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10CFR 50.73

November 19, 2004

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555-0001

Peach Bottom Atomic Power Station (PBAPS) Unit 2
Facility Operating License No. DPR-44
NRC Docket No. 50-277

Subject: Licensee Event Report (LER) 2-04-02

This LER reports a Technical Specification non-compliance involving a Primary Containment Isolation Valve inoperability. In accordance with NEI 99-04, the regulatory commitment contained in this correspondence is to restore compliance with the regulations. The specific methods that are planned to restore and maintain compliance are discussed in the LER. If you have any questions or require additional information, please do not hesitate to contact us.

Sincerely,

JPG

Joseph P. Grimes
Plant Manager
Peach Bottom Atomic Power Station

JPG/jrd/CR 255930

Attachment

cc: PSE&G, Financial Controls and Co-owner Affairs
R. R. Janati, Commonwealth of Pennsylvania
INPO Records Center
S Collins US NRC, Administrator, Region I
R. I. McLean, State of Maryland
US NRC, Senior Resident Inspector

CCN 04-14092

IE22

SUMMARY OF EXELON NUCLEAR COMMITMENTS

The following table identifies commitments made in this document by Exelon Nuclear. (Any other actions discussed in the submittal represent intended or planned actions by Exelon Nuclear. They are described to the NRC for the NRC's information and are not regulatory commitments.)

Commitment	Committed Date or "Outage"
In accordance with NEI 99-04, the regulatory commitment contained in this correspondence is to restore compliance with the regulations. The specific methods that are planned to restore and maintain compliance are discussed in the LER.	In accordance with the Corrective Action Program

NRC FORM 366 (6-2004) U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB: NO. 3150-0104 EXPIRES: 06/30/2007

Estimated burden per response to comply with this mandatory collection request: 50 hours. Reported lessons learned are incorporated into the licensing process and fed back to industry. Send comments regarding burden estimate to the Records and FOIA/Privacy Service Branch (T-5 F52), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to infocollects@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3150-0104), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

LICENSEE EVENT REPORT (LER)

(See reverse for required number of digits/characters for each block)

1. FACILITY NAME	2. DOCKET NUMBER	3. PAGE
Peach Bottom Atomic Power Station (PBAPS)	05000 277	1 OF 3

4. TITLE

Technical Specification Non-Compliance due to Inoperable Primary Containment Isolation Valve

5. EVENT DATE			6. LER NUMBER			7. REPORT DATE			8. OTHER FACILITIES INVOLVED	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REV NO.	MONTH	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
										05000
09	07	2004	4	- 02 -	0	11	19	2004	FACILITY NAME	DOCKET NUMBER 05000

9. OPERATING MODE

1

10. POWER LEVEL

99

11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR§: *(Check all that apply)*

- ☐ 20.2201(b)
- ☐ 20.2201(d)
- ☐ 20.2203(a)(1)
- ☐ 20.2203(a)(2)(i)
- ☐ 20.2203(a)(2)(ii)
- ☐ 20.2203(a)(2)(iii)
- ☐ 20.2203(a)(2)(iv)
- ☐ 20.2203(a)(2)(v)
- ☐ 20.2203(a)(2)(vi)
- ☐ 20.2203(a)(3)(i)
- ☐ 20.2203(a)(3)(ii)
- ☐ 20.2203(a)(4)
- ☐ 50.36(c)(1)(i)(A)
- ☐ 50.36(c)(1)(ii)(A)
- ☐ 50.36(c)(2)
- ☐ 50.46(a)(3)(ii)
- ☐ 50.73(a)(2)(i)(A)
- ☒ 50.73(a)(2)(i)(B)
- ☐ 50.73(a)(2)(i)(C)
- ☐ 50.73(a)(2)(ii)(A)
- ☐ 50.73(a)(2)(ii)(B)
- ☐ 50.73(a)(2)(iii)
- ☐ 50.73(a)(2)(iv)(A)
- ☐ 50.73(a)(2)(v)(A)
- ☐ 50.73(a)(2)(v)(B)
- ☐ 50.73(a)(2)(v)(C)
- ☐ 50.73(a)(2)(v)(D)
- ☐ 50.73(a)(2)(vii)
- ☐ 50.73(a)(2)(viii)(A)
- ☐ 50.73(a)(2)(viii)(B)
- ☐ 50.73(a)(2)(ix)(A)
- ☐ 50.73(a)(2)(x)
- ☐ 73.71(a)(4)
- ☐ 73.71(a)(5)
- ☐ OTHER

Specify in Abstract below or in NRC Form 366A

12. LICENSEE CONTACT FOR THIS LER

FACILITY NAME	TELEPHONE NUMBER (Include Area Code)
PBAPS Unit 2, James Mallon, Regulatory Assurance	717-456-3351

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

CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX
E	BJ	ISV	B295	Y					

14. SUPPLEMENTAL REPORT EXPECTED

☐ YES *(If yes, complete 15. EXPECTED SUBMISSION DATE)* ☒ NO

15. EXPECTED SUBMISSION DATE

MONTH	DAY	YEAR

ABSTRACT *(Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines)*

On 9/23/04, during planned refueling outage maintenance activities, maintenance technicians discovered foreign material (i.e. a bolt) in the valve body of the High Pressure Coolant Injection (HPCI) Turbine Exhaust Drain Line Inboard Isolation Air-Operated Valve (AO-137). It was subsequently determined that this foreign material was the cause of a previously identified failure of this valve to close that was discovered on 9/8/04 at approximately 1700 hours during the performance of routine surveillance testing. Further investigation determined that the foreign material in the system piping was originally identified as being lost during previous refueling outage maintenance activities performed in September 2002. The evaluation performed for the lost material did not result in the expectation that the material would travel to the AO-137. However, the bolt migrated to the AO-137 valve body during a HPCI system run. The previous HPCI system run prior to the discovery of the valve seating concern was on 9/7/04 at approximately 1400 hours. Therefore, this is considered the time that the foreign material entered the valve seat area and therefore the AO-137 is considered to have become inoperable at that time. Because the Technical Specification 4-hour Required Action to isolate the penetration was not performed until 9/08/04 by 2100 hours, this event was determined to be a condition prohibited by the Technical Specifications. The bolt was removed and the other areas of the HPCI turbine piping system were thoroughly inspected for additional foreign material. There were no previous similar LERs. There were no actual safety consequences associated with this event.

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		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
Peach Bottom Atomic Power Station, Unit 2	05000277	04	- 02	- 00	2 OF 3

NARRATIVE *(If more space is required, use additional copies of NRC Form 366A)* (17)

Unit Conditions Prior to the Event

Unit 2 was in Mode 1 and operating at approximately 99% rated thermal power in end of cycle coast down when the Technical Specification non-compliance existed on 9/7/04 to 9/8/04. There were no structures, systems or components out of service that contributed to this event.

Description of the Event

On 9/23/04, during planned refueling outage maintenance activities, maintenance technicians discovered foreign material (i.e. a bolt) in the valve body of the High Pressure Coolant Injection (HPCI) (EIIS: BJ) Turbine Exhaust Drain Line Inboard Isolation Air-Operated Valve (AO-137). It was subsequently determined that this foreign material was the cause of a previously identified failure of this valve (EIIS: ISV) to close that was discovered on 9/8/04 at approximately 1700 hours during the performance of routine surveillance testing.

During the performance of the surveillance testing on 9/8/04, the AO-137 had split indication in the Main Control Room (MCR) after receiving a simulated high steam line flow isolation signal. The redundant valve AO-138 did indicate fully closed in the MCR. Subsequent troubleshooting resulted in several successful strokes of the AO-137 valve and the valve was able to be fully closed. In accordance with Technical Specification 3.6.1.3, Primary Containment Isolation Valves (PCIVs), the affected penetration flow path was isolated within the required completion time. Because of the unsuccessful surveillance of the AO-137 on 9/8/04, the valve was considered inoperable pending the results of maintenance that was to be performed on 9/23/04 during the refueling outage. The PCIV Technical Specification 3.6.1.3 requirement became no longer applicable on 9/15/04 when the plant reached Mode 4 (Primary Containment was no longer required to be operable) as a result of a planned shutdown for the refueling outage.

Further investigation determined that the foreign material in the HPCI system piping was originally identified to be lost during previous refueling outage maintenance activities performed in September 2002. The evaluation performed for the lost material did not result in the expecation that the material would travel to the AO-137. However, the bolt migrated to the AO-137 valve body during a HPCI system run. The previous HPCI system run prior to the discovery of the valve seating concern was on 9/7/04 at approximately 1400 hours. Therefore, this is considered the time that the foreign material entered the valve seat area and therefore the AO-137 is considered to have become inoperable at that time. Because the Technical Specification 4-hour Required Action to isolate the penetration was not performed until 9/08/04 by 2100 hours, this event was determined to be a condition prohibited by the Technical Specifications in accordance with 10 CFR 50.73 (a)(2)(i)(B).

Analysis of the Event

There were no actual safety consequences associated with this event. Primary Containment Isolation valve AO-137 was considered as Technical Specifications inoperable between 9/07/04 (the date when the foreign material is assumed to have entered the AO-137 valve seating area during a routine HPCI surveillance run) and when the plant reached Mode 4 (Primary Containment was no longer required to be operable) as a result of a planned shutdown for the refueling outage.

The AO-137 valve is a PCIV located on the drain line off the HPCI turbine exhaust line. The function of the valve is to allow for controlled drainage of any condensation that may collect in the HPCI Turbine exhaust line. The valve has a safety function as a PCIV since the drain line connects to the Suppression Pool (i.e. Primary Containment). During the period of non-compliance, the redundant isolation valves were operable. Therefore, the Primary Containment isolation safety function was met throughout the period of non-compliance.

This event was not determined to be risk significant.

NRC FORM 366AU.S. NUCLEAR REGULATORY COMMISSION
(1-2001)

LICENSEE EVENT REPORT (LER)

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		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
Peach Bottom Atomic Power Station, Unit 2	05000277	04	- 02 -	00	3 OF 3

NARRATIVE *(If more space is required, use additional copies of NRC Form 366A)* **(17)**

Cause of the Event

The cause of the failure of the valve to properly close was due to foreign material (i.e. bolt) found in the body of the valve. Further investigation determined that the foreign material in the HPCI system piping was originally identified to be lost during previous refueling outage maintenance activities performed in September 2002. The evaluation performed for the lost material did not result in the expecation that the material would travel to the AO-137. However, the bolt migrated to the AO-137 valve body during HPCI system operation. It was determined that the foreign material was from the HPCI turbine reversing chamber hardware and was in the system prior to an inspection conducted during September 2002 refueling activities. At that time, retrieval efforts were unsuccessful in locating the identified missing material.

Corrective Actions

The bolt was removed and the other areas of the HPCI turbine piping system were inspected for additional foreign material. The inspections included various search techniques including the removal of components, boroscopic inspections and breaching of piping. No additional foreign material was identified. The appropriate maintenance was performed on AO-137 valve internals. The valve was retested successfully and subsequently returned to service.

Additional corrective actions are being evaluated in accordance with the corrective action program.

Previous Similar Occurrences

There were no previous similar LERs identified involving HPCI Primary Containment Isolation valves unable to close due to undetected foreign material.