

LICENSEE EVENT REPORT

CONTROL BLOCK: _____ (1)

(PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)

0 1 | A | L | B | R | F | 3 | 2 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 3 | 4 | 1 | 1 | 1 | 1 | 4 | 5
7 8 9 14 15 25 26 30 57 CAT 58
 LICENSEE CODE LICENSE NUMBER LICENSE TYPE

CON'T
 0 1 | L | 6 | 0 | 5 | 0 | 0 | 0 | 2 | 9 | 6 | 7 | 0 | 5 | 2 | 5 | 8 | 2 | 8 | 0 | 6 | 1 | 8 | 8 | 2 | 9
60 61 68 69 74 75 80
 REPORT SOURCE DOCKET NUMBER EVENT DATE REPORT DATE

0 2 | During a power increase while calibrating pressure switches that initiate or control
 0 3 | the core standby cooling systems on unit 3, pressure switches PS-68-95 sw. 1 & 2 and
 0 4 | PS-3-74B sw. 2 operated at 251.7, 466.7, & 250.93 psig respectively. T.S. Table
 0 5 | 3.2.B requires these switches to operate at 230 + 15 psig, 450 + 15 psig, & 230 +
 0 6 | 15 psig. There was no effect on public health or safety because redundant switches
 0 7 | were available and operable.

0 8 | _____
7 8 9 80

0 9 | I | B | E | I | N | S | T | R | U | S | Z | 8 | 2 | - | 0 | 2 | 1 | 0 | 3 | L | - | 0 | E | F | Z | 0 | 0 | 0 | 0 | Y | N | N | B | 0 | 8 | 0
9 10 11 12 13 18 19 20 21 22 23 24 26 27 28 29 30 31 32 33 34 35 36 37 40 41 42 43 44 47
 SYSTEM CODE CAUSE CODE CAUSE SUBCODE COMPONENT CODE COMP. SUBCODE VALVE SUBCODE
 LER/RO REPORT NUMBER EVENT YEAR SEQUENTIAL REPORT NO. OCCURRENCE CODE REPORT TYPE REVISION NO.
 ACTION TAKEN FUTURE ACTION EFFECT ON PLANT SHUTDOWN METHOD HOURS ATTACHMENT SUBMITTED NPRD-4 FORM SUB PRIME COMP. SUPPLIER COMPONENT MANUFACTURER

1 0 | The Barton model 288 (PS-3-74B sw.1) and the Barksdale model B2T-M12SS (PS-68-95 sw.
 1 1 | 1 & 2) pressure switches' calibration had drifted. They were immediately recalibrated,
 1 2 | functionally tested, and returned to service. See attached action plan for corrective
 1 3 | action, category 3.

1 4 | _____
7 8 9 80

1 5 | C | 0 | 3 | 8 | NA | B | Surveillance tests
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 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50
 FACILITY STATUS % POWER OTHER STATUS METHOD OF DISCOVERY DISCOVERY DESCRIPTION

1 6 | Z | Z | NA | NA
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 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50
 RELEASED OF RELEASE AMOUNT OF ACTIVITY LOCATION OF RELEASE

1 7 | 0 | 0 | 0 | Z | NA
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 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50
 PERSONNEL EXPOSURES NUMBER TYPE DESCRIPTION

1 8 | 0 | 0 | 0 | NA
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 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50
 PERSONNEL INJURIES NUMBER DESCRIPTION

1 9 | Z | NA
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 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50
 LOSS OF OR DAMAGE TO FACILITY TYPE DESCRIPTION

2 0 | N | _____
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 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50
 PUBLICITY ISSUED DESCRIPTION

8206300232 820618
 PDR ADOCK 05000296
 S PDR

NRC USE ONLY

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LER SUPPLEMENTAL INFORMATION

BFRO-50- 296 / 8221 Technical Specification Involved Table 3.2.B

Reported Under Technical Specification 6.7.2.b(1) * Date Due NRC 6/23/82

Event Narrative:

Units 1 and 2 were operating normally. Unit 3 was ascending in power following an outage. Unit 3 was the only unit affected by this event. While performing Surveillance Instruction 4.2.B-7 (Instrumentation that Initiate or Control the CSCS Reactor Low Pressure) on unit 3, pressure switches PS-68-95 switches 1 and 2 and PS-3-74B switch 1 operated at 251.7 psi, 466.7 psi, and 250.93 psi respectively. Technical Specification Table 3.2.B requires PS-68-95 switch 1 to operate at 230 ± 15 psig, PS-68-95 switch 2 to operate at 450 ± 15 psig, and PS-3-74B switch 1 to operate at 230 ± 15 psig. The trip level settings on PS-68-95 switch 1 and PS-3-74B switch 1 actuate the recirculation discharge valves. The trip level setting on PS-68-95 switch 2 actuates a permissive for opening core spray and LPCI injection valves. The setpoints on the switches had drifted. The Barton model 288 (PS-3-74B switch 1) and the Barksdale model B2T-M12SS (PS-68-95 switch 1 and switch 2) pressure switches were immediately recalibrated per SI 4.2.B-7 and returned to service. There was no effect on public health or safety because redundant switches were available and operable. See attached action plan for corrective action, category 3.

* Previous Similar Events: - Barton Switches - (Code B080)

50-259/77007, 77002, 81071, 78010, 73027W, 73026W, 73022W, 73041W, 73033W,
78024, 74001W, 81084, 82006, 82016, 80089, 81001, 80087, 73052W,
74010W, 73046W, 73040W,

50-260/81055, 81068, 82006, 82013, 80029, 81004, 81027, 82003

50-296/81055, 80028, 82005, 82011, 80018, 79010, 79028

- Barksdale Switches - (Code B069)

50-259/81032, 81038, 81064

50-260/81028, 81059

50-296/80052

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 instruments 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.