

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401

400 Chestnut Street Tower II

September 3, 1981

BLRD-50-438/81-53  
BLRD-50-439/81-55

Mr. James P. O'Reilly, Director  
Office of Inspection and Enforcement  
U.S. Nuclear Regulatory Commission  
Region II - Suite 3100  
101 Marietta Street  
Atlanta, Georgia 30303



91 SEP 8 P12:33

Dear Mr. O'Reilly:

BELLEFONTE NUCLEAR PLANT UNITS 1 AND 2 - FIREPROOFING MATERIAL APPLIED  
TO CONDUIT - BLRD-50-438/81-53, BLRD-50-439/81-55 - FIRST INTERIM REPORT

The subject deficiency was initially reported to NRC-OIE Inspector  
R. V. Crlenjak on August 4, 1981 in accordance with 10 CFR 50.55(e) as  
NCR 1528. Enclosed is our first interim report. We expect to submit our  
next report by October 21, 1981.

If you have any questions concerning this matter, please get in touch  
with D. L. Lambert at FTS 857-2581.

Very truly yours,

TENNESSEEE VALLEY AUTHORITY

*L M Mills by DSK*

L. M. Mills, Manager  
Nuclear Regulation and Safety

Enclosure

cc: Mr. Victor Stello, Jr., Director (Enclosure)  
Office of Inspection and Enforcement  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555

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ENCLOSURE  
BELLEFONTE NUCLEAR PLANT UNITS 1 AND 2  
FIREPROOFING MATERIAL APPLIED TO CONDUIT  
10 CFR 50.55(e)  
BLRD-50-438/81-53, BLRD-50-439/81-55  
FIRST INTERIM REPORT

Description of Deficiency

In Bellefonte Nuclear Plant's cable spreading room, exposed surfaces of steel require application of a fireproof coating. There are four voltage level circuits which are routed into this room. In order from lowest to highest voltage, these are identified as V1, V2, V3, and V4 circuits. These circuits are housed inside steel conduits. There are cases where conduits were installed before the design requirement to coat the exposed steel was implemented. In most cases, horizontal runs of conduits cross perpendicularly to and are attached to the horizontal steel beams, and in other cases the conduits penetrate the floor barrier. The fireproof coating was also applied to conduits at these locations.

However, before the fireproof coating application, it was determined that conduits containing voltage level V1, V2, and V3 circuits and their conduit supports could be coated with the appropriate thickness of fireproofing material. The V1, V2, and V3 voltage levels are used for instrumentation and control level circuits. These circuits are of low energy application and not subject to heat buildup. Conservatively, it was decided that conduits containing power cables should not be coated since the coating may cause an overheating problem in the installed cables. Inadvertently, some conduits containing voltage level V4 circuits were partially coated with Pyrocrete 241, a fireproofing material.

Interim Progress

TVA is evaluating the ampacities of power cables installed in conduits where the fireproof coating was inadvertently applied. Using the thermal conductivity of the fireproof material from the vendor's information and the full load current of the circuits involved, this evaluation will determine if the ampacities of the cables are acceptable.