

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401

400 Chestnut Street Tower II

85 FEB 29 1985
January 29 12:58

BLRD-50-438/85-04
BLRD-50-439/85-04

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:

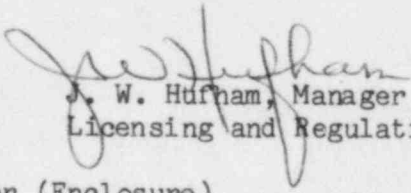
BELLEVILLE NUCLEAR PLANT UNITS 1 AND 2 - DEFICIENCIES IN THE APPLICATION OF THE
ALTERNATE ANALYSIS CRITERIA - BLRD-50-438/85-04 AND BLRD-50-439/85-04 - FIRST
INTERIM REPORT

The subject deficiency was initially reported to NRC-OIE Inspector
Al Ignatonis on December 17, 1984 in accordance with 10 CFR 50.55(e) as
NCR BLN CEB 8423. Enclosed is our first interim report. We expect to
submit our next report on or about October 31, 1985. A several day delay of
this submittal was discussed with Inspector Ignatonis on January 24, 1985.

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. Huffman, 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

8502200531 850129
PDR ADOCK 05000438
S PDR

OFFICIAL COPY

TEAT 11

ENCLOSURE
BELLEFONTE NUCLEAR PLANT UNITS 1 AND 2
DEFICIENCIES IN THE APPLICATION OF THE ALTERNATE ANALYSIS CRITERIA
BLRD-50-438/85-04, BLRD-50-439/85-04
NRC BLN CEB 8423
10 CFR 50.55(e)
FIRST INTERIM REPORT

Description of Deficiency

A review of the Bellefonte Nuclear Plant (BLN) alternate analysis program was undertaken as a result of a recommendation in category 12 of TVA's Task Force for review of Black and Veatch (B&V) findings. The BLN alternate analysis review has shown some technical deficiencies in analyses using TVA technical reports CEB 76-11 ("Alternate Criteria for Piping Analysis and Support") and CEB 78-11 ("Design Data for Support of Category I Stainless Steel and Copper Tubing") in the following areas:

1. Support design loads have not been conservatively evaluated for some cases of piping and tubing.
2. Support location requirements have not been satisfied for some piping.
3. The anchor movement flexibility evaluation for branch line/run line interfaces has not been conservatively evaluated for some cases.
4. Active valves have not been evaluated to ensure that active valve stress limits were not exceeded.
5. The insulation weights used in developing CEB 76-11 are unconservative for some cases.
6. Primary containment movements due to post-loss of coolant accident (LOCA) pressurization were not considered in the flexibility evaluation.
7. Wind loads were not evaluated for piping located outside category I structures.
8. High energy piping greater than 1 inch has not been coordinated with the pipe rupture group for pipe rupture considerations.
9. Free-end piping is not specifically addressed by the alternate criteria and may not have been conservatively evaluated.
10. Tubing is designated as "essential" or "nonessential" rather than category I, I(L), or I(S). This deviates from the requirements of N4-50-D754, "Design Criteria for the Classification of Piping, Pumps, Valves, and Vessels."