

**TENNESSEE VALLEY AUTHORITY**

CHATTANOOGA, TENNESSEE 37401

5N 157B Lookout Place

February 24, 1986

WBRD-50-390/86-26

WBRD-50-391/86-22

U.S. Nuclear Regulatory Commission  
Region II  
Attention: Dr. J. Nelson Grace, Regional Administrator  
101 Marietta Street, NW, Suite 2900  
Atlanta, Georgia 30323

06 FEB 27 11:04

Dear Dr. Grace:

WATTS BAR NUCLEAR PLANT UNITS 1 AND 2 - IMPROPER TORQUE SWITCH BYPASS SETTINGS  
- WBRD-50-390/86-26, WBRD-50-391/86-22 - INTERIM REPORT

The subject deficiency was initially reported to NRC-OIE Inspector Bob Carroll on January 24, 1986 in accordance with 10 CFR 50.55(e) as NCR W-330-P. Enclosed is our interim report. We expect to submit our next report on or about July 25, 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 (Enclosure):

Mr. James Taylor, Director  
Office of Inspection and Enforcement  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

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## ENCLOSURE

WATTS BAR NUCLEAR PLANT UNITS 1 AND 2  
IMPROPER TORQUE SWITCH BYPASS SETTINGS  
WBRD-50-390/86-26, WBRD-50-391/86-22  
NCR W-330-P  
10 CFR 50.55(e)  
INTERIM REPORT

### Description of Deficiency

The open torque switch bypass settings on some motor-operated gate valves at Watts Bar Nuclear Plant (WBN) have been identified as inadequate. The settings were determined in accordance with the governing procedures, TVA General Construction Specification G-50, and plant implementing documents, Program Element TSO4.02-06.14 and Maintenance Instruction 0.3. These procedures required the settings to be 2 to 3 percent of stem travel.

Thirty gate valves, classified as both CSSC (critical structures, systems, and components) and non-CSSC, were tested at WBN using the motor-operated valve analysis and test system (MOVATS). Of the 30 valves tested, 40 percent were not unseated by the time the torque switch was placed back in the circuit at the required 2 to 3 percent of stem travel. This could result in torque switch actuation prior to the gate unseating and could prevent the valve from opening.

This deficiency is not applicable to all motor-operated gate valves at WBN. In most CSSC gate valves, the bypass setting is irrelevant due to the torque switch being jumpered out in the open cycle. Also, Westinghouse EMD valves are not affected by this problem due to vendor-established settings.

### Safety Implications

The failure of a safety-related valve to open on demand could prevent the performance of a safety-related function. This could adversely affect the safety of operations of the plant.

### Interim Progress

TVA is in the process of identifying those motor-operated valves which are affected and determining adequate torque switch bypass settings for those valves. As part of TVA's review of NRC-OIE Bulletin 85-03, TVA has identified 21 motor-operated valves in the high pressure coolant injection and auxiliary feedwater systems, at WBN, which must be reviewed and have their design bases documented. That documentation will include the maximum differential pressure anticipated for each valve. The results of this review will be used to establish correct open torque switch bypass settings for each of the 21 identified valves, and will provide assistance in establishing correct switch settings for other affected motor-operated valves.

TVA will provide the next report to the NRC on this item on or about July 25, 1986.