NRC FORM 366 (7-77) U. S. NUCLEAR REGULATORY COMMISSION

LICENSEE EVENT REPORT

CONTROL BLOCK: | | | | | | | (1) (PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)

01 | LICENSEE CODE: A L B R F 3 (2) | LICENSE NUMBER: 0 0 - 0 0 0 0 0 - 0 0 (3) | LICENSE TYPE: 4 1 1 1 1 (4) | CAT (5)

CON'T 01 | REPORT SOURCE: L (6) | DOCKET NUMBER: 0 5 0 0 0 2 9 6 (7) | EVENT DATE: 0 4 0 7 8 2 (8) | REPORT DATE: 0 5 0 5 8 2 (9)

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

02 During refueling outage on unit 3, while performing SI 4.2.A-6 (Main Stream Line
03 Low Pressure) pressure switches 3-PS-1-76 and 3-PS-1-82 had as-found setpoints of
04 815.7 psig (1.13% low) and 813.7 psig (1.36% low) respectively. T.S. Table 3.2.A
05 limit is ≥ 825 psig. There was no danger to the health or safety of the public
06 because redundant switches were available and operable in each trip system.
07
08

	SYSTEM CODE	CAUSE CODE	CAUSE SUBCODE	COMPONENT CODE	COMP. SUBCODE	VALVE SUBCODE
09	I B (11)	E (12)	E (13)	I N S T R U (14)	S (15)	Z (16)

(17) LER/RO REPORT NUMBER	EVENT YEAR		SEQUENTIAL REPORT NO.		OCCURRENCE CODE	REPORT TYPE		REVISION NO.
	8 2	—	0 0 9	/	0 3	L	—	0

ACTION TAKEN	FUTURE ACTION	EFFECT ON PLANT	SHUTDOWN METHOD	HOURS (22)	ATTACHMENT SUBMITTED	NPRD-4 FORM SUB.	PRIME COMP. SUPPLIER	COMPONENT MANUFACTURER
E (18)	F (19)	Z (20)	Z (21)	0 0 0 0	Y (23)	N (24)	L (25)	B 0 6 9 (26)

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

10 Pressure switches 3-PS-1-76 and 3-PS-1-82 setpoints had drifted. The Barksdale
11 switches, model B2TA12SS, were recalibrated, functionally tested, and returned
12 to service. See attached action plan for corrective action.
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14

	FACILITY STATUS	% POWER	OTHER STATUS (30)	METHOD OF DISCOVERY	DISCOVERY DESCRIPTION (32)
15	H (28)	0 0 0 (29)	NA	B (31)	Surveillance testing

	ACTIVITY RELEASED	CONTENT OF RELEASE	AMOUNT OF ACTIVITY (35)	LOCATION OF RELEASE (36)
16	Z (33)	Z (34)	NA	NA

PERSONNEL EXPOSURES

	NUMBER	TYPE	DESCRIPTION (39)
17	0 0 0 (37)	Z (38)	NA

PERSONNEL INJURIES

	NUMBER	DESCRIPTION (41)
18	0 0 0 (40)	NA

LOSS OF OR DAMAGE TO FACILITY (43)

	TYPE	DESCRIPTION
19	Z (42)	NA

PUBLICITY

ISSUED	DESCRIPTION (45)	NRC USE ONLY
	NA	

NAME OF PREPARER B. J. Irby PHONE (205) 729-8100

Tennessee Valley Authority
Browns Ferry Nuclear Plan

Form BF 17
BF 15.2
2/19/82

LER SUPPLEMENTAL INFORMATION

BFRO-50- 296 / 8209 Technical Specification Involved 3.2.A

Reported Under Technical Specification 6.7.2.b.1 Date Due NRC 5/6/82

Event Narrative:

Units 1 and 2 were operating normally when the event occurred; unit 3 was in a refueling outage. Only unit 3 was affected by this event. During the performance of Surveillance Instruction (SI) 4.2.A-6, Primary Containment and Reactor Building Isolation Instrumentation Low Pressure Main Steam Line, pressure switches 3-PS-1-76 and 3-PS-1-82 were found to operate outside the limits of Technical Specification Table 3.2.A. The pressure switches operated at 815.7 psig and 813.7 psig respectively Table 3.2.A specifies the trip setting to be $\geq$ 825 psig. Pressure below this setting initiates isolation of the main steam lines. The failure of these switches was due to setpoint drift.

The switches were recalibrated in accordance with SI 4.2.A-6 and were returned to service. Redundant pressure switches 3-PS-1-72 and 3-PS-1-86 were available and operable in each trip system.

The attached action plan delineates the recurrence control to be implemented.

* Previous Similar Events:

BFRO 260/79024, 80057; 296/80045, 81007

Retention: Period - Lifetime; Responsibility - Document Control Supervisor

*Revision: J K F

BFRO-50-296-8209

ACTION PLAN
BROWNS FERRY NUCLEAR PLANT - REACTOR PROTECTION SYSTEM
PRIMARY CONTAINMENT ISOLATION SYSTEM
AND CORE STANDBY COOLING SYSTEMS
PRIMARY SENSOR SWITCHES

BACKGROUND

The reactor protection system (RPS), the primary containment isolation system (PCIS), and the core standby cooling systems (CSCS) use mechanical-type switches in the sensors that monitor plant process parameters. The plant technical specifications have put very close tolerances on these instruments. As a result, almost any change in switch setpoint requires submittal of a licensee event report (LER). To reduce the frequency of this type LER, the following action plan has been developed.

LONG-TERM SOLUTION

Advances in technology make it possible to replace the mechanical-type switches with a more accurate and more stable electronic transmitter-electronic switch system. This modification is a major change to these safety systems and requires fully qualified safety-grade equipment. This equipment is in limited supply and has long procurement times. TVA is presently reviewing bids for this equipment. The tie-in of the new system to the balance of the RPS, the PCIS, and the CSCS requires a refueling outage. TVA expects to install the electronic systems during the first refueling outage after receipt of equipment.

INTERIM ACTIONS

Because of the long leadtime to implement the long-term solution, several interim actions have been taken. They are based on a review of licensee event reports which can be categorized as follows:

Category 1: Individual instruments whose setpoints have drifted two consecutive times.

Category 2: Groups of instruments which exhibit a predictable cyclic setpoint drift pattern.

Category 3: Individual, randomly occurring instrument setpoint drifts which cannot be put in category 1 or 2.

For each category the following action is taken:

Category 1: The instrument is replaced with an identical instrument.

Category 2: The margin between the instrument setting and the technical specification limit is increased.

Category 3: The instrument is readjusted to the specified setpoint.