

Law W. Myers
Senior Vice President724-682-5234
Fax: 724-643-8069March 7, 2001
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U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, DC 20555-0001

Subject: Beaver Valley Power Station, Unit No. 1
Docket No. 50-334, License No. DPR-66
Reactor Vessel Capsule Y Test Report

Attached is a copy of WCAP-15571 "Analysis of Capsule Y from Beaver Valley Unit 1 Reactor Vessel Radiation Surveillance Program," Revision 0, dated November 2000.

A technical summary of the results of the mechanical property tests conducted on the fourth capsule withdrawn is provided in this report. The report is being provided in accordance with 10 CFR 50 Appendix H, Section III. The report includes the data required by ASTM E185 as specified in 10 CFR 50 Appendix H paragraph III.B.1. The analysis results indicate that changes to the technical specifications are required for operation beyond the 16 effective full power years currently approved for the heatup and cooldown curves. In accordance with 10 CFR 50, Appendix H, Section IV.C, the necessary changes will be proposed in a license amendment request scheduled for submittal in May 2001.

Updated capsule lead factors are provided in Table 7-1 of WCAP-15571. These updates are based on state-of-the-art methodology and nuclear data including recently released neutron transport and dosimetry cross-section libraries derived from the ENDF/B-VI database. The withdrawal schedule for Capsule X shown in Table 7-1 of the WCAP differs from what is presently shown in Table 4.5-3 of the Unit 1 Updated Final Safety Analysis Report (UFSAR). The UFSAR table will be updated to be consistent with Table 7-1 of WCAP-15571. As required by 10 CFR 50, Appendix H, Section III.B.3, FirstEnergy Nuclear Operating Company is requesting NRC approval of the Capsule X withdrawal schedule change (25.7 Effective Full Power Years) by January 31, 2002.

This letter also transmits WCAP-15569, "Evaluation of Pressurized Thermal Shock for Beaver Valley Unit 1," Revision 0, dated November 2000. The purpose of WCAP-15569 is to determine the RT_{PTS} values for Beaver Valley Unit 1 reactor vessel beltline materials based on the results of the Capsule Y evaluations documented in WCAP-15571.

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Although not required by 10 CFR 50.61, "Fracture Toughness Requirements for Protection Against Pressurizer Thermal Shock," WCAP-15569 is being provided as an informational update to the assessment of the RT_{PTS} values for Beaver Valley Unit 1 reactor vessel beltline materials. As per 10 CFR 50.61(8)(b), an update to the assessment of the RT_{PTS} values is required only when there is a significant change in projected values of RT_{PTS} . This section of 10 CFR 50.61 states that changes to RT_{PTS} are considered significant if the screening criteria are exceeded prior to expiration of the operating license; i.e., End-of-Life. The conclusion of WCAP-15569 is that all the beltline materials in the Beaver Valley Unit 1 reactor vessel have RT_{PTS} values below the screening criteria of 270°F for plates, and 300°F for circumferential welds at End-of-Life; i.e., 28 Effective Full Power Years. The results of this assessment show an improvement in the Beaver Valley Unit 1 RT_{PTS} values relative to the screening criteria.

An errata sheet is included with WCAP-15569. The errata sheet corrects a typographical error regarding the reference to the revision number of WCAP-15571. This is purely a non-intent change that does not affect or change any conclusions drawn in WCAP-15569.

If there are any questions concerning this submittal, please contact Mr. Thomas S. Cosgrove, Manager, Regulatory Affairs at 724-682-5203.

Sincerely,



Lew W. Myers

- c: Mr. L. J. Burkhart, Project Manager
Mr. D. M. Kern, Sr. Resident Inspector
Mr. H. J. Miller, NRC Region I Administrator