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

Subject: Beaver Valley Power Station, Unit No. 2
Docket No. 50-412, License No. NPF-73
2R11 Steam Generator C-3 Report

In accordance with Beaver Valley Power Station (BVPS) Unit No. 2 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 generator 2RCS-SG21B. 100 percent of all inservice steam generator tubes were inspected during the 2R11 refueling outage in each of the three BVPS Unit No. 2 steam generators.

As of April 14, 2005, a total of thirty-four tubes (34) in 2RCS-SG21B, were found to be defective from the eddy current examinations (bobbin coil and plus point probes). This represents greater than 1% of the inspected tubes being defective and this places steam generator 2RCS-SG21B in the C-3 examination category. The examination of 2RCS-SG21B was 100% complete as of April 14, 2005.

A total of fourteen (14) tubes in 2RCS-SG21A and seven (7) tubes in 2RCS-SG21C were found to be defective from the eddy current examinations. The examinations were 100% complete in these steam generators as of April 14, 2005.

All defective tubes will be removed from service through tube plugging.

The primary degradation mechanism affecting the Unit No. 2 steam generators is Outside Diameter Stress Corrosion Cracking (ODSCC) at or near the hot leg top-of-tubesheet. The ODSCC observed at the hot leg top-of-tubesheet has historically been located in the sludge pile region. However, during this 2R11 refueling outage, 21 tubes were plugged due to indications outside the sludge pile region.

Boric acid addition to the secondary water is continuing in an effort to reduce the propensity for ODSCC. Additionally, secondary water chemistry molar ratio control has been implemented to further mitigate the growth and propagation of ODSCC. Sludge

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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.

No new regulatory commitments are contained in this submittal. If there are any questions concerning this matter, please contact Mr. Larry R. Freeland, Manager, Regulatory Compliance at 724-682-4284.

Sincerely,

L. W. Pearce

L. William Pearce

c: Mr. T. G. Colburn, NRR Senior Project Manager
Mr. P. C. Cataldo, NRC Sr. Resident Inspector
Mr. S. J. Collins, NRC Region I Administrator