TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401
400 Chestnut Street Tower II

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September 27, 1984

WBRD-50-390/84-42
WBRD-50-391/84-37

U.S. Nuclear Regulatory Commission
Region II
Attn: Mr. James P. O'Reilly, Regional Administrator
101 Marietta Street, NW, Suite 2900
Atlanta, Georgia 30323

Dear Mr. O'Reilly:

WATTS BAR NUCLEAR PLANT UNITS 1 AND 2 - DISCREPANCIES BETWEEN CABLE TRAY SUPPORTS AND SUPPORT DRAWINGS - WBRD-50-390/84-42, WBRD-50-391/84-37 - FINAL REPORT

The subject deficiency was initially reported to NRC-OIE Inspector P. E. Fredrickson on July 25, 1984 in accordance with 10 CFR 50.55(e) as NCR 5737 R1. Our first interim report was submitted on August 24, 1984. Enclosed is our final report.

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

Very truly yours,

TENNESSEE VALLEY AUTHORITY

L. M. Mills, Manager
Nuclear Licensing

Enclosure
cc: Mr. Richard C. DeYoung, 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
DISCREPANCIES BETWEEN CABLE TRAY SUPPORTS AND SUPPORT DRAWINGS
NCR 5737 R1
WBRD-50-390/84-42 AND WBRD-50-391/84-37
10 CFR 50.55(e)
FINAL REPORT

Description of Deficiency

During the as-constructed walkdown of cable tray supports below elevation 737 of the Auxiliary Building (shown on drawing series 48W1296), TVA determined that the installed configuration of a number of supports did not agree with the current drawing configuration. A sample of 168 supports resulted in the identification of 60 supports which were not configured to the current drawing series.

The supports involved were installed and originally inspected in the 1977-79 period, and a preliminary evaluation of this condition indicated that the problem was limited to supports above the 713 elevation floor slab and below elevation 737. However, revision 1 of this NCR was issued to include supports in the Reactor Building, Control Building, Intake Pumping Station, and the diesel generator building.

The apparent cause of this condition is that employees performing the original support inspections did not thoroughly verify configuration of the supports (including applicable field change requests (FCRs)) before accepting and documenting the supports.

Safety Implications

If this condition had remained uncorrected, various seismic category 1 cable tray supports would have been built to a configuration different from the support designs considered in the cable tray seismic analyses. As such, these supports could have then failed during a seismic event causing subsequent damage to various 1E cables inside the cable trays. This damage could have affected the safe operation of the plant, due to a loss of power through the 1E cables to the safety-related equipment.

Corrective Action

TVA has completed a detailed walkdown of cable tray supports in elevations 692, 713, 737, 757, and 772 of the Auxiliary Building, inside containment of the unit 1 Reactor Building, inside the Intake Pumping Station and inside the Diesel Generator Building. This walkdown encompassed a total of 2706 supports and identified approximately 686 discrepancies. Approximately 92 of these discrepancies will be handled thorugh the FCR procedure and work release program. The remaining discrepancies involve minor dimensional changes to design drawings which will be made through engineering change notice (ECN) 5040 for unit 1 and ECN 5042 for unit 2. TVA expects to complete all corrective action for unit 1 by October 15, 1984 and by March 1, 1985 for unit 2.