TENNESSEE VALLEY AUTHORITY
CHATTANOOGA, TENNESSEE 37401

5N 157B Lookout Place

JUL 23 1987

WBRD-50-390/87-15
WBRD-50-391/87-16

10 CFR 50.55(e)

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555

Gentlemen:

WATTS BAR NUCLEAR PLANT (WBN) - UNITS 1 AND 2 - AUXILIARY CONTROL CABLES ROUTED THROUGH THE CONTROL BUILDING - WBRD-50-390/87-15, WBRD-50-391/87-16 - INTERIM REPORT

The subject deficiency was initially reported to NRC-Region II Inspector Gordon Hunegs on July 1, 1987, in accordance with 10 CFR 50.55(e) as SCR WBN EEB 8701. Enclosed is our interim report. We expect to submit our next report on or about September 30, 1988.

If there are any questions, please telephone R. D. Schulz at (615) 365-8527.

Very truly yours,

TENNESSEE VALLEY AUTHORITY

R. Gridley, Director
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Enclosure
cc: See page 2

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U.S. Nuclear Regulatory Commission

JUL 23 1987

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ENCLOSURE
WATTS BAR NUCLEAR PLANT UNITS 1 AND 2
AUXILIARY CONTROL CABLES ROUTED THROUGH
THE CONTROL BUILDING
SCR WBN EEB 8701
WBRD 50-390/87-15 AND WBRD 50-391/87-16
10 CFR 50.55(e)
INTERIM REPORT

DESCRIPTION OF DEFICIENCY

A deficiency has been identified at Watts Bar Nuclear Plant (WBN) involving the Auxiliary (backup) Control System (ACS) electrical cables. The ACS must be operable from one or more locations external to the Control Building in the event that the Control Building must be evacuated. This requires that the auxiliary control locations be separated and wired such that the loss of use of the main control room will not prevent bringing the reactor to a safe shutdown condition. However, a total of approximately 30 unit 1 and unit 2 ACS cables have been identified as being routed through the cable spreading room in the Control Building. Since the majority of main control room cables also pass through the cable spreading room, which is one fire zone, then a fire in that location which could cause failure of the main control room cables could also cause concurrent failure of the ACS cables. An evaluation of failure effects of these cables indicated that approximately 11 of the cables are required to establish and/or maintain safe shutdown.

SAFETY IMPLICATIONS

Failure of the ACS cables concurrent with failure of the main control cables could lead to the inability to establish and/or maintain the plant in a safe shutdown condition due to the loss of control at both main and auxiliary control stations. Functions which would be lost due to failure of the ACS cables include main steam power operated relief valves, auxiliary feedwater control valves, and component cooling indication. This could adversely affect safe operation of the plant during an event which renders the main control room inoperable or inaccessible.

INTERIM PROGRESS

Specific corrective actions for this deficiency have not been determined. TVA is considering rerouting at least the 11 cables whose failure could preclude achieving and/or maintaining safe shutdown. TVA is currently assembling all requirements for the ACS and evaluations based on these requirements could lead to the rerouting of additional cables.

TVA will provide a final report on this item to NRC on or about September 30, 1988.