

TENNESSEE VALLEY AUTHORITY
CHATTANOOGA, TENNESSEE
37401



January 17, 1974

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-743W

The enclosed report is to provide details concerning LPCI break
detection pressure switches not in service which occurred on Browns
Ferry Nuclear Plant unit 1 on January 9, 1974, and is submitted in
accordance with Appendix A to Regulatory Guide 1.16, Revision 1,
October 1973.

Very truly yours,

TENNESSEE VALLEY AUTHORITY

E. F. Thomas
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



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ABNORMAL OCCURRENCE REPORT

Report No.--BFAO-743W
Report Date--January 17, 1974
Occurrence Date--January 9, 1974
Facility--Browns Ferry Nuclear Plant unit 1

Identification of Occurrence

LPCI break detection pressure switches not in service.

Conditions Prior to Occurrence

Reactor at 50-percent power during startup test program.

Description of Occurrence

During routine surveillance testing of the LPCI logic on January 9, 1974, reactor pressure switches PS-3-186A and -186B were found valved out of service.

The pressure switches had been isolated to permit work to be performed during a recent outage. They were not valved back into service when the work was completed.

Analysis of Occurrence

The pressure switches operate relays that are arranged in a one out of two taken twice logic in the LPCI break detection system. This logic is used to delay loop selection upon receipt of an accident signal until reactor pressure drops below 900 psig. It is effective if one recirculation pump is running and is used to optimize loop selection sensitivity.

Although the reduced reactor pressure requirement was bypassed due to the isolated pressure switches, a 2-second time delay was still available to remove initial perturbations and allow momentum effects to settle before loop selection is initiated by the d/p switches on the recirculation loop risers.

Corrective Action

All other instruments (134) that were isolated during the outage were checked and found in service. Instructions are being revised to include additional controls requiring certification of proper instrument alignment following maintenance work.