

Beaver Valley Power Station Route 168 P.O. Box 4 Shippingport, PA 15077-0004

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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 1R16 Steam Generator Tube Pull Position

References:

- 1. Generic Letter 95-05, "Voltage Based Repair Criteria for Westinghouse Steam Generator Tubes Affected by Outside Diameter Stress Corrosion Cracking," August 3, 1995.
- 2. Nuclear Energy Institute letter, "Steam Generator Degradation Specific Management Database, Addendum 3," David J. Modeen to Document Control Desk dated September 22, 1999.
- 3. NRC Letter, "Industry Recommended Steam Generator Tube Pull Program," Jack R. Strosnider to David J. Modeen (NEI) January 31, 2000.
- 4. EPRI Report NP7480-L, "Steam Generator Tubing Outside Diameter Stress Corrosion Cracking at Tube Support Plate Database for Alternate Repair Criteria," Update 2002, Addendum 5, January 2003.

This letter provides the FirstEnergy Nuclear Operating Company (FENOC) position regarding a steam generator tube pull during the Beaver Valley Unit 1 (BV-1) sixteenth refueling outage (1R16), which is scheduled for the fall of 2004. FENOC is planning to replace the BV-1 steam generators (SGs) during the seventeenth refueling outage (1R17) scheduled for the spring of 2006.

BV-1 previously committed to comply with the guidance of Generic Letter 95-05 (Reference 1), Section 4.0 regarding a steam generator tube pull program. This guidance allowed for plant participation in an NRC endorsed industry sponsored tube pull program. By Reference 2, the industry submitted recommended requirements for pulling tubes for NRC endorsement. By Reference 3, the NRC provided a response to the

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proposed industry program which indicated NRC acceptance of several industry proposals.

Reference 1 required supplementary steam generator tube removal efforts to occur on an ongoing basis. Specifically, Paragraph 4.a of Reference 1 states, in part,

"On an ongoing basis, an additional (follow-up) pulled tube specimen..... should be obtained at the refueling outage following accumulation of 34 Effective Full Power Months (EFPM) of operation or at a maximum interval of three refueling outages, whichever is shorter, following the previous tube pull.

Alternatively, the request to acquire pulled tube specimens may be met by participating in an industry sponsored tube pull program endorsed by the NRC that meets the objectives of this guidance."

Through Reference 3, the Nuclear Regulatory Commission (NRC) approved the Industry's recommendations for tube pull strategies provided in Reference 2. These recommendations were subsequently incorporated into an earlier version of Reference 4.

Reference 4 is the latest version of the attachment to Reference 2 and contains a compilation of industry information from tube pulls detailing the conditional leak rate, burst pressure, and probability of leakage correlations.

Section 9.2.3 of Reference 4 states, in part,

"On an ongoing basis, an additional (follow-up) pulled tube specimen..... should be obtained at the refueling outage following accumulation of three operating cycles following the previous tube pull."

"If the above time requirements for a pulled tube specimen coincide with the plant's last scheduled outage before SG replacement, the requirement for a tube pull is waived."

The above stated tube pull requirements are identical to those previously approved by Reference 3.

The last tube pull occurred at BV-1 during the fourteenth refueling outage (1R14). The accumulated cycles since 1R14 are Cycle 15 and Cycle 16 (current). Therefore, a tube pull is not required from the accumulated operating cycle standpoint since, during the upcoming 1R16 outage, only two cycles will be accumulated, which is less than the three

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cycle specified interval. Furthermore, since 1R16 is the last scheduled outage prior to the scheduled steam generator replacement, the tube pull requirement is waived.

Note that Section 9.2.3 of Reference 4 further states that "if indications with unanticipated voltage levels substantially higher than the structural limit (> 10 volts) from the burst correlation are found in an inspection, the indication should be considered for removal if the test results are likely to determine whether or not condition monitoring or operational assessment results would satisfy acceptance limits."

Therefore, FENOC is not planning to perform a SG tube pull during 1R16 unless a > 10 volts indication is observed and the engineering evaluation of the burst and leakage potential for such an indication reveals an effect on the condition monitoring or operational assessment results.

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,

William Pearce

c: Mr. T. G. Colburn, NRR Senior Project Manager

Mr. P. C. Cataldo, NRC Sr. Resident Inspector

Mr. H. J. Miller, NRC Region I Administrator