FirstEnergy

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Docket Number 50-346

License Number NPF-3

Serial Number 2685

January 30, 2001

United States Nuclear Regulatory Commission
Document Control Desk
Washington, D. C. 20555-0001

Subject: Final Information in Response to Generic Letter 96-05, Periodic Verification of Design-Basis Capability of Safety-Related Motor-Operated Valves, for the Davis-Besse Nuclear Power Station

Ladies and Gentlemen:

By letters dated November 18, 1996 (Serial No. 2415), March 14, 1997 (Serial No. 2451), and January 25, 2000 (Serial 2636), the Davis-Besse Nuclear Power Station (DBNPS) staff provided information to the Nuclear Regulatory Commission (NRC) in response to Generic Letter (GL) 96-05, Periodic Verification of Design-Basis Capability of Safety-Related Motor-Operated Valves. During a telephone conference call held on November 16, 2000, between DBNPS and NRC staffs, information was discussed regarding AC-powered and DC-powered motor-operated valves. At the conclusion of the conference call, the NRC staff requested that the DBNPS provide this information by docketed letter for referencing in the NRC's evaluation of the DBNPS's response to GL 96-05.

The information discussed is contained in Attachment 2 to this letter. It is the DBNPS staff's understanding that this final information should provide for closure of GL 96-05 for the DBNPS.

Should you have any questions on the attached information, please contact Mr. David H. Lockwood, Manager - Regulatory Affairs, at (419) 321-8450.

Very truly yours,

for GG. Campbell

MAR/s

Attachments

cc:
J. E. Dyer, Regional Administrator, NRC Region III
S. P. Sands, NRC/NRR Project Manager
K. S. Zellers, NRC Region III, DB-1 Senior Resident Inspector
Utility Radiological Safety Board

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Attachment 1

FINAL INFORMATION IN RESPONSE TO

NRC GENERIC LETTER 96-05

FOR

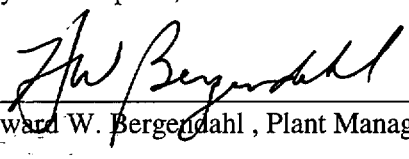
DAVIS-BESSE NUCLEAR POWER STATION

UNIT NUMBER 1

Attached is final information regarding the Davis-Besse Nuclear Power Station response to Generic Letter 96-05, "Periodic Verification of Design-Basis Capability of Safety-Related Motor-Operated Valves."

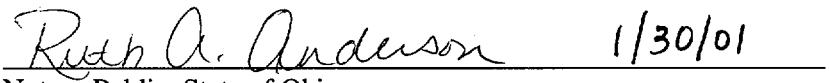
I, Howard W. Bergendahl, state that (1) I am Plant Manager - Davis-Besse of the FirstEnergy Nuclear Operating Company, (2) I am duly authorized to execute and file this certification on behalf of the Toledo Edison Company and The Cleveland Electric Illuminating Company, and (3) the statements set forth herein are true and accurate to the best of my knowledge, information, and belief.

For: Guy G. Campbell, Vice President - Nuclear

By: 

Howard W. Bergendahl , Plant Manager - Davis-Besse

Affirmed and subscribed before me this 30th day of January, 2001.



Notary Public, State of Ohio

Ruth A. Anderson
Notary Public, State of Ohio
My Commission Expires
February 28, 2004

Final Information Regarding Generic Letter 96-05 Response

NRC Item 1

In Technical Update 98-01 and its Supplement 1, Limitorque Corporation provided updated guidance for predicting the torque output of its AC-powered motor actuators. Describe the corrective action taken for ensuring adequate AC Motor Operated Valve (MOV) motor actuator output capability in response to the guidance in Limitorque Technical Update 98-01 and its Supplement 1.

DBNPS Response

NRC Information Notice (IN) 96-48, Supplement 1, Motor-Operated Valve Performance Issues, notified nuclear power reactor licensees of the issuance of Limitorque Technical Update 98-01. The Davis-Besse Nuclear Power Station (DBNPS) is presently in the process of implementing the guidance contained in IN 96-48, Supplement 1, and Technical Update 98-01 and its Supplement 1. The following actions have been taken:

1. An evaluation was performed in which data in Limitorque Technical Update 98-01 and its Supplement 1 was applied to each MOV within the scope of Generic Letter (GL) 89-10 and a margin was determined. From this evaluation, it was determined that no valves had negative margin, although some did have low margin. The absence of any valves with negative margin was not unexpected since a number of modifications had been performed during the DBNPS tenth refueling outage, which commenced in April 1996, to address potential changes to the methodology for predicting actuator output capability. These resulting margins and the next anticipated test dates were used to prioritize the design basis calculation update effort described below.

2. The design basis calculations had been updated prior to the twelfth refueling outage (12RFO), which commenced in April 2000, for all MOVs scheduled for maintenance and/or testing during 12RFO. The design basis calculations for the remaining MOVs are in the process of being updated. This design basis calculations update utilized, where applicable, the methodology previously developed by the Commonwealth Edison Company to determine actuator output capability.

3. A Condition Report (2000-2190) was issued in the DBNPS Corrective Action Program to document margin improvement actions for all MOVs with margin less than 20% as of June 2000. This Condition Report included justification of continued functionality for the affected MOVs until margin improvement actions are taken and documented.

In summary, the design basis calculations for all GL 89-10 type MOVs scheduled for maintenance and/or testing during the last refueling outage were updated, and the design calculations for the remaining GL 89-10 type MOVs are in progress. These remaining MOVs have been evaluated and interim functionality justifications have been completed.

NRC Item 2

Clarify if there are any DC-powered MOVs in the DBNPS GL 96-05 program. If applicable, describe any corrective action or planned corrective action for ensuring adequate MOV motor actuator output capability.

DBNPS Response

There are two DC-powered MOVs (Main Steam Line Valve MS106 and Auxiliary Feedwater Valve AF3870) within the scope of GL 96-05. The DBNPS has obtained Topical Report NEDC-32958, "BWR Owners' Group DC Motor Performance Methodology - Predicting Capability and Stroke Time in DC Motor-Operated Valves," Revision 0, dated March 2000. The methodology described in Topical Report NEDC-32958 is planned to be applied to these two valves once DBNPS personnel receive training on the application of this methodology. In the interim, margin has been determined for these two valves using pullout efficiency and a 0.9 application factor, recognizing that a fairly high margin is desired to compensate for additional non-conservatism in predicting actuator output for DC-powered MOVs. The margins determined exceeded 90% when based strictly on motor limit. Thus, this margin is projected to bound any non-conservatisms that may be introduced by the above methodology.

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Attachment 3

COMMITMENT LIST

THE FOLLOWING LIST IDENTIFIES THOSE ACTIONS COMMITTED TO BY THE DAVIS-BESSE NUCLEAR POWER STATION (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 THE MANAGER – REGULATORY AFFAIRS (419-321-8450) AT THE DBNPS OF ANY QUESTIONS REGARDING THIS DOCUMENT OR ANY ASSOCIATED REGULATORY COMMITMENTS.

COMMITMENTS	DUE DATE
None	N/A