# TENNESSEE VALLEY AUTHORITY

CHATTANOOGA. TENNESSEE 37401 400 Chestnut Street Tower II

September 23, 1983

WBRD-50-390/83-33 WBRD-50-391/83-33

U.S. Nuclear Regulatory Commission Region II Attn: Mr. James P. O'Reilly, Regional Administrator 101 Marietta Street, NW, Suite 2900 Atlanta, Georgia 30303

Dear Mr. O'Reilly:

WATTS BAR NUCLEAR PLANT UNITS 1 AND 2 - MERIAM INSTRUMENT'S QA PROGRAM WBRD-50-390/83-33, WBRD-50-391/83-33- FINAL REPORT

The subject deficiency was initially reported to NRC-OIE Inspector Linda Watson on May 10, 1983 in accordance with 10 CFR 50.55(e) as NCR WBN Audit 83V-37, Deficiency No. 1. Our first interim report was submitted on June 9, 1983. 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
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#### **ENCLOSURE**

WATTS BAR NUCLEAR PLANT UNITS 1 AND 2
MERIAM INSTRUMENT'S QA PROGRAM
WBRD-50-390/83-33, WBRD-50-391/83-33
AUDIT 83V-37 DEFICIENCY NO. 1
10 CFR 50.55(e)
FINAL REPORT

## Description of Deficiency

Meriam Instruments of Cleveland, Ohio, supplied TVA with orifice plates ranging from two inches to two feet in diameter. These plates are used in safety-related systems such as the essential raw cooling water (ERCW) system. It has now been determined that the subject company did not implement the quality assurance program required by the contract (contract no. 73C38-83520-1).

### Safety Implications

Lack of assurance that contract requirements concerning the implementation of an approved quality assurance program could result in the receipt and installation of materials/components whose ability to function as designed would be questionable, thus adversely affecting the safe operation of the plant.

The use at Watts Bar Nuclear Plant of QA components manufactured by Meriam Instruments is limited only to the subject orifice plates procured on the subject contract.

TVA initiated a technical review of orifice plates purchased from Meriam Instruments and determined that Meriam needed to certify the following information to ensure that equipment received by TVA could be utilized as designed and fabricated: (1) the ASTM grade of materials used in the manufacture of the subject orifice plates; (2) the identification of instruments used to measure bore diameters and the tolerance of noted equipment; (3) a sample verification of bore design hand calculations previously submitted versus current computer calculations to determine the adequacy of design procedure. This information was requested in TVA's letter to Meriam Instruments dated June 16, 1983.

The vendor provided the certification required for (1) and (2) in a response letter to TVA dated July 15, 1983. A comparison of design calculations for (3) was submitted in Meriam's letter to TVA dated July 20, 1983. As a result of these submittals and TVA's technical review, TVA has determined that the subject orifice plates satisfy the technical requirements of the contract and that bore calculations were within the range necessary to meet the desired accuracy of orifice plates required by TVA's system designs. The vendor was notified of this determination by letter dated September 1, 1983.

#### Corrective Actions

TVA will close contract No. 73C38-83520-1 after completion of work required by change No. 38 to the contract. No safety-related orifice plates have been manufactured for TVA by Meriam Instruments since the subject audit. Since no further purchases on the noted contract will be made and the acceptability of previously shipped equipment has been determined, all corrective action for this deficiency is complete and no further action to prevent recurrence is necessary. TVA will verify implementation of Meriam Instruments' proposed quality assurance program for the manufacture of safety-related orifice plates on future TVA contracts.