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Fax: 724-643-8069November 1, 2010
L-10-302

10 CFR 50.55a

ATTN: Document Control Desk
U. S. Nuclear Regulatory Commission
Washington, DC 20555-0001

SUBJECT:

Beaver Valley Power Station, Unit Nos. 1 and 2
BV-1 Docket No. 50-334, License No. DPR-66
BV-2 Docket No. 50-412, License No. NPF-73
Supplemental Information for a Proposed 10 CFR 50.55a Request (VRR2) (TAC No. ME4643 and ME4644)

By letter dated August 30, 2010, FirstEnergy Nuclear Operating Company (FENOC) requested Nuclear Regulatory Commission (NRC) approval of a 10 CFR 50.55a request for the Beaver Valley Power Station (BVPS) Unit No.1 fourth interval Inservice Testing Program for Pumps and Valves (IST Program) and the BVPS Unit No. 2 third interval IST Program to change the position verification test frequencies for air operated valves (AOVs) (Accession No. ML102450056).

As communicated by the NRC staff to FENOC by October 15, 2010 teleconference and October 21, 2010 correspondence (Accession No. ML102930182), additional information is required for the staff to complete the acceptability review. The necessary information is contained in the Attachment.

There are no regulatory commitments contained in this letter. If there are any questions or if additional information is required, please contact Mr. Thomas A. Lentz, Manager – Fleet Licensing, at 330-761-6071.

Sincerely,



Paul A. Harden

Attachment:
Valve Relief Request 2, Supplemental InformationA047
NRR

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cc: NRC Region I Administrator
NRC Senior Resident Inspector
NRC Project Manager
Director BRP/DEP
Site BRP/DEP Representative

ATTACHMENT
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Valve Relief Request 2, Supplemental Information
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As communicated by the NRC staff to FENOC by October 15, 2010 teleconference and October 21, 2010 correspondence (Accession No. ML102930182), additional information is required for the staff to complete the acceptability review. The staff's requests are provided below in bold text followed by the FENOC response.

1. Provide a list of valves that are affected by the relief request.

Response:

American Society of Mechanical Engineers (ASME) Code Components Affected

Valve	Description	Category/Class
FCV-1CH-113A	Boric Acid Supply to Blender Flow Control Valve	B/3
FCV-1CH-114A	Primary Water Supply to Blender Flow Control Valve	B/3
TV-1CC-107A	Reactor Coolant Pump 1A Thermal Barrier Reactor Plant Component Cooling Water Outlet Isolation Valve	A/3
TV-1CC-107B	Reactor Coolant Pump 1B Thermal Barrier Reactor Plant Component Cooling Water Outlet Isolation Valve	A/3
TV-1CC-107C	Reactor Coolant Pump 1C Thermal Barrier Reactor Plant Component Cooling Water Outlet Isolation Valve	A/3
PCV-1MS-101A	1A Steam Generator Atmospheric Dump Valve	B/2
PCV-1MS-101B	1B Steam Generator Atmospheric Dump Valve	B/2
PCV-1MS-101C	1C Steam Generator Atmospheric Dump Valve	B/2
TV-1MS-105A	Auxiliary Feed Water Turbine Steam Supply A Train Trip Valve	B/3
TV-1MS-105B	Auxiliary Feed Water Turbine Steam Supply B Train Trip Valve	B/3
2RHS*FCV605A	Residual Heat Removal Train A Heat Exchanger Bypass Flow Control Valve	B/2
2RHS*FCV605B	Residual Heat Removal Train B Heat Exchanger Bypass Flow Control Valve	B/2
2RHS*HCV758A	Residual Heat Removal Train A Heat Exchanger Outlet Flow Control Valve	B/2
2RHS*HCV758B	Residual Heat Removal Train B Heat Exchanger Outlet Flow Control Valve	B/2

This list contains the valves currently selected for testing in accordance with OMN-12. In the future, additional high-safety significant and low-safety significant air-operated

valve assemblies included in the Beaver Valley Power Station (BVPS), Unit Nos. 1 and 2 Inservice Testing (IST) Programs for Pumps and Valves may be evaluated and subsequently tested in accordance with either ASME OM Code Case OMN-12 Section 4, "High Safety Significant Valve Assemblies," or Section 5, "Low Safety Significant Valve Assemblies," as applicable.

2. Provide a discussion on how the valves test frequency is developed. Explain how the proposed alternative will maintain the same level of quality and safety.

Response:

BVPS, Unit Nos. 1 and 2 have implemented OMN-12 diagnostic testing of the listed high-safety significant valves in lieu of provisions specified in ISTC-5130, "Pneumatically Operated Valves." Currently, the position verification testing for these AOVs is required to be performed once every two years in accordance with ISTC-3700, "Position Verification Testing," which does not coincide with the diagnostic test frequency specified in paragraph 4.2.2 under OMN-12. The proposed position verification test frequency will be developed based on the OMN-12 diagnostic test frequency outlined in Paragraph 4.2.2.2 under OMN-12, which states, "the valve assembly inservice testing shall be conducted every two refueling cycles or 3 years (whichever is longer) until sufficient data exist to determine a more appropriate test frequency."

Implementing the diagnostic test frequency specified in OMN-12 as an alternative to the position verification test frequency specified in ISTC-3700 will avoid positioning an operator at the valve at least once every two years to perform position verification testing. Instead, the position verification testing will occur when maintenance personnel are positioned at the valve to perform diagnostic testing in accordance with OMN-12.

The following information supports the use of the OMN-12 diagnostic test frequency in lieu of the two year test frequency specified in ISTC-3700 as an acceptable level of quality and safety for the determination of valve position indication and operational readiness:

- a) A review of the IST Program trending database concluded that in the past 10 years there have been no position verification failures.
- b) In accordance with the BVPS, Unit Nos. 1 and 2 IST Programs, valve exercising is performed at least once per cycle. Assurance of valve position may be supplemented by other indications such as verification of flow or pressure during normal operation.
- c) In accordance with ISTC-3310, "Effects of Valve Repair, Replacement, or Maintenance on Reference Values," if a maintenance activity that has the potential to affect position indication is performed between diagnostic tests, then position verification testing will be performed as a post-maintenance test.

- d) Following the criteria as specified in OMN-12 Paragraph 4.4, "Performance test data trends (including allowance for uncertainties) shall be established to predict when data points may approach parameter limits," and data evaluation shall validate the test frequency.

3. The proposed alternative suggests that the request only applies to high safety significant valve assemblies. Explain how the valves are selected to apply OM Code Case OMN-12 test methods.

Response:

The above listed valve assemblies were selected to be tested in accordance with OMN-12 based on the valve assemblies being safety-related, active, and of high safety significance. Currently at BVPS, Unit Nos. 1 and 2, only high-safety significant valve assemblies have been selected to apply the OMN-12 test methods. In the future, additional high-safety significant and low-safety significant air-operated valve assemblies included in the BVPS, Unit Nos. 1 and 2 IST Programs for Pumps and Valves may be evaluated and subsequently tested in accordance with either OMN-12 Section 4, "High Safety Significant Valve Assemblies," or Section 5, "Low Safety Significant Valve Assemblies," criteria.

4. Provide a discussion as to why Code Case OMN-12 meets or exceeds the requirements of ISTC-3700. If the licensee's program utilizing Code Case OMN-12 has other local observation that supplements obturator indication verification, it should be included in the supporting discussion on why the alternative provides reasonable assurance that the component is operationally ready.

Response:

Although ISTC-3700 requires the valve position verification test be performed on a two-year test frequency, the extended test frequency specified in OMN-12 also provides an acceptable level of quality and safety for the determination of valve position indication and operational readiness. A review of the IST Program trending database concluded that in the past 10 years there have been no position verification failures. Also, in accordance with the BVPS, Unit Nos. 1 and 2 IST Programs, valve exercising is performed at least once per cycle. Assurance of valve position may be supplemented by other indications such as verification of flow or pressure during normal operation. Furthermore, in accordance with ISTC-3310, "Effects of Valve Repair, Replacement, or Maintenance on Reference Values," if a maintenance activity that has the potential to affect position indication is performed between diagnostic tests, then position verification testing will be performed as a post-maintenance test regardless of the frequency based on performance. Additionally, as previously stated, following the criteria as specified in OMN-12 Paragraph 4.4, "Performance test data trends (including allowance for uncertainties) shall be established to predict when data points may approach parameter limits," and data evaluation shall validate the test frequency.

5. If reducing radiation exposure is the main reason for requesting this relief, explain how your test program via Code Case OMN-12 is adequate and that performance of position verification testing on a 2-year schedule is a hardship without an increase in quality or safety.

Response:

Reducing radiation exposure was not the main reason for requesting this relief. However, application of the OMN-12 test frequency in lieu of the ISTC-3700 frequency is expected to reduce personnel radiation exposure by approximately 20 millirem every two years.