

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401

5N 157B Lookout Place

March 19, 1986

WBRD-50-390/86-18

U.S. Nuclear Regulatory Commission
Region II

Attention: Dr. J. Nelson Grace, Regional Administrator
101 Marietta Street, NW, Suite 2900
Atlanta, Georgia 30323

Dear Dr. Grace:


WATTS BAR NUCLEAR PLANT UNIT 1 - INTERNAL WIRING VERIFICATION ON MODIFIED
LOCAL INSTRUMENT PANELS - WBRD-50-390/86-18 - SECOND INTERIM REPORT

The subject deficiency was initially reported to NRC-OIE Inspector
Art Johnson on December 23, 1985 in accordance with 10 CFR 50.55(e) as NCR WBN
6433. Our first interim report was submitted on January 28, 1986. Enclosed
is our second interim report. We expect to provide our next report on or
about August 1, 1986.

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
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ENCLOSURE

WATTS BAR NUCLEAR PLANT UNIT 1
INTERNAL WIRING VERIFICATION ON MODIFIED LOCAL INSTRUMENT PANELS
WBRD-50-390/86-18
NCR WBN 6433
10 CFR 50.55(e)
SECOND INTERIM REPORT

Description of Deficiency

Field-mounted instruments on local panels which have been modified onsite reflect no evidence of required internal wiring verification. Instruments received onsite by the vendor are not required to have an initial wire check. However, when the instruments are modified, wiring on the floor-mounted local panels needs to be field verified per Watts Bar Nuclear Plant (WBN) Quality Control Procedure (QCP) 3.06-2 to assure that wire continuity exists and that the appropriate wire size qualified for its environment has been utilized. The apparent cause of this deficiency is failure to follow this procedure on the part of the responsible engineers for assuring the internal wiring verification was encoded into the construction accountability program.

Safety Implications

Nonqualified wiring or faulty wiring installed on the local panels could fail causing the involved safety-related instrument loops to become open, shorted, or inaccurate. This deficiency could result in the failure of instruments to perform their intended design functions, consequently resulting in a condition which could adversely affect the safe operations of the plant.

Interim Progress

TVA has determined that wiring in 33 out of 40 modified field mounted instruments on local panels is located in potentially harsh environments. Since documentation does not exist on the modified instrument panels, a verification will be conducted in order to determine if the wiring is suitable to perform its intended design functions in the environments in which it is located. The results of this evaluation will be provided to the NRC in our next report on or about August 1, 1986.

In order to prevent recurrence, TVA's Office of Construction (OC) has completed a retraining program for the engineering and craft personnel in QCP 3.06-2.