

May 27, 2008

10 CFR 50.55a

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

Gentlemen:

In the Matter of)
Tennessee Valley Authority)

Docket No. 50-390

**WATTS BAR NUCLEAR PLANT (WBN) UNIT 1 - NOTIFICATION OF COMPLETION
REGARDING ACTIONS AND COMMITMENTS FOR NUCLEAR REGULATORY
COMMISSION (NRC) CONFIRMATORY ACTION LETTER**

- References: 1) NRC letter to TVA dated March 12, 2007, "Confirmatory Action Letter – Watts Bar Nuclear Plant, Unit 1"
- 2) TVA letter to NRC dated February 27, 2007, "Watts Bar Nuclear Plant, Unit 1 – Inspection and Mitigation of Alloy 600/82/182 Pressurizer Butt Welds – Supplemental Information"

This letter provides the WBN Unit 1 response to item 3 on page 2 of Reference 1 regarding completion of the reporting requirements and re-inspection frequencies for the Alloy 600/82/182 butt welds installed on the WBN Unit 1 pressurizer. Reference 2, documents TVA's commitment to provide the NRC the results of any corrective actions taken within 60 days of WBN Unit 1 restart.

In lieu of performing volumetric examinations of the pressurizer Alloy 600/82/182 butt welds for WBN Unit 1 at the prescribed frequency specified in Reference 2, TVA elected to mitigate the butt welds for the pressurizer surge, spray, safety, and relief nozzles, using the Mechanical Stress Improvement Process (MSIP) developed by NuVision Engineering. MSIP is a patented mechanical process that prevents and mitigates primary water stress-corrosion cracking (PWSCC) in piping by minimally contracting the pipe on one side of the weldment, thereby replacing residual tensile stresses with compression

stresses. This process has been accepted by the NRC in accordance with NUREG 0313, Revision 2. The MSIP for the pressurizer Alloy 600/82/182 butt welds was completed during the WBN Cycle 8 refueling outage.

The data obtained from the MSIP were evaluated by NuVision and are documented in a series of Westinghouse stress reports. The analysis indicated that the compressive hoop and axial residual stresses generated by the MSIP provided permanent mitigation against PWSCC in the nozzle-to-safe end weldments. The MSIP performed on the pressurizer butt welds is also expected to prevent crack initiation/growth and thereby has a significant benefit in reducing the potential for a through-wall flaw and the probability of pipe rupture. The Westinghouse stress reports are proprietary. These documents can be reviewed on-site by NRC staff if desired.

TVA thereby confirms that the butt welds for the pressurizer surge, spray, safety, and relief nozzles have been properly mitigated for PWSCC and the reporting commitments defined in Reference 2 have been met.

Pursuant to item 3 on page 2 of the CAL, TVA is notifying you that because the pressurizer butt welds have been mitigated for PWSCC using MSIP, the commitments specified in Reference 2 regarding volumetric inspection at the specified frequency and associated reporting requirements are no longer applicable. The enhanced modifications (MSIP) performed on the pressurizer butt welds satisfy the intent of the CAL and, therefore, the requirements of the CAL have been completed.

There are no regulatory commitments associated with this submittal. If you have any questions concerning this matter, please call me at (423) 365-1824.

Sincerely,

Original signed by C. J. Riedl for

M. K. Brandon
Manager, Site Licensing
and Industry Affairs

cc: See Page 3

cc: NRC Resident Inspector
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