

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401

400 Chestnut Street Tower II

November 29, 1982

WBRD-50-390/82-109

U.S. Nuclear Regulatory Commission
Region II
Attn: Mr. James P. O'Reilly, Regional Administrator
101 Marietta Street, Suite 3100
Atlanta, Georgia 30303

Dear Mr. O'Reilly:

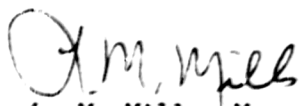
WATTS BAR NUCLEAR PLANT UNIT 1 - UNAUTHORIZED CONDUIT AND CABLE REWORK -
WBRD-50-390/82-109 - FINAL REPORT

The subject deficiency was initially reported to NRC-CIE Inspector
D. Quick on October 15, 1982 in accordance with 10 CFR 50.55(e) as NCR
4367R. Enclosed is our final report.

If you have any questions, please get in touch with R. H. Shell at
PTS 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

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ENCLOSURE

- WATTS BAR NUCLEAR PLANT UNIT 1
UNAUTHORIZED CONDUIT AND CABLE REWORK
NCR 4367R
WBRD-50-390/82-109
10 CFR 50.55(e)
FINAL REPORT

Description of Deficiency

Craft performed work without following established QA/QC procedures and without proper work releases or documentation. Cable 1-3V-3-3015B was cut and reterminated on 10-1-82 by the craft without notifying engineering and/or inspection. Upon the responsible engineer becoming aware of the cutting, he requested a reinspection of the cable by a Quality Control (QC) Inspector. When the QC Inspector reinspected the reterminated cable, it was found that the Craft had used the wrong lugs to terminate the cable. The QC inspector had the Craft remove the wrong size lugs and replace them with the correct size lugs, then he completed his reinspection.

Also, two other cables were cut and reterminated, one conduit was removed and replaced, and one conduit support was removed without following proper QA/QC procedures and without any other documentation of either the work or the inspection. All this occurred because Section 6.7.1.2 of WBNP-QCI-1.07 R3 was misinterpreted by engineering, craft, and Quality control inspection personnel. They had interpreted this section to allow rework without documentation if a QC inspector was present to witness the rework process. This exception only applies to functional testing when the rework is covered by the test procedures.

Safety Implications

Since cable 1-3V-3-3015B led to the main feedwater isolation (MFW) valve, the incorrect termination lugs could have resulted in the failure of the terminated cable and consequently, the inability of a safety-related component to function properly. Also, the removal of the conduit support left it with inadequate support and could result in failure of a conduit carrying safety-related cables.

Corrective Action

Procedure WBNP-QCI-1.07 is being revised to clarify requirements when immediate documentation is required for rework. It will be revised to clarify the fact that immediate documentation is not required during a functional test only but is required at all other times. Also, QCP's 3.03, 3.05, 3.06-3, 3.18, and QCT 3.06-4 are being revised to incorporate these changes. The involved QC inspectors, engineers, and craftsmen have been retrained to the requirements which will be contained in these revised procedures and instructions. Documentation on the cable will be completed and the conduit support will be replaced in accordance with the revised procedures. All work will be completed by January 8, 1983.