

TENNESSEE VALLEY AUTHORITY

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CHATTANOOGA, TENNESSEE 37401

400 Chestnut Street Tower II

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WBRD-50-390/81-37 - 81-041-030 ✓  
WBRD-50-390/81-36 81-039-030 ✓



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 - INCOMPLETE DRAWING CONTROL COMPUTER  
PRINTOUT - WBRD-50-390/81-37, WBRD-50-391/81-36 - FINAL REPORT

The subject deficiency was initially reported to NRC-OIE Inspector  
R. V. Crlenjak on March 31, 1981, in accordance with 10 CFR 50.55(e) as  
NCR WBN MEB 8102. Our first interim report was submitted on April 30,  
1981. Enclosed is our final report.

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

Very truly yours,

TENNESSEE VALLEY AUTHORITY

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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51/0

## ENCLOSURE

WATTS BAR NUCLEAR PLANT UNITS 1 AND 2  
INCOMPLETE DRAWING CONTROL COMPUTER PRINTOUT  
WBRD-50-390/81-37, WBRD-50-391/81-36  
10 CFR 50.55(c)  
FINAL REPORT

### Description of Deficiency

TVA contract administration employees for piping greater than 2 inches in piping systems supplied under the principal piping contract, utilize a computer printout which lists all pertinent hanger drawings as a tool to track vendor drawing submittals. The printout is identified as the Materials Management System (MAMS) - Engineering Requirements Planning RPT4147, Status Report of Technical Information - Watts Bar. In December 1980, TVA started using the MAMS printout as the controlling document for construction drawing control. Construction was told to use the MAMS printout because the Drawing Information System (DIS) printout did not list all of the hanger drawings supplied by Bergen-Paterson (B-P). The DIS printout did not list all of the B-P drawings because some of the drawing sepia's were not of microfilmable quality and TVA does not formally accept such drawings until the quality of the sepia is improved to a microfilmable quality. Recently, it was discovered that the printout was missing some hanger drawings, and some drawings which were listed did not have any approval status designated. TVA design employees are required to input information into the MAMS to keep an up-to-date printout of all hanger drawings. Apparently, this was not done, and the incomplete printouts were issued to construction to be used as the controlling document.

### Safety Implications

Since the MAMS printout was not up to date, and is used by construction as the drawing control document, construction employees could have used out-dated drawings to install hangers. If the condition had gone uncorrected, hangers of deficient design could have been installed, such as hangers lacking seismic qualification. Some piping systems involved are essential safety-related systems.

### Corrective Action

TVA has decided that there is no reliable method available to update and correct the MAMS printout. Therefore, TVA has changed the drawing control document for use by construction from the MAMS printout to the B-P drawing index sheets.

The B-P drawing index is maintained by B-P engineering employees and is submitted to TVA with each B-P engineering submittal package. The index is revised each time a drawing listed on the index sheets is revised. The drawing index has been reviewed by B-P and has been determined to be up-to-date.

The appropriate design and construction management employees have been informed of the change in the drawing control document. This has been done in order to ensure that all employees involved either in the installation of hangers or the maintenance of hanger drawings are aware of the proper document to be used. This action was taken to ensure also that any hanger installation which was made, and any hanger record which was generated, using the MAMS printout, were reviewed to ensure that those actions were correct.

TVA design employees are comparing the B-P drawings on hand to the B-P drawing index to assure that all drawings on hand are listed and to allow any outdated drawing revisions to be discarded. Any drawing which does not appear on the B-P index will be handled and evaluated on a case-by-case basis to determine the appropriate disposition. When this is complete, the proper drawing revisions will be microfilmed and entered into the DIS for the permanent record. Design employees will provide construction with documentation to verify which drawings have been approved by design. These actions should be completed by September 15, 1981.

In order to prevent similar problems from occurring at other TVA nuclear plants, the Mechanical Engineering Branch (MEB) of TVA's Division of Engineering Design, has taken the following precautions: unstamped vendor drawings (or originals) will not be available for copying and distribution by MEB, and MEB contract employees are to ensure that all sepias/drawings are of microfilmable quality, thereby assuring that they are entered into the DIS printout.