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10CFR 50.73

September 2, 2005

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) 2-05-01

This LER reports an unplanned automatic scram of Unit 2 during the performance of routine main turbine testing. 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/CR 351609

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 05-14074

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 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.

1. FACILITY NAME Peach Bottom Atomic Power Station	2. DOCKET NUMBER 05000 277	3. PAGE 1 OF 4
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4. TITLE Unit 2 Automatic Scram due to Incorrect Assumptions when Aborting a Main Turbine Test

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
07	10	2005	05	- 01 -	0	09	2	2005	FACILITY NAME	DOCKET NUMBER
										05000
										05000

9. OPERATING MODE 1	11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR§: (Check all that apply)									
10. POWER LEVEL 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)(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 checked="" 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 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 2, James Mallon, Regulatory Assurance Manager	TELEPHONE NUMBER (Include Area Code) 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
X	IT	RLY	G080	Y					

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

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

On 7/10/05, at approximately 0318 hours, a Unit 2 automatic scram occurred as a result of a Main Turbine Stop Valve closure signal. The Main Turbine Stop valves had closed as a result of a Main Turbine trip signal generated during performance of the weekly Main Turbine Mechanical Trip Valve routine test. The Main Turbine trip signal was generated when a failed test was being aborted and did not reflect any actual adverse Main Turbine condition that required the Main Turbine to be tripped. As a result of the automatic scram, the Reactor Vessel water level 3 set point was reached as expected. This resulted in Primary Containment Isolation System (PCIS) Group II and III isolations. Also, a Reactor Vessel high pressure condition occurred resulting in automatic operation of the C, D, and E Main Steam Safety Relief Valves. There were no actual safety consequences associated with this event. The Main Turbine trip was caused by incorrect assumptions concerning the status of the Main Turbine trip system and not involving additional personnel while aborting the routine test. Corrective actions include remediation and re-evaluation of involved personnel and reinforcing management expectations regarding human performance practices.

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FACILITY NAME (1)	DOCKET (2)	LER NUMBER (6)			PAGE (3)
Peach Bottom Atomic Power Station, Unit 2	05000277	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	2 OF 4
		05	- 01	- 00	

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 100% rated thermal power when the event occurred. There were no structures, systems or components out of service that contributed to this event. Weekly Main Turbine (EIIIS: TRB) Mechanical Trip Valve (EIIIS: V) testing was in progress.

Description of the Event

On 7/10/05, at approximately 0318 hours, a Unit 2 automatic scram occurred as a result of a Main Turbine Stop Valve closure signal. The Main Turbine Stop valves had closed as a result of a Main Turbine trip signal generated during performance of the weekly Main Turbine Mechanical Trip Valve routine test. The Main Turbine trip signal was generated when a failed test was being aborted and did not reflect any actual adverse Main Turbine condition that required the Main Turbine to be tripped.

As a result of the automatic scram, the Reactor Vessel water level 3 set point was reached as expected. This resulted in Primary Containment Isolation System (PCIS) Group II and III isolations. The PCIS (EIIIS: JM) Group II and III isolations resulted in the closure of valves in various systems including the Reactor Building Ventilation system (EIIIS: VA), the Containment Atmospheric Control / Containment Atmospheric Dilution systems (EIIIS: BB), the Reactor Water Cleanup system (EIIIS: CE) and other containment penetrating process lines. The Standby Gas Treatment system (EIIIS: BH) also actuated as expected on the Group III PCIS isolation. Also, as expected for an automatic scram involving closure of the Main Turbine Stop Valves, a Reactor Vessel high pressure condition occurred resulting in automatic operation of the C, D, and E Main Steam Safety Relief Valves (SRVs) (EIIIS: RV) and initiation of Alternate Rod Insertion (EIIIS: AA). The Recirculation Pump Motors (EIIIS: AD) also tripped as a result of the closure of the Main Turbine Stop Valves as designed. All control rods properly inserted and there were no safety significant anomalies involved with the plant equipment response to the event.

The scram and ARI initiation were reset by approximately 0327 hours. The PCIS Group II and III isolations were reset by approximately 0335 hours and the normal Reactor Building ventilation was restored by approximately 0355 hours.

As required by 10CFR 50.72, NRC prompt notifications were completed on 7/10/05 at approximately 0642 hours to report the automatic scram and PCIS isolations (Event Notification #41832). This report is being submitted pursuant to 10CFR 50.73 (a)(2)(iv)(A) due to valid actuations of the Reactor Protection System and the Primary Containment Isolation System.

Analysis of the Event

There were no actual safety consequences associated with this event. The normal heat removal path (i.e. feedwater / condenser) was maintained during the event. All control rods properly inserted and there were no safety significant anomalies involved with safety equipment response to the event. It was determined that safety systems responded appropriately for this event. This event is bounded by the non-limiting event entitled 'Turbine Trip from High Power with Bypass' described in Updated Final Safety Analysis Report (UFSAR) section 14.5.1.2.1. As noted in this UFSAR section, it is expected that the SRVs would open for a short time to relieve the pressure increase caused by the transient.

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Analysis of the Event (continued)

The Main Turbine trip signal was generated during performance of the Main Turbine Mechanical Trip Valve routine test. This test verifies that the Main Turbine Mechanical Trip Valve (MTV) is functioning and is performed weekly with the Main Turbine in service. The primary purpose of the MTV is to remove the Main Turbine emergency trip system hydraulic pressure in the event of a Main Turbine over-speed condition, thereby resulting in a Main Turbine Stop and Control Valve closure (i.e. main Turbine trip). The MTV is mechanically operated by the Main Turbine over-speed trip mechanism. The test is credited in the Updated Final Safety Analysis Report (UFSAR) section 11.4 to minimize the likelihood of a Main Turbine failure that could generate missiles. The Main Turbine trip signal was generated when a failed test was being aborted and did not reflect any adverse Main Turbine condition that actually required the Main Turbine to be tripped.

This event is not considered as risk significant.

Cause of the Event

The cause of the event is due to shortcomings in human performance when aborting the Main Turbine MTV routine test being performed on 07/10/05.

While performing the test, the test acceptance criteria had not been met. This was a result of not receiving indication lights that the MTV had been actuated by the Main Turbine over speed mechanism when a test oil signal was applied during the test. When the indication was not received, the Reactor Operator (licensed, utility) performing the test received direction from the Control Room Supervisor (licensed, utility) to abort the test. Because there are two indications of MTV actuation, it was incorrectly assumed by the Control Room Supervisor (CRS) that the test oil signal had not been received by the over speed mechanism and the MTV actuation did not occur. The CRS did not request any additional review concerning the method of aborting the test. The steps in the routine test involving the resetting of the test oil signal were assumed to be not required and the test was aborted by placing the trip system back in service. However, the over speed mechanism and MTV had actuated as a result of the test oil signal. When the MTV was placed back into service, the Main Turbine tripped.

The failure of both MTV indications appears to be related to a relay card (General Electric, 125 VDC Relay Board, Part No. 114D6063G0003)(EIIS: RLY) associated with the MTV indicating lights. Further assessment of the card is being performed 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

The CRS has been remediated and reevaluated, additional corrective actions will be taken prior to resumption of full control room duties.

A standing order was issued to licensed operators communicating management expectations regarding human performance practices.

An assessment of Operations personnel concerning their knowledge of expected human performance behaviors will be performed.

A case study was developed covering the details of this event for use in continuing training.

The relay card and MTV switch were replaced by 7/11/05 and MTV indication was tested to ensure reliable operation.

Previous Similar Occurrences

There were no previous LERs identified involving Main Turbine trips during testing.