



FirstEnergy Nuclear Operating Company

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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  
1R15 Steam Generator C-3 Report**

In accordance with Beaver Valley Power Station Unit No. 1 Technical Specification 4.4.5.5.c, the NRC is required to be notified with the results of steam generator tube inspections which fall into Category C-3. The following information documents the C-3 examination category for steam generators A, B & C (RC-E-1A, B and C, respectively) which were inspected during the 1R15 refueling outage.

A total of 99 tubes in RC-E-1A, were found to be defective from eddy current examinations (bobbin coil and plus point probes). A total of 84 tubes in RC-E-1B were found to be defective. A total of 35 tubes in RC-E-1C were found to be defective. This represents greater than 1% of the inspected tubes being defective in each steam generator. The examinations are 100% complete as of March 28, 2003. All defective tubes were removed from service through tube plugging.

The primary degradation mechanism affecting the Beaver Valley Power Station Unit #1 steam generators is Outside Diameter Stress Corrosion Cracking (ODSCC) at or near the hot leg top-of-tubesheet and at tube support plate intersections. The ODSCC observed at the hot leg top-of-tubesheet has historically been located in the sludge pile region. The majority of this sludge pile region was removed during the secondary side chemical cleaning process performed during the previous refueling outage (1R14).

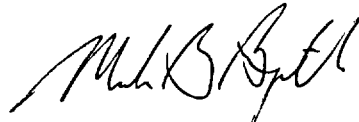
Boric acid addition to the secondary water is continuing in an effort to reduce the propensity of ODSCC. Additionally, secondary water chemistry molar ratio control has been implemented to further mitigate the growth and propagation of ODSCC. Sludge lancing the secondary side top-of-tubesheet has been performed to remove accumulated sludge that contributes to the formation of the aggressive environment that can result in the initiation of ODSCC in this region. Furthermore, secondary water chemistry control is optimized to keep corrosion product transport to the steam generators as low as possible to minimize the accumulation of new sludge during the operating cycle.

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No new commitments are contained in this submittal. If there are any questions concerning this matter, please contact Mr. Larry R. Freeland, Manager, Regulatory Affairs/Performance Improvement at 724-682-5284.

Sincerely,



Mark B. Bezilla

c: Mr. T. G. Colburn, NRR Senior Project Manager  
Mr. D. M. Kern, NRC Sr. Resident Inspector  
Mr. H. J. Miller, NRC Region I Administrator