

TENNESSEE VALLEY AUTHORITY  
CHATTANOOGA, TENNESSEE  
37401



September 20, 1974



Mr. Edson G. Case  
Acting Director of Licensing  
Office of Regulation  
U.S. Atomic Energy Commission  
Washington, DC 20545

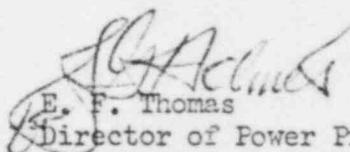
Dear Mr. Case:

TENNESSEE VALLEY AUTHORITY - BROWNS FERRY NUCLEAR PLANT UNIT 1 -  
DOCKET NO. 50-259 - FACILITY OPERATING LICENSE DPR-33 - ABNORMAL  
OCCURRENCE REPORT BFAO-50-259/7446W

The enclosed report is to provide details concerning Average Power  
Range Monitor (APRM) channel "D" flow bias scram calibration error  
and is submitted in accordance with Appendix A to Regulatory Guide 1.16,  
Revision 1, October 1973. This event occurred on Browns Ferry Nuclear  
Plant unit 1 on September 10, 1974.

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-50-259/7446W  
Report Date: September 20, 1974  
Occurrence Date: September 10, 1974  
Facility: Browns Ferry Nuclear Plant unit 1

### Identification of Occurrence

Average Power Range Monitor (APRM) channel "D" flow bias scram calibration error.

### Conditions Prior to Occurrence

The reactor was increasing power after recovering from a scram.

### Description of Occurrence

During review of the APRM flow bias calibration surveillance data, channel "D" flow bias scram trip was found to exceed the trip level setting in the region of zero recirculation flow by less than 1 percent. This situation occurred several times during the last two power ascensions, which covered a period of about 14 days.

### Analysis of Occurrence

The flow bias scram was not adjusted below the calculated limiting value as required by the technical specifications and as specifically stated in the surveillance instructions. Because of the difficulty in adjusting the scram trip below the calculated limiting setpoint and still allow adequate operating margin, the zero recirculation flow end of the scram trip was permitted to exceed the calculated limiting value slightly. This action was repeated on several occasions by different personnel. The difficulty in adjusting the circuitry is attributed to an improper calibration of the flow control trip reference unit, but it did not prevent compliance to technical specification requirements. Failure to follow proper written instructions was the cause.

The reactor protection system ability to function properly was not compromised because the other redundant APRM channels' scram trips were adjusted below the calculated limiting values. There were no adverse effects on the health or safety of the public as a result of this failure.

### Corrective Action

Immediately upon discovery, the channel "D" flow bias circuitry was properly adjusted. The other channels were tested and found within limits. A meeting was held with all instrument mechanics to reemphasize the importance of following surveillance instructions. It was pointed out that while performing surveillance testing, the procedure must be in hand and performed exactly as written or changed in accordance with official procedures.

### Failure Data

None