

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401

400 Chestnut Street Tower II

February 24, 1982

BLRD-50-438/81-37

BLRD-50-439/81-40

U.S. Nuclear Regulatory Commission
Region II

Attn: Mr. James P. O'Reilly, Regional Administrator
101 Marietta Street, Suite 3100
Atlanta, Georgia 30303

Dear Mr. O'Reilly:

BELLEfonte NUCLEAR PLANT UNITS 1 AND 2 - GE RELAY DEFICIENCY -
BLRD-50-438/81-37, BLRD-50-439/81-40 - FINAL REPORT

The subject deficiency was initially reported to NRC-OIE Inspector R. V. Crlenjak on May 13, 1981, in accordance with 10 CFR 50.55(e) as NCR BLN EEB 8101. This was followed by our interim reports dated June 12 and September 16, 1981. Enclosed is our final report. 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

L. M. Mills

L. M. Mills, Manager
Nuclear Regulation and Safety

Enclosure

cc: Mr. Richard C. DeYoung, 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
GE RELAY DEFICIENCY
BLRD-50-438/81-37, BLRD-50-439/81-40
10 CFR 50.55(e)
FINAL REPORT

Description of Deficiency

General Electric (GE) service advice letter PSM-721-152.2, HFA Relay Coils, dated November 21, 1980 identifies the potential for coil failure of GE type HFA relays manufactured between 1974 and 1979. The Lexan coil spools of these relays are susceptible to stress cracks and embrittlement caused by thermal aging and improper mixing of the Lexan. This nonconformance is significant in that a cracked coil spool could result in improper relay function upon energization or deenergization of the relay. GE type HFA relays (66 Class IE and 38 non-Class IE) were furnished only in 6.9 kV and 13.8 kV switchgear supplied by Brown Boveri Electric, Incorporated (BBE), on contract 75K5-85583.

Safety Implications

Failure of the subject relays could degrade the auxiliary power system or affect the operation of related components. This condition could adversely affect the safe operation of the plant.

Corrective Action

TVA has accepted BBE's proposal to furnish the GE Century series coil with Tefzel spool and high-temperature wire for replacement of existing hardware in HFA relays covered by this nonconformance. This corrective action is in accordance with GE's recommendation. TVA will perform the labor to change out these coils. GE has changed the spool materials to Tefzel on all HFA relays manufactured since January 1979 to correct this deficiency. BBE has furnished instruction manuals applicable to "Century Series" HFA relays. TVA has approved the instruction manuals and has initiated necessary drawing revisions. Expected completion date for installation of replacement parts is December 10, 1982.

Other TVA nuclear projects are being surveyed to determine if relays manufactured during the time span stated in the GE service advice letter were supplied to these projects. This survey will be completed by June 16, 1982, and nonconformances written as required.