



Tennessee Valley Authority, Post Office Box 2000, Spring City, Tennessee 37381

DEC 06 1994

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

Gentlemen:

In the Matter of the Application of) Docket Nos. 70-2910
Tennessee Valley Authority) 70-2928

WATTS BAR NUCLEAR PLANT (WBN) - NRC INSPECTION REPORT 50-390/94-62,
50-391/94-62, 70-2910/94-01 AND 70-2928/94-01 - REPLY TO NOTICE OF
VIOLATION

The purpose of this letter is to provide TVA's reply to Notice of
Violation 70-2910/94-01-01, 2928/94-01-01 cited in the subject inspection
report. The violation concerns inadequate fire pump testing. TVA's
response to the violation is provided in Enclosure 1.

There are no commitments contained in this submittal. If you should have
any questions, contact Mr. P. L. Pace at (615) 365-1824.

Sincerely,

Dwight F. Nunn
Vice President
New Plant Completion
Watts Bar Nuclear Plant

Enclosure
cc: See page 2

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U.S. Nuclear Regulatory Commission
Page 2

DEC 06 1994

Enclosure

cc (Enclosure):

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ENCLOSURE
WATTS BAR NUCLEAR PLANT (WBN)

NRC INSPECTION REPORT
50-390/94-62, 50-391/94-62, 70-2910/94-01, AND 70-2928/94-01
RESPONSE TO VIOLATION 70-2910/94-01-01, 2928/94-01-01

DESCRIPTION OF VIOLATION

"During an NRC inspection conducted on September 23, October 3-7 and 17-21, 1994, a violation of NRC requirements was identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR 2 Appendix C, the violation is listed below:

Condition 9 of NRC License Nos. SNM-1861 and SNM-1873 requires, in part, that the receipt, possession, inspection, and storage of fuel be in accordance with the statements, representations, and conditions specified in TVA's application dated May 1, 1992, and supplements dated July 27 and October 8, 1992.

Paragraph 1.2.4 of the supplement to TVA's application dated October 8, 1992, states, in part, that the surveillance testing of fire protection equipment for the fuel storage areas on elevations 729 and 757 of the auxiliary building, including fire pump, fire mains, stand pipes and hoses, will be performed using the applicable National Fire Protection Association (NFPA) Codes as guidelines.

Section 11.3 of NFPA-20 Code, Centrifugal Fire Pumps, (1990 edition), requires that an annual flow test be conducted on fire pumps to determine the pumps' ability to continue to attain satisfactory performance at shutoff, rated and peak loads.

Contrary to the above, as of October 4, 1994, annual flow tests had not been conducted on the centrifugal fire pumps providing fire protection to the fuel handling areas of the auxiliary building to determine the pumps ability to attain satisfactory performance at shutoff, rated and peak loads. The most recent pump tests were as follows: Pump 1A-1 June 8, 1990 and February 16, 1994; Pump 1B-B March 1, 1990; Pump 2A-A June 6, 1990; and Pump 2B-B June 28, 1989.

This is a Severity Level IV violation (Supplement VI)."

ADMISSION OR DENIAL OF VIOLATION

TVA admits to the violation in that annual flow testing was not conducted in a manner to demonstrate that sufficient flow was achieved. However, TVA does not agree that the fire pumps are to be tested in accordance with all aspects of NFPA-20, especially those associated with testing at shutoff and peak loads.

In paragraph 1.2.4 of the supplement to TVA's Special Nuclear Material (SNM) application dated October 8, 1992, TVA stated that, "A fire pump, with a flow path to the hose stations listed [in the application], will be available." When TVA indicated in the October 8, 1992, submittal that fire pump testing

would be conducted using the applicable NFPA codes as guidelines, TVA did not intend to imply that testing would be performed in accordance with all aspects of NFPA-20. As discussed below, testing in this manner is not practical. TVA's commitment to perform fire pump testing using the applicable NFPA codes as guidelines was intended to be limited to performance of periodic testing needed to show that the pumps could deliver adequate flow to the listed hose stations.

Application of NFPA-20 testing methods (i.e., testing at shutoff and peak loads) should not be applied to the fire pumps. The pumps were not designed and built to NFPA-20 requirements and as such cannot be satisfactorily tested to meet NFPA-20 testing specifications at shutoff and peak loads. As described in the WBN Fire Protection Report (and the Final Safety Analysis Report previously), the fire pumps are ASME Section III, Seismic Category I pumps. The design and installation of the fire pumps has been previously approved by NRC (Reference NUREG-0847, WBN Safety Evaluation Report). TVA considers that the testing method for the fire pumps described in the WBN Fire Protection Report (i.e., single point testing at rated flow and pressure) is adequate.

REASON FOR THE VIOLATION

The reason for the violation was inadequate procedures. The procedures used to periodically demonstrate fire pump performance did not verify that system flow needs were met. TVA believed that the monthly fire pump testing performed in accordance with Plant Administrative Instruction (PAI)-7.05, "Special Nuclear Material (SNM) License Requirements," was sufficient to show that the fire pumps could perform their support function for the hose stations. PAI-7.05 requires a performance test to verify that the fire pumps achieve rated system pressure and that flow is present through the system pressure control valve. TVA believed that this monthly test satisfactorily met applicable NFPA guidelines for annual testing. However, TVA did not measure pump flow during the monthly test.

CORRECTIVE ACTION TAKEN AND RESULTS ACHIEVED

1. Flow verification and pressure testing for the WBN fire pumps was completed by October 8, 1994.
2. PAI-7.05 was revised to require an annual verification of design flow and pressure.

CORRECTIVE ACTION TAKEN OR PLANNED TO PREVENT FURTHER VIOLATION

The above corrective actions are considered to be adequate for preventing further violations. It should be noted that following licensing of Unit 1, fire pump flow verification and pressure tests will be conducted as described in the WBN Fire Protection Report.

DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED

Full compliance was achieved on October 8, 1994.