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NOTE TO ALL "RIDS" RECIPIENTS:

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R. D. (Rick) Machon Vice President; Browns Ferry Nuclear Plant

November 2, 1995

U.S. Nuclear Regulatory Commission ATTN: Document Control Desk Washington, D.C. 20555 10 CFR 50.73

Dear Sir:

BROWNS FERRY NUCLEAR PLANT (BFN) - UNITS 1, 2, AND 3 - DOCKET NOS. 50-259, 50-260, AND 50-296 - FACILITY OPERATING LICENSE DPR-33, 52, AND 68 - LICENSEE EVENT REPORT 50-296/95004

The enclosed report provides details concerning an unplanned Engineered Safety Feature (ESF) actuation that occurred following transfer of 480V Shutdown Board 3A to its alternate supply. This report is submitted in accordance with 10 CFR 50.73(a)(2)(iv) as an event or condition that resulted in an automatic actuation of an ESF.

Sincerely R. D. zhon

Enclosure cc: See page 2

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U.S. Nuclear Regulatory Commission Page 2 November 2, 1995

Enclosure cc (Enclosure): INPO Records Center Suite 1500 1100 Circle 75 Parkway Atlanta, Georgia 30339

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Paul Krippner American Nuclear Insurers Town Center, Suite 300S 29 South Main Street West Hartford, Connecticut 06107

NRC Resident Inspector Browns Ferry Nuclear Plant 10833 Shaw Road Athens, Alabama 35611

Regional Administrator U.S. Nuclear Regulatory Commission Region II 101 Marietta Street, NW, Suite 2900 Atlanta, Georgia 30323

Mr. J. F. Williams, Project Manager U.S. Nuclear Regulatory Commission One White Flint, North 11555 Rockville Pike Rockville, Maryland 20852

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NRC FORM 366A U.S. NUCLEAR R (5-92) LICENSEE EVENT I TEXT CONTINUAS	EGULATORY COMMISSION REPORT FION	APPROVED BY ONB MO. 3150-0104 EXPIRES 5/31/95 ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (MNBB 7714), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON DC 2053						
· FACILITY NAME (1)	DOCKET NUMBER (2)		LER NUMBER (	6)	PAGE (3)			
		YEAR	SEQUENTIAL NUMBER2 2	REVISION NUMBER				
Browns Ferry Unit 3	05000296	95	004	00	2 of 4			

#### I. PLANT CONDITIONS

At the time this event occurred, Unit 3 and Unit 1 were shutdown and defueled. Unit 2 was operating at 100 percent power.

#### **II. DESCRIPTION OF EVENT**

A. <u>Event</u>:

On October 7, 1995, at approximately 1217 hours Central Daylight Time (CDT), the diesel generator (DG) output breaker unexpectedly tripped during DG testing. This caused the undervoltage/transfer alarm for 480V Shutdown Board 3A to alarm and deenergized 4kV Shutdown Board 3EB. Subsequently, an operator (utility, licensed) transferred power for 480V Shutdown Board 3A from its normal supply to its alternate supply (4kV Shutdown Board 3EB). However, the alternate supply had experienced a loss of voltage due to the DG output breaker trip.

This loss of power to the 480V Shutdown Board caused Reactor Protection System (RPS) [JCJ] Bus 3A to de-energize resulting in a half scram. This also resulted in primary containment isolation [JM] system groups 2, 3, 6, and 8 isolations, and standby gas treatment system [BH] and control room emergency ventilation system [VI] actuations.

At 1300 hours CDT, the RPS was restored and systems were returned to normal status. This event is reportable in accordance with 10 CFR 50.73 (a)(2)(iv) as an event or condition that resulted in an unplanned actuation of an engineered safety feature (ESF).

B. <u>Inoperable Structures</u>, <u>Components</u>, or <u>Systems that Contributed</u> to the <u>Event</u>:

None.

# C. Dates and Approximate Times of Major Occurrences:

October 7, 1995	•
at 1217 hours CDT	Power to Shutdown Board 3A transferred from normal supply to alternate supply
at 1300 hours CDT	RPS restored and systems returned to normal

# D. Other Systems or Secondary Functions Affected:

None.

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		YEAR	SEQUENTIAL NUMBER3 3	REVISION	1
Browns Ferry Unit 3	05000296	95	004	00	3 of 4

#### E. Method of Discovery:

This condition was discovered when the Unit Operator received the half scram on RPS Bus 3A, which initiated the ESFs.

#### F. Operator Actions:

The RPS was restored and systems were returned to normal.

G. <u>Safety System Responses</u>:

Safety systems responded as designed for this type of event.

#### III. CAUSE OF THE EVENT

# A. <u>Immediate Cause</u>:

The immediate cause of this event was transferring power for 480V Shutdown Board 3A from an energized source to a deenergized source.

# B. Root Cause:

The root cause of this event was personnel error. In accordance with procedural requirements, the operator should have verified the electrical board was in fact deenergized and then verify that power was available on the alternate supply prior to transferring power.

#### IV. ANALYSIS OF THE EVENT

The systems affected during this event are designed to shut down the reactor, contain and process any radioactive releases, and to fulfill their safety functions upon loss of initiation logic power. The systems responded correctly to the loss of power; therefore, plant safety was not adversely affected. The plant's safe shutdown capabilities would not have been diminished had the unit been in power operation. Accordingly, this event did not affect the health and safety of plant personnel or the public.

# V. CORRECTIVE ACTIONS

## A. <u>Immediate Corrective Actions</u>:

The RPS was restored and systems were returned to normal.



NRC FORM 366A U.S. MUCLEAR RE (5-92) LICENSEE EVENT R TEXT CONTINUAT	Equatory commission Eport Ion	APPROVED BY ONE NO. 3150-0104 EXPIRES 5/31/95 ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (MNBB 7714), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON DC 20503						
FACILITY NAME (1)	DOCKET NUMBER (2)		LER NUMBER (	(6)	PAGE (3)			
		YEAR	SEQUENTIAL NUMBER4 4	REVISION NUMBER				
Browns Ferry Unit 3 -	05000296	95	004	00	4 of 4			
TEXT (If more space is required, use	additional copies of	NRC Form	366A) (17)					

# B. <u>Corrective Actions to Prevent Recurrence</u>:

Appropriate personnel corrective actions have been taken with the operator. In addition, appropriate operations personnel have been sensitized to the need to assess plant conditions through multiple indications prior to responding to an event. Additionally, during the upcoming cycle of licensed operator training (the cycle following annual exams), TVA plans to review this event with the operators and emphasize proper transfer of the shutdown boards.<sup>1</sup>

# VI. ADDITIONAL INFORMATION

# A. Failed Components:

None.

# B. Previous LERs on Similar Events:

There have been several LERs written to document unplanned ESFs caused by the transfer of power from 480V Shutdown Boards to their alternate source of power (LERs 260/85009, 260/88008, and 296/90002). Each instance was a non-transient transfer performed locally at the shutdown board to support maintenance or recovery from maintenance. None of these transfers were performed in the control room. In each of the LERs, the operator failed to verify the voltage supply to the alternate source before transferring power. The corrective actions to prevent recurrence involved counseling the operators on the proper transfer of power to shutdown boards, and stressing the need for attention to detail.

## VII. COMMITMENTS

None.

<sup>1</sup>This is not a regulatory commitment.

Energy Industry Identification System (EIIS) system and component codes are identified in the text with brackets (e.g., [XX]).

