

**TENNESSEE VALLEY AUTHORITY**

CHATTANOOGA TENNESSEE 37401

400 Chestnut Street Tower II

August 31, 1981

WBRD-50-390/81-55

WBRD-50-391/81-53

Mr. James P. O'Reilly, Director  
Office of Inspection and Enforcement  
U.S. Nuclear Regulatory Commission  
Region II - Suite 3100  
101 Marietta Street  
Atlanta, Georgia 30303



Dear Mr. O'Reilly:

WATTS BAR NUCLEAR PLANT UNITS 1 AND 2 - PUMPS ALIGNED WITH UNCALIBRATED  
DIAL INDICATORS - WBRD-50-390/81-55, WBRD-50-391/81-53 - FINAL REPORT

The subject deficiency was initially reported to NRC-OIE Inspector  
D. Quick on June 15, 1981 in accordance with 10 CFR 50.55(e) as  
NCR 3299R. Our first interim report was submitted on July 15, 1981.  
Enclosed is our final report.

If you have any questions, please get in touch with D. L. Lambert at  
PTS 857-2581.

Very truly yours,

TENNESSEE VALLEY AUTHORITY

A handwritten signature in cursive script, appearing to read "L. M. Mills".

L. M. Mills, Manager  
Nuclear Regulation and Safety

Enclosure

cc: Mr. Victor Stello, Director (Enclosure)  
Office of Inspection and Enforcement  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555

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## ENCLOSURE

WATTS BAR NUCLEAR PLANT UNITS 1 AND 2  
PUMPS ALIGNED WITH UNCALIBRATED DIAL INDICATORS  
WBRD-50-390/81-55, WBRD-50-391/81-53  
10 CFR 50.55(e)  
FINAL REPORT

### Description of Deficiency

Uncalibrated dial indicators were used to align pump couplings for the Component Cooling System, Chemical and Volume Control System, Safety Injection System, and Containment Spray System pumps. Procedure WBNP-QCP-1.12 states that calibrated instruments should be used by TVA's Division of Construction (CONST) in performing this work.

### Safety Implications

Misaligned pumps could result in premature failure of motors or bearings during operation. As these pumps are used in safety-related systems, their failure could prevent these systems from performing their intended safety functions.

### Corrective Action

QCP 4.48, attachment A, now has a requirement that dial indicators be calibrated and issued an ID number. All inspection employees have been instructed of the requirements of QCP 4.48.

A representative sample of one pump coupling per system for all safety-related systems will be realigned using calibrated dial indicators. The results of this sampling will be used to determine the acceptability of the past program.

The use of dial indicators for coupling alignment is a relative measurement. The calibration of the indicators is an absolute measurement and not a factor in final alignment. However, if any of the samples fail, a 100 percent reinspection of alignment will be performed on all pumps in all safety-related systems using calibrated dial indicators.

TVA will complete the sampling and any necessary corrective actions by November 30, 1981.