

TENNESSEE VALLEY AUTHORITY
CHATTANOOGA, TENNESSEE
37401



November 21, 1973

Mr. John F. O'Leary, Director
Directorate of Licensing
Office of Regulation
U.S. Atomic Energy Commission
Washington, DC 20545

Dear Mr. O'Leary:

TENNESSEE VALLEY AUTHORITY - BROWNS FERRY NUCLEAR PLANT UNIT 1 -
DOCKET NO. 50-259 - FACILITY OPERATING LICENSE DPR-33 - ABNORMAL
OCCURRENCE REPORT BFAO-7336W

The enclosed report is to provide details concerning HPCI inverter
power supply fuse failure on Browns Ferry Nuclear Plant unit 1 on
November 14, 1973, and is submitted in accordance with Appendix A
to Regulatory Guide 1.16, Revision 1, October 1973.

Very truly yours,

TENNESSEE VALLEY AUTHORITY

Director of Power Production

Enclosure

CC (Enclosure):

Mr. Norman C. Moseley, Director
Region II Regulatory Operations Office, USAEC
230 Peachtree Street, NW.
Atlanta, Georgia 30303

8311090445 731121
PDR ADDCK 05000259
S PDR



ABNORMAL OCCURRENCE REPORT

Report No.--BFAO-7336W
Report Date--November 21, 1973
Occurrence Date--November 14, 1973
Facility--Browns Ferry Nuclear Plant

Identification of Occurrence

HPCI inverter power supply fuse failure.

Conditions Prior to Occurrence

The reactor was in the hot-standby condition at approximately 300 psig.

Description of Occurrence

At 10:00 a.m., the HPCI inverter power supply fuse failed. The fuse was immediately replaced making the system operable. The fuse blew again at 10:45 a.m.. The fuse was again replaced making the system operable.

Designation of Apparent Cause of Occurrence

At the time of the occurrence, plant employees were conducting Surveillance Instruction 4.2.B-26, to check newly installed 1/4-ampere switches (see BFAO-7332W). A high voltage spike was experienced when the contacts in this instrumentation were opened, thus deenergizing the relay which actuates on condensate header low pressure. This relay is a part of the HPCI logic and is on the same 250V d-c bus as the inverter circuit.

Analysis of Occurrence

During the brief interval between fuse failure and replacement, all remaining safety systems were available. After the second failure, all work on Surveillance Instruction 4.2.B-26 was terminated until the problem was corrected.

Corrective Action

A spike suppressor was placed across the coil of the relay. When tested several times, the suppressor greatly reduced the spike experienced when the relay was deenergized and fuse failure did not occur.

Failure Data

A record of previous failures can be found in BFAO-739W, BFAO-7318W, and BFAO-7329W. The nameplate data for the inverter power supply is as follows:

Topaz, Model 500-GWD-250-60-115, Serial No. 7044