

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401

400 Chestnut Street Tower II

July 11, 1984  
19:33

BLRD-50-438/84-24

BLRD-50-439/84-23

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 - STIFFENERS NOT INSTALLED TO  
REVISED DRAWING REQUIREMENTS - BLRD-50-438/84-24, BLRD-50-439/84-23 - FINAL  
REPORT

The subject deficiency was initially reported to NRC-OIE Inspector  
D. M. Verrelli on March 8, 1984 in accordance with 10 CFR 50.55(e) as NCR  
2922. This was followed by our interim report dated April 4, 1984.  
Enclosed is our final report.

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*  
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  
STIFFENERS NOT INSTALLED TO REVISED DRAWING REQUIREMENTS  
BLRD-50-438/84-24, BLRD-50-439/84-23  
NCR 2922  
10 CFR 50.55(e)  
FINAL REPORT

### Description of Deficiency

TVA nonconformance report (NCR) 1894 (BLRD-50-438/82-66, BLRD-50-439/82-59) identified a significant condition adverse to quality (CAQ) in which groove welds, as specified on TVA drawing series 4DW0760-X2, were made as fillet welds. The subject welds are cable tray support welds in the diesel generator building (DGB). As corrective action given in the final report to the NRC on NCR-1894, TVA committed to revise the drawing series 4DW0760-X2 and to rework the affected supports per those revised drawings. NCR 1894 was closed and signed off as having had all corrective action completed and inspected on June 16, 1983.

It has now been identified that none of the affected MK8C cable tray supports in the DGB have been reworked as was required by the revised 4DW0760-X2 drawing series. The rework involves the addition of stiffeners to the affected supports.

TVA has determined that the cause of this deficiency was an inadequate review of the revised 4DW0760-X2 drawing series by TVA's Division of Construction (CONST) engineering and craft personnel. This is in part due to the support design changes related to NCR 1894 being issued on an S1 engineering change notice (ECN). The S1 ECN is used to make minor revisions only and does not require coordination with groups outside of the originating organization. The design changes related to NCR 1894 dealt with weld details and the addition of stiffeners (which was not related to NCR 1894) was not coordinated with CONST. Thus, in reviewing the drawings for weld details, the addition of stiffeners was undetected by CONST personnel. Subsequently, the previously completed quality control documentation was not invalidated and the stiffeners were not added.

### Safety Implications

The failure to install cable tray supports per design requirements could result in an inadequate installation. This could result in a failure of the supports during a design basis event and the subsequent failure of the affected safety-related electrical systems. This could adversely affect the safe operation of the plant.

### Corrective Action

TVA has inspected all cable tray supports in the unit 1 DGB and no further discrepancies were found. Based on the inspection of the unit 1 DGB cable tray supports, TVA has determined that this deficiency is limited to the addition of stiffeners on 14 MK8C and MK8D supports (7 for each unit). These stiffeners are currently being installed per Bellefonte (BLN) Quality Control Procedure (QCP) 10.6, "Work Release."

BLN QCP-10.7, "Quality Assurance Records," was revised (revision 8) on May 16, 1984. This procedure now requires a review of all drawing revisions to check for configuration changes and the need to invalidate previous quality control (QC) inspections. This will require that QC records be invalidated upon the issue and review of revised drawings rather than waiting until preparation of the rework documentation. Additionally, TVA's Division of Engineering Design Engineering Procedure 4.02, "Engineering Change Notices - Handling," was revised on June 7, 1983. This revision changes the definition of an S1 ECN and more clearly defines the conditions under which it may or may not be used. These actions should prevent recurrence of this deficiency.

TVA will complete all necessary corrective actions for this item by August 20, 1984.