

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401

5N 157B Lookout Place

**SEP 21 1989**

WBRD-50-391/89-07

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 No. 50-391

WATTS BAR NUCLEAR PLANT (WBN) UNIT 2 - DAMAGED ELECTRICAL CABLE IN CONDUIT  
WBRD-50-391/89-07 - INTERIM REPORT

The subject deficiency was initially reported to NRC Inspector Ken Barr on August 21, 1989, in accordance with 10 CFR 50.55(e) as Condition Adverse to Quality Report (CAQR) WBP 890331. Enclosure 1 contains our interim report. We expect to submit our final report during the month of November 1989.

Enclosure 2 identifies the commitment made in this report.

If there are any questions, please telephone G. R. Ashley at (615) 365-8527.

Very truly yours,

TENNESSEE VALLEY AUTHORITY

*M. J. Ross*  
Manager, Nuclear Licensing  
and Regulatory Affairs

Enclosures  
cc: See page 2

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U.S. Nuclear Regulatory Commission

SEP 21 1989

cc (Enclosures):

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## ENCLOSURE 1

WATTS BAR NUCLEAR PLANT UNIT 2  
DAMAGED ELECTRICAL CABLE IN CONDUIT  
CONDITION ADVERSE TO QUALITY REPORT  
(CAQR) WBP 890331  
WBRD-50-391/89-07  
10 CFR 50.55(e)

### INTERIM REPORT

#### Description of Deficiency

Cable damage, ranging from conductor jacket abrasions to cuts to the copper conductors was identified while pulling back cables from conduit. This conduit contained 26 reactor protection system cables from main steam, feedwater, turbine controls, safety injection, and reactor coolant systems.

This deficiency will require extensive evaluation to determine the root cause and necessary corrective actions.

#### Safety Implications

The cable damage could have resulted in failure of the cables to perform their intended functions. This would have resulted in a loss of reactor protection system channel 1 instrumentation associated with these cables. Although the other three channels would not be affected, the reactor protection system would not meet its performance requirements in the event of a single failure.

#### Interim Progress

TVA is currently developing a program to bound and resolve concerns resulting from identification of this damaged cable.

The damaged cable has been sent to the University of Connecticut for laboratory analysis to confirm the postulated damage mechanism. Initial indications were that a substantial portion of the damage was caused by cable pullbys (pulling additional cable in a conduit which has cable already installed).

TVA is currently pulling back representative samples of Unit 1 cable for additional information to be factored into the overall resolution of this condition.

Based on the work required to identify the root cause(s) of this problem, the work to bound the condition, and the current approach to resolve the problem, TVA will provide a final report for resolution of this discrepancy during the month of November 1989.

ENCLOSURE 2  
LIST OF COMMITMENTS

TVA will provide a final report for resolution of this discrepancy during the month of November 1989.