

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401

400 Chestnut Street Tower II

September 30, 1983

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WBRD-50-390/81-31, WBRD-50-391/81-30
BLRD-50-438/81-28, BLRD-50-439/81-31

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:

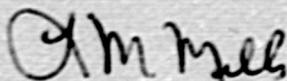
WATTS BAR AND BELLEFONTE NUCLEAR PLANTS UNITS 1 AND 2 - INCONSISTENT
ESTABLISHMENT OF INSPECTION PROGRAM - WBRD-50-390/81-31, WBRD-50-391/81-30,
BLRD-50-438/81-28, BLRD-50-439/81-31 - WATTS BAR FINAL AND BELLEFONTE
EIGHTH INTERIM REPORT

The subject deficiencies were initially reported to NRC-OIE Inspector
P. A. Taylor on March 24, 1981 in accordance with 10 CFR 50.55(e) as
WBN NEB 8108 and BLN NEB 8103. This was followed by our interim reports
dated April 12, June 9, and December 15, 1981, February 26, April 12,
July 20, and December 29, 1982 and April 22, 1983. This is our final
report for Watts Bar and our eighth interim report for Bellefonte. We
expect to submit our next report by June 21, 1984.

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 (Enclosure):

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

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Institute of Nuclear Power Operations
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ENCLOSURE

WATTS BAR AND BELLEFONTE NUCLEAR PLANTS UNITS 1 AND 2
INCONSISTENT ESTABLISHMENT OF INSPECTION PROGRAM
NCRs WBN NEB 8108 AND BLN NEB 8103
10 CFR 50.55(e)
WATTS BAR FINAL REPORT
BELLEFONTE EIGHTH INTERIM REPORT

Description of Deficiency

Before January 16, 1979, TVA's Office of Engineering Design and Construction (OEDC) Quality Assurance Procedure (QAP) OEDC-QAP 10.0, Revision 0, required that the Division of Construction (CONST) be responsible for providing construction inspection requirements. On January 16, 1979, OEDC-QAP 10.0 R1 was issued to require that the Division of Engineering Design (EN DES) supply inspection requirements to CONST. Subsequently, OEDC-QAP 10.0 R1 was superseded by the OEDC QA Program Requirements Manual (PRM) which also required that EN DES supply inspection requirements to CONST.

In actual practice, EN DES has specified certain inspection requirements (both general and specific) to CONST both before and since January 16, 1979, and CONST has implemented the requirements; however, EN DES has failed to develop a comprehensive, documented program to implement the OEDC PRM requirement. Therefore, EN DES's current program does not ensure that adequate inspection requirements are or have been supplied to CONST. As a result, it is possible that there are safety-related components/systems which have not been adequately inspected by CONST. This deficiency was brought about by a new requirement that was not recognized as a significant change from past practice.

Safety Implications

Since EN DES has failed to develop a documented program which would consistently establish inspection requirements of activities affecting quality for CONST, there could be components in essential safety-related systems that have not been adequately inspected. These components may be defective and could fail, which could result in multiple failures of safety-related systems. Such a condition could, if left uncorrected, jeopardize the safe operation of the plant.

Corrective Action - Watts Bar

As a result of the OEDC Action Plan for Quality Improvement, EN DES Action V-1, "Review of Process for Conveyance of Design Requirements," the following actions are complete or will be completed as noted for each:

1. Requirements Control and Use of the Construction Requirements Manual (CRM).
 - A. EN DES has taken responsibility for the CRMs for Watts Bar and later nuclear plants by issuance of EN DES Engineering Procedure (EP) 3.53, "Construction Requirements Manual, Preparation, Review, Approval, Issue, and Revision." A task group has been formed to expedite issuance of the Watts Bar CRM and the target issue date is December 29, 1983. Since EN DES-EP 3.53 contains adequate instruction for handling revisions to the CRM, the task group will be disbanded after the CRM is issued.
 - B. EN DES-EP 3.53, defining the EN DES responsibilities for the CRM, was issued July 20, 1983.
 - C. EN DES has prepared a preliminary listing of the types of design documents that transmit safety-related requirements to CONST and TVA's Division of Nuclear Power (NUC PR). This list will be checked, finalized, and included in the CRM which is being developed in accordance with EN DES-EP 3.53. The CRM will be distributed to CONST and NUC PR when issued. This list is expected to be contained in ID-QAP 2.8, "Requirements Control Program."
2. In accordance with EP 3.53, EN DES now reviews and concurs with the WBN QCIs and QCPs listed in the CRM. Any deficiency or problem encountered during the EN DES review is documented, evaluated, and resolved with CONST. Any new or revised CONST instructions or procedures which are referenced in the CRM as being the implementing procedure for an EN DES-specified inspection and related acceptance criteria are also reviewed by EN DES per EP 3.53.
3. EN DES responsibility in the PRM, 10 QPR-1 under establishment of inspection program was changed to read "Establish inspection and related acceptance criteria for inspections which are required by EN DES," on revision 2 issued January 11, 1983.
4. EN DES is presently reviewing, per EP 3.53, all safety-related construction specifications that are applicable to WBN. These specifications will be listed in the CRM. EN DES-EP 3.04, "EN DES Construction Specification - Preparation, Review, and Approval," and EN DES-EP 3.53 defines the method for writing, revising, and implementing future cost specifications.
5. TVA expects to issue the following interdivisional QA procedures to implement the above CRM program by November 14, 1983.
 - A. Comments are currently resolved prior to issuing ID-QAP 2.7, "Control of the Identification of Structures, Systems, and Components Within the Scope of the Licensed Quality Assurance Program for TVA Nuclear Plants."

- B. ID-QAP-2.8 will establish a requirement control program to implement and develop the CAM.
- C. It has been determined that a new ID-QAP for a control program to determine when new construction specifications are required, when revisions are required, and when they are to be implemented, is not needed.

Interim Progress - Bellefonte

TVA is still in the process of implementing a corrective action plan for Bellefonte similar to that noted above (for Watts Bar).

We expect to submit the final report to NRC after completion of action for Bellefonte.