

TENNESSEE VALLEY AUTHORITY  
CHATTANOOGA, TENNESSEE  
37401



November 26, 1973



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

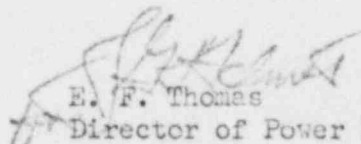
Dear Mr. O'Leary:

TENNESSEE VALLEY AUTHORITY - BROWNS FERRY NUCLEAR PLANT UNIT 1 -  
DOCKET NO. 50-259 - FACILITY OPERATING LICENSE DPR-33 - ABNORMAL  
OCCURRENCE REPORT BFAO-7341W

The enclosed report is to provide details concerning reactor protection  
system water-level switch malfunction which occurred on Browns Ferry  
Nuclear Plant unit 1 on November 16, 1973, 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-7341W  
Report Date--November 26, 1973  
Occurrence Date--November 16, 1973  
Facility--Browns Ferry Nuclear Plant unit 1

### Identification of Occurrence

Unit 1 reactor protection system water-level switch malfunction.

### Conditions Prior to Occurrence

Reactor at 30-percent power, 250 MWe during startup test program.

### Description of Occurrence

During accelerated surveillance testing on November 16, 1973, reactor water-level switches LIS-3-203A, B, and C were found to operate outside technical specification setpoint limits. LIS-3-203A and C high level technical specification setpoint is less than or equal to 583 inches and were found to operate at 583.5 inches and 585 inches, respectively. LIS-3-203B was found to exceed the low-level setpoint of greater than or equal to 538 inches. It was found to operate at 537 inches.

### Analysis of Occurrence

The contacts of LIS-3-293A and C are arranged in series to trip the RCIC turbine on high water level. Although both switches operated outside the technical specification limit, the RCIC would have tripped on high water level 1-1/2 inches above the trip setting. The other three low level channels were tested and found to operate satisfactorily. If the RPS had been required, it would have performed its intended function.

### Corrective Action

Locking plate assemblies have been received and are being installed in all Barton Model 288 switches. An accelerated testing frequency of once a week has been initiated and will continue until three consecutive tests prove satisfactory. The testing frequency will then continue on a biweekly schedule until three biweekly tests are satisfactory, whereupon the original schedule will be resumed.

### Failure Data

Barton Model 288

Serial Nos.: LIS-3-203A, 288A-9958; LIS-3-203B, 288A-9959; LIS-3-203C, 288A-9960.

<u>Switch</u>	<u>Date</u>	<u>Failure</u>	<u>Corrective Action</u>
LIS-3-203B	10/9/73	Operated Outside tech spec limit	Reset switch to setpoint
LIS-3-203C	10/9/73	Operated outside tech spec limit	Reset switch to setpoint
LIS-3-203B	11/8/73	Operated outside tech spec limit	Reset switch to setpoint
LIS-3-203C	11/8/73	Operated outside tech spec limit	Reset switch to setpoint
LIS-3-203A	11/16/73	Operated outside tech spec limit	Installing new locking assembly
LIS-3-203B	11/16/73	Operated outside tech spec limit	Installing new locking assembly
LIS-3-203C	11/16/73	Operated outside tech spec limit	Installing new locking assembly