

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401
400 Chestnut Street Tower II

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34 OCT 2 P 1: 29 September 27, 1984

WBRD-50-390/84-38
WBRD-50-391/84-33

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:

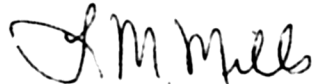
WATTS BAR NUCLEAR PLANT UNITS 1 AND 2 - CLASSES II AND III FIRE HOSE RACKS NOT
PROPERLY SPACED - WBRD-50-390/84-38, WBRD-50-391/84-33 - FINAL REPORT

The subject deficiency was initially reported to NRC-OIE Inspector
Dave Verrelli on July 30, 1984 in accordance with 10 CFR 50.55(e) as NCR
W-183-P. 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
 CLASSES II AND III FIRE HOSE RACKS NOT PROPERLY SPACED
 NCR W-183-P
 WBRD-50-390/84-38 AND WBRD-50-391/84-33
 10 CFR 50.55(e)
FINAL REPORT

Description of Deficiency

In letters from J. E. Gilleland to Roger S. Boyd dated April 18, 1977, and from L. M. Mills to A. Schwencer dated September 9, 1980, TVA committed to provide fire hose racks in safety-related areas of Watts Bar Nuclear Plant (WBN). The racks were to be located in accordance with National Fire Protection Association Standard (NFPA) 14. The commitment to NFPA 14 requires the racks to be located such that all portions of the safety-related plant areas can be reached by a 30-foot water stream from a maximum of 100 feet of fire hose.

Contrary to this commitment, the rooms tabulated below cannot be reached from the installed racks. The tabulation also identifies the angle valves associated with the nearest hose racks to each room and specifies the length of additional hose that would be required to reach the rooms.

Room(s)	Building	Elevation	Hose Rack Angle Valve	Additional Hose Required
Vital Battery Room II	Auxiliary	772	1-ISV-26-664	25'
Vital Battery Room III	Auxiliary	772	2-ISV-26-664	25'
Auxiliary Control Room and Auxiliary Control Instrument Rooms 1A, 1B, 2A, and 2B	Auxiliary	757	1-ISV-26-665 2-ISV-26-665	50' 50'
Computer Room	Control	708	0-SPV-26-1193 0-SPV-26-1188	50' 50'
Diesel Generator 480V Board Rooms 1A and 2B	Diesel Generator	760.5	0-SPV-26-1077	25'
Interface Room for 5th Emergency Diesel Generator	Diesel Generator	742	No hose rack provided within room	
Pipe Tunnel to Refueling Water Storage Tank	Auxiliary	692	No hose rack provided within tunnel	

TVA considers the failure to identify spacing deficiencies for fire hose racks a design oversight. Key individuals involved in the review of the hose rack design were aware of TVA's commitment to comply with NFPA 14. These individuals had performed a study to specifically verify proper spacing of the racks, but apparently failed to identify the subject deficiencies.

Safety Implications

Failure to meet the spacing requirements of NFPA 14 could result in the inability to readily extinguish a fire in a safety-related area. This could result in damage to essential safe shutdown equipment from the effects of the fire (e.g., smoke, heat, or ignition). This could adversely affect the ability to achieve and maintain a safe shutdown of the plant.

Corrective Action

TVA will add additional fire hose, in the required lengths, as applicable to the hose racks listed above. The pressure restricting valves on these racks will be readjusted to compensate for the additional hose length. The valve readjustment will be accomplished under TVA preoperational test No. 25B for WBN. The original acceptance criteria for setting the pressure restricting valves will be used.

The interface room for the fifth diesel generator and the tunnels for the refueling water storage tanks can be accessed through doors directly from the yard. Adequate hose coverage is provided for these areas through those doors and hatches by existing yard hydrants. TVA intends to take no further corrective action for these areas.

TVA has conducted a field verification to ensure that adequate hose coverage is provided for all safety-related areas of the plant. Because this item is considered a design oversight, this and the above-mentioned corrective actions are adequate to prevent recurrence of this deficiency. No further action to prevent recurrence is required.

The additional fire hose lengths for this deficiency is being done per Engineering Change Notice (ECN) 5106 and will be completed by October 5, 1984.