



Tennessee Valley Authority 5101 Market Street, Chattanooga, Tennessee 37402

Mark O. Medford
Vice President, Nuclear Assurance, Licensing and Fuels

JAN 14 1991

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

Gentlemen:

In the Matter of) Docket No. 50-260
Tennessee Valley Authority)

BROWNS FERRY NUCLEAR PLANT (BFN) - UNIT 2 - CABLE INSTALLATION ISSUES -
DISPOSITION OF 10 CFR 50.49 COAXIAL CABLES (TAC 00421)

Reference: NRC letter to TVA dated December 22, 1989 - Summary of
Meeting with TVA Held on December 22, 1989 to Discuss BFN's
Unit 2 Cable Installation Program

The purpose of this letter is to inform NRC of TVA's decision to withdraw a commitment to replace four 10 CFR 50.49 coaxial cables with double jacketed coaxial cable. The commitment to replace these coaxial cables at BFN resulted from meetings with NRC on December 18, 1989 (refer to TVA slides in referenced letter) and February 13, 1990.

This commitment stemmed from visual and laboratory inspection of cables removed from conduits at Watts Bar Nuclear Plant which revealed damage to the outer jacket of the coaxial cable. The damage resulted in a reduction of the jacket thickness to a value which was less than 80 percent of the manufacturer's nominal thickness.

The concern from this type of damage is the potential moisture migration along the cables' braided shield to the connector. This moisture migration reduces the insulation resistance between the conductor and the coaxial shield. This failure will not occur during normal operation, but could occur during accident conditions which create a harsh environment.

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The four 10 CFR 50.49 coaxial cables which TVA had previously committed to replace are associated with the Victoreen radiation monitors. These coaxial cables are the only single jacketed coaxial cables located in 10 CFR 50.49 applications for Unit 2. The cables inside containment to the monitors were environmentally qualified and supplied with the monitors. The cables are enclosed in sealed stainless steel tubing from the containment penetration to the monitors ensuring that no moisture can reach the cable. Additionally, the coaxial cable associated with the Victoreen radiation monitors are comprised of short runs (less than 75 feet) and were installed by pushing the cable into the tubing in accordance with Victoreen Technical Manual for High Range Containment Monitors. Since no additional cables will be added to these sealed tubes because they are dedicated to the Victoreen radiation monitors and considering the installation method used, cable pullby is not a concern. Due to these considerations, there is a low probability that the coaxial cables jacket incurred damage.

The coaxial cables outside containment for these monitors do not have to operate for any accidents outside containment. They are only required to operate during Loss of Coolant Accident (LOCA)/High Energy Line Break conditions inside containment and would not be exposed to a steam environment during the accident in which they are required to remain functional.

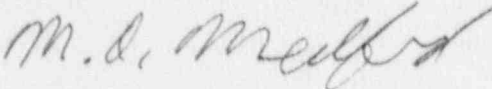
The moisture intrusion problem identified at WBN for 10 CFR 50.49 coaxial cable does not exist for the radiation monitors at BFN. Existing design requirements prevent future installation of 10 CFR 50.49 single jacketed coaxial cable which is susceptible to the WBN coaxial cable failure mechanism.

Based on the reasons above and the specific applications at BFN, BFN has decided not to replace the single jacketed coaxial cables as previously committed.

There are no commitments contained in this submittal. If you have any questions, please telephone Patrick P. Carrier, BFN, Site Licensing, (205) 729-2566.

Very truly yours,

TENNESSEE VALLEY AUTHORITY



M. O. Medford

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cc: Ms. S. C. Black, Deputy Director
Project Directorate II-4
U.S. Nuclear Regulatory Commission
One White Flint, North
11555 Rockville Pike,
Rockville, Maryland 20852

NRC Resident Inspector
Browns Ferry Nuclear Plant
Route 12, Box 637
Athens, Alabama 35609-2000

Mr. Thierry M. Ross, Project Manager
U. S. Nuclear Regulatory Commission
One White Flint, North
11555 Rockville Pike
Rockville, Maryland 20852

Mr. B. A. Wilson, Project Chief
U.S. Nuclear Regulatory Commission
Region II
101 Marietta Street, NW, Suite 2900
Atlanta, Georgia 30323