



10CFR 50.73

October 20, 2015

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

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

Subject: Licensee Event Report (LER) 2-15-001

Enclosed is a Licensee Event Report concerning a condition prohibited by Technical Specifications (TS) involving one of the functions associated with the Remote Shutdown System (TS 3.3.3.2). In accordance with NEI 99-04, the regulatory commitment contained in this correspondence is to restore compliance with the regulations. The specific methods that have been 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,

A handwritten signature in black ink that reads "Patrick D. Navin".

Patrick D. Navin
Plant Manager
Peach Bottom Atomic Power Station

PDN/djf/IR 2556042

Attachment

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

CCN: 15-77



LICENSEE EVENT REPORT (LER)
(See Page 2 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 and Information Collections Branch (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 Unit 2	2. DOCKET NUMBER 05000277	3. PAGE 1 OF 4
---	-------------------------------------	--------------------------

4. TITLE
Condition Prohibited by Technical Specification due to Insufficient Remote Shutdown System Surveillance Testing

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	16	2015	15	- 001	- 00	10	20	2015	FACILITY NAME	DOCKET NUMBER

9. OPERATING MODE	11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check all that apply)			
1	<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)
10. POWER LEVEL 100 %	<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

LICENSEE CONTACT James M. Armstrong, 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

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)

As a result of surveillance testing performed on 9/16/15, Operations personnel identified that the Reactor Core Isolation Cooling (RCIC) system steam admission valve (MO-2-13-131) would not open when operated from the Remote Shutdown System (RSS) panel. The NRC determined on 9/4/15 that insufficient Surveillance Requirement SR 3.3.3.2.1 testing was being performed for certain functions from the RSS panel. Prompt troubleshooting performed on 9/16/15 identified that a wire within the RSS panel associated with the logic for the MO-2-13-131 valve was not connected. This condition did not impact the normal operation of the MO-2-13-131 valve from the main control room, nor did it impact the automatic function of the MO-2-13-131 valve for licensed events. Only the manual open function of the valve from the RSS panel (located outside of the control room) was affected. The disconnected wire was immediately re-landed and the MO-2-13-131 was verified to operate properly from the RSS panel. The cause of the event is due to insufficient RSS panel testing that did not detect this historically disconnected wire. Surveillance test procedures of the RSS panel functions have been upgraded.



**LICENSEE EVENT REPORT (LER)
CONTINUATION SHEET**

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 and Information Collections Branch (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	2. DOCKET	6. LER NUMBER			3. PAGE
		YEAR	SEQUENTIAL NUMBER	REV NO.	
Peach Bottom Atomic Power Station Unit 2	05000277	15	- 001	- 00	2 OF 4

NARRATIVE

Unit Conditions Prior to the Event

Unit 2 was operating in Mode 1 at 100% rated thermal power. There were no other structures, systems or components out of service that contributed to this event. On 9/16/15, the RSS was already considered inoperable since 9/4/15 due to the NRC determination that there existed insufficient testing of certain components associated with the RSS. Recently upgraded surveillance testing of the Remote Shutdown System (RSS) functions was in-progress when this event was discovered on 9/16/15.

Description of the Event

As a result of surveillance testing performed on 9/16/15, Licensed Operations personnel identified that the Reactor Core Isolation Cooling (RCIC) (EIS: BN) system steam admission valve (MO-2-13-131)(EIS: 20) would not open when manually operated from the Remote Shutdown System (RSS) panel (EIS: PL). Prompt troubleshooting performed by maintenance personnel on 9/16/15 identified that a wire within the RSS panel associated with the stop pushbutton (EIS: HS) in the logic for the MO-2-13-131 valve was not connected. This disconnected wire did not impact the normal manual operation of the MO-2-13-131 valve from the main control room, nor did it impact the automatic function of the MO-2-13-131 valve for licensed events. Only the manual open function of the valve from the RSS panel (located outside of the control room) was affected. The disconnected wire was promptly re-landed on 9/16/15 and the MO-2-13-131 was verified to operate properly from the RSS panel.

This LER is being submitted pursuant to 10CFR 50.73(a)(2)(i)(B) as a result of a condition prohibited by TS LCO 3.3.3.2, Remote Shutdown System. The NRC determined on 9/4/15 that insufficient Surveillance Requirement (SR) 3.3.3.2.1 testing was being performed for certain functions associated with the RSS as listed in TS Bases Table B3.3.3.2-1. Upon the determination on 9/4/15 of the missed surveillance of certain RSS functions, licensed operations personnel promptly declared the RSS inoperable and entered the associated Conditions and Required Actions of TS 3.3.3.2. Surveillance tests were upgraded and were being performed when the wiring condition was identified on 9/16/15. As specified by NUREG-1022, Rev. 3, Event Report Guidelines - 10 CFR 50.72 and 10 CFR 50.73, reporting is required if a late surveillance, once performed, indicates that the equipment was not capable of performing its function.

Analysis of the Event

There were no actual safety consequences associated with the event. There have been no actual plant conditions where the RSS was required to be used. The Unit 3 RSS was unaffected by this event.

**LICENSEE EVENT REPORT (LER)
CONTINUATION SHEET**

1. FACILITY NAME	2. DOCKET	6. LER NUMBER			3. PAGE		
Peach Bottom Atomic Power Station Unit 2	05000277	YEAR	SEQUENTIAL NUMBER	REV NO.	3	OF	4
		15	- 001	- 00			

NARRATIVE

Analysis of the Event, continued

The RSS provides the control room operator with sufficient instrumentation and controls to maintain the plant in a safe shutdown condition from a location other than the control room. This capability is necessary to protect against the possibility of the control room becoming inaccessible for events other than a 10 CFR 50 Appendix R fire. For a 10CFR 50 Appendix R fire, the RSS is not used since other alternative control stations located in the plant exist to assure safe shutdown for a fire in which the control room becomes inaccessible. These alternative control stations used for a 10CFR 50 Appendix R fire event were unaffected by this event.

The RSS primary methods of maintaining safe shutdown in the event the control room becomes inaccessible is by having instrumentation on the RSS panel that can transfer control power and allow for control of equipment from the RSS, which is located outside of the control room. The plant is primarily maintained in a safe shutdown condition from the RSS by means of the RCIC system and Safety Relief Valves (SRVs). These systems ensure adequate reactor level and pressure control from outside the control room to allow for extended operation in Mode 3 (hot shutdown).

Had an event occurred which required use of the RSS, the consequences of the inability to manually open the MO-2-13-131 RCIC Steam Admission valve would not be significant. The RCIC automatic operation on reactor water low-low level was unaffected by this event and therefore, RCIC automatic initiation would allow for opening of the MO-2-13-131 valve automatically. RCIC would automatically cycle to maintain adequate water level from the RSS panel. The RCIC flow controller on the RSS was operable and could then be used to stabilize reactor water level. Additionally, the 10CFR 50 Appendix R safe shutdown alternative control panels (includes HPCI) located outside of the main control room were unaffected by this event and could be used as a backup for the RSS. Additional reactor level control systems including the automatic initiation of the High Pressure Coolant Injection (HPCI) and the usage of the Control Rod Drive system were unaffected by this event. Therefore, this event is considered to be of very low risk significance.

Cause of the Event

The historical cause of the wire being disconnected in the RSS panel affecting the manual opening of the RCIC MO-2-13-131 valve could not be identified. A search of the electronic work history of the stop pushbutton and the device from where the disconnected wire originated from (transfer / control switch for MO-2-13-131 on the RSS panel) was performed. No records of maintenance that would have lifted this wire were identified.

An underlying cause of the event was that the testing performed for TS Surveillance Requirement SR 3.3.3.2.1 was previously not extensive enough to detect this condition.

Further causal analysis is being performed in accordance with the station's corrective action program to further explore the cause(s) of this condition.

**LICENSEE EVENT REPORT (LER)
CONTINUATION SHEET**

1. FACILITY NAME	2. DOCKET	6. LER NUMBER			3. PAGE
Peach Bottom Atomic Power Station Unit 2	05000277	YEAR	SEQUENTIAL NUMBER	REV NO.	4 OF 4
		15	- 001	- 00	

NARRATIVE

Corrective Actions

The disconnected wire in the RSS control circuit for the RCIC MO-2-13-131 valve was promptly reconnected. As a result of the NRC concern with the extent of RSS testing, surveillance testing had been recently upgraded. The first performance of the upgraded surveillance testing detected this condition with the MO-2-13-131 valve.

Surveillance tests for similar RSS related components were also recently upgraded for both Units 2 and 3. Although testing using these upgraded procedures did identify other minor equipment issues involving Units 2 and 3 RCIC valves, these conditions did not result in inoperability of the associated TS 3.3.3.2 RSS functions.

The Unit 2 RSS was declared operable on 9/18/15.

Additional corrective actions are being assessed as part of a causal analysis being performed in accordance with the station's corrective action program.

Previous Similar Occurrences

There were no previous LERs identified involving inadequate testing of the RSS panel components. LER 2-14-001 involved a broken wire for the alternative shutdown control transfer / isolation switch in a 4 kV circuit breaker associated with the 10CFR 50 Appendix R alternative shutdown requirements. It was determined that the testing of the transfer / isolation switch was not adequate to identify the broken wire. Extent-of-condition actions from LER 2-14-001 did not extend to the RSS and therefore, would not have been expected to identify concerns with the RSS.