

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401
400 Chestnut Street Tower II

February 27, 1985

BLRD-50-438/84-51
BLRD-50-439/84-47

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U.S. Nuclear Regulatory Commission
Region II
Attn: Dr. J. Nelson Grace, Regional Administrator
101 Marietta Street, NW, Suite 2900
Atlanta, Georgia 30323

Dear Dr. Grace:

BELLEFONTE NUCLEAR PLANT UNITS 1 AND 2 - MISINTERPRETATION OF SUPPORT SPACING
REQUIREMENTS - BLRD-50-438/84-51, BLRD-50-439/84-47 - FINAL REPORT

The subject deficiency was initially reported to NRC-OIE Inspector
P. E. Fredrickson on October 5, 1984 in accordance with 10 CFR 50.55(e) as
NCR 3492. The first interim report was submitted November 5, 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

D. L. Lambert for

J. W. Hufham, Manager
Licensing and Regulations

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
MISINTERPRETATION OF SUPPORT SPACING REQUIREMENTS
BLRD-50-438/84-51, BLRD-50-439/84-47
NCR 3492
10 CFR 50.55(e)
FINAL REPORT

Description of Deficiency

Seismic cable tray supports at Bellefonte Nuclear Plant (BLN) have been located and installed by measurement of the distance between the inside edges of the support brackets. The supports should have been located by measurement of the distance between the center lines of the support brackets. BLN design criteria N4-50-D78 and various cable tray support drawings (X2 series) require a maximum of 8 feet of separation between supports. Additionally, BLN FSAR Section 3.10.3.1 states that cable tray supports will be spaced at a "maximum of 8 feet on centers." This condition has resulted in a center line to center line dimension in excess of 8 feet in some cases.

TVA has determined that the cause of this deficiency was BLN engineering's misinterpretation of the applicable design criteria as it applies to references to "clear span between supports." This misinterpretation resulted in the determination that the measurement was to be made between the inside edges of the support brackets.

Safety Implications

The subject deficiency, had it remained uncorrected, could possibly have resulted in the overloading of individual cable tray supports and/or overstressing of some cable tray spans during a seismic event. This potentially could have led to failure of the affected supports and/or cable trays. Should this have happened, the safety of operations of the plant could have been adversely affected.

Corrective Action

TVA has evaluated the subject nonconformance report (NCR) and determined that all cable tray supports placed to date that are spaced 8 feet maximum clear span between the inside edges of the support brackets are structurally adequate and may be used as built. NCR 3492 has been closed.

Future installations of cable tray supports will be installed in accordance with the requirements on civil drawings. Also, BLN quality control procedure (QCP) 3.7 has been revised to clarify the 8 feet spacing requirement. All applicable personnel have been retrained to the new revision.