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Exelon Nuclear

10CFR 50.73

July 17, 2003

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

Peach Bottom Atomic Power Station (PBAPS), Units 2 and 3
Facility Operating License Nos. DPR-44 and DPR-56
NRC Docket Nos. 50-277 & 50-278

Subject: Licensee Event Report (LER) 2-03-02

This LER reports a condition where the 'A' subsystem of the Standby Gas Treatment System was inoperable for greater than the time allowed by Technical Specifications. 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,

John A. Stone
Plant Manager
Peach Bottom Atomic Power Station

JAS/djf/CR 160784

Attachment

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

CCN 03-14064

IE22

bcc:

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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 (1-2001)

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB NO. 3150-0104 EXPIRES 6-30-2001

Estimated burden per response to comply with this mandatory information 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 Management Branch (T-6 E6), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to bjs1@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 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)

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
Peach Bottom Atomic Power Station (PBAPS), Unit 2	05000 277	1 OF 4

TITLE (4)

Condition Prohibited by Technical Specifications due to Inoperability of Standby Gas Treatment Filter Train

EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)	
MO	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REV NO	MO	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
11	28	02	03	0 0 2	00	07	17	03	PBAPS 3	05000 278
									FACILITY NAME	DOCKET NUMBER

		THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check all that apply) (11)							
OPERATING MODE (9)	1	20.2201(b)		20.2203(a)(3)(ii)		50.73(a)(2)(ii)(B)		50.73(a)(2)(ix)(A)	
POWER LEVEL (10)	100	20.2201(d)		20.2203(a)(4)		50.73(a)(2)(iii)		50.73(a)(2)(x)	
		20.2203(a)(1)		50.36(c)(1)(i)(A)		50.73(a)(2)(iv)(A)		73.71(a)(4)	
		20.2203(a)(2)(i)		50.36(c)(1)(ii)(A)		50.73(a)(2)(v)(A)		73.71(a)(5)	
		20.2203(a)(2)(ii)		50.36(c)(2)		50.73(a)(2)(v)(B)		OTHER Specify in Abstract below or in NRC Form 366A	
		20.2203(a)(2)(iii)		50.46(a)(3)(ii)		50.73(a)(2)(v)(C)			
		20.2203(a)(2)(iv)		50.73(a)(2)(i)(A)		50.73(a)(2)(v)(D)			
		20.2203(a)(2)(v)	X	50.73(a)(2)(i)(B)		50.73(a)(2)(vii)			
		20.2203(a)(2)(vi)		50.73(a)(2)(i)(C)		50.73(a)(2)(viii)(A)			
		20.2203(a)(3)(i)		50.73(a)(2)(ii)(A)		50.73(a)(2)(viii)(B)			

LICENSEE CONTACT FOR THIS LER (12)	
NAME	TELEPHONE NUMBER (Include Area Code)
Ellen Anderson - Regulatory Assurance Manager	717-456-3588

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

CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX

SUPPLEMENTAL REPORT EXPECTED (14)			EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
YES (If yes, complete EXPECTED SUBMISSION DATE).	X	NO				

ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) (16)

On 5/28/03 at approximately 1100 hours, licensed operators were notified that approximately 4 inches of water (~170 gallons) was discovered in the bottom of the 'A' Standby Gas Treatment (SBGT) filter plenum during the performance of an annual surveillance. Further evaluation determined that a condition prohibited by Technical Specifications existed since this water intrusion resulted in the 'A' SBGT subsystem being inoperable between the worst-case time period of 11/21/02 until 12/18/02. The Technical Specification Required Action times for an inoperable subsystem were exceeded on 11/28/02. The water in the 'A' SBGT filter plenum was promptly removed subsequent to discovery and appropriate filters were replaced. There were no actual safety consequences as a result of this condition. The 'B' SBGT subsystem remained operable throughout the worst-case time period that the 'A' SBGT subsystem was inoperable. The cause investigation concluded that the most probable cause is human error that caused water intrusion into the 'A' SBGT plenum during the performance of a fire deluge system surveillance test for the 'A' SBGT filter plenum on 11/21/02. Surveillance tests for SBGT fire system deluge functionality did not contain adequate concurrent verification by a second operator and will be revised. There were no previous events identified.

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Peach Bottom Atomic Power Station, Unit 2	05000277	03	- 002	- 00	2 OF 4

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

Unit Conditions Prior to the Event

Units 2 and 3 were both in Mode 1 and operating at approximately 100% rated thermal power when the event occurred. At the time of the event, there were no other structures, systems or components that were out of service that contributed to this event. The Standby Gas Treatment (SBGT) (EIIS: BH) system is common to Units 2 and 3.

Description of the Event

On 5/28/03 at approximately 1100 hours, Main Control Room licensed operators were notified by maintenance technicians that approximately 4 inches of water (~170 gallons) was discovered in the bottom of the 'A' SBGT filter plenum (EIIS: DUCT) during the performance of an annual surveillance. An investigation was promptly initiated subsequent to the discovery. This investigation determined that the water was from the fire protection deluge system and was likely caused by previous maintenance / testing activities performed in either November 2002 or January 2003.

On 7/3/03, a causal factor investigation concluded that the water was most likely introduced into the 'A' SBGT filter (EIIS: FLT) plenum during the time period of 11/21-22/02. Further evaluation determined that a condition prohibited by Technical Specifications existed since this water injection resulted in the 'A' SBGT subsystem being inoperable between the worst-case time period of 11/21/02 until 12/18/02 when the 'A' SBGT filter train was operated for a sufficient amount of time to ensure appropriate drying of the filter elements. The subsystem was considered to be inoperable during this time period due to the wetting of the filters within the filter plenum.

Technical Specification Limiting Condition for Operation (LCO) 3.6.4.3 requires that two SBGT subsystems be operable. If one SBGT subsystem is inoperable, there exists 7 days to restore the subsystem to an operable status. Because the subsystem was inoperable for greater than the Technical Specification Required Action times for Units 2 and 3, this issue is considered as a condition prohibited by Technical Specifications and is reportable pursuant to 10CFR 50.73(a)(2)(i)(B). The discovery date of this condition is 5/28/03. The event date is 11/28/02 since the Technical Specification Required Action times for an inoperable subsystem were exceeded on 11/28/02.

The water in the 'A' SBGT filter plenum was promptly removed subsequent to discovery and charcoal and appropriate HEPA filters were replaced. The 'A' SBGT subsystem was restored to service by approximately 2200 hours on 5/29/03.

Analysis of the Event

There were no actual safety consequences as a result of this condition. The 'B' SBGT subsystem remained operable throughout the worst-case time period that the 'A' SBGT subsystem was inoperable.

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

Analysis of the Event, cont.

The primary safety objective of the SBGT system is to limit the ground level release from the reactor building and to release primary and secondary containment air at an elevated release point via the main stack. The SBGT filter train filters the exhaust air to remove radioactive particulates (HEPA filters) and halogens (charcoal filters). The SBGT system is common to both Units 2 and 3 and consists of two fully redundant subsystems.

Laboratory testing of the charcoal filters removed from the 'A' SBGT filter train determined that the filters were operable at the time of discovery (5/28/03). The water remaining in the filter plenum until 5/28/03 would not have affected operability of the filter elements once they became dried. However, when wetted during the time period of 11/21-22/02, it cannot be assured that the filters would have been able to perform their intended safety function. It was determined based on engineering judgment that the filters would have become dried by 12/18/02 when the filter train including the heater elements were operated for approximately 19 hours on 12/18/02. It was determined that operating the filters for 19 hours on 12/18/02 would have provided sufficient drying capability to restore the filters to an operable status.

Additionally, the filters could possibly have become dried prior to 12/18/02 due to operating the train on 12/11/02 for approximately 20 minutes and on 12/15/02 for approximately 3 hours. Moreover, there normally exists a design 35 scfh purge with dried instrument air on the filter train to ensure that the filter train remains below 70% relative humidity during normal operations. Therefore, it is possible that the filter train was already dried before the 12/18/02 filter train operation.

If a design basis event (e.g., fuel handling accident, loss-of-coolant-accident) were to have occurred during the 11/21/02 - 12/18/02 time period, the 'B' SBGT filter train was operable to provide redundant system function. For a design basis event, both subsystems would automatically initiate. Upon verification that both subsystems are operating, the redundant system is normally shutdown. Procedures require that the differential pressure across the filter plenum be checked subsequent to an automatic start of SBGT. Therefore, the 'A' SBGT subsystem would have been shutdown.

This condition is not considered risk significant due to the relatively short duration of the 'A' SBGT subsystem inoperability and the availability of the 'B' SBGT subsystem.

Cause of the Event

The 'A' SBGT subsystem was inoperable due to the injection of water into the 'A' SBGT filter plenum. A prompt investigation performed just after the discovery of the water determined that the source of water was from the fire protection deluge system; most likely from previous maintenance or testing activities occurring in November 2002 or January 2003. A formal cause investigation concluded that an actual condition requiring a fire system deluge actuation was not involved with this event. The cause investigation concluded that the most probable cause is human error that caused water intrusion into the 'A' SBGT plenum during the performance of a fire deluge system surveillance test for the 'A' SBGT filter plenum on 11/21/02.

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

Cause of the Event, continued

This test was performed by operations personnel (utility, non-licensed). The test requires disconnecting the deluge supply piping from the filter train prior to performing the deluge test. The investigation determined that it is possible that the deluge valves were opened prior to disconnecting the supply piping from the 'A' filter train. Further procedure review determined that these procedure steps inappropriately did not require concurrent verification by a second operator.

Corrective Actions

The water in the 'A' SBGT filter plenum was promptly removed subsequent to discovery and charcoal and appropriate HEPA filters were replaced. The 'A' SBGT subsystem was restored to an operable status by approximately 2200 hours on 5/29/03.

The 'B' SBGT subsystem was evaluated and inspected to ensure that there was not a common water intrusion concern. This was completed on 5/30/03.

This event was shared with appropriate individuals involved with maintenance / testing activities.

Surveillance tests for SBGT fire system deluge functionality will be revised to ensure appropriate verifications are performed when disconnecting the deluge piping and operating valves. The tests will also be reviewed for enhancements such as determining essential testing that is required or if other inspections are required after test performance.

Previous Similar Occurrences

There were no previous events identified involving inoperability of the SBGT filter train due to fire system deluge water intrusion.