



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

John H. Garrity  
Vice President, Watts Bar Nuclear Plant

APR 28 1992

WBRD-50-390/92-06  
WBRD-50-391/92-06

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 - INADEQUACIES IN MOTOR  
OPERATED VALVE DIAGNOSTIC EQUIPMENT SUPPLIED BY ITI MOVATS CORPORATION -  
WBRD-50-390/92-06 AND WBRD 50-391/92-06 - INTERIM REPORT

The subject potentially reportable deficiency was initially reported to the NRC Operation Center on April 3, 1992, in accordance with 10 CFR 50.55(e) and 10 CFR 21 as Problem Evaluation Report (PER) WBPER 920094. This PER was subsequently upgraded to Significant Corrective Action Report (SCAR) WBSA 920025. Enclosure 1 is TVA's interim report on this subject. TVA expects to submit a final report to NRC by June 30, 1992.

The commitment made in this report is provided in Enclosure 2.

If you have any questions, please telephone P. L. Pace at (615) 365-1824.

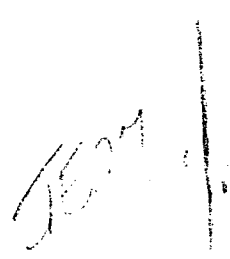
Sincerely,

  
John H. Garrity

Enclosures  
cc: See page 2

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U.S. Nuclear Regulatory Commission  
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cc (Enclosures):

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ENCLOSURE 1

WATTS BAR NUCLEAR PLANT (WBN) UNITS 1 AND 2  
INADEQUACIES IN MOTOR OPERATED VALVE DIAGNOSTIC EQUIPMENT  
SUPPLIED BY ITI MOVATS CORPORATION  
SIGNIFICANT CORRECTIVE ACTION REPORT (SCAR) WBSA920025  
WBRD-50-390/92-06 AND WBRD-50-391/92-06

INTERIM REPORT

DESCRIPTION OF THE DEFICIENCY

TVA has determined that 92 safety-related and 75 nonsafety-safety motor operated valves (MOVs) may have torque switch settings that exceed the maximum rating of the valve operator. The majority of these MOVs are used in Unit 1 applications. Very few Unit 2 MOV torque switches have been calibrated.

On February 28, 1992, the ITI MOVATS Corporation notified TVA that a potential issue related to the MOV Spring Pack Open-Calibration Methodology had been identified. Using this approach, the valve is cycled in the open direction and the valve stem is driven into a load cell mounted on top of the valve actuator. A correlation is then made between spring pack displacement and the thrust delivered to the stem. This same relationship between spring pack motion and thrust is then used in the closing direction. In this case, spring pack displacement is measured and stem thrust is inferred based on the derived correlation. However, recent field validation testing, coupled with open-versus-close testing performed by ITI MOVATS, has shown that the inaccuracies associated with using the open-calibration approach to measure MOV closing stem thrust can be outside the published accuracies for the methodology.

This issue impacts those MOVs whose safety function is in the closing direction, or whose safety function is required in both the open and close direction, and have been solely tested under static conditions with the above methodology to establish closing stem thrust. TVA has identified 92 safety-related and 75 nonsafety-related MOVs that may be affected by the ITI MOVATS notification. Until these MOV torque switch settings are evaluated for impact of the accuracy changes, TVA considers this issue to be potentially reportable in accordance with the requirements of 10 CFR 50.55(e) and 10 CFR 21.

SAFETY IMPLICATIONS

A torque switch setting that exceeds the maximum rating of the valve operator could result in valve operator damage or damage to the valve components. This could prevent a safety-related MOV from performing its intended safety function. Therefore, this condition could have adversely affected the safety of plant operations had it remained uncorrected.

INTERIM PROGRESS

1. On April 1, 1992, an entry was made in the Operations Department night order logsheet which directed Operations personnel to suspend electrical operation of those MOVs identified as having the potential for overthrusting.
2. On April 1, 1992, the Mechanical Maintenance supervisor and MOV planners were verbally notified to suspend performance of ITI MOVATS diagnostic testing or switch setting on those MOVs identified as having the potential for overthrusting.
3. TVA is continuing to evaluate the deficiency and expects to issue a final report to NRC by June 30, 1992.

ENCLOSURE 2

LIST OF COMMITMENTS

TVA is continuing to evaluate the deficiency and expects to issue a final report to NRC by June 30, 1992.