

## LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Browns Ferry - Unit 3										DOCKET NUMBER (2) 0 5 0 0 0 2 9 6										PAGE (3) 1 OF 0 2																													
TITLE (4) RHR Testable Check Valve FCV-74-54 and 68 Improper Disc Seating and Excessive Leakage																																																	
EVENT DATE (5) 1 0 0 2 8 4										LER NUMBER (6) 8 4 - 0 1 1 - 0 0 1 C 1 9 8 4										REPORT DATE (7) 1 0 0 2 8 4										OTHER FACILITIES INVOLVED (8) FACILITY NAMES DOCKET NUMBER(S) 0 5 0 0 0																			
OPERATING MODE (9) N										THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR § (Check one or more of the following) (11)																																							
POWER LEVEL (10) 0 0 1 0										20.402(b)										20.406(c)										50.73(a)(2)(iv)										73.71(b)									
										20.406(a)(1)(i)										50.38(e)(1)										50.73(a)(2)(v)										73.71(c)									
										20.406(a)(1)(ii)										50.38(e)(2)										50.73(a)(2)(vi)										<input checked="" type="checkbox"/> OTHER (Specify in Abstract below and in Text, NRC Form 366A)									
										20.406(a)(1)(iii)										50.73(a)(2)(i)										50.73(a)(2)(viii)(A)										Part 21									
										20.406(a)(1)(iv)										<input checked="" type="checkbox"/> 50.73(a)(2)(ii)										50.73(a)(2)(viii)(B)																			
										20.406(a)(1)(v)										50.73(a)(2)(iii)										50.73(a)(2)(x)																			
LICENSEE CONTACT FOR THIS LER (12)																																																	
NAME Jimmy B. Walker																				TELEPHONE NUMBER AREA CODE 2 0 5 7 2 9 - 1 3 8 6 5																													
COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)																																																	
CAUSE B B 1 0										SYSTEM F C V A 5 8 5										COMPONENT Y										MANUFACTURER REPORTABLE TO NRC																			
SUPPLEMENTAL REPORT EXPECTED (14) <input type="checkbox"/> YES (If yes, complete EXPECTED SUBMISSION DATE: ) <input checked="" type="checkbox"/> NO																				EXPECTED SUBMISSION DATE (15) MONTH DAY YEAR 0 7 1 5 8 5																													

ABSTRACT (Limit to 1400 spaces, i.e., approximately fifteen single-space typewritten lines) (16)

During a refueling outage, Residual Heat Removal (RHR) testable check valves FCV-74-68 and 54, respectively, failed their local leak rate test. The problem was caused by a misalignment of the valve disc and seating surfaces due to hinge arm end play. The valves were repaired and successfully tested prior to unit startup date. The remaining unit valves will be inspected and necessary repairs made during upcoming outages.

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## LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

APPROVED OMB NO 3150-0104

EXPIRES 8/31/85

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)	
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
Browns Ferry - Unit 3	0 5 0 0 0 2 9 6 8 4	—	0 1 1	—	0 0	0 2 OF 0 2

TEXT (If more space is required, use additional NRC Form 365A's) (17)

Unit 1 was operating at 100 percent power, and units 2 and 3 were in refueling outages. This event only affected unit 3.

The Residual Heat Removal System (RH) testable check valves (TV) were leak rate tested at the end of the unit refueling outage. Both valves had successfully passed the local leak rate test earlier in the cycle following maintenance activities. Valve FCV-74-68 failed the local leak rate test. The valve was disassembled and found to have excessive hinge arm end play. The valve was repaired by lapping the body seat ring, grinding the disc, and adding a 1/8" spacer to the left side of the hinge arm. The valve was reassembled and leak tested properly.

Valve FCV-74-54 was tested and results found to be acceptable. However, due to the problems found in FCV-74-68 the other loop valve (FCV-74-54) was disassembled and checked for proper hinge arm clearance. FCV-74-54 was repaired in the same general manner. The only difference in the repair work was replacement of the hinge arm and bushing to obtain the proper interference fit between valve disc and seat.

These valves have no previous failure history. The misalignment problem was caused when the hinge arm bushing backed out of position. This misalignment would not have prevented operation of the valve, however, the leakage rate was in excess of the reference value. The Residual Heat Removal is a closed loop system. Valves FCV-74-54 & 68 are 24 inch testable check valves manufactured by Atwood and Morrill.

The unit 3 valves have been modified as a result of this event. Unit 2 will be inspected during the present cycle 5 refueling outage, and unit 1 will be inspected during its cycle 6 refueling outage, scheduled to start March 1985.

A follow-up report will be submitted if further problems are found and repair work performed on units 1 and 2 valves.

This event is reportable under 10 CFR 50, Part 21. The valve is a Model No. 20800-H.

Responsible Plant Section - N/A

Previous Similar Events - None

TENNESSEE VALLEY AUTHORITY  
Browns Ferry Nuclear Plant  
P. O. Box 2000  
Decatur, Alabama 35602

October 19, 1984

U. S. Nuclear Regulatory Commission  
Document Control Desk  
Washington, D. C. 20555

Dear Sir:

TENNESSEE VALLEY AUTHORITY - BROWNS FERRY NUCLEAR PLANT (BFN) UNIT 3 -  
DOCKET NO. 50-296 - FACILITY OPERATING LICENSE DPR-09 - REPORTABLE  
OCCURRENCE REPORT BFR0-50-296/84011

The enclosed report provides details that concern improper disc seating and excessive leakage of the Residual Heat Removal (RHR) testable check valves FCV-74-54 and 68. This event is Part 21 reportable. This report is submitted in accordance with 10 CFR 50.73 (a)(2)(ii).

Very truly yours,

TENNESSEE VALLEY AUTHORITY

*G. T. Jones*

G. T. Jones  
Plant Manager  
Browns Ferry Nuclear Plant

Enclosure

cc (Enclosure):  
Regional Administrator  
U. S. Nuclear Regulatory Commission  
Office of Inspection and Enforcement  
Region II  
101 Marietta Street, Suite 2900  
Atlanta, Georgia 30303

INPO Records Center  
Suite 1500  
1100 Circle 75 Parkway  
Atlanta, Georgia 30339

NRC Resident Inspector, BFN

This was prepared principally by Jimmy B. Walker.

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