

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Browns Ferry - Unit 1	DOCKET NUMBER (2) 0 5 0 0 0 2 5 9 1	PAGE (3) 1 OF 3
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TITLE (4)
Personnel Error Leads to Engineered Safeguards Actuation

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	9	1	1	8	6	8	6	0	2	9	0	0	1	0	8	6	Browns Ferry Unit 2	0 5 0 0 0 2 6 0
																	Browns Ferry Unit 3	0 5 0 0 0 2 9 6

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §. (Check one or more of the following) (11)

OPERATING MODE (9) N	20.402(b)	20.405(c)	<input checked="" type="checkbox"/>	50.73(a)(2)(iv)	73.71(b)
POWER LEVEL (10) 0 0 0	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 366A)
	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)(ix)	

LICENSEE CONTACT FOR THIS LER (12)

NAME Alan W. Gordon, Mechanical Engineer, PORS	TELEPHONE NUMBER AREA CODE: 2 0 5 7 2 9 1 - 2 5 3 7
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COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRPDS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRPDS

SUPPLEMENTAL REPORT EXPECTED (14)

YES (If yes, complete EXPECTED SUBMISSION DATE) NO

EXPECTED SUBMISSION DATE (15)

MONTH	DAY	YEAR

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

On September 11, 1986, at 0838, design contract personnel of the B&B Promatec Company erroneously opened the bus potential transformer cabinet on a 4-kV shutdown board to inspect conduit floor penetrations. Opening the door pulled fuses, deenergizing the potential transformer circuit. Automatic transfer logic opened the normal feeder breaker and caused the board's respective diesel generator to start. During the transfer of the board to its diesel generator power source a momentary low-voltage existed on loads fed from it. Reactor protection system motor generator set 2B tripped causing several isolations, a half scram, and initiation of the standby gas treatment and control room emergency ventilation systems.

The responsible personnel received disciplinary action. Existing caution labels on the cabinets will be replaced with more specific warning instructions.

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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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

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

Units 1 and 2 were in refueling outages, and unit 3 was in an extended maintenance outage at the time of this event. Unit 2 and common ventilation systems were affected.

On September 11, 1986, at 0838, design contract personnel of the B&B Promatec Company inspecting conduit floor penetrations, as part of the 10CFR50 Appendix R fire protection program, opened the bus (BU) potential transformer (XPT) cabinet on units 1 and 2 4-kV shutdown board (BD) D to clear an obstruction from their view. Opening the cabinet pulled fuses to the potential transformer causing the board undervoltage scheme to sense zero voltage on the bus. Automatic transfer logic opened the normal feeder breaker to shutdown board D and caused diesel generator (DG) D to automatically start and tie onto the board. During the auto transfer, a momentary low voltage occurred on loads fed by the shutdown board. Among these loads, 480 volt reactor motor operated valve (RMOV) board 2B was affected which supplies power to reactor protection system (RPS) (JE) motor generator (MG) set 2B. The MG set tripped removing power from the 2B RPS bus. Normally energized unit 2 engineered safety features (ESF) logic was tripped causing:

1. Group 2 (shutdown cooling) outboard isolation (BO)
2. Group 3 (reactor water cleanup) outboard isolation (CE)
3. Group 6 (purging and venting) isolation (VB)
4. Group 8 (traversing incore probe) isolation (VB)
5. Half-scrum signal on RPS channel 'B'
6. Unit 1, 2, and 3 refuel zone isolation (VG)
7. Unit 2 reactor zone isolation (VG)
8. Control room emergency ventilation initiation (VI)
9. Standby gas treatment initiation (BH)

Upon hearing relay operation, the inspectors immediately closed the compartment and notified the operations shift engineer. Licensed operators restored the shutdown board to its normal feed, reset the isolations, and returned the actuated systems to normal standby readiness by 0905.

Several breakers were racked out the previous day and removed from their board compartments for the purpose of the inspection. The shift engineer, just prior to the event, instructed the Promatec contractors to only inspect the compartments from which the breakers had been totally removed. The inspectors did not have a copy of the maintenance request at the work location, as required by plant procedures. They also did not understand the intent of the caution label on the fuse cabinet door. The door to a potential transformer is designed to deenergize the circuit when opened to protect personnel from an electrical hazard.

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

The inspectors were strongly counseled by their supervision. The project manager of B&B Promatec has informed all of their employees working at Browns Ferry of the seriousness of this event and has stressed to them the importance of strictly following instructions. The caution labels on all 4-kV shutdown board fuse compartments will be replaced with more explicit instructions to obtain shift engineer approval before opening.

All expected ESF equipment actuated. This event, therefore, does not represent a safety concern on systems operation. Under operational conditions this event would not have posed a threat to plant safety.

Responsible Plant Section - Design

Previous Similar Events - BFRO 50-259-86015

TENNESSEE VALLEY AUTHORITY

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

October 10, 1986

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

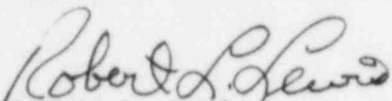
Dear Sir:

TENNESSEE VALLEY AUTHORITY - BROWNS FERRY NUCLEAR PLANT UNIT 1 - DOCKET
NO. 50-259 - FACILITY OPERATING LICENSE DPR-33 - REPORTABLE OCCURRENCE REPORT
BFRO-50-259/86029

The enclosed report provides details concerning a personnel error that led to an
engineered safeguards actuation. This report is submitted in accordance to
10 CFR 50.73 (a)(2)(iv).

Very truly yours,

TENNESSEE VALLEY AUTHORITY


Robert L. Lewis
Plant Manager
Browns Ferry Nuclear Plant

Enclosures

cc (Enclosures):

Regional Administration
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, Browns Ferry Nuclear Plant