

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401
400 Chestnut Street Tower II

84 JUN 25 12:42 June 20, 1984

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 30323

Dear Mr. O'Reilly:

BELLEVILLE NUCLEAR PLANT UNITS 1 AND 2 - INCONSISTENT ESTABLISHMENT OF
INSPECTION PROGRAM - BLRD-50-438/81-28, BLRD-50-439/81-31 - FINAL 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 and September 30, 1983. Our
final report for Watts Bar was submitted on September 30, 1983. Enclosed
is our final report for Belleville.

If you have any questions, please get in touch with R. H. Shell at
FTS 858-2688.

Very truly yours,

TENNESSEE VALLEY AUTHORITY

DS Kammer

for 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

Records Center
Institute of Nuclear Power Operations
1100 Circle 75 Parkway, Suite 1500
Atlanta, Georgia 30339

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ENCLOSURE

BELLEFONTE NUCLEAR PLANTS UNIT 1 AND 2
INCONSISTENT ESTABLISHMENT OF INSPECTION PROGRAM
NCR BLN NEB 8103
10 CFR 50.55(e)
FINAL 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 Subsequently, OEDC-QAP 10.0 R1 was superseded by the OEDC QA Program Requirements Manual (PRM) which also required that EN DES supply inspection requirements to CONST.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 had 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. Therefore, TVA did not have adequate assurance that these components were not defective and could not have failed, (with resulting multiple failures of safety-related systems). Such a condition could, if left uncorrected, jeopardize the safe operation of the plant.

Corrective Action

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 as noted for each:

1. Requirements Control and Use of the Construction Requirements Manual (CRM)
 - A. EN DES has taken responsibility for the CRM for Bellefonte Nuclear Plant by issuance of EN DES Engineering Procedure (EP) 3.53, "Construction Requirements Manual, Preparation, Review, Approval, Issue, and Revision." The CRM for Bellefonte was issued March 30, 1984.

- 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 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 was checked, finalized, and included in the CRM which was developed in accordance with EN DES-EP 3.53. The CRM has been distributed to CONST and NUC PR. This list will also be contained in Interdivisional Quality Assurance Procedure ID-QAP 2.8, "Requirements Control Program."
2. In accordance with EP 3.53, EN DES is now reviewing and approving the Bellefonte Quality Control Procedures (BLN QCP) listed in the CRM. All inspections performed before this problem was identified are judged to be adequate since the procedures that governed the inspection will now have EN DES approval. Any deficiency or problem encountered during the EN DES review is/will be documented, evaluated, and resolved with CONST. Any new or revised CONST 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 under establishment of inspection program, 10QPR-1 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-EP 3.04, "EN DES Construction Specification-Preparation, Review, and Approval," and EN DES-EP 3.53 define the method for writing, revising, and implementing future construction specifications.
 5. TVA issued the following interdivisional QA procedures when implementing the above CRM program:
 - A. ID-QAP 2.7, "Q List."
 - B. ID-QAP 2.8, "Control of design requirements for installation."