

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401
400 Chestnut Street Tower II

September 11, 1981

BLRD-50-438/81-08

BLRD-50-439/81-08

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:

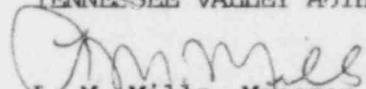
BELLEFONTAINE NUCLEAR PLANT UNITS 1 AND 2 - SOLID STATE AC VOLTAGE RELAYS -
BLRD-50-438/81-08, BLP-50-439/81-08 - THIRD INTERIM REPORT

The subject deficiency was initially reported to NRC-OIE Inspector M. Thomas on January 2, 1981 in accordance with 10 CFR 50.55(e) as NCR BLN BLP 8012. This was followed by our interim reports dated February 2 and May 14, 1981. Enclosed is our third interim report. We expect to submit our next report by March 2, 1982. We consider 10 CFR Part 21 to be applicable to this deficiency.

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, 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
SOLID STATE AC VOLTAGE RELAYS
BLRD-50-438/81-08, BLRD-50-439/81-08
10 CFR 50.55(e)
THIRD INTERIM REPORT

Description of Deficiency

The solid state ac voltage relays used on the 6.9 kV Class IE switchgear require a source of dc control power for proper operation. The present design configuration of the relays utilizes a contact from the undervoltage relay to energize an auxiliary relay upon detection of an undervoltage condition. The auxiliary relay initiates alarms and breaker trips. However, when dc control power is lost and then restored (such as might accompany a bus transfer), the auxiliary relay will become energized long enough to initiate the supply feeder breaker trip sequence even though an actual undervoltage condition does not exist. If this were to occur at a time when offsite power was not available and the source of power was the emergency onsite power source (diesel generator), this condition would lead to the inadvertent isolation of a 6.9 kV Class IE switchgear board. In this instance, the boards would have to be manually reconnected.

The 6.9 kV switchgear was designed and supplied by Gould-Brown Boveri, Westminster, Maryland.

Interim Progress

TVA shipped part of these relays back to the vendor (Brown Boveri Electric) for factory modification on July 9, 1981. The remaining relays will be shipped to the factory in groups of 24 as modified relays are returned. The vendor is being requested to expedite completion of the relay modifications.