



PECO ENERGY

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May 26, 1994

Document Control Desk
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 Technical Specification violation when the Circulating Water Intake Composite Sampling system was not properly functioning.

Reference: Docket Nos. 50-277 & 50-278
Report Number: 2-94-002
Revision Number: 00
Discovery Date: 04/21/94
Reportability Date: 04/26/94
Report Date: 05/26/94
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 for

Garrett D. Edwards
Plant Manager

GDE
GDE/GAJ:gaj
enclosure

cc: R.A.Burricelli, Public Service Electric & Gas
W. P. Dornsife, 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
C. D. Schaefer, DelMarVa Power
H. C. Schwemm, VP - Atlantic Electric

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CCN 94-14080

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LICENSEE EVENT REPORT (LER)

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) Peach Bottom Atomic Power Station Units 2 & 3	DOCKET NUMBER (2) 0 5 0 0 0 2 7 7	PAGE (3) 1 OF 04
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TITLE (4)
Failure to have the circulating water composite sampling system operable

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)
04	21	94	94	002	00	05	26	94	Peach Bottom Unit 3	0 5 0 0 0 2 7 8
										0 5 0 0 0

OPERATING MODE (9) N	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR § (Check one or more of the following) (11)				
POWER LEVEL (10) 1 0 0	<input type="checkbox"/> 20.402(b)	<input type="checkbox"/> 20.405(c)	<input type="checkbox"/> 50.73(a)(2)(iv)	<input type="checkbox"/> 73.71(b)	OTHER (Specify in Abstract below and in Text, NRC Form 365A)
	<input type="checkbox"/> 20.405(a)(1)(i)	<input type="checkbox"/> 50.38(c)(1)	<input type="checkbox"/> 50.73(a)(2)(v)	<input type="checkbox"/> 73.71(c)	
	<input type="checkbox"/> 20.405(a)(1)(ii)	<input type="checkbox"/> 50.38(c)(2)	<input type="checkbox"/> 50.73(a)(2)(vii)		
	<input type="checkbox"/> 20.405(a)(1)(iii)	<input checked="" type="checkbox"/> 50.73(a)(2)(ii)	<input type="checkbox"/> 50.73(a)(2)(viii)(A)		
	<input type="checkbox"/> 20.405(a)(1)(iv)	<input type="checkbox"/> 50.73(a)(2)(iii)	<input type="checkbox"/> 50.73(a)(2)(viii)(B)		
<input type="checkbox"/> 20.405(a)(1)(v)	<input type="checkbox"/> 50.73(a)(2)(iii)	<input type="checkbox"/> 50.73(a)(2)(ix)			

LICENSEE CONTACT FOR THIS LER (12)		TELEPHONE NUMBER
NAME	AREA CODE	
Anthony J. Wasong, Manager - Experience Assessment	717	456-7014

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

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRRDS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRRDS

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

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

On 4/26/94, a review by Chemistry Personnel confirmed that the Circulating Water Intake Composite Sampler system was not operated in a manner to obtain a representative composite sample of the Circulating Water Intake. The cause of the event has been determined to be that a small valve on the system became plugged due to the build up of silt from the river water. This condition caused a decrease in the sample flow rate over time. Therefore, a representative composite sample was not obtained every two hours and this resulted in a Technical Specification violation. In addition, the Chemistry Technicians, on a regular basis, adjusted the sample flow rates in an attempt to compensate for silt blockage. If the sample flow rate was found low and the sample tank was not completely filled, the flow rate was increased to fill the sample tank. This overcompensation resulted in the dilution of the composite sample. The sample valve and line were flushed and the system was properly setup and returned to service. The system flow rates have been increased and the valve has been replaced with a new type. A portable composite sampling system has been installed as a backup system until flow discrepancies are resolved. The system flow rates are being closely monitored to ensure that the systems are being maintained operable and to determine the most effective system enhancements. The information from this event will be provided to the appropriate members of the Station staff. No previous similar events have been identified.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

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

Requirements for the Report

This report is being submitted pursuant to 10 CFR 50.73 (a)(2)(i) as a result of a violation of Technical Specification (Tech Spec) 4.8.E.1 and Table 4.8.3.a since a Circulating Water Intake Composite Sample was not properly obtained.

Unit Conditions at Time of Event

Units 2 and 3 were in the RUN mode of operation at various thermal reactor (EIS:EA) power levels. There were no systems, structures, or components that were inoperable that contributed to the event.

Description of the Event

Tech Spec 4.8.E.1 and Table 4.8.3.a require that a Circulating Water Intake Composite Sample be obtained every two hours and analyzed monthly. This requirement is fulfilled by the Composite Sampling system which continuously obtains a water sample and places it in a holding tank. At the end of the collection period, the tank is mixed and a representative sample is obtained and analyzed to determine the radiological conditions of the water entering the station. On 4/26/94, a review by Chemistry Personnel confirmed that the Circulating Water Intake Composite Sampler system was not operated in a manner to obtain a representative composite sample. Recent operating data indicated that the Composite Sampling system periodically produced low sample flow due to silt build up in a valve. To compensate for periods of reduced sample flow, the Chemistry Technicians routinely increased the sample flow rate to ensure that the holding tank would be filled with water by the end of the collection period. These excessive variations in the sample flow rates did not meet the intent of the Tech Specs. This condition was initially identified by the NRC.

Cause of the Event

The cause of the event has been determined to be that a small valve on the Circulating Water Intake Composite Sampler became plugged due to the build up of silt from the river water. This condition caused a decrease in the sample flow rate over time. Eventually, as the valve became blocked by silt, the sample flow rate would almost stop. Therefore, a representative composite sample was not obtained every two hours and this resulted in a Tech Spec violation. In addition, the Chemistry Technicians, on a regular basis, adjusted the sample flow rates in an attempt to compensate for silt blockage. If the sample flow rate was found low and the sample tank was not completely filled, the flow rate was increased to fill the sample tank. This overcompensation resulted in the dilution

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of the composite sample. It was not recognized by the individuals involved that excessive variations in the sample flow rate between samples could impact the validity of the composite sample.

Analysis of Event

The consequences are considered minimal due to the fact that the Circulating Water Intake Composite Sampling system is intended to assess the radiological conditions of the river water entering the plant. Based on a review of operating data and release data during the period of non compliance, no elevated radiological conditions were identified in the Circulating Water Intake.

Corrective Actions

The Circulating Water Intake Composite Sample valve and line were flushed and the system was properly setup and returned to service. The system flow rates have been increased and the valve has been replaced with a type which should be less susceptible to silt build up.

In addition, a portable composite sampling system has been installed on the Circulating Water Intake to be used as a backup to the permanent system until flow discrepancies are resolved and the long term operability of the permanent system is confirmed.

The Circulating Water Composite Sampler systems flow rates are being closely monitored and evaluated to ensure that the systems are being maintained operable and to determine the most effective system enhancements. Corrective actions will be implemented as appropriate pending the results of the evaluation.

The pertinent information from this event has been provided to the appropriate members of the Chemistry Staff. In addition, information from this event will also be provided to the appropriate members of the Station staff to emphasize the importance of alerting supervision and management to similar conditions requiring increased attention to compensate for inadequate system design or performance.

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Previous Similar Events

No previous similar events have been identified which involved problems with diluting the samples. However, one previous event occurred (LER 2-92-08) which involved the failure to return composite sampling pumps to service. The cause of this event was that the daily manual grab sample method was considered an acceptable alternate sampling method. Therefore, a low priority was assigned to the maintenance action requests for Composite Sampler repairs. As a result, the samplers were out of service for extended periods of time. The corrective actions associated with this event were to repair and return the samplers to service. In addition, actions were also taken to ensure that Work Orders associated with Environmental Tech Spec sampling equipment received a sufficient priority. Since the causes associated with the previous event were different than this event, it is not expected that the corrective actions would have prevented this event.