

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401
5N 157B Lookout Place

February 13, 1986

WBRD-50-390/86-22
WBRD-50-391/86-18

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

06 FEB 20 P 3: 22

Dear Dr. Grace:

WATTS BAR NUCLEAR PLANT UNITS 1 AND 2 - INCORRECT USE OF TYPICAL SUPPORTS ON
INSTRUMENT SENSE LINES - WBRD-50-390/86-22, WBRD-50-391/86-18 - FINAL REPORT

The subject deficiency was initially reported to NRC-OIE Inspector
Al Ignatonis on January 13, 1986 in accordance with 10 CFR 50.55(e) as NCR WBN
6502 for unit 2. A similar deficiency identified for unit 1 in NCR 6597 is
included in this report. Enclosed is our final report.

If there are any questions, please get in touch with R. H. Shell at
FTS 858-2688.

Very truly yours,

TENNESSEE VALLEY AUTHORITY


R. L. Gridley
Manager of Licensing

Enclosure

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

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

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ENCLOSURE

WATTS BAR NUCLEAR PLANT UNITS 1 AND 2
INCORRECT USE OF TYPICAL SUPPORT ON INSTRUMENT SENSE LINES
WBRD-50-390/86-22, WBRD-50-391/86-18
NCRs WBN 6502 AND WBN 6597
10 CFR 50.55(e)
FINAL REPORT

Description of Deficiency

A walkdown of approximately 40 Watts Bar Nuclear Plant (WBN) unit 2 typical supports, as shown on TVA drawings 47A051-35 and -35A, identified seven supports which are providing axial restraint for more piping or tubing than allowed by the drawings. The affected typical supports are used to support various safety-related instrument sense lines. A similar deficiency has been identified for WBN unit 1 and has been documented in nonconformance report (NCR) 6597. TVA considers that other typical support installations per the 47A051-35 and -35A drawings could be affected.

TVA has determined that this deficiency is the result of a misinterpretation of the subject drawings. Table 1 of drawing 47A051-35 identifies that up to eight 1/2-inch pipes can be supported by a single typical support. However, note 2 on drawing 47A051-35A states that the support will only provide axial restraint for two 1/2-inch pipes or four 1/2-inch tubes. Apparently, note 2 was not applied to table 1 during the installation or inspection of affected supports.

Safety Implications

This deficiency could result in reduced factors of safety for affected supports, and in higher than allowable stress being induced in affected instrument sense lines. This potentially could result in failure of support anchor bolts or excessive deflection or yielding of the main structural members of affected supports. This could adversely affect the safe operation of the plant.

Corrective Action

TVA will identify all 47A051-35 typical supports which are not installed in accordance with drawings 47A051-35 and -35A. All deficient supports will be reworked to conform to drawing requirements; or deviation approval, via support variance sheets, will be obtained from TVA's Office of Engineering on a case by case basis. Subsequent to this effort, all 47A051-35 typical supports will be reinspected in accordance with WBN Quality Control Procedure (QCP) 3.11-1, "Inspection and Documentation of Instrumentation Supports," for unit 2 and Modifications and Additions Instruction MAI-16, "Removal, Installation, and Inspection of Seismic Supports," for unit 1 to ensure compliance with drawing requirements.

To prevent recurrence of this deficiency, involved WBN engineering and Instrumentation Quality Control personnel have been made aware of the subject deficiency. Also, WBN QCP- 3.11-1 is being revised to include specific inspection hold points to ensure that instrumentation support used as axial restraints meet applicable drawing requirements. No further actions to prevent recurrence will be taken.

All necessary corrective actions for this item will be completed by initial fuel loading for WBN unit 1 and 2 respectively.