

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Browns Ferry - Unit 1										DOCKET NUMBER (2) 0 5 0 0 0 2 5 1 9										PAGE (3) 1 OF 0 2				
TITLE (4) Inoperable Residual Heat Removal Valve (FCV-74-66) Due To Sheared Gear Teeth In Limitorque Operator																								
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	5	0	1	8	5	8	5	0	1	5	0	0	0	5	2	4	8	5	0 5 0 0 0					
OPERATING MODE (9)		THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR § (Check one or more of the following) (11)																						
N		20.402(b)					20.406(c)					50.73(a)(2)(iv)					73.71(b)							
POWER LEVEL (10)		20.406(a)(1)(i)					50.36(c)(1)					50.73(a)(2)(v)					73.71(c)							
0 0 0		20.406(a)(1)(ii)					50.36(c)(2)					50.73(a)(2)(vii)					<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)					Information							
		20.406(a)(1)(iv)					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)(ix)												
LICENSEE CONTACT FOR THIS LER (12)																								
NAME										TELEPHONE NUMBER														
Jimmy B. Walker										AREA CODE 2 0 5 7 2 9 - 2 5 1 3 6														
COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)																								
CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPDOS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPDOS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPDOS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPDOS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPDOS
X	BIO	IFCIV	L121010	Y																				
SUPPLEMENTAL REPORT EXPECTED (14)															EXPECTED SUBMISSION DATE (15)		MONTH	DAY	YEAR					
<input type="checkbox"/> YES (If yes, complete EXPECTED SUBMISSION DATE)															<input checked="" type="checkbox"/> NO									

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

An operator was attempting to adjust reactor cooling flow by throttling residual heat removal (RHR) loop II pump discharge valve (1FCV-74-66) when he observed no indication of valve movement. The valve was being operated to make a routine flow adjustment.

The valve was isolated, and the valve operator was disassembled for inspection. Upon disassembly, it was determined that the intermediate gear assembly spline teeth had sheared. The valve operator maintenance was completed, required surveillance instructions required to demonstrate operability were successfully performed, and the valve was returned to service May 5, 1985.

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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 1	0 5 0 0 0 2 5 9 8 5	- 0 1 5	- 0 0	0 2	OF	0 2	

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

Unit 1 was in cold shutdown, unit 2 was in a refueling outage, and unit 3 was in cold shutdown. This event only affected unit 1.

On May 1, 1985, during an attempt to adjust reactor cooling water flow by throttling flow control valve (FCV) 1FCV-74-66, the licensed reactor operator noted no indication of valve movement. The valve was being opened to make a routine flow adjustment.

The valve was isolated and disassembled for repairs. Upon inspection of the Limitorque operator, it was determined that the intermediate gear (GR) assembly spline teeth had sheared. There was no indication of gear teeth wear and no problem with the limit switches or limit switch settings. The most probable cause for the teeth to shear was a misalignment of the plastic spacers between the spline teeth, used for softener, which created excessive stress on the spline gear teeth. The valve limitorque is a size SMB-5T with a serial number 148178. A new spline gear was installed, the post-maintenance surveillance instruction was performed satisfactorily, and the valve returned to service on May 5, 1985.

The valve failure alone could not have prevented the low-pressure coolant injection system (BO) from fulfilling its safety function. The technical specifications require one loop with two residual heat removal pumps, and associated diesels to be operable, and they were operable. Therefore, this failure would make loop II inoperable, but the redundant loop is sufficient for the system to fulfill its safety function.

This valve limitorque problem is considered to be a random failure, and no further action is planned.

Responsible Plant Section - MM

Previous Events - None

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

May 24, 1985

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

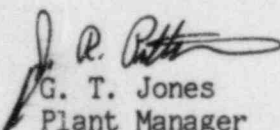
Dear Sir:

TENNESSEE VALLEY AUTHORITY - BROWNS FERRY NUCLEAR PLANT (BFN) UNIT 1 -
DOCKET NO. 50-259 - FACILITY OPERATING LICENSE DPR-33 - REPORTABLE
OCCURRENCE REPORT BFRO-50-259/85015

The enclosed report provides details concerning the inoperability of
residual heat removal valve (FCV-74-66) due to sheared gear teeth in
the limitorque operator. This report is submitted as informational.

Very truly yours,

TENNESSEE VALLEY AUTHORITY


G. T. Jones
Plant Manager
Browns Ferry Nuclear Plant

Enclosures

cc (Enclosures):

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

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