DMB

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401

5N 157B Lookout Place

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WBRD-50-390/86-61

AUG 22 1986

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 - CABLE CONFIGURATION CONTROL - WBRD-50-390/86-61 - INTERIM REPORT

The subject deficiency was initially reported to NRC-Region II Inspector Morris Branch on July 23, 1986 in accordance with 10 CFR 50.55(e) as SCRs EQP 8623, 8624, 8625, and 8628. Enclosed is our interim report. We expect to submit our next report on or about March 3, 1987.

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

Very truly yours,

TENNESSEE VALLEY AUTHORITY

J. A. Domer

R. L. Gridley, Director
Nuclear Safety and Licensing

Enclosure
cc (Enclosure):
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

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ENCLOSURE
WATTS BAR NUCLEAR PLANT UNIT 1
CABLE CONFIGURATION CONTROL
WBRD-50-390/86-61
SCR WBN EQP 8628 AND OTHERS
10 CFR 50.55(e)
INTERIM REPORT

Description of Deficiency

A review of 10 CFR 50.49 electrical cable related documents has identified various design and construction errors which would inhibit the establishment of the as-installed configuration or could potentially allow unacceptable installations. Records for 4,063 cables in unit 1 harsh environments out of an approximate total of 15,000 class 1E cables at WBN (both units) were reviewed and 217 documentation discrepancies were identified. The problems identified include such items as:

- Unavailable installation documentation (presumed lost) necessary to reflect the as-installed configuration.

- Installation documentation is not in accordance with the design documentation and no evidence of a field change request submitted to design.

- The cable reel number on pull card does not correspond to required cable mark number.

- Cable installation sheets and pull slips were handwritten or typed and did not agree with the design output.

- Incompatibilities existed between design cable routing programs and construction computer programs.

- Design does not adequately control the cable revision level.

- Construction personnel's capability to release a computer-generated hold, placed when an essential data field was changed, without revising the test revision level.

- Construction personnel did not ensure proper printer alignment, before printing pull slips, which resulted in missing/obliterated data.

- Design failure to adequately check the cable schedule resulted in miscellaneous data error.

- Failure to adequately document "extension wiring" (wiring used to extend the field cable when not long enough to terminate), as permitted by electrical standard drawing SD-E12.5.7-1.

Safety Implications

Failure to have correct data for class 1E cable records and proper documentation on QA installation records could lead to inadequate evaluation and/or analysis of the as-built configuration of the plant. Consequently, there is inadequate assurance that the as-built cabling could perform its design function under design basis accident conditions. Consequently, this condition could potentially adversely affect the safety of operations of the plant.

Interim Progress

TVA has formed a special task force to investigate the problems, determine the solutions and to initiate any necessary corrective actions as appropriate. The results of the task force efforts and any required corrective actions will be provided in a final report by March 3, 1987. In addition, TVA will evaluate this condition for applicability to unit 2.