

CONTROL BLOCK: ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ (PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)01 | A | L | B | R | F | 2 | 0 | 0 | - | 0 | 0 | 0 | 0 | - | 0 | 0 | 4 | 1 | 1 | 1 | 1 | 4 | 5
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 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

CON'T

01 | L | 6 | 0 | 5 | 0 | 0 | 0 | 2 | 6 | 0 | 7 | 0 | 2 | 0 | 8 | 8 | 3 | 8 | 0 | 2 | 1 | 1 | 8 | 3 | 9
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 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

02 | During performance of SI 4.2.B-7 (Reactor Low Pressure) in preparation for startup
03 | on Unit 2, pressure switches PS-68-96 switch 1, PS-3-74A switch 1, and PS-3-74B
04 | switch 1 and 2 operated at 199.7 psi, 208.43 psi, 208.43 psi, and 471.43 psi
05 | respectively. T. S. Table 3.2.B requires these switches to operate at 230 psi,
06 | 450 psi (switch #2) (+15 psi). There was no effect on public health or safety
07 | because redundant switches for PS-68-96 switch 1 and PS-3-74B switch 2 were
08 | available and operable.

09 | SYSTEM CODE: I R 11 | CAUSE CODE: E 12 | CAUSE SUBCODE: E 13 | COMPONENT CODE: I N S T R U 14 | COMP. SUBCODE: S 15 | VALVE SUBCODE: Z 16
17 | LER/RO REPORT NUMBER: 8 3 | EVENT YEAR: 8 3 | SEQUENTIAL REPORT NO.: 0 0 2 | OCCURRENCE CODE: 0 1 | REPORT TYPE: T | REVISION NO.: 0
18 | ACTION TAKEN: E 18 | FUTURE ACTION: X 19 | EFFECT ON PLANT: Z 20 | SHUTDOWN METHOD: Z 21 | HOURS: 0 0 0 0 | ATTACHMENT SUBMITTED: Y 23 | NPRD-4 FORM SUB.: N 24 | PRIME COMP. SUPPLIER: L 25 | COMPONENT MANUFACTURER: R O S O 26

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

10 | The Barton model 288 (PS-3-74A switch 1 and PS-3-74B switch 1 and 2) and the
11 | Barksdale model B2T-M12SS (PS-68-96 switch) pressure switches' calibration had
12 | drifted. They were immediately recalibrated, functionally tested, and returned to
13 | service. See attached action plan for corrective action, category 3.

14 |

15 | FACILITY STATUS: H 28 | % POWER: 0 0 0 29 | OTHER STATUS: NA 30 | METHOD OF DISCOVERY: B 31 | DISCOVERY DESCRIPTION: Surveillance Testing 32

16 | ACTIVITY CONTENT RELEASED OF RELEASE: Z 33 | Z 34 | AMOUNT OF ACTIVITY: NA 35 | LOCATION OF RELEASE: NA 36

17 | PERSONNEL EXPOSURES NUMBER: 0 0 0 37 | TYPE: Z 38 | DESCRIPTION: NA 39

18 | PERSONNEL INJURIES NUMBER: 0 0 0 40 | DESCRIPTION: NA 41

19 | LOSS OF OR DAMAGE TO FACILITY TYPE: Z 42 | DESCRIPTION: NA 43

20 | PUBLICITY ISSUED: N 44 | DESCRIPTION: NA 45

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PDR ADOCK 05000260
S PDR

NRC USE ONLY

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LER SUPPLEMENTAL INFORMATION

BFRO-50- 260 / 83002 Technical Specification Involved 3.2.B

Reported Under Technical Specification 6.7.2.a.(2) * Date Due NRC 2/22/83

Event Narrative:

Unit one was in a maintenance outage, unit two was in a refueling outage and unit three was in normal operation. Unit two was the only unit affected by this event. While performing Surveillance Inspection 4.2.B-7 (Reactor Low Pressure-Functional Test and Calibration) on unit two pressure switches PS-68-96 switch 1, PS-3-74A switch 1, and PS-3-74B switch 1 and 2 operated at 199.7 psi, 208.43 psi, 208.43 psi, and 471.43 psi, respectively. Technical Specification Table 3.2.B requires PS-68-96 switch 1, PS-3-74A switch 1, and PS-3-74B switch 1 to operate at 230 ± 15 psi, and PS-3-74B switch 2 to operate at 450 ± 15 psi, respectively. The setpoints on the switches had drifted. The trip level settings on PS-68-96 switch 1, PS-3-74A switch 1, and PS-3-74B switch 1 actuate the recirculation discharge valves. The trip level setting on PS-3-74B switch 2 actuates a permissive for opening core spray and LPCI injection valves. These switches were last calibrated 24 days prior to the unit two refueling outage and were being calibrated to return these systems to service. The extended length of time between calibrations contributed to the out-of-tolerance condition.

The Barton Model 288 (PS-3-74A switch 1 and PS-3-74B switch 1 and 2) and the Barksdale Model B2T-MI2SS (PS-68-96 switch 1) pressure switches were immediately recalibrated per Surveillance Inspection 4.2.B-7 and returned to service. See attached action plan for corrective action, category 3. There was no effect on public health or safety because redundant switches for PS-68-96 switch 1 and PS-3-74B switch 2 were available and operable and PS-3-74B switch 1 and PS-3-74A switch 1 were out of technical specifications by only 3 percent.

* Previous Similar Events:

BFRO-50-259/81038, 81064, 82038, 77002
260/81059, 81033, 78018, 82003, 82013
296/79010, 79028

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.