NRC Form 366
(9-83)

U.S. NUCLEAR REGULATORY COMMISSION
APPROVED OMB NO. 3150-0104
EXPIRES: 8/31/88

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
BROWNS FERRY UNIT 2	0 5 0 0 0 2 6 0	1 OF 0 3

TITLE (4)

INADVERTENT TRANSFER SWITCH OPERATION INITIATES ENGINEFRED SAFETY FEATURES

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)
									BROWNS FERRY UNIT 1	0 5 0 0 0 2 5 9
0 9	0 4	8 8	8 8	— 0 0 7	— 0 0	1 0	0 5	8 8	BROWNS FERRY UNIT 3	0 5 0 0 0 2 9 6

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)	20.405(c)	X 50.73(a)(2)(iv)	73.71(b)
POWER LEVEL (10)		20.405(a)(1)(i)	50.36(c)(1)	50.73(a)(2)(v)	73.71(c)
0 0 0		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)(x)	

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER
	AREA CODE
Earl D. Nave, Engineer, Plant Operations Review Staff	2 0 5 7 2 9 1 - 2 5 3 7

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	

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)

On September 4, 1988, at 1552 hours, with all three units defueled, reactor protection system (RPS) motor generator (MG) set 2A was started by the assistant shift operations supervisor (ASOS) for post maintenance testing. During this event, there was a loss of power to the 2A RPS bus. This initiated standby gas treatment, control room emergency ventilation and a half scram on unit 2. The refueling zone and the unit 2 reactor zone ventilation isolated. Also, the unit 2 residual heat removal and primary containment ventilation isolation valves closed. The unit 2 reactor water cleanup and traversing incore probe systems receive isolation signals on loss of RPS power but were removed from service and isolated at the time of the event. The cause of this event was personnel error. The ASOS inadvertently operated the normal/alternate transfer switch while removing a clearance tag. This caused the loss of power to the 2A RPS bus. The unit operator reset the half scram and isolations and returned affected systems to normal. The ASOS was counseled. During this event, all systems responded as designed placing the plant in a conservative configuration. The plant would have performed in a similar manner if the event had occurred during power operation.

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Description of Event

All three units were defueled during this event. The 2A reactor protection system (RPS) (EIIS identifier JC) bus was fed from its alternate source while the 2A RPS motor generator (MG) set was removed from service for maintenance.

On September 4, 1988, at 1552 hours, the 2A RPS MG set was started by the assistant shift operations supervisor (ASOS) for a one hour post maintenance run to check for vibration and proper operation prior to reconnecting to the 2A RPS bus. During the starting operation, the following engineered safety features actuated:

1. Standby gas treatment system (SBTS) (EIIS identifier BH) initiation Trains A, B, and C

2. Control room emergency ventilation (CREV) (EIIS identifier VI) initiation, train A. Train B was already running at the time of the event.

3. Unit 2 reactor zone ventilation (EIIS identifier VA) isolation

4. Refuel zone ventilation (EIIS identifier VC) isolation

5. Unit 2 residual heat removal (RHR) (EIIS identifier BO) isolation of the inboard shutdown cooling suction valve and the RHR system I injection valve.

6. Unit 2 primary containment ventilation (EIIS identifier VB) isolation

7. Half scram on Unit 2

Reactor water cleanup (EIIS identifier CE) and traversing incore probe systems (EIIS identifier IG) normally isolate upon loss of RPS power but were removed from service and isolated at the time of the event.

The unit operator determined the cause of the event and verified initiation signals were not present.

At 1555 hours, the half scram and isolations were reset. Affected systems were returned to normal. The four hour report to the NRC was made per 10CFR50.72 (b)(2)(ii).

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

Cause of Event

The cause of this event was personnel error. The ASOS was starting the 2A RPS MG set by depressing the START/RESET GEN V BUILDUP RPS MG SET 2A push button control observing the voltage output increase, and at the same time, removing the clearance tag from the RPS 2A normal/alternate transfer switch. While removing the tag, he inadvertently bumped the switch to cause a momentary loss of power to the 2A RPS bus. The tag should have been removed either prior to or after the RPS MG set had been started. The normal/alternate transfer switch is located in a protective box to prevent bumping. This box provided limited hand space for tag removal. At 2025 hours the 2A RPS MG was started and connected to the 2A RPS bus. All controls functioned properly.

Analysis of Event

The clearance tag should not have been removed while performing the other operations. The simultaneous actions were not required. When the 2A RPS MG set was placed in service successfully, the clearance tag was carefully removed prior to starting the MG set. This is not a high risk operation, but does require close attention. During this event, all systems responded as designed and placed the plant in a conservative configuration. The duration of the event was 3 minutes. If this event had occurred during power operation, the plant would have performed in a conservative manner.

Corrective Action

The immediate corrective action taken by the unit operator was to verify the cause of event, reset the half scram and isolations, and return affected systems to normal.

The ASOS involved in this event was individually counseled by the shift operations supervisor (SOS). In addition, the SOS discussed the event with the operating group which was on shift at the time of the event. The other operating groups will review this event as required reading material. The discussion and counseling focused on the necessity for strict attention to detail and to be more attentive to the task at hand.

Previous Similar Events - BFRO-50-259/87015
BFRO-50-259/86015
BFRO-50-260/86003
BFRO 50-296/88001

Commitments - Shift Operations personnel will review this event per the required reading list. Completion date December 15, 1988.

TENNESSEE VALLEY AUTHORITY
Browns Ferry Nuclear Plant
Post Office Box 2000
Decatur, Alabama 35602

OCT 07 1988

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

Dear Sir:

TENNESSEE VALLEY AUTHORITY - BROWNS FERRY NUCLEAR PLANT UNIT 2 - DOCKET NO. 50-260 - FACILITY OPERATING LICENSE DPR-52 - REPORTABLE OCCURRENCE REPORT BFRO-50-260/88007

The enclosed report provides details concerning the inadvertent transfer switch operation initiation of engineered safety features. This report is submitted in accordance with 10 CFR 50.73 (a)(2)(iv).

Very truly yours,

TENNESSEE VALLEY AUTHORITY

Guy G. Campbell
Plant Manager
Browns Ferry Nuclear Plant

Enclosures
cc (Enclosures):
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U.S. Nuclear Regulatory Commission
Office of Inspection and Enforcement
Region II
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Atlanta, Georgia 30303

INPO Records Center
Suite 1500
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NRC Resident Inspector, Browns Ferry Nuclear Plant

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