

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401
400 Chestnut Street Tower II

March 16, 1983

BLRD-50-438/83-22

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 UNIT 1 - INCORRECT THERMAL DATA IN PROBLEM
N4-1RK-A FROM PROGRAM "EZ" - BLRD-50-438/83-22 - FIRST INTERIM REPORT

The subject deficiency was initially reported to NRC-OIE Inspector
Linda Watson on February 16, 1983 in accordance with 10 CFR 50.55(e) as
NCR BLN CEB 8303. Enclosed is our first interim report. We expect to
submit our next report by April 19, 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, 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

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ATLANTA, GEORGIA

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ENCLOSURE

BELLEFONTE NUCLEAR PLANT UNIT 1
INCORRECT THERMAL DATA IN PROBLEM N4-1RK-A FROM PROGRAM "EZ"
NCR BLN CEB 8303
BLRD-50-438/83-22
10 CFR 50.55(e)
FIRST INTERIM REPORT

Description of Deficiency

Analysis problem N4-1RK has not been qualified for the thermal loading condition on essential air compressor system piping supports. In reviewing the issued analysis problem for Design Change Request (DCR) 2372, the results were found to be wrong due to the input of incorrect thermal data. This was a result of using an unverified program "EZ" and a lack of verification procedures for the "EZ" program in generating the input data.

Interim Progress

An in-depth study has been made into the deficiency. The thermal data which was input through the use of the "EZ" computer program has been hypothesized as being a thermal condition that could occur, but has not been documented. Because of the reviewer's unfamiliarity with the "EZ" computer program and lack of specific verification procedures for this program, the condition was not identified by the reviewer. If the hypothesized thermal condition can be documented as correct and the analysis rerun using the TPIPE computer program, it is believed that the resulting support design loads will be in reasonable agreement with the previously issued support design loads.

It is also believed that the pipe stress will be acceptable after the new resulting thermal range load case has been analyzed. The load case documentation and analysis rerun on TPIPE (which will include the thermal range evaluation) will be done to verify the "EZ" program. The "EZ" computer program is not known to be used on any other Bellefonte problem or problems for other TVA nuclear plant and will not be used for future analysis and therefore, no verification procedures development is needed.