

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401  
400 Chestnut Street Tower II

July 21, 1983

BLRD-50-438/82-74  
BLRD-50-439/82-68

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 - FAILURE TO HAVE PROPER REVIEW OF  
DIAGRAMS - BLRD-50-438/82-74, BLRD-50-439/82-68 - FINAL REPORT

The subject deficiency was initially reported to NRC-OIE Inspector  
R. V. Crlenjak on October 27, 1982 in accordance with 10 CFR 50.55(e) as  
NCR BLN NEB 8219. This was followed by our interim report dated  
November 29, 1982. Enclosed is our final report.

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

*D S Kammer*

*for* 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  
FAILURE TO HAVE PROPER REVIEW OF DIAGRAMS  
NCR BLN NEB 8219  
BLRD-50-438/82-74, BLRD-50-439/82-68  
10 CFR 50.55(e)  
FINAL REPORT

### Description of Deficiency

TVA functional control logic diagrams (FCLD) revisions produced by the Bellefonte Design Project (BLP) are not being squadchecked to the Nuclear Engineering Support Branch (NEB).

BLP is not conforming to the intent of Engineering Design (EN DES) Engineering Procedure (EP) 4.04 (Section 3.2) and EP-1.28 (Section 5.8) by deleting previous reviewers from the review of revisions to TVA's FCLD's (e.g., TVA Drawing 2GW0900-KE-7, R5).

The cause of this problem is misinterpretations by BLP of EP-4.04 (Section 3.2) and EP-1.28 (Section 5.8). BLP felt that the EPs allowed it to designate any organization as "another responsible organization," and sole reviewer of the revised diagrams. BLP had designated the Electrical Engineering Support Branch (EEB) as the organization, and as a result, NEB was not included in the review cycle. This deficiency is applicable only to Bellefonte Nuclear Plant.

### Safety Implications

Failure to have proper review of a safety-related design could result in the construction and operation of a deficient system. A subsequent failure of this system to perform its intended safety function due to an unidentified design error could adversely affect safe plant operations.

### Corrective Action

To correct the improper squadchecking methods all revisions that were made by BLP to safety-related FCLDs that had previously been reviewed by NEB have been identified and squadchecked to NEB for comment. The only comments received from NEB were editorial and do not affect any other drawings on the safety function of the systems involved. BLP has agreed to incorporate some of the editorial comments in the next revision of the affected FCLDs.

To prevent recurrence of this deficiency, all BLP electrical personnel have been advised of the requirements for squadchecking a drawing to all organizations that have previously reviewed it. In addition, EP 4.04 was revised on April 13, 1983, to provide further clarification as to which organizations should be included in the review cycle.