TENNESSEE VALLEY AUTHORITY
CHATTANOOGA, TENNESSEE
37401





October 17, 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-50-259/7453W

The enclosed report is to provide details concerning loss of position indication on unit 1 suppression chamber to drywell vacuum breakers 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 October 7, 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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50-259
incident

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# ABNORMAL OCCURRENCE REPORT

Report Number : BFAO-50-259/7453W
Report Date : October 17, 1974
Occurrence Date: October 7, 1974
Facilty : Browns Ferry Nuclear Plant Unit 1

## Identification of Occurrence

Loss of position indication on unit 1 suppression chamber to drywell vacuum breakers.

## Conditions Prior to Occurrence

The reactor was in routine startup operation at 34-percent power. Pressure relief valves PCV-1-19 and PCV-1-23 had been operated manually a short time previously because of suspected seat leakage.

## Description of Occurrence

The position indicating lights were lost on all twelve suppression chamber to drywell vacuum breakers FCV-64-28A through FCV-64-28M. Maintenance personnel were alerted and found that the fuse was blown in the indicating light circuit.

## Designation of Apparent Cause of Occurrence

The failure was caused by a ground on the common side of the position indicating lights for FCV-64-28M which caused the fuse supplying power to all 12 vacuum breaker position indicating lights to fail. The ground may have been caused by the shock or moisture created by operation of relief valves PCV-1-19 and PCV-1-23. The exact cause cannot be determined until suppression chamber entry can be made.

## Analysis of Occurrence

At the time the power supply to the lighting circuit was lost, the vacuum breakers were in their proper closed position. The position of the disc on the suppression chamber to drywell vacuum breakers cannot be ascertained by the operator without indicating lights. Therefore, as required by technical specifications, an orderly shutdown was started. Circuit continuity checks were performed while shutdown was in progress, and these checks showed that the valves were closed. During the reactor descension, efforts were continued to restore power to the lighting circuit. The position indicating lights for all vacuum breakers except FCV-64-28M were restored, and these lights indicated the valves were closed. A temporary light was installed using a separate power source for FCV-64-28M which verified complete closure.

The vacuum breakers were in a proper position and would have performed their intended function. Thefailure of the lighting circuit did not cause damage to any other systems, components, or structures or create any adverse effect on the public health and safety.

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Corrective Action

Permanent power was restored to all vacuum breaker indicating lights except FCV-64-28M. A temporary indicating light was connected in series with a separate power source and the fully closed position switch for FCV-64-28M. The vacuum breaker valve position indicating switch circuitry inside the suppression chamber will be inspected when suppression chamber entry can be made. When the cause of the ground is determined, corrective action will be taken to prevent repetition of the occurrence and of similar occurrences.

Failure Data

Failure data will be reported when the cause of the ground has been determined.