

TENNESSEE VALLEY AUTHORITY
USNRC REGION II
CHATTANOOGA, TENNESSEE 37401
400 Chestnut Street Tower II, GEORGIA

July 27, 1983
83 JUL 29 P4:07

BLRD-50-438/82-52

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 - FAILED VALVE CONTROL UNIT -
BLRD-50-438/82-52 - FOURTH INTERIM REPORT

The subject deficiency was initially reported to NRC-OIE Inspector R. V. Crlenjak on July 27, 1982 in accordance with 10 CFR 50.55(e) as NCR 1891. This was followed by our interim reports dated August 25, and October 20, 1982 and January 24, 1983. Enclosed is our fourth interim report. We expect to submit our next report by November 23, 1983. We consider 10 CFR Part 21 applicable to this deficiency.

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

DS Kammer

for 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

ENCLOSURE

BELLEFONTE NUCLEAR PLANT UNIT 1
FAILED VALVE CONTROL UNIT
NCR 1891
BLRD-50-438/82-52
10 CFR 50.55(e)
FOURTH INTERIM REPORT

Description of Deficiency

The large expansion valve control unit, supplied by Air Conditioning, Refrigeration and Combustion, Incorporated (ARC) of Knoxville, Tennessee, and manufactured by Dunham-Bush, for the water chiller (1VE-MCHL-172-B) in the Auxiliary Building Air Conditioning System failed. This item regulates the refrigerant to the chiller which provides cooling for safety-related equipment.

The control unit is an electronic device with a limited shelf-life. Failure appears to be attributable to three to four years of inactivity of the electronic parts inside the sealed control unit. This problem has occurred on one other unit, and we believe that this condition could be a generic problem for all of these chillers.

Interim Progress

The vendor has replaced the defective control unit with a working one and TVA has requested that an analysis be performed to determine the cause of the failure, the internal components that failed, and what actions would be taken to prevent recurrence.