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10CFR 50.73

December 9, 2011

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

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

Subject: Errata for Licensee Event Report (LER) 3-11-001

The subject LER was submitted on 11/9/11 and contained an error on NRC Form 366, item 6. The LER number should have been 11-001-00 instead of 11-003-00. All other references to the LER number on the cover page and other pages of the LER were correct. Enclosed is an update of the subject LER with a corrected NRC Form 366, item 6. We regret any inconvenience that this error may have caused. If you have any questions or require additional information, please do not hesitate to contact us.

Sincerely,



James M. Armstrong
Regulatory Assurance Manager
Peach Bottom Atomic Power Station

GLS/djf/IR 1266600/1266604/1295818

Attachment

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

CCN: 11-106

JEa2
NRC

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: 80 hours. Reported lessons learned are incorporated into the licensing process and fed back to industry. Send comments regarding burden estimate to the FOIA/Privacy Section (T-5 F53), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to infocollects.resource@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.

1. FACILITY NAME Peach Bottom Atomic Power Station (PBAPS) Unit 3	2. DOCKET NUMBER 05000278	3. PAGE 1 OF 4
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4. TITLE
Containment Isolation Valve Inability to Close for a Design Basis Event due to Degraded Lubricant

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
09	21	2011	11	- 001 -	00	11	09	2011		05000
									FACILITY NAME	DOCKET NUMBER
										05000

9. OPERATING MODE 5	11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: <i>(Check all that apply)</i>			
10. POWER LEVEL 0%	<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)(viii)(B)
	<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)(ix)(A)
	<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 366A

12. LICENSEE CONTACT FOR THIS LER

FACILITY NAME PBAPS Unit 3, James M. 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
E	BD	ISV	L200	Y					

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

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

On 09/22/11, during the P3R18 refueling outage, it was identified that the ability of the Reactor Water Cleanup Outboard Isolation Valve (MO-3-12-018) to close was degraded due to a motor-operator greasing deficiency. This deficiency was identified during performance of routine motor-operated valve (MOV) maintenance and diagnostic testing. It was determined that this condition was prohibited by Technical Specifications (TS) since this Primary Containment Isolation Valve (PCIV) was determined to be inoperable for containment isolation purposes during the previous operating cycle for a time period longer than allowed by TS. The cause of the greasing deficiency was due to inadequate lubrication. The valve was repaired on 9/23/11. Appropriate upgrades to the MOV lubrication program had already been made and were being implemented at the time of discovery.

There were no actual safety consequences associated with this event.

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NARRATIVE

Unit Conditions Prior to the Event

Unit 3 was in Mode 5, operating at 0% of rated thermal power when this event was identified. At the time of discovery, the primary containment was not required to be operable. Reactor Water Cleanup (RWCU) (EIS: CE) was not in service at the time of discovery. There were no other structures, systems or components out of service that contributed to this event.

Description of the Event

On 09/22/11, during the P3R18 refueling outage, it was identified that the ability of the Reactor Water Cleanup Outboard Isolation Valve (MO-3-12-018) to close was degraded due to a motor-operator lubrication deficiency. Maintenance personnel identified that motor-operated valve (MOV) thrust performance during as-found diagnostic testing did not meet minimum requirements. The grease on the stem thread area was dry, with no functioning lubricant on the stem threads. This deficiency was identified as a result of as-found, routine motor-operated valve (EIS: ISV) diagnostic testing being performed by maintenance personnel.

Repairs were initiated promptly to resolve the MO-3-12-018 deficiencies and the PCIV was retested satisfactorily by 9/23/11.

The station staff subsequently determined that this condition was prohibited by Technical Specifications (TS) since evidence existed that this valve was inoperable for containment isolation purposes during the previous cycle operations for a time period longer than allowed by TS. TS 3.6.1.3, Primary Containment Isolation Valves (PCIVs), requires that each PCIV be operable or if a PCIV is inoperable, Condition A of TS 3.6.1.3 requires that the penetration be isolated within 4 hours of the PCIV becoming inoperable. As a result of the discovered degraded condition of the MO-3-12-018, it was determined that the greasing deficiency existed during the previous operating cycle and therefore, the PCIV was inoperable for a time period longer than 4 hours.

Analysis of the Event

This report is being submitted pursuant to:

10CFR 50.73(a)(2)(i)(B) – Condition Prohibited by TS – This occurrence is reportable under this criterion since there was evidence that MO-3-12-018 was in a degraded condition for a time period greater than allowed by TS 3.6.1.3, Condition A.

There were no actual safety consequences associated with this event.

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NARRATIVE

Analysis of the Event, continued

During power operations, the RWCU Outboard Isolation Valve (MO-3-12-018) is a normally open motor-operated valve located in the supply line to the RWCU pumps from the reactor coolant system. The valve has no safety function in the open position. It remains open during power operations primarily to provide a flow path for purification of reactor water. RWCU supports maintaining reactor water quality within limits by circulating reactor coolant through a filter-demineralizer system and returning it to the reactor coolant system. The MO-3-12-018 does provide an active safety function in the closed direction. It is an outboard primary containment isolation valve for containment penetration N-14. The valve receives an auto-closure signal for Primary Containment Isolation System signals including a rupture in non-safety related RWCU piping and preventing the removal or dilution of sodium pentaborate solution by the RWCU system when the Standby Liquid Control system is in operation.

The data obtained during the performance testing indicated that the as-found thrust of the valve at the point of torque switch actuation was less than the required thrust value. This condition may have resulted in the valve prematurely stopping motion in the closed direction under design basis demand conditions (e.g., high energy line break just downstream of the MO-3-12-018 valve).

Engineering has determined that for normal plant operations and for design events where there is not a high differential pressure across the MO-3-12-018 valve, the MO-3-12-018 valve would have closed as designed. However, the MO-3-12-018 may not have fully closed for the design event involving a high energy line break just downstream of the MO-3-12-018 and the assumption of a single failure of the RWCU Inboard Isolation Valve (MO-3-12-015). Based on conservative assumptions during the high energy line break event, it is estimated that the valve would have traveled approximately 89% closed.

The redundant RWCU Inboard Isolation Valve (MO-3-12-015) was maintained operable during this event. Therefore, the isolation capability of this containment penetration was maintained. There was no occurrence of high energy line breaks. Had a worst case design basis event occurred (RWCU high energy line break coupled with a single failure involving the inability to close the RWCU Inboard Isolation Valve (MO-3-12-015)), the resultant discharge of coolant would be into the Secondary Containment. The Secondary Containment and the Emergency Core Cooling systems (including the Automatic Depressurization System) would have been available to mitigate the event.

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NARRATIVE

Cause of the Event

The cause of the MO-3-12-018 degradation is due to grease hardening in the stem nut area of the motor-operator. It was identified that the grease on the stem thread area was dry, with no functioning lubricant on the stem threads. The stem nut is the device in the motor operator that interfaces with the threaded valve stem. The motor operator turns the stem nut resulting in movement of the valve stem.

The Limitorque Corporation supplied the motor-operator (Model SMB-1-40). The grease was manufactured by Exxon (Nebula EP-1). The replacement grease is 'MOV Long Life.'

Corrective Actions

The MO-3-12-018 valve was repaired by 9/23/11. The grease was replaced with a new type of grease (MOV Long Life).

An extent-of-condition evaluation for other susceptible MOVs on both Units 2 and 3 was performed. This has resulted in a decrease in the MOV preventive maintenance time interval for MO-3-12-018 and other valves. Susceptible valves with Nebula EP-1 grease were evaluated to ensure appropriate timing exists for the change to MOV Long Life grease.

Additionally, the grease for other Unit 2 and Unit 3 MOVs will be changed to the MOV Long Life type of grease, in accordance with the upgrades to the MOV lubrication program that were already being implemented at the time of discovery.

Appropriate upgrades to the MOV lubrication program had already been made and were being implemented at the time of discovery.

Previous Similar Occurrences

There was one previous LER identified involving an inoperable MOV at Peach Bottom due to a lubrication deficiency. LER 3-09-03 reported a condition where the 3D Residual Heat Removal Suction Valve (MO-3-10-013D) was determined to be inoperable due to hardened grease. The actions performed as a result of the event reported in LER 3-09-03 included extent-of-condition reviews concerning the possibility of hardened grease for other MOVs. This previous review performed in 2009 did not prioritize the MO-3-12-018 MOV for expedited grease replacement based on the lower expected susceptibility that was previously determined for the MO-3-12-018.