

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401
400 Chestnut Street Tower II

85 FEB 4 1985
BLRD-50-438/81-28, BLRD-50-439/81-31 - 58

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:

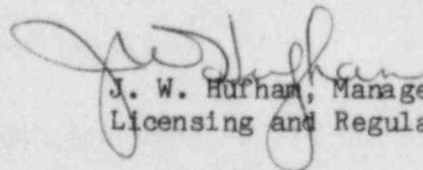
BELLEFONTE NUCLEAR PLANT UNITS 1 AND 2 - INCONSISTENT ESTABLISHMENT OF
INSPECTION PROGRAM - BLRD-50-438/81-28, BLRD-50-439/81-31 - REVISED FINAL
REPORT

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
NCR 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 as well as our final report
dated June 20, 1984. Enclosed is our revised final report for Bellefonte.

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

Very truly yours,

TENNESSEE VALLEY AUTHORITY


J. W. Hufham, Manager
Licensing and Regulations

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

8502210334 850129
PDR ADOCK 05000438
S PDR

OFFICIAL COPY

IC 27.11

ENCLOSURE

BELLEFONTE NUCLEAR PLANTS UNIT 1 AND 2
INCONSISTENT ESTABLISHMENT OF INSPECTION PROGRAM
NCR BLN NEB 8103
10 CFR 50.55(e)
REVISED FINAL REPORT

Description of Deficiency

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 Subsequently, OE-QAP 10.0 R1 was superseded by the OE QA Program Requirements Manual (PRM) which also required that OE supply inspection requirements to OC.

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

Safety Implications

Since OE had failed to develop a documented program which would consistently establish inspection requirements of activities affecting quality for OC, there could have been components in essential safety-related systems that had 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 OE Action Plan for Quality Improvement, OE 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. OE has taken responsibility for the CRM for Bellefonte Nuclear Plant (BLN) by issuance of OE Engineering Procedure (EP) 3.53, "Construction Requirements Manual Preparation, Review, Approval, Issue, and Revision." The CRM for BLN was issued March 30, 1984.

- B. OE-EP 3.53, defining the OE responsibilities for the CRM, was issued July 20, 1983.
 - C. OE has prepared a listing of the types of design documents that transmit safety-related requirements to OC and TVA's Office of Nuclear Power (NUC PR). This list was checked, finalized, and included in the CRM. The CRM has been distributed to OC 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 OE-EP 3.53, OE is now reviewing and approving the BLN quality control procedures (QCPs) listed in the CRM. The inspections performed before the implementation of EP 3.53 are judged to have been adequate based on the 100-percent review of QCPs by the onsite QA organization per Quality Assurance Staff Procedure (QASP) 4.2 and Construction Quality Assurance Procedure (CQAP) 7.09. The review process described in these procedures included consideration of the design requirements applicable to the procedure under review. In addition, the construction engineering and quality control personnel have completed a historical review of site procedures to ensure that all pertinent technical requirements were met. Any deficiency or problem encountered during the OE review is/will be documented, evaluated, and resolved with OC. Any new or revised OC procedures which are referenced in the CRM as being the implementing procedure for an OE-specified inspection and related acceptance criteria are also reviewed by OE per EP 3.53.
 3. OE 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 OE," on revision 2 issued January 11, 1983.
 4. OE-EP 3.04, "OES Construction Specification-Preparation, Review, and Approval," and OE-EP 3.53 defines 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, "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, "Requirements Control Program."