



Tennessee Valley Authority, Post Office Box 2000, Spring City, Tennessee 37381

MAY 24 1994

CDR-50-390
CDR-50-391

10 CFR 50.55(e)

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

Gentlemen:

In the Matter of the Application of)
Tennessee Valley Authority)

Docket Nos. 50-390
50-391

WATTS BAR NUCLEAR PLANT (WBN) UNITS 1 AND 2 - CONSTRUCTION DEFICIENCY
REPORT (CDR) 50-390, 391/93-05 - INAPPROPRIATE SELECTION OF VALVE FOR USE
AS A THROTTLE VALVE IN THE SAFETY INJECTION SYSTEM - SUPPLEMENTAL FINAL
REPORT

The subject deficiency was initially reported to the NRC Operations Center on December 1, 1993, in accordance with 10 CFR 50.55(e)(3) as Problem Evaluation Report (PER) WBP930316. This PER was subsequently escalated to Significant Corrective Action Report (SCAR) WBSCA930218. TVA's final report for CDR 390, 391/93-05 was submitted to NRC on December 22, 1993. This report provides supplemental information regarding an assessment which was performed to establish the extent of condition of the deficiency and actions which were implemented to prevent recurrence of the deficiency.

Extent of Condition Assessment

The deficiency documented by SCAR WBSCA930218 was also documented as Example 1 of Violation 390/93-66-02. NRC's assessment of TVA's response to this violation identified concerns that the corrective actions do not adequately address the possible extent of condition. This concern mainly focused on the possibility of other mis-applications of components. TVA addressed this concern by clarifying the basis for the extent of condition

9406060023 940524
PDR ADDCK 05000390
S PDR

LE27
1/0

MAY 24 1994

review developed for SCAR WBSA930218 with the Region II staff. The discussion of this issue occurred on April 22, 1994, and also addressed a vertical slice review which was performed by Watts Bar Site Nuclear Assurance (SNA). SNA's review encompassed key sections of the Residual Heat Removal and Safety Injection systems. This assessment had initially been scheduled as part of the closure verification for the Design Baseline Verification Program (DBVP). However, the scope of the assessment was expanded to include a review of component applications to aid in addressing the NRC's concerns.

System walkdowns performed during the closure vertical slice review collected valve identification data. This resulted in 42 valves being assessed for correctness of application by SNA and Nuclear Engineering with all valves meeting the design parameters specified for the application.

It is TVA's understanding that the clarification of the extent of condition review and the assessment performed by SNA have resolved the concern regarding Violation 390/93-66-02.

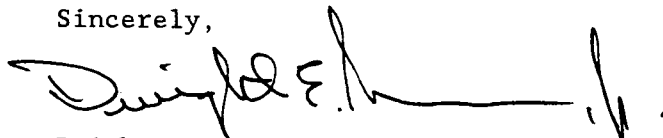
Actions Implemented to Prevent Recurrence

The final report for the subject CDR made the statement that no recurrence control actions were required. However, after further review, TVA determined that additional controls to ensure erosion and cavitation in valves are properly considered in future design were necessary. This conclusion resulted in the issuance of Revision 17 of Engineering Administrative Instruction (EAI) 3.05, "Design Change Notices." Revision 17 amended Item 30 of Appendix B, Design Input Checklist, to require consideration of design and administrative control requirements to prevent erosion and cavitation in valves due to high differential pressure.

The information provided in this submittal makes no additional commitments related to the resolution of this deficiency.

Should you have any questions regarding this issue, please telephone P. L. Pace at (615) 365-1824.

Sincerely,



Dwight E. Nunn
Vice President
New Plant Completion

cc: See page 3

U.S. Nuclear Regulatory Commission
Page 3

MAY 24 1994

cc: INPO Record Center
700 Galleria Parkway
Atlanta, Georgia 30339

NRC Resident Inspector
Watts Bar Nuclear Plant
Rt. 2, Box 700
Spring City, Tennessee 37381

Mr. P. S. Tam, Senior Project Manager
U.S. Nuclear Regulatory Commission
One White Flint North
11555 Rockville Pike
Rockville, Maryland 20852

U.S. Nuclear Regulatory Commission
Region II
101 Marietta Street, NW, Suite 2900
Atlanta, Georgia 30323