

LICENSEE EVENT REPORT

CONTROL BLOCK:

(PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)

CONTROL BLOCK: 1 2 3 4 5 6 ① (PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)

② ③ ④ ⑤

7 8 9 L Q A D 14 15 0 0 0 - 0 0 0 - 0 0 0 25 26 4 1 1 1 1 30 57 CAT 58

LICENSEE CODE LICENSE NUMBER LICENSE TYPE

CON'T

REPORT SOURCE: L 6 0 5 0 0 0 2 6 5 7 1 1 0 1 6 7 8 8 1 1 0 3 7 8 9

60 61 DOCKET NUMBER 68 69 EVENT DATE 74 75 REPORT DATE 80

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

0 2 | While performing quarterly surveillance procedure QIS 11-1, the number 1 Core Spray

0 3 | Low-Low Level initiation switch, in reactor water level indicating unit 2-263-72A

0 4 | failed to trip at the proper set point. The trip occurred at 79.3 inches. Due to the

0 5 | one-out-of-two-twice logic scheme, Core Spray would have initiated at the Technical

0 6 | Specification Table 3.2-2 requirement of > 83 inches above the top of the active fuel,

0 7 | since the other level switches were found to trip at the proper levels.

0 |

7 8 9

SYSTEM CODE S F 11		CAUSE CODE E 12		CAUSE SUBCODE E 13		COMP. SUBCODE S 15		VALVE SUBCODE Z 16	
SEQUENTIAL REPORT NO. 0 3 6		OCCURRENCE CODE 0 3		REPORT TYPE L		REVISION NO. 0			
ACTION TAKEN E 18		FUTURE ACTION 19		EFFECT ON PLANT Z 20		SHUTDOWN METHOD Z 21		HOURS 0 0 0 0	
ATTACHMENT SUBMITTED Y 23		NPRD-4 FORM SUB. Y 24		PRIME COMP. SUPPLIER N 25		COMPONENT MANUFACTURER Y 0 1 0			

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

1 0 | The cause of this occurrence is attributed to instrument drift. The instrument

1 1 | drift was caused by a shift of the mercoid switch in its holder. The corrective

1 | action was to adjust the mercoid switch to bring the set point within limits.

1 3 | Surveillance on this level switch will be performed monthly until it can be replaced.

1 4 |

FACILITY STATUS (1) 5 (F) (28) % POWER (0) 7 (7) (29) OTHER STATUS (30) NA
 ACTIVITY CONTENT RELEASED OF RELEASE (1) 6 (Z) (33) (34) AMOUNT OF ACTIVITY (35) NA
 METHOD OF DISCOVERY (B) (31) Routine Test DISCOVERY DESCRIPTION (32)
 LOCATION OF RELEASE (36) NA

PERSONNEL EXPOSURES									
NUMBER			TYPE	DESCRIPTION					
1	7	0	0	0	(37) Z (38) NA	7811240/56			

PERSONNEL INJURIES		NUMBER		DESCRIPTION	
1	0	0	0	40	NA

7		8		9		10		11		12		
LOSS OF OR DAMAGE TO FACILITY						(43)						
TYPE				DESCRIPTION								
1	9	2	8	9	10	NA						
(42)												

8 9 10
PUBLICITY
ISSUED DESCRIPTION (45)
2 0 N (44) NA 68 69 80
2 8 9 10
NRC USE ONLY

NRC USE ONLY

NAME OF PREPARER J. Swales

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- I. LER NUMBER: LER/RO 78-36/03L-0
- II. LICENSEE NAME: Commonwealth Edison Company
Quad-Cities Nuclear Power Station
- III. FACILITY NAME: Unit Two
- IV. DOCKET NUMBER: 050-265
- V. EVENT DESCRIPTION:

On October 16, 1978 the number 1 Core Spray Low-Low initiation switch in level indicating unit 2-263-72A, failed to trip at the proper setting. This occurred while performing quarterly surveillance procedure QIS 11-1, Low-Low Reactor Water Level Calibration. The mercoird switch tripped at 79.3 inches above the top of the active fuel, contrary to the Technical Specification Table 3.2-3 requirement of ≥ 83 inches above the top of the active fuel. Level indicating switches 2-263-72B, C, and D did operate properly.

There have been several occurrences involving failures of these level switches in the past at Quad-Cities Station. The two most recent occurrences are reported in LER/RO-78-21/03L on Unit ONE and LER/RO-78-27/03L on Unit TWO.

VI. PROBABLE CONSEQUENCES OF THE OCCURRENCE:

There are two mercoird switches mounted on each of the four Yarway level indicating switches associated with ECCS initiation. The no. 1 switches are arranged in a one-out-of-two-twice logic scheme and are used to initiate the Core Spray System. Due to this logic scheme, Core Spray would have initiated at the proper setpoint despite LIS 2-263-72A being out of calibration. Therefore, safe plant operation was not affected by this occurrence.

VII. CAUSE:

The cause of this occurrence was instrument drift of LIS 2-263-72A switch no. 1. The instrument drift was caused by an apparent shift of the mercoird switch in its holder. The reactor water level is translated into a rotational placement of a cam-mounted magnet by the Yarway system. Therefore, the location of the mercoird switch must be precise in order to obtain the proper setpoint.

The level switches are a diaphragm-Mercoird type, model no. 4418C.

VIII. CORRECTIVE ACTION:

The immediate corrective action was to adjust the mercoid switch to bring the setpoint within limits. In addition, surveillance on LIS 2-263-72A will be performed monthly until switch no. 1 of LIS 2-263-72A can be replaced during a unit outage. Permanent corrective action is being considered as part of Action Item AIR 4-75-25. This AIR is studying the feasibility of an analog trip system to replace the Yarway level indicating switches.