

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)

Peach Bottom Atomic Power Station - Unit 3

DOCKET NUMBER (2)

0500002718

PAGE (3)

1 OF 1

TITLE (4)

Loss of Secondary Containment Integrity

EVENT DATE (5)

MONTH DAY YEAR

091284

LER NUMBER (6)

SEQUENTIAL NUMBER

0112

REPORT DATE (7)

MONTH DAY YEAR

091284

OTHER FACILITIES INVOLVED (8)

FACILITY NAMES

DOCKET NUMBER(S)

050000

050000

OPERATING MODE (9)

POWER LEVEL (10)

100

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5. (Check one or more of the following) (11)

20.402(a)

20.406(a)(1)(i)

20.406(a)(1)(ii)

20.406(a)(1)(iii)

20.406(a)(1)(iv)

20.406(a)(1)(v)

20.406(a)(1)(vi)

20.406(a)

20.406(a)(1)

20.406(a)(2)

20.406(a)(2)(i)

20.406(a)(2)(ii)

20.406(a)(2)(iii)

20.406(a)(2)(iv)

20.73(a)(2)(iv)

20.73(a)(2)(v)

20.73(a)(2)(vi)

20.73(a)(2)(vii)(A)

20.73(a)(2)(vii)(B)

20.73(a)(2)(viii)

20.73(a)

20.73(a)

OTHER (Specify in Abstract below and in Test, NRC Form 365A)

LICENSEE CONTACT FOR THIS LER (12)

NAME

B. L. Clark, Senior Engineer - Special Projects

TELEPHONE NUMBER

AREA CODE

21584175017

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

| CAUSE | SYSTEM | COMPONENT | MANUFACTURER | REPORTABLE TO NRC | CAUSE | SYSTEM | COMPONENT | MANUFACTURER | REPORTABLE TO NRC |
|-------|--------|-----------|--------------|-------------------|-------|--------|-----------|--------------|-------------------|
| X | JM | DUCT | BLI30 | Y | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

SUPPLEMENTAL REPORT EXPECTED (14)

EXPECTED SUBMISSION DATE (15)

MONTH DAY YEAR

YES (If yes, complete EXPECTED SUBMISSION DATE)

X NO

ABSTRACT (Limit to 1600 words, i.e., approximately fifteen single-space typewritten lines) (16)

Abstract: 3-84-12

On September 11, 1984, at approximately 4:45 p.m., a section of Standby Gas Treatment System (SBGTS) ductwork in the reactor building sump room (elev. 91 ft. 6 in.) was found to be collapsed. The redundant flow path from the refueling floor appeared operable in that the refueling floor hatch was verified to be removed. Surveillance testing performed on September 12, 1984, to verify secondary containment integrity indicated loss of secondary containment in that a 0.25 inch of water vacuum within the secondary containment could not be maintained utilizing the SBGTS. As a result of the collapsed ductwork, SBGTS flow was restricted to approximately 5000 CFM while maintaining 0.22 inch of water vacuum within the secondary containment. Unit shutdown from 100% power was initiated immediately due to failure to maintain secondary containment integrity. The vortex dampers on the SBGTS fans were adjusted and a 0.28 inch of water vacuum during surveillance testing within secondary containment indicated that secondary containment integrity had been restored. Unit shutdown was terminated at 2:00 p.m. on September 12, 1984.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

APPROVED OMB NO. 3150-0104
EXPIRES: 8/31/86

| | | | | | | | |
|--|--|----------------|----------------------|--------------------|----------|--|--|
| FACILITY NAME (1) Peach Bottom Atomic Power Station - Unit 3 | DOCKET NUMBER (2) 0 5 0 0 0 2 7 8 8 4 - 0 1 2 - 0 0 | LER NUMBER (6) | | | PAGE (3) | | |
| | | YEAR | SEQUENTIAL NUMBER | REVISION NUMBER | | | |
| | | | | | | | |

TEXT (If more space is required, use additional NRC Form 866A's) (17)

Description of the Event:

At approximately 4:45 p.m. on September 11, 1984, a section of Standby Gas Treatment System (SBGTS) ductwork located in the reactor building sump room at elevation 91 ft. 6 in. was found to be collapsed. The redundant flow path from the refueling floor appeared operable in that the refueling floor hatch was verified to be removed. Surveillance testing performed on September 12, 1984, to verify secondary containment integrity indicated a loss of secondary containment integrity in that the technical specification requirement of a 0.25 inch of water vacuum within secondary containment utilizing the SBGTS could not be maintained. The SBGTS maintained a 0.22 inch of water vacuum at a restricted flow of 5000 CFM as a result of the collapsed ductwork. Immediately upon completion of the surveillance testing, unit shutdown from 100% power was initiated due to failure to maintain secondary containment integrity. Following adjustment of the SBGTS fan vortex dampers, surveillance testing indicated that secondary containment integrity had been restored with a 0.28 inch of water vacuum within secondary containment and the unit shutdown was terminated at 2:00 p.m. on September 12, 1984.

Consequences of the Event:

Technical Specification 3.7.C requires that secondary containment integrity be maintained during all modes of operation. The secondary containment is designed to minimize any ground level release of radioactive materials which might result from postulated accidents except a main steam line break. The ability to maintain 0.22 inch of water vacuum in lieu of 0.25 inch of water vacuum in the secondary containment would not have resulted in radioactive releases substantially greater than would normally have been expected as a result of a Group 3 isolation. A Group 3 isolation signal isolates the reactor building and starts the SBGTS on reactor low water level (538"), high drywell pressure, reactor building ventilation high radiation (which would indicate a possible accident and necessitate primary containment isolation), or refueling floor ventilation high radiation.

This condition may have been undetected in excess of the twelve-hour Limiting Condition for Operation (Tech. Spec. 3.7.C.2); however, secondary integrity was immediately restored following identification of the condition in accordance with Technical Specification 4.7.C.1.d.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

APPROVED OMB NO. 3150-0104
EXPIRES: 8/31/86

| | | | | | | |
|--|--|----------------|----------------------|--------------------|----------|--------|
| FACILITY NAME (1) Peach Bottom Atomic Power Station - Unit 3 | DOCKET NUMBER (2) 0 5 0 0 0 2 7 8 8 4 - 0 1 2 - 0 0 | LER NUMBER (6) | | | PAGE (3) | |
| | | YEAR | SEQUENTIAL NUMBER | REVISION NUMBER | | |
| | | | | | 0 3 | OF 0 3 |

TEXT (If more space is required, use additional NRC Form 355A's) (17)

Cause of the Event:

Investigation into the cause of the collapsed ductwork indicates that a valving error may have occurred during one of the many transfers of the Unit 3 reactor building equipment cell exhaust to the SBGTS. Realignment of equipment cell exhaust is performed to reduce airborne contamination when regenerating the reactor water cleanup system. The failure to maintain secondary containment integrity was caused by a stuck closed modulating damper (PO-30477-2) in the redundant refuel floor ductwork to the SBGTS which is used to control reactor building vacuum. With the restrictions in both flowpaths, SBGTS flow was limited to 5,000 CFM thus limiting reactor building vacuum to 0.22 inch of water.

Corrective Actions:

Surveillance Test, ST-13.9, "Secondary Containment Capability Test", was performed on September 12, 1984, to verify the integrity of secondary containment. As a result of the restricted flowrate, the mechanical stops on the SBGTS fan vortex dampers were adjusted to compensate for the flow restrictions. Following successful completion of surveillance testing, the collapsed section of ductwork was bypassed prior to a second successful performance of surveillance testing of secondary containment integrity on September 12, 1984, at 2:00 p.m. The unit shutdown, which commenced at 1:00 p.m. on September 12, was terminated when secondary containment integrity was verified.

The collapsed ductwork was repaired and performance of surveillance testing was successfully performed on September 14, 1984.

Diagnostic testing of the SBGTS, performed in accordance with a special procedure to investigate SBGTS flow performance, indicated that the modulating damper, PO-30477-2, had remained closed causing the restriction in the redundant refuel floor ductwork. The restriction was discovered on September 17, 1984 and subsequent testing of the SBGTS could not duplicate the failure. An internal inspection of PO-30477-2 will be performed during the next dual unit outage.

Modifications to the SBGTS controls and damper operation are currently being studied to preclude future occurrence.

PHILADELPHIA ELECTRIC COMPANY

2301 MARKET STREET

P.O. BOX 8699

PHILADELPHIA, PA. 19101

(215) 841-4000

October 12, 1984

Docket No. 50-278

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

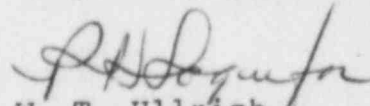
SUBJECT: Licensee Event Report

This LER concerns the loss of secondary containment integrity as a result of damaged Standby Gas Treatment System ductwork on Unit 3.

| | |
|------------------|--|
| Reference: | Docket No. 50-278 |
| Report Number: | 3-84-12 |
| Revision Number: | 00 |
| Event Date: | September 12, 1984 |
| Report Date: | October 12, 1984 |
| Facility: | Peach Bottom Atomic Power Station RD #1, Box 208, Delta, PA 17314 |

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

Very truly yours,



W. T. Ullrich
Superintendent
Nuclear Generation Division

cc: Dr. Thomas E. Murley, Administrator
Region I, USNRC

Mr. A. R. Blough, Site Inspector

IE22
11