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U. S. Nuclear Regulatory Commission
Washington, DC 20555

Docket Nos. 50-277 & 50-278

SUBJECT: Licensee Event Report
Peach Bottom Atomic Power Station - Units 2 and 3

This LER concerns a condition which is prohibited by the Technical Specifications when an Emergency Service Water Outlet Valve was closed and left unattended during testing activities.

Reference:	Docket Nos.	50-277 & 50-278
Report Number:	2-94-008	
Revision Number:	00	
Event Date:	08/03/94	
Discovery Date:	09/08/94	
Reportability Date:	09/15/94	
Report Date:	10/07/94	
Facility:	Peach Bottom Atomic Power Station RD1, Box 208, Delta, PA 17314	

This LER is being submitted pursuant to the requirements of 10 CFR 50.73(a)(2)(i)(B).

Sincerely,

Garrett D. Edwards

GDE/GAJ:gaj
enclosure

cc: R.A.Burricelli, Public Service Electric & Gas
R. R. Janati, Commonwealth of Pennsylvania
INPO Records Center
T. T. Martin, US NRC, Administrator, Region I
R. I. McLean, State of Maryland
W. L. Schmidt, US NRC, Resident Inspector
A. F. Kirby III, DelMarVa Power
H. C. Schwemm, VP - Atlantic Electric

CCN 94-14153

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NRC FORM 366 (6-89)

U.S. NUCLEAR REGULATORY COMMISSION

LICENSEE EVENT REPORT (LER)

APPROVED OMB NO. 3150-0104
EXPIRES 4/30/92

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P-530), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
Peach Bottom Atomic Power Station Units 2 & 3	0 5 0 0 0 2 7 7	1 OF 0 4

TITLE (4) Condition Prohibited by Technical Specification when MO-0498 was Closed and Left Unattended

EVENT DATE (5)			LER NUMBER (6)					REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)	
MONTH	DAY	YEAR	YEAR		SEQUENTIAL NUMBER		REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAMES	DOCKET NUMBER(S)
											Peach Bottom Unit 3	0 5 0 0 0 2 7 8
0 8	0 3	9 4	9 4	—	0 0 8	—	0 0	1 0	0 7	9 4		0 5 0 0 0

OPERATING MODE (9)		POWER LEVEL (10)	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)			
	N	1 0 0	20.402(b)	20.405(c)	50.73(a)(2)(iv)	73.71(b)
			20.405(a)(1)(i)	50.36(c)(1)	50.73(a)(2)(v)	73.71(c)
			20.405(a)(1)(ii)	50.36(c)(2)	50.73(a)(2)(vii)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)
			20.405(a)(1)(iii)	X 50.73(a)(2)(i)	50.73(a)(2)(viii)(A)	
			20.405(a)(1)(iv)	50.73(a)(2)(ii)	50.73(a)(2)(viii)(B)	
			20.405(a)(1)(v)	50.73(a)(2)(iii)	50.73(a)(2)(x)	

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER
	AREA CODE
Anthony J. Wasong, Manager-Experience Assessment	7 1 7 4 5 6 - 7 0 1 4

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

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS	

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 fifteen single-space typewritten lines) (16)

On 09/09/94, it was discovered that the Emergency Core Cooling Systems (ECCS) and the Emergency Diesel Generators (EDG) may have been Technical Specification (Tech Spec) inoperable on 08/03/94. This occurred when an Emergency Service Water (ESW) Outlet Valve (MO-0498) was closed and left unattended for approximately 47 minutes during Valve Operation Test and Evaluation System (VOTES) testing. Having MO-0498 in the incorrect position jeopardized the operability of the ECCS and EDGs due to reduced cooling water flow rates while in this mode. This condition is considered a condition prohibited by the Tech Specs since this would have placed the plant into Tech Spec 3.0.C. The cause of the event was that MO-0498 was closed and left unattended because less than adequate controls were established to ensure that MO-0498 was continuously manned during VOTES testing. The event has been discussed with the involved Operations and Maintenance personnel. The pertinent information from the event has been provided to the appropriate Operations and Maintenance personnel and it will be provided to other members of the station staff. In addition, VOTES testing procedures will be revised as appropriate to ensure that future events will be prevented. An evaluation will be performed to ensure that adequate administrative controls are established to maintain system operability whenever testing or maintenance must be done on an operable system. No previous similar events have been identified.

Requirements for the Report

This LER is being submitted pursuant to the requirements of 10 CFR 50.73 (a)(2)(i)(B) due to this event being a condition which is prohibited by the Technical Specifications (Tech Spec).

Unit Conditions at the time of the Event

Unit 2 was in the "RUN" mode at 82 % power and Unit 3 was in the "RUN" mode at 100 % reactor thermal power. There were no inoperable structures, systems or components that contributed to this event.

Description of the Event

On 09/09/94, it was discovered by the Nuclear Regulatory Commission (NRC) during a review of station events, that the Emergency Core Cooling Systems (ECCS) and the Emergency Diesel Generators (EDG) may have been Tech Spec inoperable on 08/03/94. This occurred when an Emergency Service Water (ESW) Outlet Valve (MO-0498) was closed and left unattended for approximately 47 minutes. The Maintenance Technicians were performing Valve Operation Test and Evaluation System (VOTES) testing on MO-0498 as part of a Preventive Maintenance (PM) activity which requires that thrust data be obtained while the valve is being stroked. MO-0498 is the pathway for ESW to discharge to the river. With this valve closed, water would have been discharged to the Emergency Cooling Tower (ECT). Having MO-0498 in the incorrect position jeopardized the operability of the ECCS and EDGs due to reduced cooling water flow rates while in this mode. This condition is considered a condition prohibited by the Tech Specs since this would have placed the plant into Tech Spec 3.0.C. Had this condition been recognized, all ECCS and EDGs would have been considered Tech Spec inoperable while MO-0498 was closed and unattended.

On 08/03/94 at approximately 1221 hours, a Clearance was authorized by the Work Control Supervisor (WCS) (Utility : Licensed) to support VOTES testing of MO-0498. At approximately 1845 hours, the WCS and the Reactor Operator (RO) (Utility : Licensed) approved the performance of the procedure for the PM on MO-0498 and turned this activity over to the Maintenance Job Leader. Shift Management recognized the impact on the plant of stroking this valve and attempted to establish controls to ensure ESW system operability would be maintained, however, adequate control was not successfully established. At 1907 hours, the Maintenance Technicians operated the breaker under a Special Condition Tag (SCT) to allow setup of MO-0498 for VOTES testing. A SCT is a method which allows authorized personnel to manipulate tagged equipment for testing purposes. This is allowed if the operators have been appropriately notified of the actions and proper controls are in place to control the evolution. At 2222 hours, MO-0498 was

NRC FORM 366A (6-89) U.S. NUCLEAR REGULATORY COMMISSION

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

APPROVED OMB NO. 3150-0104
EXPIRES: 4/30/92
ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P-530), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

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TEXT (If more space is required, use additional NRC Form 366A's) (17)

closed and the electrical power was removed from the valve by a Maintenance Technician. This was done under the SCT prior to leaving the work area for a break. Control Room Operators were not notified of the valve's position at the start of the break although they were aware that the valve would be stroked closed as part of the maintenance activity. The Maintenance Technicians believed that closing MO-0498 and removing its power supply was placing the valve in a safe condition. The Maintenance Technicians believed that they had made appropriate notifications to the Control Room Operator at the start of the task. With MO-0498 closed, water was diverted through the ECCS Room Coolers and the ESW Booster Pump to the ECT thus raising reservoir water level. The Main Control Room received an ECT reservoir high water level alarm at 2230 hours but it was initially attributed to rain fall. At 2309 hours, the Maintenance Technicians returned from the break. The oncoming Shift Supervisor (Utility : Licensed) and the oncoming RO were thinking about the ECT reservoir high water level alarm and were further investigating its cause when Security personnel notified the Main Control Room at 2315 hours that the ECT was overflowing. Following notification of the overflow condition, the RO realized that the position of MO-0498 was causing the ECT to overflow. The valve was then opened and ECT level was restored to its normal range.

Cause of the Event

The cause of the event was that MO-0498 was closed and left unattended which affected the ability of the ESW system to perform its design basis function of cooling the EDGs and ECCS equipment. This event occurred because less than adequate administrative controls were established to ensure that MO-0498 was continuously manned during VOTES testing. Adequate controls were not incorporated into the clearance or the work package to ensure that system operability would be maintained during VOTES testing. Development of these controls was left up to the SSV and the RO at the time that the activity was approved for performance. Shift Management recognized the need for controls during this activity, but the attempt to implement the controls was not successful due to less than adequate communication between Maintenance and Shift Management. An extensive investigation is ongoing regarding this event. Any additional causes and corrective actions will be addressed as appropriate.

Analysis of the Event

There were no actual safety consequences as a result of this event. Had a design bases accident occurred, an evaluation has shown that the ESW system would have been able to provide adequate short term component cooling to ECCS equipment and the EDGs with MO-0498 closed. Eventually, either the ECT overflow condition or high EDG temperatures would have alerted the operators that MO-0498 was closed. Therefore, long term cooling would have been available by restoring MO-0498 to an open position.

Corrective Actions

Following notification of the overflow condition, the RO realized that the position of MO-0498 was causing the ECT to overflow. The valve was then opened and ECT level was restored to its normal range.

The event has been reviewed and control of maintenance evolutions has been emphasized with Shift Management. The pertinent information from the event has been provided to the appropriate Operations personnel to clarify system ownership when equipment is released under a clearance. In addition, clarification was provided regarding system operability during VOTES testing and system operability when manual actions are required to maintain system operability.

The event has been discussed with the involved maintenance personnel. The pertinent information from the event has been provided to the appropriate Maintenance personnel. In addition, VOTES testing procedures will be revised as appropriate to ensure that future events will be prevented.

An evaluation will be performed to ensure that adequate administrative controls are established to maintain system operability whenever testing or maintenance must be done on an operable system. Corrective actions will be implemented as appropriate pending the result of the evaluation.

An extensive investigation is ongoing regarding this event. Any additional causes and corrective actions will be addressed as appropriate.

In addition, this information will be provided to other members of the station staff as appropriate to re-emphasize the importance of maintaining proper controls when testing or maintenance is being performed on operable equipment.

Previous Similar Events

No previous similar events have been identified which involved less than adequate controls to ensure system operability is maintained during maintenance or testing.