

400 Chestnut Street Tower II

April 27, 1981

HTRD-50-518/81-10

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



Dear Mr. O'Reilly:

HARTSVILLE NUCLEAR PLANT UNIT A1 - REPORTABLE DEFICIENCY - UNFUSED
MATERIAL IN DRYWELL VENT STRUCTURE FRAME NO. 7 CLOSURE PLATE WELD -
HTRD-50-518/81-10

The subject deficiency was initially reported to NRC-OIE, Region II,
Inspector P. A. Taylor on March 30, 1981, as NCR HNPA-136. In
compliance with paragraph 50.55(e) of 10 CFR Part 50, we are
enclosing the first interim report on the subject deficiency. TVA
anticipates transmitting the final report on or before June 5, 1981.
If you have any questions, please call Jim Domer at FTS 857-2014.

Very truly yours,

TENNESSEE VALLEY AUTHORITY

L. M. Mills, Manager
Nuclear Regulation and Safety

Enclosure

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

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HARTSVILLE NUCLEAR PLANT A UNIT 1
UNFUSED MATERIAL IN DRYWELL VENT STRUCTURE FRAME
NO. 7 CLOSURE PLATE WELD
HTRD-50-518/81-10
10CFR50.55(e) REPORT NO. 1 (INTERIM)

Description of Deficiency

On March 25, 1981, the Quality Control Welding Unit (QCW) was notified by the ironworkers that unfused material had been discovered in the inner closure plates for the Frame No. 7 in the unit A-1 Drywell Vent Structure. Investigation by QCW personnel identified a triangular piece of metal which appeared to be a "slug" in the end of two, six-inch inner closure plates. This was the deficiency as originally reported to OIE Region II. However, further investigation into this matter has revealed that the unfused material was not caused by the vendor, Atlas Machine and Iron Works. The apparent unfused material was formed during thermal cutting by TVA to prepare base plate sections for welding. The unfused material was a plug between kerfs which had extended through the material intended to be cut and into the intersecting closure plates that were welded to the base plate.

The cause of this deficiency is under investigation at this time. Samples of closure plate containing the thermal cuts are being analyzed at TVA's Singleton Materials Engineering Laboratory (SMEL) to aid in the investigation. We anticipate the report of this analysis to be completed by May 1, 1981, at which time a more complete determination of the cause will be accomplished.

Corrective Action

NCR HNSA-136 is being revised to accurately describe the condition. The revision will also address the designer's approved disposition. A patch plate will be fabricated from A-36 steel, welded by approved procedure, and radiographed as required. Completion of the repair will be accomplished during normal construction activities and will be completed by July 1, 1981.

When the SMEL report is issued, a determination of the sequence of events can be accomplished. Appropriate measures to prevent a recurrence will be formulated after the cause has been accurately identified. The final report will include the complete cause and action to prevent recurrence.