

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401

5N 157B Lookout Place

OCT 17 1986

WBRD-50-390/86-14

U.S. Nuclear Regulatory Commission  
Region II  
Attention: Dr. J. Nelson Grace, Regional Administrator  
101 Marietta Street, NW, Suite 2900  
Atlanta, Georgia 30323

Dear Dr. Grace:

WATTS BAR NUCLEAR PLANT UNIT 1 - DISCREPANCIES INVOLVING QUALITY ASSURANCE  
CONDUIT SUPPORTS - EMPLOYEE CONCERNS IN-85-458-006 AND IN-85-118-006  
WBRD-50-390/86-14 - FOURTH INTERIM REPORT

The subject deficiency was initially reported to NRC-Region II Inspector Steve Weise on December 9, 1985 in accordance with 10 CFR 50.55(e) as NCR WBN 6463. Previous interim reports were submitted on January 24 and February 28, 1986. Inspector Bob Carroll was notified on February 6, 1986 of related NCR W-333-P. TVA's letter dated March 24, 1986 stated that rather than reporting it separately, this deficiency would be included as an item under NCR 6463. Our third interim report was submitted on June 5, 1986. Below is our fourth interim report.

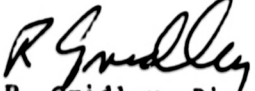
As stated in our last report on this deficiency, a sample reinspection of 60 supports was planned to determine the need for and scope of any further corrective actions. However, subsequent issues raised by the Watts Bar Startup Task Force, TVA's Division of Nuclear QA, and the Employee Concerns Task Group resulted in several hundred additional supports being reviewed with additional examples of deficiencies identified. As a result of these findings, TVA has decided to perform a 100 percent inspection of conduit supports (approximately 30,000). It is estimated that approximately 15,000 supports will require detailed reinspection by a QA inspector. Details of the inspection effort including; (1) attributes to be inspected, (2) procedures for inspection, and (3) acceptance criteria are currently under development. Because of the expanded scope of corrective actions, and extensive effort required to develop the SCR disposition, a final report cannot be provided at this time. Our final report will be submitted to NRC on or about January 23, 1987.

If there are any questions, please get in touch with J. A. McDonald at (615) 365-8527.

Very truly yours,

TENNESSEE VALLEY AUTHORITY

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R. Gridley, Director  
Nuclear Safety and Licensing

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U. S. Nuclear Regulatory Commission

OCT 17 1986

cc: Mr. James Taylor, Director  
Office of Inspection and Enforcement  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Records Center  
Institute of Nuclear Power Operations  
1100 Circle 75 Parkway, Suite 1500  
Atlanta, Georgia 30339

Mr. G. G. Zech  
Director, TVA Projects  
U.S. Nuclear Regulatory Commission  
Region II  
101 Marietta Street, NW, Suite 2900  
Atlanta, Georgia 30323

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**OCT 17 1986**

Director of Nuclear Reactor Regulation  
Attention: Mr. B. Youngblood, Project Director  
PWR Project Directorate No. 4  
Division of Pressurized Water  
Reactor (PWR) Licensing A  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Dear Mr. Youngblood:

In the Matter of the Application of ) Docket Nos. 50-390  
Tennessee Valley Authority ) 50-391

The subject of this letter is the Watts Bar response to the Three Mile Island (TMI) action item II.K.3.31. Please reference NRC Generic Letter 83-35 from D. G. Eisenhut, "Clarification of TMI Action Plan Item II.K.3.31," dated November 2, 1983, and the letter from L. D. Butterfield to J. Lyons, "Westinghouse Owners Group Transmittal of WCAP-11145," OG-190, dated June 11, 1986.

In the first reference, the NRC staff indicated that the resolution of TMI action plan item II.K.3.31 may be accomplished by generic analyses to demonstrate that the previous NRC approved WFLASH SBLOCA EM results were conservative when compared with the new NOTRUMP SBLOCA EM. Such generic studies were undertaken by the Westinghouse Owners Group (WOG) of which TVA is a participating member. The WOG has completed these generic studies and has submitted the results of the analyses to NRC in the Topical Report WCAP-11145 (second reference). The purpose of this letter is to inform you that TVA is referencing Topical Report WCAP-11145 in order to satisfy the requirements of TMI action item II.K.3.31 for Watts Bar in generic fashion in accordance with the first reference.

Topical Report WCAP-11145 documents the results of a series of SBLOCA analyses performed with the NRC approved NOTRUMP SBLOCA evaluation model. Cold leg break spectrum analyses were performed for the limiting SBLOCA plant from each of the Westinghouse 4-loop, 4-loop upper head injection (UHI), 3-loop and 2-loop plant categories. The limiting SBLOCA plant in each category was defined on the basis of previous SBLOCA analyses which were performed with the NRC approved WFLASH SBLOCA EM. In addition to the cold leg break spectrums, a hot leg and pump suction break were performed as part of the 4-loop plant analyses confirming that the cold leg was still the worst break location. Comparison of the NOTRUMP cold leg break spectrum results with the previously generated WFLASH results showed that the WFLASH results were conservative for all plant categories. In particular, the 4-loop UHI plant category results showed that the NOTRUMP SBLOCA EM calculated no core uncover for any of

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Director of Nuclear Reactor Regulation

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the SBLOCA transients analyzed, whereas the previous WFLASH analysis calculated partial core uncovering with a limiting peak clad temperature of 1499°F.

The generic results documented in WCAP-11145 demonstrate that a plant specific reanalysis of the 4-loop Watts Bar plant with the NOTRUMP SBLOCA EM would result in the calculation of a limiting peak clad temperature (PCT) which would be significantly lower than the 1434.8°F PCT currently calculated with the WFLASH SBLOCA EM. Hence, the WFLASH SBLOCA EM results which currently form the licensing basis for Watts Bar are conservative and still valid for demonstrating the adequacy of the emergency core cooling system to mitigate the consequences of an SBLOCA as required by 10 CFR 50.46. It is therefore concluded that a plant specific analysis is not needed in order for Watts Bar to comply with TMI action item II.K.3.31. Rather, TVA references WCAP-11145 in order to comply with TMI action item II.K.3.31 on a generic basis in accordance with reference 2.

In addition, Watts Bar intends to delete UHI as stated in my letter to you dated September 17, 1986. As part of the justification for removal of UHI, TVA will provide the results of a Watts Bar plant specific SBLOCA NOTRUMP analysis. This will be provided as part of the FSAR changes to be made supporting deletion of UHI.

If you have any questions on this topic, please get in touch with Martin Bryan at (615) 365-8819.

Very truly yours,

TENNESSEE VALLEY AUTHORITY

  
R. Gridley, Director  
Nuclear Safety and Licensing

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Region II  
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