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Docket Number 50-346

10 CFR 50.90

License Number NPF-3

Serial Number 3186

October 10, 2005

U.S. Nuclear Regulatory Commission  
Document Control Desk  
Washington, D.C. 20555-0001

Subject: Davis-Besse Nuclear Power Station (DBNPS)  
Supplemental Information Regarding License Amendment Application to  
Revise Technical Specification (TS) 3/4.3.2.1, Safety Features Actuation  
System (SFAS) Instrumentation Setpoints and Surveillance Testing  
(License Amendment Request (LAR) 03-0014; TAC No. MC3084)

Ladies and Gentlemen:

By letter dated May 5, 2004 (Serial Number 3009), the FirstEnergy Nuclear Operating Company (FENOC) submitted an application for amendment of the Operating License, Appendix A, Technical Specifications (TS) for the DBNPS. Among other changes, the proposed amendment would: revise TS Table 3.3-4, "Safety Features Actuation System Instrumentation Trip Setpoints," "Allowable Values" entries for Safety Features Actuation System (SFAS) Functional Unit Sequence Logic Channel "a" - "Essential Bus Feeder Breaker Trip (90%)", and SFAS Functional Unit Sequence Logic Channel "b" - "Diesel Generator Start, Load Shed on Essential Bus (59%)"; rename these trip relays to more accurately reflect their design function (replacing "90%" with "Degraded Voltage Relay (DVR)"; and "59%" with "Loss of Voltage (LVR)") and in TS Table 4.3-2, "Safety Features Actuation System Instrumentation Surveillance Requirements," establish annual calibration requirements for these same Functional Units, consistent with updated calculations and current setpoint methodology. The proposed changes incorporate administrative limits presently maintained by the DBNPS to ensure adequate voltage is provided to safety-related loads, and to preclude inadvertent actuation of the 4160 Volt Loss of Voltage Relay logic.

AODI

On August 20, 2004, the NRC staff requested information regarding the electromechanical Loss of Voltage Relays, which were previously removed by modification, and the replacement solid state Loss of Voltage Relays. On October 12, 2004, FENOC representatives met with NRC staff at NRC Headquarters to discuss the NRC's request for additional information, and to present the associated instrument setpoint calculation. By letter dated January 17, 2005 (Serial Number 3100), FENOC provided a written response to the NRC staff's request for additional information.

On July 19, 2005, the NRC staff informally requested FENOC to respond to a generic request for additional information included in a March 31, 2005 letter from James A. Lyons, NRC, to Mr. Alex Marion, Nuclear Energy Institute. A response to this request will be submitted under separate cover (Serial Number 3193).

FENOC proposes to add a footnote to TS Table 4.3-2, "Safety Features Actuation System Instrumentation Surveillance Requirements," regarding the as-left instrument setting. This footnote is proposed to be added for consistency with the NRC staff's position stated in the March 31, 2005 letter, referenced above. The proposed footnote would read as follows:

*The as-left instrument setting shall be returned to a setting within the tolerance band of the trip setpoint established to protect the safety limit.*

This footnote would be applicable to the Degraded Voltage Relays and the Loss of Voltage Relays. Enclosure 1 contains revised TS markup pages incorporating this change. Enclosure 2 contains the retyped TS pages incorporating this change.

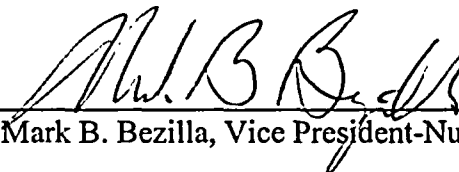
The proposed footnote will ensure that the as-left instrument settings for the Degraded Voltage Relays and the Loss of Voltage Relays following annual Channel Calibrations and monthly Channel Functional Tests are conservative and in compliance with the requirements of 10 CFR 50.36, "Technical Specifications." Other than the administrative description of the change itself, the conclusions of the previously submitted evaluation for LAR 03-0014 are unaffected, including the technical analysis, no significant hazards consideration, and environmental consideration.

A list of regulatory commitments made in this letter is included in Enclosure 3. Should you have any questions or require additional information, please contact Mr. Henry L. Hegrat, Supervisor – Fleet Licensing, at (330) 315-6944.

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The statements contained in this submittal, including its associated enclosures and attachments are true and correct to the best of my knowledge and belief. I am authorized by the FirstEnergy Nuclear Operating Company to make this submittal. I declare under penalty of perjury that the foregoing is true and correct.

Executed on: October 10, 2005

By:   
Mark B. Bezilla, Vice President-Nuclear

MSH

Enclosures

cc: J. L. Caldwell, Regional Administrator, NRC Region III  
N. Dragani, Executive Director, Ohio Emergency Management Agency,  
State of Ohio (NRC Liaison)  
W. A. Macon, DB-1 NRC/NRR Project Manager  
C. S. Thomas, DB-1 NRC Senior Resident Inspector  
Utility Radiological Safety Board

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Enclosure 1  
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**REVISED PROPOSED MARKUP  
OF  
TECHNICAL SPECIFICATION PAGES 3/4 3-21 and 3/4 3-22  
(TABLE 4.3-2)**

(two pages follow)

TABLE 4.3-2

SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION SURVEILLANCE REQUIREMENTS

<u>FUNCTIONAL UNIT</u>	<u>CHANNEL CHECK</u>	<u>CHANNEL CALIBRATION</u>	<u>CHANNEL FUNCTIONAL TEST</u>	<u>MODES IN WHICH SURVEILLANCE REQUIRED</u>
1. INSTRUMENT STRINGS				
a. DELETED	DELETED	DELETED	DELETED	DELETED
b. Containment Pressure - High	S	E	M(2)	1, 2, 3
c. Containment Pressure - High-High	S	E	M(2)	1, 2, 3
d. RCS Pressure - Low	S	R	M	1, 2, 3
e. RCS Pressure - Low-Low	S	R	M	1, 2, 3
f. BWST Level - Low-Low	S	E	M	1, 2, 3
2. OUTPUT LOGIC				
a. Incident Level #1: Containment Isolation	S	E	M	1, 2, 3, 4
b. Incident Level #2: High Pressure Injection and Starting Diesel Generators	S	E	M	1, 2, 3, 4
c. Incident Level #3: Low Pressure Injection	S	E	M	1, 2, 3, 4
d. Incident Level #4: Containment Spray	S	E	M	1, 2, 3, 4
e. Incident Level #5: Containment Sump Recirculation Permissive	S	E	M	1, 2, 3, 4
3. MANUAL ACTUATION				
a. SFAS (Except Containment Spray and Emergency Sump Recirculation)	NA	NA	M(1)	1, 2, 3, 4
b. Containment Spray	NA	NA	M(1)	1, 2, 3
4. SEQUENCE LOGIC CHANNELS	S	NA	M	<del>1, 2, 3, 4</del>

DAVIS-BESSE, UNIT 1

3/4 3-21

Amendment No. 37, 40, 48, 135, 218, 221,

TABLE 4.3-2 (Continued)

SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION SURVEILLANCE REQUIREMENTS

<u>FUNCTIONAL UNIT</u>	<u>CHANNEL CHECK</u>	<u>CHANNEL CALIBRATION</u>	<u>CHANNEL FUNCTIONAL TEST</u>	<u>MODES IN WHICH SURVEILLANCE REQUIRED</u>
<u>4. SEQUENCE LOGIC CHANNELS</u>				
a. <u>Sequencer</u>	<u>S</u>	<u>NA</u>	<u>M</u>	<u>1, 2, 3, 4</u>
b. <u>Essential Bus Feeder Breaker Trip, Degraded Voltage Relay (DVR)</u>	<u>S</u>	<u>A(3)</u>	<u>M(3)</u>	<u>1, 2, 3, 4</u>
c. <u>Diesel Generator Start, Load Shed on Essential Bus, Loss of Voltage Relay (LVR)</u>	<u>S</u>	<u>A(3)</u>	<u>M(3)</u>	<u>1, 2, 3, 4</u>
<u>5. INTERLOCK CHANNELS</u>				
a. Decay Heat Isolation Valve	S	R	**	1, 2, 3
b. Pressurizer Heater	S	R	**	3 ##

\*\* See Specification 4.5.2.d.1

## TABLE NOTATION

- (1) Manual actuation switches shall be tested at least once per REFUELING INTERVAL. All other circuitry associated with manual safeguards actuation shall receive a CHANNEL FUNCTIONAL TEST at least once per 31 days.
- (2) The CHANNEL FUNCTIONAL TEST shall include exercising the transmitter by applying either vacuum or pressure to the appropriate side of the transmitter.
- (3) The as-left instrument setting shall be returned to a setting within the tolerance band of the trip setpoint established to protect the safety limit.

\*\* See Specification 4.5.2.d.1

# DELETED

## When either Decay Heat Isolation Valve is open.

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**REVISED PROPOSED RETYPED  
TECHNICAL SPECIFICATION PAGES 3/4 3-21 and 3/4 3-22  
(TABLE 4.3-2)**

(two pages follow)

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SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION SURVEILLANCE REQUIREMENTS

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1. INSTRUMENT STRINGS				
a. DELETED	DELETED	DELETED	DELETED	DELETED
b. Containment Pressure - High	S	E	M(2)	1, 2, 3
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d. RCS Pressure - Low	S	R	M	1, 2, 3
e. RCS Pressure - Low-Low	S	R	M	1, 2, 3
f. BWST Level - Low-Low	S	E	M	1, 2, 3
2. OUTPUT LOGIC				
a. Incident Level #1: Containment Isolation	S	E	M	1, 2, 3, 4
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c. Incident Level #3: Low Pressure Injection	S	E	M	1, 2, 3, 4
d. Incident Level #4: Containment Spray	S	E	M	1, 2, 3, 4
e. Incident Level #5: Containment Sump Recirculation Permissive	S	E	M	1, 2, 3, 4
3. MANUAL ACTUATION				
a. SFAS (Except Containment Spray and Emergency Sump Recirculation)	NA	NA	M(1)	1, 2, 3, 4
b. Containment Spray	NA	NA	M(1)	1, 2, 3

DAVIS-BESSE, UNIT 1

3/4 3-21

Amendment No. 37, 40, 48, 135, 218, 221,



TABLE 4.3-2 (Continued)

SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION SURVEILLANCE REQUIREMENTS

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4. SEQUENCE LOGIC CHANNELS				
a. Sequencer	S	NA	M	1, 2, 3, 4
b. Essential Bus Feeder Breaker Trip, Degraded Voltage Relay (DVR)	S	A(3)	M(3)	1, 2, 3, 4
c. Diesel Generator Start, Load Shed on Essential Bus, Loss of Voltage Relay (LVR)	S	A(3)	M(3)	1, 2, 3, 4
5. INTERLOCK CHANNELS				
a. Decay Heat Isolation Valve	S	R	**	1, 2, 3
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  - (3) The as-left instrument setting shall be returned to a setting within the tolerance band of the trip setpoint established to protect the safety limit.
- \*\* See Specification 4.5.2.d.1
- ## When either Decay Heat Isolation Valve is open.

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**COMMITMENT LIST**

The following list identifies those actions committed to by the Davis-Besse Nuclear Power Station, Unit Number 1, (DBNPS) in this document. Any other actions discussed in the submittal represent intended or planned actions by the DBNPS. They are described only for information and are not regulatory commitments. Please notify Henry L. Hegrat, Supervisor-Licensing (330-315-6944) of any questions regarding this document or associated regulatory commitments.

<b><u>COMMITMENTS</u></b>	<b><u>DUE DATE</u></b>
None	Not applicable