

TENNESSEE VALLEY AUTHORITY  
CHATTANOOGA, TENNESSEE  
37401



May 15, 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-7425W

The enclosed report is to provide details concerning HPCI system which failed to deliver water to the reactor when initiated on low water level following a reactor scram. This event occurred on Browns Ferry Nuclear Plant unit 1 on May 5, 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., Suite 818  
Atlanta, Georgia 30303

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## ABNORMAL OCCURRENCE REPORT

Report No.: BFAO-7425W  
Report Date: May 15, 1974  
Occurrence Date: May 5, 1974  
Facility: Browns Ferry Nuclear Plant unit 1

### Identification of Occurrence

HPCI system failed to deliver water to the reactor when initiated on low water level following a reactor scram.

### Conditions Prior to Occurrence

Startup testing affecting the feedwater system was being conducted. The testing caused feedwater system fluctuations and low reactor water level with a consequent scram. The unit was operating at approximately 92-percent power at the time of scram.

### Description of Occurrence

The HPCI system was initiated by low water level following a scram at 8:43 a.m. on May 5, 1974. The system attempted to start but tripped off. It was placed on manual control and was started. It was utilized satisfactorily in the manual mode to assist in regulating vessel water level. When no longer needed for service, it was shut down.

Following shutdown, it was noticed that the inverter power supply fuse alarm was annunciated. The system was declared inoperable at 10:55 a.m.

### Designation of Apparent Cause of Occurrence

An investigation was conducted to determine the cause of the HPCI trip. No absolute cause was determined. One possibility was an overspeed trip of the machine; however, overspeeding could not be confirmed.

### Analysis of Occurrence

During the brief interval between the HPCI trip and manual actuation and the period involving the failed fuse, all remaining safety systems were available. Vessel water level was controlled at all times by other systems, and there were no adverse consequences experienced.

### Corrective Action

The inverter power supply was checked and nothing was found amiss. The output leads from the power supply were lifted, and the circuit was checked for grounds or shorted conditions with all results satisfactory. The leads were connected and a new fuse satisfactorily installed. The power supply reacted satisfactorily to checks; and the system was declared operable at 12:20 p.m. on May 5, 1974. The power supply will be instrumented in order to further determine the cause of the fuse failure.

Corrective Action (continued)

The HPCI operated satisfactorily when automatically initiated following a subsequent scram after startup on May 6, 1974, at 8:26 p.r.

Failure Data

Failures of a similar nature have been reported in BFAO-739W, BFAO-7318W, BFAO-7329W, and BFAO-7336W.