

TENNESSEE VALLEY AUTHORITY
CHATTANOOGA, TENNESSEE
37401



October 4, 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 2 -
DOCKET NO. 50-260 - FACILITY OPERATING LICENSE DPR-52 - ABNORMAL
OCCURRENCE REPORT BFAO-50-260/7415W

The enclosed report is to provide details concerning the unit 1 reactor and turbine building ventilation system which was operated for approximately 14 hours without continuous monitoring as specified in Section 3.8.B.8 of the technical specifications 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 2 on September 24, 1974.

Very truly yours,

TENNESSEE VALLEY AUTHORITY

for *EFT*
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-50-260/7415W

Report Date: October 4, 1974

Occurrence Date: September 24, 1974

Facility: Browns Ferry Nuclear Plant units 1 and 2

Identification of Occurrence

The unit 1 reactor and turbine building ventilation system was operated for approximately 14 hours without continuous monitoring as specified in Section 3.8.B.8 of the technical specifications.

Conditions Prior to Occurrence

Unit 1 was in the shutdown cooling mode during a planned outage. Unit 2 was in the startup test program at approximately 58-percent power.

Description of Occurrence

At 0415 hours, all three channels of the unit 2 continuous air monitor (CAM) 2-RM-90-250 were reading downscale. Printed circuit boards were removed from the unit 1 CAM 1-RM-90-250 and were damaged when installed in the failed unit 2 CAM. The unit 1 CAM was repaired, calibrated, and returned to service at 1600 hours. Likewise, the unit 2 CAM was restored to service at 1740 hours.

Designation of Apparent Cause of Occurrence

The voltage regulator Zener diode failed on the low voltage power supply of the unit 2 CAM 2-RM-90-250. This malfunction apparently caused the alarm card to fail and damaged the CAM indicators.

Analysis of Occurrence

These CAM units are located on the refueling floor and serve to continuously monitor gaseous effluent from the unit turbine building, reactor building zones, and refueling floor. Shortly after the unit 2 CAM failure, instrument personnel were called in to repair or replace the inoperable CAM. When the normal monitor is unavailable, when required, the technical specifications state that temporary monitors or other systems shall be used. An inoperable turbine building elevator prevented the substitution of the spare CAM unit stored on the unit 2 turbine floor. Upon arrival, the instrument mechanic borrowed the printed circuit boards from the operable unit 1 CAM and installed them in the unit 2 CAM to make it operable within the allowable time limit. This was unsuccessful and damaged the borrowed printed circuit boards. This made both units 1 and 2 CAM units inoperable. Hourly grab samples were initiated at 0615 hours for unit 2 and at 0640 hours for unit 1.

Subsequent maintenance revealed that a failed Zener diode on the unit 2 CAM damaged the electrical components of the particulate/iodine, gaseous and alarm cards for both CAM units. Additionally, the local unit 2 channel indicators were damaged.

Analysis of Occurrence (continued)

The analysis of grab samples did not indicate any significant change in the effluent activity. Also, the area radiation and air particulate monitors located in the turbine and reactor buildings operated below their alarm setpoints during this period. It was also noted that no fuel was stored on the refueling floor. There were no adverse effects on the health and safety of the public as a result of the occurrence.

Corrective Action

The present plant spare CAM has been moved to the refueling floor of the reactor building and will normally be kept at this location. An additional spare CAM will be purchased to help assure that a spare CAM is readily available.

Failure Data

No previous failure of this type.