

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401

5B Lookout Place

NOV 30 1990

WBRD-50-390/90-04

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

WATTS BAR NUCLEAR PLANT (WBN) UNIT 1 - CABLE DAMAGE AT SPLICES -
WBRD-50-390 90-04 INTERIM REPORT

The subject deficiency was initially reported to NRC Region II on November 1, 1990, in accordance with 10 CFR 50.55(e) as Condition Adverse to Quality Report (CAQR) WBP 900450. Enclosed is TVA's interim report. We expect to submit a complete report by January 31, 1991.

If there are any questions, please contact P. L. Pace at (615) 365-1824.

Very truly yours,

TENNESSEE VALLEY AUTHORITY



E. G. Wallace, Manager
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Enclosures
cc: See page 2

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U.S. Nuclear Regulatory Commission

NOV 30 1990

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ENCLOSURE

WATTS BAR NUCLEAR PLANT (WBN)
CABLE DAMAGE AT SPLICES
CAQR WBP 900450
WBRD-50-390/90-04
10 CFR 50.55(e)
INTERIM REPORT

DESCRIPTION OF DEFICIENCY

During the high potential testing of low voltage cables at WBN, two cables failed due to improperly applied splices. Additional external inspections were conducted to determine the extent of this condition at WBN. Condition Adverse to Quality Report (CAQR) WBP 900450 documents the deficiencies found during this initial examination. The deficiencies found include (1) cable damage at splices (i.e., broken conductor strands, nicks, cuts, bulges, gouges, scratches, indentations), (2) spliced conductors which are not sealed properly, and (3) improper application of the Raychem material. This condition may potentially affect all Class 1E splices.

SAFETY IMPLICATIONS

Splices which are improperly prepared may experience moisture intrusion. This condition may cause a failure of the circuit resulting in a loss of power or control function to the safety-related end devices, which could adversely impact the plant's capability to safely shut down.

INTERIM PROGRESS

Due to the deficiencies found during the initial investigation, TVA is presently performing additional inspections. As of November 28, 1990, approximately 4500 splices have been inspected. Deficient splices will be repaired or replaced in accordance with the requirements of Construction Specification G-38, "Installing Insulated Cables Up to 15,000 Volts." In addition, retraining of the quality control inspectors will be conducted and recertification of the craftmen will be performed to ensure that future splices will be installed correctly at WBN.

Additional corrective actions will be identified, as necessary, following the completion and subsequent analysis of the results of the splice inspection.

TVA will provide a complete report regarding this issue by January 31, 1991.