

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)
Peach Bottom Atomic Power Station - Unit 2DOCKET NUMBER (2)
0 5 0 0 0 2 7 7PAGE (3)
1 OF 0 1 4TITLE (4)
Two Blown Fuses Which Rendered at Least One Independent Train of Multiple Engineered Safety Features InoperableEVENT DATE (5)
MONTH DAY YEAR
0 4 2 8 8 8 8 8
LER NUMBER (6)
SEQUENTIAL NUMBER REVISION NUMBER
0 0 1 0 0 0 5 2 6 8 8
REPORT DATE (7)
MONTH DAY YEAR
0 5 0 0 0 0 0 0
OTHER FACILITIES INVOLVED (8)
FACILITY NAMES DOCKET NUMBER(S)
0 5 0 0 0 0 0 0OPERATING MODE (9)
N
POWER LEVEL (10)
0 10 10
THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR § (Check one or more of the following) (11)
20.402(a) 20.403(e) 50.73(a)(2)(iv) 73.71(b)
20.403(a)(1)(i) 50.73(a)(2)(v) 73.71(e)
20.403(a)(1)(ii) 50.73(a)(2)(vi) X
20.403(a)(1)(iii) 50.73(a)(2)(vii)(A)
20.403(a)(1)(iv) 50.73(a)(2)(vii)(B)
20.403(a)(1)(v) 50.73(a)(2)(viii)
20.403(a)(1)(vi) 50.73(a)(2)(ix)LICENSEE CONTACT FOR THIS LER (12)
NAME
W. C. Birely, Senior Engineer - Licensing Section
TELEPHONE NUMBER
AREA CODE 2 1 5 8 4 1 - 5 0 4 8COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)
CAUSE SYSTEM COMPONENT MANUFACTURER REPORTABLE TO NRC
CAUSE SYSTEM COMPONENT MANUFACTURER REPORTABLE TO NRCSUPPLEMENTAL REPORT EXPECTED (14)
YES (If yes, complete EXPECTED SUBMISSION DATE) NO
EXPECTED SUBMISSION DATE (15)
MONTH DAY YEAR
0 8 1 9 8 8

ABSTRACT (Limit to 1400 spaces, i.e., approximately fifteen single-space typewritten lines) (16)

Abstract:

At 0945 hours on April 28, 1988 during the preliminary checkout of the 'A' Channel Core Spray logic, a Field Engineer discovered two blown fuses. The blown fuses rendered at least one independent train of several engineered safety features inoperable, thereby invoking the reporting requirements of 10 CFR 50.73(a)(2)(vii). The fuses were replaced at 1100 hours. PECO has initiated a physical inspection of the fuses to determine the failure mode. The consequences of the blown fuses are minimal. Since Unit 2 was in the Cold Shutdown Condition, the high pressure safety systems were not required to be operable and the redundant low pressure system trains were available. No ESF systems actuated as a result of this event.

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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

APPROVED OMB NO. 3150-0104

EXPIRES 8/31/85

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| Peach Bottom Atomic Power Station | | YEAR | SEQUENTIAL NUMBER | REVISION NUMBER | | |
| Unit 2 | 0 5 0 0 0 2 7 7 8 8 | - | 0 0 1 | - | 0 0 | 0 2 OF 0 4 |

TEXT (If more space is required, use additional NRC Form 305A's) (17)

Unit Conditions Prior to the Event:

Unit 2 was in the Cold Shutdown Condition.

The "A" Core Spray subsystem, "A" Residual Heat Removal subsystem, and High Pressure Coolant Injection System were blocked out-of-service to facilitate maintenance and modifications.

Description of the Event:

On April 28, 1988 at 0945 hours during the preliminary checkout of the 'A' Channel Core Spray logic, a Field Engineer discovered that both the positive and negative fuses in the 125 VDC station battery distribution panel (20D21-11) had blown. The fuses were replaced at 1100 hours. The blown fuses rendered at least one independent train of ESF logic inoperable, thus invoking reporting requirement 10 CFR 50.73(a)(2)(vii). The affected logic trains are listed on Table I.

The causes and times of the blown fuses are unknown. Because the related systems were blocked out-of-service the alarms that would have revealed the blown fuses were masked. A physical inspection of the fuses is underway to attempt to determine the failure mode of the fuses. The results of the fuse failure mode investigation will be reported by August 19, 1988 in a supplement to this report.

Consequences of the Event:

The actual and postulated consequences of this event are minimal. The blown fuses did not impact the ability of the operators to maintain the Cold Shutdown Condition. If these fuses had blown at power, several Limiting Conditions for Operation would be invoked, but no degradation of plant safety would result. Because the related systems were blocked out-of-service, the alarms that would have indicated the blown fuses were masked. Upon removal of the blocks, the alarms would be revealed, permitting discovery of the blown fuses. Finally, since Unit 2 was in the Cold Shutdown Condition and the ADS and HPCI System are high pressure systems (>170 psig), they were not required to be operable.

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| Unit 2 | 0 5 0 0 0 2 7 7 | 8 8 | - 0 0 1 | - 0 0 | 0 3 | OF | 0 4 |

TEXT (If more space is required, use additional NRC Form 365A's) (17)

Cause of the Event:

The cause for the blown fuses is unknown. PECO has initiated a physical inspection of the fuses to determine the failure mode. The results of the failure mode investigation will be reported in a supplement to this report by August 19, 1988.

Corrective Actions:

The blown fuses were replaced by 1100 hours on April 28. PECO has initiated a physical inspection of the fuses to determine the failure mode. Further corrective actions will be determined based on the results of the fuse physical inspection.

EIIS Codes:

The EIIS codes for the systems described in this report are: BM- (Low Pressure) Core Spray System; BO - RHR/Low Pressure Coolant Injection System; BJ - High Pressure Coolant Injection (HPCI) System; and JF - Logic Control Systems.

The IEEE codes for the components described in this report are: FU - fuse; CHA - channel; BLK - block; BTRY - battery; and ALM - alarm.

Previous Similar Events:

Cause Code: X1 - Failure Unknown Cause.

Peach Bottom LERs 02-84-05, 03-86-06, 03-86-11, 03-86-15, 02-87-11, 02-87-22 and 02-87-24 were also caused by blown fuses.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 3150-0104

EXPIRES 8/31/85

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TEXT (If more space is required, use additional NRC Form 365A's) (17)

TABLE I

Affected Systems and Their Potential Impact With Unit Operating

"A" Channel Core Spray Logic

"A" Core Spray subsystem pumps won't start.

"B" subsystem available and unaffected.

"A" Channel HPCI Logic

"A" Channel logic is unavailable.

HPCI isolation and initiation not precluded.

ADS Logic

"A" Channel logic is unavailable.

"B" Channel logic is available. ADS function available.

"A" Channel RHR Logic

"A" & "B" RHR subsystem pumps are available.

PHILADELPHIA ELECTRIC COMPANY

2301 MARKET STREET

P.O. BOX 8699

PHILADELPHIA, PA. 19101

(215) 841-5000

May 26, 1988

Docket No. 50-277

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U.S. Nuclear Regulatory Commission
Washington, DC 20555

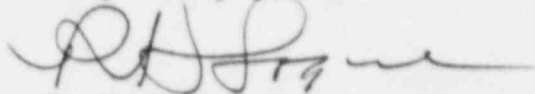
SUBJECT: Licensee Event Report
Peach Bottom Atomic Power Station - Unit 2

This LER concerns two blown fuses which rendered at least one independent train of multiple engineered safety features inoperable.

| | |
|------------------|---|
| Reference: | Docket No. 50-277 |
| Report Number: | 2-88-01 |
| Revision Number: | 00 |
| Event Date: | April 28, 1988 |
| Report Date: | May 26, 1988 |
| Facility: | Peach Bottom Atomic Power Station RD 1, Box 208, Delta, PA 17314 |

This LER is being submitted pursuant to the requirements of 10 CFR 50.73(a)(2)(vii).

Very truly yours,



R. H. Logue
Assistant to the Manager
Nuclear Support Division

cc: W. T. Russell, Administrator, Region I, USNRC
T. P. Johnson, NRC Senior Resident Inspector

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