

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401
400 Chestnut Street Tower II

June 15, 1983

USNRC REGION II
ATLANTA, GEORGIA
83 JUN 16 P 8:59

BLRD-50-438/82-21
BLRD-50-439/82-19

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:

BELLEFONTE NUCLEAR PLANT UNITS 1 AND 2 - SEISMIC ANALYSIS OF THE
AUXILIARY-CONTROL BUILDING - BLRD-50-438/82-21, BLRD-50-439/82-19 -
FIFTH INTERIM REPORT

The subject deficiency was initially reported to NRC-OIE Inspector
Ross Butcher on February 26, 1982 in accordance with 10 CFR 50.55(e) as
NCR BLN CEB 8201. This was followed by our interim reports dated
March 26, July 22, September 20, and December 22, 1982. Enclosed is our
fifth interim report. We expect to submit our next report by June 22,
1984.

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

Very truly yours,

TENNESSEE VALLEY AUTHORITY

L. M. Mills

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
1100 Circle 75 Parkway, Suite 1500
Atlanta, Georgia 30339

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ENCLOSURE

BELLEFONTE NUCLEAR PLANT UNITS 1 AND 2
SEISMIC ANALYSIS OF THE AUXILIARY-CONTROL BUILDING
NCR BLN CEB 8201
BLRD-50-438/82-21, BLRD-50-439/82-19
10 CFR 50.55(e)
FIFTH INTERIM REPORT

Description of Deficiency

The original seismic analysis of the Bellefonte Nuclear Plant Auxiliary-Control Building was performed in 1973 and was based on issued concrete general outline feature drawings that were not intended for use by the Division of Construction (CONST). Subsequently, outline drawings for use by CONST were issued and, in portions of the building, significant changes in the structural configuration were made. However, the seismic analysis personnel were unaware of the changes made by the later drawings. While assessing the potential changes in the original seismic analysis, that the location of the postaccident sampling facility in this structure would make, the discrepancy between the original and later outline drawings was noted. Preliminary investigations indicate potential significant changes in the structural responses. Consequently, the results of the present seismic analysis do not adequately reflect those of the current geometry. A revised seismic analysis is required.

The cause of the deficiency was a failure to coordinate design changes with appropriate organizations in accordance with the Division of Engineering Design Procedure EP 4.01.

Interim Progress

The original seismic analysis report has been revised, design review meetings have been held with affected organizations to discuss the new analysis, and engineering change notice (ECN) 1551 has been initiated to ensure the construction of two walls required by the new analysis. Also, existing drawing review procedures are being revised to make sure that proposed structural modifications are evaluated for their effect on original seismic analyses.

Regarding generic concerns TVA is evaluating other structures at Bellefonte against the seismic analysis models and has completed a study at Watts Bar as delineated in the Division of Engineering Design (EN DES) Special Engineering Procedure 82-14. This study was used to determine if the present seismic analysis reports for Watts Bar reflected as-built structural conditions, and as a consequence of this study, nonconformance (NCR) WBN CEB 8301, "Seismic Analysis of the North Steam Valve Rooms," was written. NCR WBN CEB 8301 is being handled separately.