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AUTH.NAME AUTHOR AFFILIATION
MILLS,L.M. Tennessee Valley Authority
RECIP.NAME RECIPIENT AFFILIATION
O'REILLY,J.P. Region 2, Atlanta, Office of the Director

SUBJECT: second interim deficiency rept re unacceptable pipe break interations,iinitially reported 810127.Engineering change notices initiated to alleviate potential problems from chilled or demineralized water.Next rept by 811222.

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TITLE: Construction Deficiency Report (10CFR50.55E)

NOTES:

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INTERNAL:	ASLBP/J.HARD		1	1	D/DIR HUM FAC	15	1	1
	EDO & STAFF	19	1	1	EQUIP QUAL BR	11	1	1
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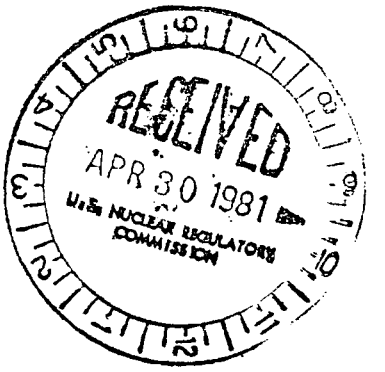
TENNESSEE VALLEY AUTHORITY

400 Chestnut Street Tower II

April 27, 1981



BLRD-50-438/81-13
BLRD-50-439/81-13

Mr. James P. O'Reilly, Director
Office of Inspection and Enforcement
U.S. Nuclear Regulatory Commission
Region II - Suite 3100
101 Marietta Street
Atlanta, Georgia 30303

Dear Mr. O'Reilly:

BELLEFONTE NUCLEAR PLANT UNITS 1 AND 2 - UNACCEPTABLE PIPE BREAK INTERACTIONS - BLRD-50-438/81-13, BLRD-50-439/81-13 - SECOND INTERIM REPORT

The subject deficiency was initially reported to NRC-OIE Inspector R. W. Wright on January 27, 1981, in accordance with 10 CFR 50.55(e) as NCR BLN BLP 8003. This was followed by our first interim report dated February 24, 1981. Enclosed is our second interim report. We expect to submit our next report by December 22, 1981.

If you have any questions concerning this matter, please get in touch with D. L. Lambert at FTS 857-2581.

Very truly yours,

TENNESSEE VALLEY AUTHORITY

L. M. Mills, Manager
Nuclear Regulation and Safety

Enclosure
cc: Mr. Victor Stello, Jr., Director (Enclosure)
Office of Inspection and Enforcement
U.S. Nuclear Regulatory Commission
Washington, DC 20555

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ENCLOSURE

BELLEFONTE NUCLEAR PLANT UNITS 1 AND 2
UNACCEPTABLE PIPE BREAK INTERACTIONS
BLRD-50-438/81-13, BLRD-50-439/81-13
10 CFR 50.55(e)
SECOND INTERIM REPORT

Description of Deficiency

Unacceptable pipe break interactions were discovered in the Auxiliary Building Electrical Equipment Trained Area (elevations 649 and 669) during postulation of pipe break interactions. An inspection at the site confirmed the discovery of the design evaluation. Chilled water, demineralized water, and fire protection piping was not routed in accordance with Design Criteria for Auxiliary Building ESF Zone Environmental Control System, N4-VW-D740, which requires piping to be routed to prevent damage to electrical equipment unless spray shields are provided. This error is attributed to an incorrect assumption that the electrical equipment cabinets are qualified to withstand a water spray environment (NEMA 4 rating). These equipment cabinets have a NEMA rating of 1 which will allow water to enter and possibly damage the electrical equipment.

Interim Progress

TVA has initiated several engineering change notices (ECN), listed below to alleviate the potential problem of unacceptable pipe break interactions from chilled water, demineralized water, and fire protection system piping with essential electrical equipment.

Chilled Water Piping

An ECN has been issued to add spray shields and drain pans to piping to prevent spraying of class IE equipment. The shield design for pipes will be tested before implementing design drawing changes.

Demineralized Water Piping

An ECN has been issued to remove, relocate, and shield piping to prevent spraying of class IE equipment.

Fire Protection Piping

An ECN has been issued to add deluge valves to standpipes to maintain dry standpipes above elevation 649. Some fire protection piping will be rerouted.