

PHILADELPHIA ELECTRIC COMPANY

PEACH BOTTOM ATOMIC POWER STATION

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KEN POWERS
PLANT MANAGER

September 18, 1992

Docket No. 50-277
50-278

Document Control Desk
U. S. Nuclear Regulatory Commission
Washington, DC 20555

SUBJECT: Licensee Event Report
Peach Bottom Atomic Power Station - Unit 2 and 3

This LER concerns the plant being outside its design basis due to unqualified fire barriers. This revision provides updated information after issuance of NRC Bulletin 92-01, Supplement 1.

Reference: Docket No. 50-277
50-278
Report Number: 2-92-011
Revision Number: 01
Discovery date: 06/25/92
Reportability Date: 09/18/92
Report Date:
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)(ii)(B).

Sincerely,

cc: J. J. Lyash, USNRC Senior Resident Inspector
T. T. Martin, USNRC, Region I

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Plant Being Outside Its Design Basis Due to Unqualified Fire Barriers

OTHER FACULTIES INVOLVED IN:

FACILITY NAMES	DOCKET NUMBER(S)
Peach Bottom - Unit 3	0 15 0 0 0 12 7 1
	0 15 0 0 0 1 1

LICENSEE CONTACT FOR THIS LER (12)

AREA CODE

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COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

SUPPLEMENTAL REPORT EXPECTED 114

ABSTRACT (about 1,400 words; i.e. approximately fifteen single-spaced, typewritten lines) (16)

NRC Bulletin No. 92-01, "Failure of Thermo-Lag 330 Fire Barrier System to Maintain Cabling in Wide Cable Trays and Small Conduits Free from Fire Damage," was issued on 6/24/92 and a supplement "Failure of Thermo-lag 330 Fire Barrier System to Perform its Specified Endurance Function" was issued on 8/28/92. The Bulletins requested licensees to promptly identify the areas of the plant which have Thermo-Lag 330 Fire Barrier material installed to protect conduits or wide cable trays that provide safe shut down capability. An evaluation of the status of the Thermo-Lag throughout the plant was completed and the fire barriers conforming to the description in the NRC Bulletin were declared inoperable. The cause of this condition has been determined to be design deficiencies as delineated in the NRC Bulletin. Hourly fire watches were established. Appropriate corrective actions to restore fire barrier operability are being developed. No actual safety consequences occurred as a result of this event. No previous similar events were identified.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 500 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (PB30), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1)

DOCKET NUMBER (2)

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PAGE (3)

Peach Bottom Atomic Power Station
Units 2 and 3

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TEXT (If more space is required, use additional NRC Form 366A's) (17)

Requirements for the Report

This report is submitted to satisfy the requirements of 10 CFR 50.73(a)(2)(ii)(B) due to a condition concerning fire barrier deficiencies that resulted in the plant outside the 10 CFR 50 Appendix R design basis.

Unit Conditions at Time of Discovery

Unit 2 was in the RUN mode at 95% of thermal reactor (E11S:EA) power and Unit 3 was in cold shutdown condition. There were no systems, structures or components that were inoperable that contributed to the event.

Description of the Event

On 6/24/92, NRC Bulletin No. 92-01, "Failure of Thermo-Lag 330 Fire Barrier System to Maintain Cabling in Wide Cable (E11S:CBL) Trays and Small Conduits (E11S:CND) Free from Fire Damage," was issued which requested licensees to promptly identify the areas of the plant which have Thermo-Lag 330 Fire Barrier material installed to protect either small conduits or wide cable trays that provide safe shut down capability. In addition, the NRC Bulletin recommended the implementation of compensatory measures, such as fire watches, that would be consistent with either plant Technical Specifications (Tech Spec) or an operating license condition for an inoperable fire barrier.

On 6/25/92, a review of the plant areas which contain Thermo-Lag was completed. An hourly fire watch was established as an immediate compensatory measure in all areas where suspect Thermo-Lag was used to protect safe shut down capability. An evaluation of the status of the Thermo-Lag throughout the plant was completed and the fire barriers conforming to the description in the NRC Bulletin were declared inoperable on 7/16/92. The evaluation identified a potential concern in 29 fire areas which used Thermo-Lag to encapsulate and protect conduits in these areas. The Off Gas Holdup Pipe Tunnel (Room No. 18) was the only area of concern that did not have fire detection. A Temporary Waiver of Compliance was granted for the Pipe Tunnel which approved the use of an hourly fire watch rather than a continuous fire watch. A Closed Circuit Television (CCTV) and fire detection was then installed in the Pipe Tunnel during a forced Unit 2 outage on 7/17/92 to assure Tech Spec compliance.

On 8/28/92, Supplement 1 to NRC Bulletin 92-01 was received which expanded the scope of the Thermo-Lag concern to include all configurations. A review of the plant areas which contain Thermo-Lag was completed and a potential concern in two additional fire areas was identified. The two additional fire areas, which were not in the scope of the previous NRC Bulletin, were declared inoperable on 8/28/92. The areas identified were the Unit 3 Off Gas Holdup Pipe Tunnel (Room No. 19) and the High Pressure Service Water (HPSW) Pump Structure (Room No. 801). Room No. 19 was the only area of concern that did not have fire detection. A hourly fire watch was immediately established in the HPSW Pump Structure. Another Temporary Waiver of Compliance was granted for the Unit 3 Pipe Tunnel to suspend the requirement to have a continuous fire watch and to allow the use of a CCTV as an acceptable means of satisfying the Tech Spec fire watch requirement. A CCTV was then installed in Room No. 19.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 500 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P-320), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555, AND TO THE PAPERWORK REDUCTION PROJECT (J1160-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1) Peach Bottom Atomic Power Station Units 2 and 3	DOCKET NUMBER (2) 0 5 0 0 0 2 7 7 9 2	LER NUMBER (6) <table border="1"><thead><tr><th data-bbox="1065 271 1146 313">YEAR</th><th data-bbox="1146 271 1305 313">SEQUENTIAL NUMBER</th><th data-bbox="1305 271 1411 313">REVISION NUMBER</th></tr></thead><tbody><tr><td data-bbox="1065 313 1146 407">9 2</td><td data-bbox="1146 313 1305 407">0 1 1</td><td data-bbox="1305 313 1411 407">0 1</td></tr></tbody></table>	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	9 2	0 1 1	0 1	PAGE (3) 0 3 OF 0 3
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TEXT (If more space is required, use additional NRC Form 366A's.) (17)

Cause of the Event

The cause of this condition has been determined to be design deficiencies as delineated in the NRC Bulletin. Thermo-Lag fire barriers were originally installed as part of the Appendix R upgrade in the mid-1980's. Based on the NRC Bulletin, the Philadelphia Electric Company determined that the fire barriers may not have been capable of performing their designed function of protecting vital cables for equipment necessary to ensure safe shut down of the plant in the event of a fire.

Analysis of the Event

No actual safety consequences occurred as a result of this event.

No fires have occurred that required these barriers to protect safe shut down equipment. Because of the deficiency in the Thermo-Lag design, an undetected fire could have adversely affected the encapsulated conduits and jeopardized the Appendix R Shutdown Methods. Fire detectors were operable in all areas except Rooms 18 and 19. These detectors would have allowed a prompt response by the Station Fire Brigade. In addition, it is unlikely that a fire could occur in these areas because of the controls on transient combustibles and ignition source controls.

Corrective Actions

Hourly fire watches were established on 6/25/92 in those areas of the plant where Thermo-Lag was used to protect safe shut down capabilities.

In addition, a CCTV and temporary fire detection equipment has been installed in Room No. 18 and 19 since the Pipe Tunnels were the only area of concern that did not have permanently installed fire detection. A hourly fire watch was immediately established on 8/28/92 in the HPSW Pump Structure.

Also, all Fire Brigades have been notified of this condition and a fire drill was staged on 7/17/92 to minimize the response time to a fire in the Pipe Tunnel.

Future corrective actions to restore fire barrier operability are being coordinated through an industry program being coordinated by the Nuclear Management and Resources Council (NUMARC). As further information regarding corrective actions becomes available throughout the industry, further measures will be planned and implemented. Future corrective actions taken will be provided to the NRC in a supplemental response to NRC Bulletin No. 92-01.

Previous Similar Events

There are no previous similar events identified in which Thermo-Lag was considered inoperable.