

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)										DOCKET NUMBER (2)				PAGE (3)	
Browns Ferry - Unit 3										0 5 0 0 0 2 9 6				1 OF 2	

Reactor Protection System Trip on Low Voltage Due to Personnel Error

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	1	05	8/6	8/6	-001-	000	13	18	6						0	5	0	0	0				

OPERATING MODE (9)		THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5. (Check one or more of the following) (11)					
N		20.402(b)	20.406(c)	X	50.73(a)(2)(iv)	73.71(b)	
POWER LEVEL (10)	01010	20.406(a)(1)(i)	50.38(c)(1)		50.73(a)(2)(v)	73.71(c)	
		20.405(a)(1)(ii)	50.38(c)(2)		50.73(a)(2)(vii)	OTHER (Specify in Abstract below and in Text, NRC Form 306A)	
		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)	
NAME	TELEPHONE NUMBER
Richard C. Steele, Compliance Engineer	AREA CODE 2105 71291-12538

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)											
CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPROS		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPROS	

SUPPLEMENTAL REPORT EXPECTED (14)		EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
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)

On January 5, 1986, while cleaning the unit 3 reactor protection system (RPS) control panel, the operator inadvertently bumped the "B" RPS motor generator (MG) set voltage control knob. This lowered the MG set output voltage and caused the MG set to trip on undervoltage. Loss of the MG set deenergized RPS channel "B" and caused a half scram, a unit common secondary containment ventilation isolation, and a partial primary containment isolation on unit 3. Shutdown cooling was lost for a brief time while the MG set was being reset. Unit 3 has been shut down since March 1985 and shutdown cooling requirements are extremely small. Following reset of the MG set, the isolated systems were returned to normal alignment. To prevent similar recurrences, the voltage control knobs will be fitted with protection covers.

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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 3150-0104

EXPIRES: 8/31/88

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

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

Units 1 and 3 were in extended maintenance outages, and unit 2 was in a refueling outage. This event affected unit 3 and common ventilation systems.

On January 5, 1986, at 0932, a unit 3 operator was cleaning the reactor protection system (RPS) (JE) motor generator (MG) set "B" control panel when he accidentally bumped the MG voltage adjustment control knob. This lowered the MG set "B" output voltage causing the MG set to trip on undervoltage. In turn, this caused the undervoltage relays in the RPS power monitoring cabinets 3B1 and 3B2 to trip isolating RPS bus "B." As expected, loss of the RPS bus "B" resulted in the following:

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

The operator reset the tripped MG set, and the undervoltage relays at 0942. Shutdown cooling, reactor water cleanup, and the isolated systems listed above were restored to normal alignment by 0959. With unit 3 in cold shutdown since March 1985 the requirement for shutdown cooling was minimal. Inadvertent isolation of the secondary containment and initiation of the emergency ventilation systems is not a safety concern; however, steps to reduce all spurious actuations are beneficial.

The event occurred due to personnel error in that the operator did not exercise due caution while cleaning up the MG set control panel. The individual responsible has been duly counseled to exercise more caution. To prevent similar occurrences in the future, the voltage adjustment controls for all RPS MG sets will be fitted with protective covers to prevent accidental bumping.

Responsible Plant Section - OPS

Previous Events - None

TENNESSEE VALLEY AUTHORITY

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

January 31, 1986

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

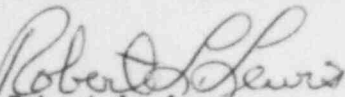
Dear Sir:

TENNESSEE VALLEY AUTHORITY - BROWNS FERRY NUCLEAR PLANT UNIT 3 - DOCKET
NO. 50-296 - FACILITY OPERATING LICENSE DPR-68 - REPORTABLE OCCURRENCE
REPORT BFRO-50-296/86001

The enclosed report provides details concerning the reactor protection
system trip on low voltage due to personnel error. 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 Administrator
U.S. Nuclear Regulatory Commission
Office of Inspection and Enforcement
Region II
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NRC Resident Inspector, Browns Ferry Nuclear Plant

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