

3150-0011

(PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)

7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32

0 1 A L B R F 3 2 0 0 - 0 0 0 0 0 0 - 0 0 3 4 1 1 1 1 1 4 5

LICENSE CODE LICENSE NUMBER LICENSE TYPE CAT

CON'T

0	1	REPORT SOURCE										L	5	0	5	0	0	0	2	9	6	7	0	2	0	9	8	3	8	0	3	0	7	8	3	9										
7	8											60	61	DOCKET NUMBER										68	EVENT DATE										74	REPORT DATE										80

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

0 2 | During normal operation on unit 3 while performing SI 4.2.A-6 (Main Steam Line
0 3 | Low Pressure) pressure switch 3-PS-1-76 had an as-found setpoint of 823.2 psig.
0 4 | T.S. Table 3.2.A requires this switch to operate at \geq 825 psig. There was
0 5 | no danger to the health or safety of the public because redundant switches
0 6 | were available and operable in each trip system.
0 7 |
0 8 |

SYSTEM CODE		CAUSE CODE		CAUSE SUBCODE		COMPONENT CODE				COMP. SUBCODE		VALVE SUBCODE					
0	9	S	D	E	E	I	N	S	T	R	I	S	Z				
7	8	9	10	11	12	13	14	15	16	17	18	19	20				
LER/RO REPORT NUMBER		EVENT YEAR		SEQUENTIAL REPORT NO.		OCCURRENCE CODE		REPORT TYPE		REVISION NO.							
17	8	3	—	0	1	0	/	0	3	L	—	0					
21	22	23	24	25	26	27	28	29	30	31	32						
ACTION TAKEN		FUTURE ACTION		EFFECT ON PLANT		SHUTDOWN METHOD		HOURS		ATTACHMENT SUBMITTED		NPRD-4 FORM SUB.		PRIME COMP. SUPPLIER		COMPONENT MANUFACTURER	
E	X	Z	Z	0	0	0	0	Y	N	L	B	0	6	9			
18	19	20	21	22	23	24	25	26	27	28	29	30	31	32			

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

1	0	Pressure switch 3-PS-1-76 setpoint had drifted. The Barksdale switch (model
1	1	B2TA12SS) was recalibrated, functionally tested and returned to service. See
1	2	action plan for corrective action, category 3.
1	3	
1	4	

FACILITY STATUS										% POWER										OTHER STATUS										METHOD OF DISCOVERY										DISCOVERY DESCRIPTION									
1	5	E	28	1	0	0	29	NA										30	B	31	Surveillance testing										32																		
ACTIVITY CONTENT RELEASED OF RELEASE										AMOUNT OF ACTIVITY										LOCATION OF RELEASE																													
1	6	Z	33	Z	34	NA										35	NA										36																						
PERSONNEL EXPOSURES										DESCRIPTION																																							
1	7	0	0	0	37	Z	38	NA										39																															
PERSONNEL INJURIES										DESCRIPTION																																							
1	8	0	0	0	40	NA										41																																	
LOSS OF OR DAMAGE TO FACILITY										DESCRIPTION																																							
1	9	Z	42	NA										43																																			
PUBLICITY ISSUED										DESCRIPTION																																							
2	0	N	44	NA										45	NRC USE ONLY																																		

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LER SUPPLEMENTAL INFORMATION

BFRO-50-296/83010 Technical Specification Involved 3.9.A

Reported Under Technical Specification 6.7.2.b.(1) * Date Due NRC 3/9/83

Event Narrative:

Unit 3 was operating normally when the event occurred, unit 1 was shutdown for maintenance, and unit 2 was in a refueling outage. Only unit 3 was affected by this event.

During the performance of SI 4.2.A.6, Primary Containment and Reactor Building Isolation Instrumentation - Low-Pressure Main Steam Line, pressure switch 3-PS-1-76 was found to operate outside the limits of TS Table 3.2.A. The pressure switch operated at 823.2 psig. Technical Specification 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 switch was recalibrated in accordance with SI 4.2.A.6 and was returned to service. Redundant pressure switches were available and operable in each trip system. The failure of this switch was due to setpoint drift. The attached action plan delineates the recurrence control to be implemented, category 3.

* Previous Similar Events:

BFRO-50-259/7916, 7917, 7924, 8020, 8022, 8057, 8123, 8128, 8159, 8218

50-260/7908, 8058, 8129, 8132, 8138, 8164, 8237, 8292

50-296/7907, 8022, 8030, 8130, 8236, 8254, 8045, 7912, 8052, 8107

Retention: Period - Lifetime; Responsibility - Document Control Supervisor

*Revision: JRP

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.