

TENNESSEE VALLEY AUTHORITY

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00T 06 1988

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

Gentlemen:

In the Matter of	)	Docket Nos. 50-259
Tennessee Valley Authority	)	50-260
	)	50-296

BROWNS FERRY NUCLEAR PLANT (BFN) UNITS 1, 2, AND 3 - NRC INSPECTION REPORT NOS. 50-259/87-33, 50-260/87-33, AND 50-296/87-33 - REVISED RESPONSE TO NOTICE OF VIOLATION

This letter provides a revised response to violation B (conduit sealing) of the subject inspection report which was transmitted in your letter from G. G. Zech to S. A. White dated November 19, 1987. Since our previous response to you on this violation, our restart date has slipped so that the conduit sealing work will not be completed by October 7, 1988. The conduit sealing work has been rescheduled and will be complete on unit 2 before restart.

Enclosure 1 provides background information and TVA's revised response to Violation B. A list of commitments is provided in enclosure 2.

If you have any questions, please telephone Carroll McFall (205) 729-2046.

Very truly yours,

TENNESSEE VALLEY AUTHORITY

*R. Gridley*  
 R. Gridley, Manager  
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 Regulatory Affairs

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

REVISED RESPONSE  
NRC INSPECTION REPORT  
NOS. 50-259/87-33, 50-260/87-33, 50-296/87-33  
LETTER FROM G. G. ZECH TO S. A. WHITE  
DATED NOVEMBER 19, 1987

### Violation B

10 CFR 50, Appendix B, Criterion V requires that activities affecting quality shall be accomplished in accordance with plant drawings. Plant drawing 45B891-1 provides information on electrical conduit sealing and note four of the drawing specifies sealing around cables inside conduits to keep water from entering electrical termination compartments.

Contrary to the above, this requirement was not met for the sealing of electrical conduit as required by plant drawing 45B891-1. After an inadvertent initiation of the fixed spray fire protection system on August 31, 1987, two of the scram discharge instrument volume instruments (3-LE-85-45J and 3-LE-85-45L) were found full of water. The conduit leading to the instruments was not sealed at the conduit opening leading from the respective cable tray. Conduit sealing problems were identified during a previous initiation of the fixed spray system as detailed in inspection report 86-16.

This is a Severity Level IV Violation.

#### 1. Admission or Denial of the Violation

TVA admits the violation.

#### 2. Reason for the Violation

After additional review of this problem, we have determined this to be an engineering problem. The drawing notes were not adequate to clearly communicate what conduits needed sealing. Drawing 45B891-1 shows typical details for waterproofing and sealing of electrical equipment. Note No. 1 on this drawing indicates that the details are to be utilized for electrical equipment defined in Appendix D of a Civil Engineering Branch (CEB) report detailing postulated pipe failure events outside containment. Waterproofing of electrical conduits around fire protection spray areas falls outside the scope of this report. The engineering drawings did not require conduits to be sealed that were not included in this CEB report including the conduit in question.

#### 3. Corrective Steps Which Have Been Taken and Results Achieved

After the inadvertent initiation of the fixed spray fire protection system on August 31, 1987, junction boxes and panels in the area of the fire protection spray were resealed. A preliminary review and field walkdown of some additional field installations revealed some conduits in fire protection spray areas as not being sealed. A Condition Adverse to Quality Report (CAQR) was written to track the resolution of the issue. This violation has been discussed with design, modifications, and maintenance engineers to ensure a clear understanding was reached on the problem.

TVA engineering has evaluated the CAQR and determined that for the long term it would be prudent to seal all conduits in fire protection spray areas. A Design Change Notice (DCN) has been issued by engineering to accomplish this on all three units.

4. Corrective Steps Which Will be Taken to Avoid Further Violations

The open head deluge type fire protection valves will be removed from service on unit 2 before its restart in association with Appendix R modifications except for areas on the south wall of the turbine building and the unit 3 diesel generator building. Conduits in the unit 2 reactor building and in the two areas that will still have open head deluge type fire protection valves will be sealed in accordance with drawing requirements before unit 2 restart.

Conduit sealing will be accomplished per the DCN on units 1 and 3 before startup of those units.

5. Date When Full Compliance Will Be Achieved

Before restart for unit 2. Conduit sealing will be accomplished per the DCN on units 1 and 3 before startup of those units.

ENCLOSURE 2

REVISED RESPONSE  
NRC INSPECTION REPORT  
NOS. 50-259/87-33, 50-260/87-33, 50-296/87-33  
LETTER FROM G. G. ZECH TO S. A. WHITE  
DATED NOVEMBER 19, 1987

LIST OF COMMITMENTS

Violation B

1. The open head deluge type fire protection valves will be removed from service on unit 2 before its restart in association with Appendix R modifications except for areas on the south wall of the turbine building and in the unit 3 diesel generator building.
2. Conduits in the unit 2 reactor building and in the two areas that will still have open head deluge type fire protection valves will be sealed in accordance with drawing requirements before unit 2 restart.
3. Conduit sealing will be accomplished per the DCN on unit 1 before its startup.
4. Conduit sealing will be accomplished per the DCN on unit 3 before its startup.