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10CFR 50.73

May 23, 2006

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

Peach Bottom Atomic Power Station (PBAPS) Unit 3  
Facility Operating License No. DPR-56  
NRC Docket No. 50-278

Subject: Licensee Event Report (LER) 3-06-01

This LER reports a condition prohibited by Technical Specifications involving an inoperability of a Primary Containment Isolation Valve associated with the High Pressure Coolant Injection System. 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,



Joseph P. Grimes  
Plant Manager  
Peach Bottom Atomic Power Station

JPG/djf/IR 475597

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 06-14032

JE22

# LICENSEE EVENT REPORT (LER)

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

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 [RegulatoryAffairs@nrc.gov](mailto:RegulatoryAffairs@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.

<b>1. FACILITY NAME</b> Peach Bottom Atomic Power Station Unit 3	<b>2. DOCKET NUMBER</b> 05000 278	<b>3. PAGE</b> 1 OF 4
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**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
4	6	2006	06	- 01 -	0	5	23	2006		05000
									FACILITY NAME	DOCKET NUMBER
										05000

<b>9. OPERATING MODE</b>  1	<b>11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR§: (Check all that apply)</b>									
<b>10. POWER LEVEL</b>  100	<input type="checkbox"/> 20.2201(b)	<input type="checkbox"/> 20.2203(a)(3)(i)	<input type="checkbox"/> 50.73(a)(2)(i)(C)	<input type="checkbox"/> 50.73(a)(2)(vii)						
	<input type="checkbox"/> 20.2201(d)	<input type="checkbox"/> 20.2203(a)(3)(ii)	<input type="checkbox"/> 50.73(a)(2)(ii)(A)	<input type="checkbox"/> 50.73(a)(2)(viii)(A)						
	<input type="checkbox"/> 20.2203(a)(1)	<input type="checkbox"/> 20.2203(a)(4)	<input type="checkbox"/> 50.73(a)(2)(ii)(B)	<input type="checkbox"/> 50.73(a)(2)(ix)(A)						
	<input type="checkbox"/> 20.2203(a)(2)(i)	<input type="checkbox"/> 50.36(c)(1)(i)(A)	<input type="checkbox"/> 50.73(a)(2)(iii)	<input type="checkbox"/> 50.73(a)(2)(x)						
	<input type="checkbox"/> 20.2203(a)(2)(ii)	<input type="checkbox"/> 50.36(c)(1)(ii)(A)	<input type="checkbox"/> 50.73(a)(2)(iv)(A)	<input type="checkbox"/> 50.73(a)(2)(x)						
	<input type="checkbox"/> 20.2203(a)(2)(iii)	<input type="checkbox"/> 50.36(c)(2)	<input type="checkbox"/> 50.73(a)(2)(v)(A)	<input type="checkbox"/> 73.71(a)(4)						
	<input type="checkbox"/> 20.2203(a)(2)(iv)	<input type="checkbox"/> 50.46(a)(3)(ii)	<input type="checkbox"/> 50.73(a)(2)(v)(B)	<input type="checkbox"/> 73.71(a)(5)						
	<input type="checkbox"/> 20.2203(a)(2)(v)	<input type="checkbox"/> 50.73(a)(2)(i)(A)	<input type="checkbox"/> 50.73(a)(2)(v)(C)	<input type="checkbox"/> OTHER						
	<input type="checkbox"/> 20.2203(a)(2)(vi)	<input checked="" type="checkbox"/> 50.73(a)(2)(i)(B)	<input type="checkbox"/> 50.73(a)(2)(v)(D)	Specify in Abstract below or in NRC Form 368A						

**12. LICENSEE CONTACT FOR THIS LER**

FACILITY NAME PBAPS Unit 3, James Armstrong, Regulatory Assurance Manager	TELEPHONE NUMBER (Include Area Code) 717-456-3351
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**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

<b>14. SUPPLEMENTAL REPORT EXPECTED</b> <input type="checkbox"/> YES (If yes, complete 15. EXPECTED SUBMISSION DATE) <input checked="" type="checkbox"/> NO	<b>15. EXPECTED SUBMISSION DATE</b>	MONTH	DAY	YEAR

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

On 4/6/06 at approximately 1100 hours, Licensed Operations personnel declared an air-operated Primary Containment Isolation Valve associated with the HPCI Turbine Exhaust Drain Line inoperable in accordance with Technical Specification Limiting Condition for Operation (LCO) 3.6.1.3. This declaration was based on questions raised by an NRC Resident Inspector performing an in-plant observation of the position status of the HPCI Turbine Exhaust Line Inboard Isolation Valve (AO-137). The cause of the failure of the AO-137 to properly close was due to foreign material found in the seating areas of the valve. Similar foreign material was found in the associated drain / test connection valves associated with the AO-137 valve. Primary Containment Isolation Valve AO-137 was inoperable for a minimum time period of 15 days (i.e. the time period between the last HPCI operation on 3/23/06 and the return to operable status on 4/7/06). The last assurance of the valve being leak-tight was on 9/30/05 when the valve was leak tested with satisfactory results during the P3R15 Refueling Outage. The valves were repaired and appropriate leak-tightness was verified as part of an as-left local leak rate test. The redundant containment penetration barriers for the affected containment penetrations were operable throughout the period of exposure. Therefore, the Primary Containment isolation safety function was met during the period of non-compliance.

**LICENSEE EVENT REPORT (LER)**

FACILITY NAME (1)	DOCKET (2)	LER NUMBER (6)			PAGE (3)	
Peach Bottom Atomic Power Station, Unit 3	05000278	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	2 OF 4	
		06	- 01	- 00		

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

Unit Conditions at the Time of the Event

Unit 3 was in Mode 1 and operating at approximately 100% rated thermal power when the Technical Specification non-compliance was discovered on 4/6/06. The High Pressure Coolant Injection (HPCI) (EIS: BJ) system was inoperable as a result of the performance of a planned Logic System Functional Test (LSFT) and other unplanned maintenance involving a logic relay concern discovered during the LSFT. HPCI was inoperable since 4/5/06 at approximately 0824 hours. There were no other structures, systems or components out of service that contributed to this event.

Description of the Event

On 4/6/06 at approximately 1100 hours, Licensed Operations personnel declared an air-operated Primary Containment Isolation Valve (EIS:ISV) associated with the HPCI Turbine Exhaust Drain Line inoperable in accordance with Technical Specification Limiting Condition for Operation (LCO) 3.6.1.3, Primary Containment Isolation Valves (PCIVs). This declaration was based on questions raised by an NRC Resident Inspector performing an in-plant observation of the position status of the HPCI Turbine Exhaust Line Inboard Isolation Valve (AO-137). The NRC Resident Inspector reported to station Operations personnel in the Main Control Room that the AO-137 appeared to not be fully closed as determined by a local observation of the actual valve stem position. This was discovered while HPCI was removed from service for a Logic System Functional Test (LSFT) and repair / replacement of a relay (unrelated to AO-137).

In accordance with Technical Specification LCO 3.6.1.3, the affected penetration flow path was isolated within the required 4-hour completion time. It was discovered during maintenance of the AO-137 on 4/7/06 at approximately 1200 hours that the drain / test connection valves (HV-3-23C-31191 and HV-3-23C-31192) for the penetration were also leaking through the valve seats. It was subsequently determined that foreign material was lodged in the valve seats not allowing the AO-137 and associated drain / test connection valves to fully close.

Technical Specification LCO 3.6.1.3 concerning PCIVs is applicable in Mode 1. Prior to discovery of this condition, HPCI was last operated on 3/23/06 for a quarterly pump, valve and flow test. Therefore, the AO-137 valve inoperability is judged to have existed since a time at or before the previous HPCI operation. Technical Specification LCO 3.6.1.3 Required Action A.1 requires that the affected containment penetration(s) for an inoperable PCIV be isolated within 4 hours. Because this action was not performed until 4/6/06 when the condition was discovered, this event was determined to be a condition prohibited by the Technical Specifications in accordance with 10 CFR 50.73 (a)(2)(i)(B).

Repairs were performed to AO-137 and the associated test taps and these components were returned to an operable status on 4/7/06 by approximately 2316 hours.

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Analysis of the Event

There were no actual safety consequences associated with this event.

AO-137 is a normally open 2" air-operated valve located in the drain line connected to the HPCI Turbine Exhaust Line. The function of the drain line is to maintain the HPCI Exhaust Line free of condensate. This function is not a credited safety function for HPCI operability. However, this normally open valve performs an active safety function in the closed position. This valve is credited as one of the redundant containment isolation barrier for containment penetrations N-214 and N-217B. These containment penetrations are associated with the Suppression Pool. This valve automatically closes in response to Primary Containment Isolation System signals associated with conditions necessary to isolate the HPCI system (e.g. high system area temperatures, high HPCI Steam Line flow).

HV-3-23C-31191 and 31192 are normally closed 1" drain / test connection valves upstream of AO-137 that performs a passive containment isolation function for the same penetrations as AO-137.

Primary Containment Isolation Valve AO-137 was inoperable for a minimum time period of 15 days (i.e. the time period between the last HPCI operation on 3/23/06 and the return to operable status on 4/7/06). The last assurance of the valve being leak-tight was on 9/30/05 when the valve was leak tested with satisfactory results during the P3R15 Refueling Outage.

The redundant containment penetration barriers for the associated N-214 and N-217B containment penetrations were operable during the period of exposure. Therefore, the Primary Containment Isolation safety function was met throughout the period of non-compliance.

This event was not determined to be risk significant.

Cause of the Event

The cause of the failure of the PCIVs to properly close was due to foreign material found in the seating areas of the valves. Foreign material was discovered in the AO-137 valve seating area. This foreign material consisted of metallic fragments. Evidence of plug, stem, and seat damage as a result of contact with the foreign material items existed. A foreign material inspection was performed between AO-137 and the upstream hand valve HV-3-23C-31158 and the downstream valve (AO-138). HV-3-23C-31191 and 31192 were also disassembled and inspected and similar foreign material was identified and removed. HV-3-23C-31191 and downstream drain valve HV-3-23C-31192 were repaired and leak tested satisfactorily.

Preliminarily, it is believed that the foreign material was primarily introduced into the system as a result of historical system component failures (e.g. failure of exhaust line rupture disks in the 1980s). Further review and potential additional causes are being evaluated in accordance with the Corrective Action Program.

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

Corrective Actions

Foreign material was removed from the internals of the AO-137 PCIV and associated test taps. The valves were repaired and appropriate valve leak-tightness was verified as part of an as-left local leak rate test.

A foreign material inspection was performed within the attached piping to the AO-137 valve. No additional foreign material was identified.

Additional corrective actions including extent of condition evaluations are being evaluated in accordance with the Corrective Action Program. Pending further piping inspections for foreign material, proper stroke operation of the AO-137 valve is being performed after each HPCI system operation.

Previous Similar Occurrences

There was one previous LER identified concerning a condition prohibited by Technical Specifications involving an inoperable Primary Containment Isolation Valve. On 11/19/04, LER 2-04-02 reported a Unit 2 condition where foreign material was found in the AO-137 valve on the HPCI system. Corrective actions associated with LER 2-04-02 involved removal of foreign material and extent of condition examinations for Unit 2.

Foreign material searches performed during the last Unit 3 Refueling Outage (P3R15) did not detect the foreign material that migrated into the PCIVs discussed in this report.