

DOD

**TENNESSEE VALLEY AUTHORITY**

CHATTANOOGA, TENNESSEE 37401

5W 157B Lookout Place

**JUL 17 1986**

RECEIVED JUL 17 1986

WBRD-50-390/86-56

WBRD-50-391/86-53

**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:**

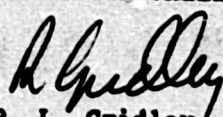
**WATTS BAR NUCLEAR PLANT (WBN) - UNITS 1 AND 2 - INSPECTION OF CATEGORY I AND  
I(L) LOCALLY MOUNTED INSTRUMENT BOLTING WBRD-50-390/86-56, WBRD-50-391/86-53 -  
INTERIM REPORT**

The subject deficiency was initially reported to NRC-Region II Inspector Art Johnson on June 9, 1986 in accordance with 10 CFR 50.55(e) as NCR W-411-P for unit 1. NCR WBN 6590 documents the same condition for unit 2. Enclosed is our interim report. We expect to submit our final report on or about October 31, 1986.

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

Very truly yours,

**TENNESSEE VALLEY AUTHORITY**

  
**R. L. Gridley, Director  
Nuclear Safety and 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  
INSPECTION OF CATEGORY I AND I(L) LOCALLY MOUNTED INSTRUMENT BOLTING  
WBRD-50-390/86-56, WBRD-50-391/86-53  
NCRs WBN 6590 AND W-411-P  
10 CFR 50.55(e)  
INTERIM REPORT**

**Description of Deficiency**

Locally mounted instruments mounted in category I structures at Watts Bar Nuclear Plant (WBN) were installed without performing all of the required inspections. Inspection and testing of bolt anchors set in hardened concrete, visual inspection of attachments to embedded features, and bolt and gap inspections for bolt anchor assemblies were not performed.

**Safety Implications**

Failure to perform adequate inspection and testing of bolt anchors for categories I and I(L) instruments results in inadequate assurance that the anchors will remain in place under affected design basis accident conditions. With the postulated failure of these concrete anchorages, the instruments would not be adequately supported. This could result in instrument inaccuracy or failure causing an inability to monitor and/or control system operations which could adversely affect the safe operation of the plant.

**Interim Progress**

For unit 2, TVA will reinspect locally mounted instruments mounted by bolt anchors set in hardened concrete or welded to embedded features in Category I structures. This includes any hangers fabricated and not documented under another program.

Any support which does not meet the inspection requirements will be reworked or details on the support may be provided to engineering for evaluation.

Applicable Nuclear Construction (NU CON) personnel will be retrained in WBN QCI-1.40 "Records Accountability Program" to ensure test requirements are identified. WBN QCP-3.06-9 "Instrument Installation and Tagging" has been written to clarify the tests required to seismically qualify hangers used in mounting instruments.

TVA is in the process of evaluating the subject deficiency for unit 1.

Our final report on this item will be provided to NRC on or about October 31, 1986.