

## ABNORMAL OCCURRENCE REPORT

Report No.: BFAO-50-260/7429W  
Report Date: December 4, 1974  
Occurrence Date: November 24, 1974  
Facility: Browns Ferry Nuclear Plant unit 2

### Identification of Occurrence

Excessive blowdown of main relief valve FCV-1-31 on November 24, 1974, at 2220 hours.

### Conditions Prior to Occurrence

The reactor was operating at approximately 75-percent power.

### Description of Occurrence

While conducting a startup test, main steam relief valve FCV-1-31 failed to properly reseal after it was manually opened. Pressure decreased to approximately 570 psig before the valve reseated.

### Designation of Apparent Cause of Occurrence

From disassembly and inspection it is concluded that the maloperation can be attributed to excessive pilot valve leakage. This valve had not been pressure actuated since being placed in service. It is probable that the pilot had been leaking since installation.

### Analysis of Occurrence

The vessel pressure dropped from approximately 960 psig to approximately 570 psig in about six minutes. The coolant temperature at the recirculation pump discharge changed approximately 120° F. in one hour. All auxiliary equipment operated satisfactorily. There were no adverse effects to the public health and safety. There were no radioactive materials released to the environment. The transient is being studied in conjunction with vessel usage factors. Preliminary investigation reveals no significant detrimental effects on vessel usage.

### Corrective Action

The valve that failed was replaced with a new relief valve. Subsequent disassembly and inspection of the failed relief valve revealed a leaking pilot valve. The manufacturer's representative was present during this disassembly and inspection.

### Failure Data

Previous failures are reported on Abnormal Occurrence Reports BFAO-7426W, unit 1; BFAO-749W, unit 1; BFAO-7349W, unit 1; and BFAO-7314W, unit 1.

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Valve Data

Manufacturer: Target Rock Corporation; Model 67F

Size: 6" inlet; 10" outlet

Design pressure - 1,200 psi; setpoint 1,100 psig  $\pm$  11 psi

Capacity - 800,000 lb/hr saturated steam

Serial No. - 66

Regulatory Docket File  
TENNESSEE VALLEY AUTHORITY  
CHATTANOOGA, TENNESSEE 37401

December 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-50-260/7429W

The enclosed report is to provide details concerning excessive blow-down of main relief valve FCV-1-31 on November 24, 1974, at 2220 hours 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.

Very truly yours,

TENNESSEE VALLEY AUTHORITY

*E. F. Thomas*

E. F. Thomas  
Director of Power Production



Enclosure

CC (Enclosure):

Mr. Norman C. Moseley, Director  
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Atlanta, Georgia 30303

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