

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Browns Ferry - Unit 1	DOCKET NUMBER (2) 0 5 0 0 0 2 5 9	PAGE (3) 1 OF 02
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TITLE (4)
RCIC System Removed From Service to Repair Steam Leak

EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)							
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAMES		DOCKET NUMBER(S)					
0	3	2	0	8	4	8	4	0	1	8	0	5	0	0	0	
0	3	2	0	8	4	8	4	0	0	0	4	0	3	8	4	
												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 9 1 6	20.402(b)	20.405(c)	50.73(a)(2)(iv)	73.71(b)							
	20.405(a)(1)(i)	50.36(c)(1)	50.73(a)(2)(v)	73.71(c)							
	20.405(a)(1)(ii)	50.36(c)(2)	50.73(a)(2)(vii)	OTHER (Specify in Abstract below and in Text, NRC Form 366.4)							
	20.405(a)(1)(iii)	50.73(a)(2)(i)	50.73(a)(2)(viii)(A)								
	20.405(a)(1)(iv)	50.73(a)(2)(ii)	50.73(a)(2)(viii)(B)								
	20.405(a)(1)(v)	50.73(a)(2)(iii)	50.73(a)(2)(x)								

LICENSEE CONTACT FOR THIS LER (12)		TELEPHONE NUMBER	
NAME Jimmy B. Walker	AREA CODE 2 1 0 5	7 1 2 9 1 - 1 0 1 8 1 6 1 5	

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)									
CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS
X	BIN	IIISIV	W101310	Y					

SUPPLEMENTAL REPORT EXPECTED (14)		EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
YES (If yes, complete EXPECTED SUBMISSION DATE)	X NO				

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

The Reactor Core Isolation Cooling (RCIC) system was removed from service to repair a steam line leak downstream of the RCIC main steam moisture trap. The outboard main steam supply isolation valve was used to isolate the steam leak. After the steam leak (RCIC) was repaired, the steam line was attempted to be placed back in service by closing the inboard main steam isolation valve, opening the outboard isolation, and using the inboard isolation for a throttling valve (the outboard valve is not used to throttle).

The inboard valve would not open due to the high pressure differential across the valve disc. With both inboard and outboard valves closed, the line between the valves was pressurized to equal reactor pressure on the upstream side of the inboard valve. When the pressure was equalized on both sides of the inboard (stuck) valve disc, the valve opened and the RCIC system was returned to normal.

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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 (8)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
Browns Ferry - Unit 1	05000259	84	01	2	-000	2	OF 02

TEXT (If more space is required, use additional NRC Form 366A's) (17)

Unit 1 was operating at 96.4 percent power, unit 2 was operating at 61.1 percent power, and unit 3 was in a refueling outage. Unit 1 was the only unit affected by this event.

On March 20, 1984, at 1439, the reactor core isolation cooling system (RCIC) (BN) was removed from service to repair a steam leak. The leak was located downstream of the RCIC main steam supply line moisture trap (TRP) and upstream of the main condenser (COND). The leak was caused by steam erosion and was causing airborne radioactivity problems in the general area of the leak. The outboard isolation valve (ISV) (FCV-71-3) was used to isolate the steam leak.

On March 21, 1984, at approximately 1855, after the leak was repaired, the inboard isolation valve (FCV-71-2) was closed to use as a throttling valve to warm the RCIC steam line since the outboard valve is designed to come fully open on an open signal. (This operation is per plant instructions.) The inboard valve would not open due to the high pressure differential across the valve disc. This is a three inch gate valve manufactured by Walworth Co., Model No. 5232PS. With both inboard and outboard valves closed, the line between the valves was pressurized to equal reactor pressure, which is on the upstream side of the inboard valve. With the pressure equal on both sides of the inboard valve, the valve opened without any problem. The RCIC system was out of service for three days and three hours.

The design basis states that the average risk associated with the failure of the RCIC system to cool the core when required is not increased if the RCIC is inoperable for no longer than seven days, provided the high pressure coolant injection (HPCI) system is operable during this period. The HPCI was operable during the entire event. There was no significant safety effect on the plant.

The inboard valve (FCV-71-2) was cycled successfully and met all stroke time requirements. The RCIC system was returned to normal after operability tests were run and the unit was not affected by this event. The valve will be inspected during the next short or refueling outage. The RCIC steam trap and bypass valve will be checked for leak through and repaired as necessary during the next short or refueling outage. No further corrective action is planned.

Responsible Section N/A

Previous Similar Event None

TENNESSEE VALLEY AUTHORITY

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

APR 3 1984

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

Dear Sir:

TENNESSEE VALLEY AUTHORITY - BROWNS FERRY NUCLEAR PLANT UNIT 1 - DOCKET
NO. 50-259 - FACILITY OPERATING LICENSE DPR-33 - REPORTABLE OCCURRENCE
REPORT BFR0-50-259/84018

The enclosed report provides details concerning reactor core isolation
cooling system removed from service to repair a steam line leak downstream
of the RCIC main steam moisture trap. This report is submitted in
accordance with 10 CFR 50.73 (a)(2)(v).

Very truly yours,

TENNESSEE VALLEY AUTHORITY

JSwindell
G. T. Jones
Power Plant Superintendent
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, GA 30303

NRC Inspector, Browns Ferry Nuclear Plant

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