2. The provisions of Specification 4.0.4 are not applicable for entry into MODE 3.

---

\* When conducting tests of an auxiliary feedwater train in MODES 1, 2, and 3 which require local manual realignment of valves that make the train inoperable, the Motor Driven Feedwater Pump and its associated flow paths shall be OPERABLE per Specification 3.7.1.7 during the performance of this surveillance. If the Motor Driven Feedwater Pump or an associated flow path is inoperable, a dedicated individual shall be stationed at the realigned auxiliary feedwater train's valves (in communication with the control room) able to restore the valves to normal system OPERABLE status.

PLANT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

- b. At least once per 31 days on a STAGGERED TEST BASIS by:
1. Verifying that each valve (power operated or automatic) in the flow path is in its correct position.
  2. Verifying that all manual valves in the auxiliary feedwater pump suction and discharge lines that affect the system's capacity to deliver water to the steam generator are locked in their proper position.
  3. Verifying that valves CW 196, CW 197, FW 32, FW 91 and FW 106 are closed.
- c. At least once per 18 months by:
1. Verifying that each automatic valve in the flow path actuates to its correct position on a Steam and Feedwater Rupture Control System actuation test signal.
  2. Verifying that each pump starts automatically upon receipt of a Steam and Feedwater Rupture Control System actuation test signal. The provisions of Specification 4.0.4 are not applicable for entry in MODE 3.
  3. Verifying that there is a flow path from each auxiliary feedwater pump to both steam generators by pumping water from the Condensate Storage Tank with each pump to both steam generators.
- The flow paths shall be verified by either steam generator level change or Auxiliary Feedwater Safety Grade Flow Indication. Verification of the Auxiliary Feedwater System's flow capacity is not required.
- d. The Auxiliary Feed Pump Turbine Steam Generator Level Control System shall be demonstrated OPERABLE by performance of a CHANNEL CHECK at least once per 12 hours, a CHANNEL FUNCTIONAL TEST at least once per 31 days, and a CHANNEL CALIBRATION at least once per 18 months.
- e. The Auxiliary Feed Pump Suction Pressure Interlocks shall be demonstrated OPERABLE by performance of a CHANNEL FUNCTIONAL TEST at least once per 31 days, and a CHANNEL CALIBRATION at least once per 18 months.



## PLANT SYSTEMS

### SURVEILLANCE REQUIREMENTS (Continued)

- f. After any modification or repair to the Auxiliary Feedwater System that could affect the system's capability to deliver water to the steam generator, the affected flow path shall be demonstrated available as follows:
1. If the modification or repair is downstream of the test flow line, each auxiliary feed pump(s) associated with the affected flow path shall pump water from the Condensate Storage Tank to the steam generator(s) associated with the affected flow path; and the flow path availability will be verified by steam generator level change or Auxiliary Feedwater Safety Grade Flow Indication.
  2. If the modification or repair is upstream of the test flow line, the auxiliary feed pump shall pump water through the Auxiliary Feedwater System to the test flow line; and the flow path availability will be verified by flow indication in the test flow line.\*

This Surveillance Testing shall be performed prior to entering MODE 3 if the modification is made in MODES 4, 5 or 6. Verification of the Auxiliary Feedwater System's flow capacity is not required.

- g. Following each extended cold shutdown (> 30 days in MODE 5), by:
1. Verifying that there is a flow path from each auxiliary feedwater pump to both steam generators by pumping Condensate Storage Tank water with each pump to both steam generators. The flow paths shall be verified by either steam generator level change or Auxiliary Feedwater Safety Grade Flow Indication. The provisions of Specification 4.0.4 are not applicable for entry into MODE 3.

Verification of the Auxiliary Feedwater System's flow capacity is not required.

4.7.1.2.2 The Auxiliary Feed Pump Turbine Inlet Steam Pressure Interlocks shall be demonstrated OPERABLE when the steam line pressure is greater than 275 psig, by performance of a CHANNEL FUNCTIONAL TEST at least once per 31 days, and a CHANNEL CALIBRATION at least once per 18 months. The CHANNEL FUNCTIONAL TEST shall be performed within 24 hours after exceeding 275 psig during each plant startup, if the test has not been performed within the last 31 days.

- \* When conducting tests of an auxiliary feedwater train in MODES 1, 2, and 3 which require local manual realignment of valves that make the train inoperable, the Motor Driven Feedwater Pump and its associated flow paths shall be OPERABLE per Specification 3.7.1.7 during the performance of this surveillance. If the Motor Driven Feedwater Pump or an associated flow path is inoperable, a dedicated individual shall be stationed at the realigned auxiliary feedwater train's valves (in communication with the control room) able to restore the valves to normal system OPERABLE status.

## PLANT SYSTEMS

### MOTOR DRIVEN FEEDWATER PUMP SYSTEM

#### LIMITING CONDITION FOR OPERATION

---

3.7.1.7 The Motor Driven Feedwater Pump and associated flow paths to the Auxiliary Feedwater System shall be OPERABLE.

APPLICABILITY: MODES 1, 2 and 3.

ACTION:

With the Motor Drive Feedwater Pump or its associated flow paths to the Auxiliary Feedwater System inoperable, restore to OPERABLE status within 72 hours or be in HOT SHUTDOWN within the next 12 hours.

#### SURVEILLANCE REQUIREMENTS

---

4.7.1.7 The required Motor Driven Feedwater Pump and flow paths to the Auxiliary Feedwater System shall be demonstrated OPERABLE:

- a. At least once per 92 days by:
  1. Verifying the Motor Driven Feedwater Pump OPERABLE by starting the Motor Driven Feedwater Pump (if the pump is not already running) from the control room, and by indication of flow.
- b. At least once per 31 days by:
  1. When in MODE 1 with RATED THERMAL POWER greater than 40%, verifying that each manual valve in the Motor Driven Feedwater Pump suction and discharge lines that affect the system's capability to deliver water to the steam generators is locked in its proper position.
  2. When in MODE 1 with RATED THERMAL POWER greater than 40%, verifying that each power operated valve in the flow path is in its correct position.

---

\* When conducting tests of the Motor Driven Feedwater Pump System in MODE 1 greater than 40% RATED THERMAL POWER which require local manual realignment of valves that make the system inoperable, both auxiliary feedwater pumps and their associated flow paths shall be OPERABLE per Specification 3.7.1.2 during the performance of this surveillance. If one auxiliary feedwater pump or flow path is inoperable, a dedicated individual shall be stationed at the realigned Motor Driven Feedwater Pump System's valves (in communication with the control room) able to restore the valves to normal system OPERABLE status.

PLANT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

3. When in MODE 1 at RATED THERMAL POWER equal to or less than 40% or when in MODES 2 or 3, verifying that each valve (manual or power operated) in the Motor Driven Feedwater Pump flow path is able to be positioned locally for delivering flow to the Auxiliary Feedwater System.

(Ability is demonstrated by verifying the presence of handwheels for all manual valves and the presence of either handwheels or available power supply for motor operated valves.)

- c. At least once per 92 days and prior to entry into MODE 3 from MODE 4 (if not performed in the past 92 days) by:
  1. Verifying proper operation of each power operated and automatic valve in the Motor Driven Feedwater Pump flow path to the Auxiliary Feedwater System.
  2. Verifying proper operation of the Motor Driven Feedwater Pump.\*\*
- d. At least once per 18 months by:
  1. Verifying that there is a flow path between the Motor Driven Feedwater Pump System and the Auxiliary Feedwater System by pumping water from the Condensate Storage Tanks to the steam generators. The flow path to the steam generators shall be verified prior to entering MODE 3 from MODE 4 by either steam generator level change or Auxiliary Feedwater Safety Grade Flow Indication. Verification of Motor Driven Feedwater Pump System flow capacity is not required.

---

\* If the Motor Driven Feedwater Pump cannot be tested within the time period specified, due to being aligned to the Main Feedwater System, the Surveillance Requirement shall be met within 72 hours after the Motor Driven Feedwater Pump has been aligned to the Auxiliary Feedwater System for 1 hour.

\*\* When conducting tests of the Motor Driven Feedwater Pump System in MODE 1 greater than 40% RATED THERMAL POWER which require local manual realignment of valves that make the system inoperable, both auxiliary feedwater pumps and their associated flow paths shall be OPERABLE per Specification 3.7.1.2 during the performance of this surveillance. If one auxiliary feedwater pump or flow path is inoperable, a dedicated individual shall be stationed at the realigned Motor Driven Feedwater Pump System's valves (in communication with the control room) able to restore the valves to normal system OPERABLE status.

PLANT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

2. Verifying proper operation of the Motor Driven Feedwater Pump lube oil interlocks.
  3. Verifying proper operation of manual valves by shifting the Motor Driven Feedwater Pump between the Main Feedwater System and the Auxiliary Feedwater System.
- e. After any modification or repair to the Motor Driven Feedwater Pump System that could affect the system's capability to deliver water from the Condensate Storage Tanks to the Auxiliary Feedwater System, the affected flow path shall be demonstrated available as follows:\*
1. If the modification or repair is in the Auxiliary Feedwater flow path downstream of the Motor Driven Feedwater Pump test flow line tie-in, the Motor Driven Feedwater Pump shall pump water from the Condensate Storage Tanks to the Auxiliary Feedwater System and the flow path availability will be verified by either steam generator level change or Auxiliary Feedwater Safety Grade Flow Indication.
  2. If the modification or repair is upstream of the Motor Driven Feedwater Pump test flow line tie-in, the Motor Driven Feedwater Pump shall pump water from the Condensate Storage Tanks to the test flow line and the flow path availability will be verified by Motor Driven Feedwater Pump Safety Grade Flow Indication.
- f. Following each extended COLD SHUTDOWN (greater than 30 days in MODE 5), by:
1. Verifying that there is a flow path between the Motor Driven Feedwater System and the Auxiliary Feedwater System by pumping water from the Condensate Storage Tanks to the steam generators. The flow path to the steam generators shall be verified prior to entering MODE 3 from MODE 4 by either steam generator level change or Auxiliary Feedwater Safety Grade Flow Indication. Verification of Motor Driven Feedwater Pump flow capacity is not required.

---

\* This surveillance testing shall be performed prior to entering MODE 3 from MODE 4 if the modification is made in MODES 4, 5, or 6. Verification of the Motor Driven Feedwater Pump flow capacity is not required.

## PLANT SYSTEMS

### BASES

---

#### 3/4.7.1.2 AUXILIARY FEEDWATER SYSTEM

The OPERABILITY of the Auxiliary Feedwater System ensures that the Reactor Coolant System can be cooled down to less than 280°F from normal operating conditions in the event of a total loss of offsite power. The OPERABILITY of the Auxiliary Feed Pump Turbine Inlet Steam Pressure Interlocks is required only for high energy line break concerns and does not affect Auxiliary Feedwater System OPERABILITY.

Each steam driven auxiliary feedwater pump is capable of delivering the required feedwater flow at the full open pressure of the Main Steam Safety Valves as assumed in the Updated Safety Analysis Report. This capacity is sufficient to ensure that adequate feedwater flow is available to remove decay heat and reduce the Reactor Coolant System temperature to less than 280°F where the Decay Heat Removal System may be placed in operation.

Closure of valve AF 599 or AF 608 will render both trains of the Auxiliary Feedwater System and the Motor Driven Feedwater Pump System inoperable. This is because closure of these valves would result in a complete loss of auxiliary feedwater to the steam generators for certain postulated feedwater line and steam line breaks.

(3/4.7.1.2 is continued on page B 3/4 7-2.)

## PLANT SYSTEMS

### BASES

---

#### 3/4.7.1.2 AUXILIARY FEEDWATER SYSTEM (Continued)

Following any modifications or repairs to the Auxiliary Feedwater System piping from the Condensate Storage Tank through auxiliary feed pumps to the steam generators that could affect the system's capability to deliver water to the steam generators, following extended cold shutdown, a flow path verification test shall be performed. This test may be conducted in MODES 4, 5 or 6 using auxiliary steam to drive the auxiliary feed pumps turbine to demonstrate that the flow path exists from the Condensate Storage Tank to the steam generators via auxiliary feed pumps.

Verification of the turbine plant cooling water valves (CW 196 and CW 197), the startup feedwater pump suction valves (FW 32 and FW 91), and the startup feedwater pump discharge valve (FW 106) in the closed position is required to address the concerns associated with potential pipe failures in the auxiliary feedwater pump rooms, that could occur during operation of the startup feedwater pump.

#### 3/4.7.1.3 CONDENSATE STORAGE TANKS

The OPERABILITY of the Condensate Storage Tanks with the minimum water volume ensures that sufficient water is available to maintain the RCS at HOT STANDBY conditions for 13 hours with steam discharge to atmosphere and to cooldown the Reactor Coolant System to less than 280° under normal conditions (i.e., no loss of offsite power). The contained water volume limit includes an allowance for water not usable because of tank discharge line location or other physical characteristics.

#### 3/4.7.1.4 ACTIVITY

The limitations on secondary system specific activity ensure that the resultant offsite radiation dose will be limited to a small fraction of 10 CFR Part 100 limits in the event of a steam line rupture. This dose includes the effects of a coincident 1.0 GPM primary to secondary tube leak in the steam generator of the affected steam line. These values are consistent with the assumptions used in the safety analyses.

#### 3/4.7.1.5 MAIN STEAM LINE ISOLATION VALVES

The OPERABILITY of the main steam line isolation valves ensures that no more than one steam generator will blowdown in the event of a steam line rupture. This restriction is required to 1) minimize the positive reactivity effects of the Reactor Coolant System cooldown associated with the blowdown, and 2) limit the pressure rise within containment in the event the steam line rupture occurs within containment. The OPERABILITY of the main steam isolation valves

PLANT SYSTEMS

BASES

---

within the closure times of the surveillance requirements are consistent with the assumptions used in the safety analyses.

3/4.7.1.6 SECONDARY WATER CHEMISTRY - Deleted

3/4.7.1.7 MOTOR DRIVEN FEEDWATER PUMP SYSTEM

The OPERABILITY of the Motor Driven Feedwater Pump System ensures that the Reactor Coolant System can be cooled down from normal operating conditions in the event of the total loss of Main Feedwater and Auxiliary Feedwater Pumps.

The Motor Driven Feedwater Pump System must be capable of providing feedwater flow to each steam generator in order to be OPERABLE.

The Motor Driven Feedwater Pump flow capability ensures that adequate feedwater flow is available to remove Decay Heat and reduce the Reactor Coolant System temperature to where the Decay Heat System may be placed into operation.

When at 40% RATED THERMAL POWER or less and in MODES 1, 2, or 3, the Motor Driven Feedwater Pump System may be aligned to provide a flow path from the Deaerator Storage Tank through the Motor Driven Feedwater Pump to the Main Feedwater System. During this Motor Driven Feedwater Pump mode of operation, a flow path from the Condensate Storage Tanks through the Motor Driven Feedwater Pump to the Auxiliary Feedwater System shall be maintained with the ability for manual positioning of valves such that



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO AMENDMENT NO. 193 TO FACILITY OPERATING LICENSE NO. NPF-3

TOLEDO EDISON COMPANY

CENTERIOR SERVICE 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 April 5, 1994, the licensee requested an amendment to the Davis-Besse Nuclear Power Station (DBNPS), Unit 1, operating license to revise the plant Technical Specifications (TS). The proposed changes involve TS 3/4.7.1.2, "Auxiliary Feedwater (AFW) System," TS 3/4.7.1.7, "Motor Driven Feedwater Pump (MDFP) System," and their associated Bases.

One of the major changes in the proposed revision extends the surveillance intervals for testing the turbine-driven AFW pumps and the MDFP from monthly to quarterly. These proposed changes are considered line-item improvements included in the staff's Standard Technical Specifications (STS) and were recommended by the staff in Generic Letter 93-05, "Line-Item Technical Specifications Improvements to Reduce Surveillance Requirements for Testing During Power Operation."

Additional proposed changes modify the existing requirements for stationing an individual locally at re-aligned valves in the AFW System and the MDFP System during certain surveillance testing. These plant specific changes reflect the installation of the MDFP.

A number of other plant specific changes were made to clarify the TS and ensure consistency between the TS requirements and the actual AFW System and the MDFP system operation and design. In addition, to be consistent with NUREG-1430, "Improved Standard Technical Specifications - Babcock and Wilcox Plants," the licensee has relocated the specific flow and pressure parameters from the current TS Bases to the Updated Safety Analysis Report (USAR).



## 2.0 EVALUATION

The current TS for the turbine-driven AFW pumps and the MDFP (backup) require staggered pump testing at 31-day intervals. The proposed change requires staggered pump testing at 92-day intervals. In accordance with Generic Letter 93-05, the licensee reviewed the operational availability data for these pumps and reported that the availability of the pumps is typically greater than 99%. Based on this plant specific information, the staff concludes that the proposed increase in the surveillance interval to 92 days is consistent with the plant operating experience and consistent with the guidance in Generic Letter 93-05, and is, therefore, acceptable.

The current TS for both the AFW system and the MDFP system have footnotes that require a dedicated individual to be stationed at local manual valves that have been realigned to perform tests that make the respective system inoperable. The licensee proposed to revise these requirements, such that, if only one train of AFW or only the MDFP train (system) is made inoperable, the stationing of the dedicated individual would not be required. This proposed change is consistent with TMI Task Action Plan Item II.E.1.1, "Auxiliary Feedwater System," which recommended that an operator be stationed at (and in communications with the control room) local manual valves during testing whenever the realignment of valves resulted in only one remaining AFW train available for operation. With the addition of the MDFP system, when only one pump train is being tested, there are two pump trains available for operation (either both turbine-driven pump trains or one turbine-driven pump train and the MDFP system). Thus, the proposed changes to the footnotes are in accordance with the TMI Task Action Plan recommendations and are, therefore, acceptable.

The licensee also proposed a number of changes which reword, to different degrees, the Limiting Conditions for Operation (LCO), the Action statements and the Surveillance Requirements (SRs) for TS 3.7.1.2 and TS 3.7.1.7. This plant specific rewording more accurately describes the systems, as they exist at DBNPS and more specifically addresses the intent of the specifications. The staff has reviewed the proposed changes and concludes that the proposed changes clarify the requirements of the TSs and are less susceptible to operator misinterpretation. The staff, therefore, concludes that the proposed wording changes are acceptable.

A new Action statement (Action c) has been added to TS 3.7.1.2, which states that "with steam generator inlet valve AF 599 or AF 608 closed, re-open the closed valve AF 599 or AF 608 within one hour or be in HOT STANDBY within the next 6 hours and HOT SHUTDOWN within the following 6 hours." Each of these valves isolates flow to one steam generator from both the AFW system and from the MDFP system, thereby resulting in decay heat removal capability via only one steam generator. Such an Action statement is necessary to clarify the LCO for the MDFP system which only addresses the flow paths to the AFW system. If one of these valves were closed, the MDFP system would otherwise be considered operable, even though it could only supply one steam generator. Closure of either of these valves makes both trains of AFW technically inoperable because

they could not feed both steam generators. Under certain accident conditions, such as a main steam or feedwater line break, there would be no AFW flow with one of these valves closed (opposite to the break). This proposed action is basically the same as entering a 3.0.3 Action statement, except that cold shutdown is not required. The proposed change brings the plant to an operating mode (Mode 4-Hot Shutdown) where the LCO is no longer applicable. The staff reviewed the proposed new Action statement and concluded that it is necessary for TS clarification and completeness. The staff also concluded, that the times associated with the proposed Action statement are acceptable, since they are consistent with the times specified in TS 3.0.3. Hot shutdown, in lieu of cold shutdown, is also acceptable because one steam generator and three pumps are still available to remove decay heat and the LCO no longer applies. The proposed change to add the new Action statement is, therefore, acceptable.

The staff reviewed the proposed administrative changes (renumbering, grammar, spacing, and spelling) and the proposed changes to the associated Bases sections, and concluded they have no effect on safety and are, therefore, acceptable.

The staff has reviewed the licensee's proposed changes to TS 3/4.7.1.2 for the AFW system and TS 3/4.7.1.7 for the MDFP system and their associated Bases. Based on its review, the staff concluded that the proposed changes to increase the surveillance intervals for pump testing from 31 days to 92 days are acceptable. The acceptability is based on adhering to the guidance of GL 93-05 and verification by the licensee of the availability (greater than 99%) of the AFW pumps and MDFP system. Based on its review, the staff also concludes that the proposed changes to revise the requirement for a dedicated individual at local realigned manual valves during testing is acceptable. This acceptability is based on the redundancy that exists under the specified conditions. This satisfies the recommendations of TMI Item II.E.1.1. Additionally, the staff concluded that the proposed rewording and additional Action statement are acceptable, as they clarify the intent of the specifications, and more accurately reflect the design of the AFW System and MDFP System, thereby reducing the potential for misinterpretation. The staff, therefore, concludes that the proposed changes to TS 3/4.7.1.2 and TS 3/4.7.1.7, and their associated Bases are acceptable and should be approved.

### 3.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Ohio State official was notified of the proposed issuance of the amendment. The State official had no comments.

### 4.0 ENVIRONMENTAL CONSIDERATION

This amendment changes a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 and changes surveillance requirements. The staff has determined that the amendment involves no significant increase in the amounts, and no

significant change in the types, of any effluent 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 the amendment involves no significant hazards consideration and there has been no public comment on such finding (59 FR 27068). Accordingly, the 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 the amendment.

#### 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, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) 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 Contributor: W. LeFave

Date: October 18, 1994