

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)

Shutdown Cooling System Not Available Due to Valve Failure to Open

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)
02	14	84	84	012	000	03	06	84			0 5 0 0 0

OPERATING MODE (9) N	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5: (Check one or more of the following) (11)																					
POWER LEVEL (10) 0 1 0 0	20.402(b)	20.405(a)(1)(i)	20.405(a)(1)(ii)	20.405(a)(1)(iii)	20.405(a)(1)(iv)	20.405(a)(1)(v)	20.406(c)	50.36(c)(1)	50.36(c)(2)	50.73(a)(2)(i)	50.73(a)(2)(ii)	50.73(a)(2)(iii)	50.73(a)(2)(iv)	50.73(a)(2)(v)	50.73(a)(2)(vi)	50.73(a)(2)(vii)	50.73(a)(2)(viii)(A)	50.73(a)(2)(viii)(B)	50.73(a)(2)(ix)	73.71(b)	73.71(c)	OTHER (Specify in Abstract below and in Text, NRC Form 365A) Voluntary Report

LICENSEE CONTACT FOR THIS LER (12)

NAME C. J. Rozear	TELEPHONE NUMBER 2 0 5 7 2 9 - 0 7 8 8
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COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC
X	BIO	MIO	R11615	N					

SUPPLEMENTAL REPORT EXPECTED (14)

<input checked="" type="checkbox"/> YES (If yes, complete EXPECTED SUBMISSION DATE)	<input type="checkbox"/> NO	EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
			09	01	84

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

On February 14, 1984, while bringing units 1 and 2 to cold shutdown [because of the residual heat removal service water system air release valves not being properly certified for the design pressure (Reference BFRO-50-259/84013)], residual heat removal (RHR) valve FCV-1-74-48 on unit 1 failed to open, making it impossible to achieve cold shutdown using normal methods. An ALERT was declared per the Radiological Emergency Plan. The plant was brought to cold shutdown through alternate means and the ALERT was cancelled after the valve was opened manually and shutdown cooling restored.

An investigation of this event revealed that the "B" phase winding of the motor on valve FCV-74-48 failed. At this time it is not known if the failure of valve FCV-74-48 to open was a result of the failure of "B" phase motor winding or if the motor failed as a result of other causes. Investigation of the cause of motor failure is continuing and a followup report will be submitted by September 1, 1984 providing details of this investigation.

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PDR ADOCK 05000259
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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	0 5 0 0 0 2 5 9	8 4	- 0 1 2	- 0 0	0 2	OF	0 2

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

On February 14, 1984, with units 1 and 2 operating at 99 percent power and unit 3 in a refueling outage, the decision was made to bring units 1 and 2 to cold shutdown due to the air release valves (V) on the residual heat removal service water/emergency equipment cooling water system (BI) not being properly certified for the design pressure. (Reference LER BFR0-50-259/84013.)

After manually scrambling units 1 and 2, unit 1 could not be placed in shutdown cooling using the Residual Heat Removal System (BO) due to the inability to open electrically shutdown cooling suction valve (ISV) FCV-1-74-48. This valve is located inside primary containment (NH) which was inerted at the time of the event and not readily accessible for manual operation. An ALERT was declared per the Radiological Emergency Plan at 0800 on February 14, 1984, because of the inability to use shutdown cooling. Staffing of emergency centers was begun immediately. NRC was notified by red phone of the ALERT at 0830. The ALERT remained in effect and communications with NRC maintained until 1725 on February 14, 1984 when the ALERT was cancelled. This event was not escalated higher than an ALERT. After drywell entry was made (approximately 1312), the valve manually opened (approximately 1550) and shutdown cooling established (approximately 1715) using residual heat removal system, Loop I, the ALERT was cancelled. However, cold shutdown was previously achieved through normal cooldown to the condenser (SG) and then using control rod drive system (AA) pumps and the reactor water cleanup system (CE) as an alternate method for residual heat removal. Emergency core cooling systems [low pressure coolant injection (BO) and core spray (BM)] were available throughout the event. In addition, the condensate system (SD) was also available if needed for reactor vessel (RPV) makeup, and both high pressure coolant injection (BJ) and reactor core isolation cooling (BN) could have been made available by using auxiliary steam if required. The pressure suppression chamber was available for heat rejection if it had been required. Because of these multiple systems, at no time were there any serious safety implications of this event.

Valve FCV 74-48 is a 20-inch Walworth-Gate valve with a limitorque operator and a Reliance Electric Company motor.

An investigation of this event revealed that the "B" phase winding of the motor on valve FCV 74-48 failed. At this time it is not known if the failure of valve FCV 74-48 to open was a result of the failure of "B" phase motor winding or if the motor failed as a result of other causes.

An investigation of the cause of motor failure is continuing and a followup report will be submitted by September 1, 1984 to provide details of this investigation.

Responsible Plant Section N/A

Previous Similar Events - None

TENNESSEE VALLEY AUTHORITY

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

March 6, 1984

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

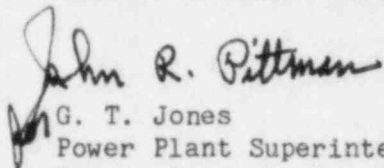
Dear Sir:

TENNESSEE VALLEY AUTHORITY - BROWNS FERRY NUCLEAR PLANT UNIT 1 - DOCKET
NO. 50-259 - FACILITY OPERATING LICENSE DPR-33 - REPORTABLE OCCURRENCE
REPORT BFRO-50-259/84012

The enclosed report provides details concerning shutdown cooling system not
available due to valve failure to open. This report is submitted in
accordance with 10 CFR 50.73, "Other Events."

Very truly yours,

TENNESSEE VALLEY AUTHORITY


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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