

LICENSEE EVENT REPORT (LER)

APPROVED OMB NO. 3160-0104
EXPIRES - 9/31/95

FACILITY NAME (1)										DOCKET NUMBER (2)										PAGE (3)																													
Peach Bottom Atomic Power Station - Unit 2																														0 5 0 0 0 2 7 7 1 0 0 1 4																			
TITLE (4)																																																	
Inoperability of the 'F' and 'B' IRM Detectors																																																	
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 (8)										
0 6 1			2 8 5			8 5 0 0 5				0 0 0			7 1 7			8 5														0 5 0 0 0 1 1																			
OPERATING MODE (9)										THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)																																							
N										20.402(a)										20.406(a)										60.73(a)(2)(iv)										73.71(b)									
POWER LEVEL (10)										20.406(a)(1)(ii)										60.36(a)(1)										60.73(a)(2)(v)										73.71(a)									
0 0 0										20.406(a)(1)(iii)										60.36(a)(2)										60.73(a)(2)(vi)										OTHER (Specify in Abstract below and in Test, NRC Form 364A)									
										20.406(a)(1)(iv)										X 60.73(a)(2)(ii)										60.73(a)(2)(vii)(A)																			
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										20.406(a)(1)(vi)										60.73(a)(2)(iv)										60.73(a)(2)(ix)(B)																			
										20.406(a)(1)(vii)										60.73(a)(2)(v)										60.73(a)(2)(x)																			
LICENSEE CONTACT FOR THIS LER (12)																																																	
NAME																				TELEPHONE NUMBER																													
Senior																				AREA CODE																													
J. C. Nagle, Engineer - Special Projects																				2 1 5 8 4 1 - 5 1 8 4																													
COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)																																																	
CAUSE			SYSTEM			COMPONENT			MANUFACTURER			REPORTABLE TO NRC			CAUSE			SYSTEM			COMPONENT			MANUFACTURER			REPORTABLE TO NRC																						
SUPPLEMENTAL REPORT EXPECTED (14)																				EXPECTED SUBMISSION DATE (15)										MONTH DAY YEAR																			
YES (If yes, complete EXPECTED SUBMISSION DATE)																				X NO																													
ABSTRACT (Limit to 1400 words, i.e., approximately fifteen single-spaced typewritten lines) (16)																																																	
Abstract: 2-85-05																																																	
<p>On June 12, 1985, at approximately 8:00 a.m., with the Unit 2 reactor mode switch in the 'refuel' position, an NRC inspector observed that both the 'F' and 'B' Intermediate Range Monitor (IRM) detectors were inoperable, however, the 'B' channel of the Reactor Protection System (RPS) logic had not been placed in the tripped condition. The 'F' IRM was blocked out-of-service on May 2, 1985 and the 'B' IRM was bypassed some time thereafter. With the mode switch in the 'refuel' position, this condition is a violation of Technical Specifications since there were less than the minimum number (3) of operable IRMs. The 'H' and 'D' IRMs, which also input into the 'B' channel of RPS, were operable during this event. This event was caused by a deficiency in a blocking procedure. Upon discovery of this condition the 'B' IRM was taken out of bypass. The blocking procedure will be revised to require red tagging the bypass switch when blocking an individual IRM out-of-service.</p>																																																	
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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 3150-0104

EXPIRES 8/31/85

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		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
		8 5	0 0 5	0 0	0 2	OF	0 4

TEXT (if more space is required, use additional NRC Form 368a) (17)

Description of the Event:

On June 12, 1985 at approximately 8:00 a.m., with the Unit 2 reactor mode switch in the 'refuel' position, an NRC inspector observed that both the 'F' and 'B' Intermediate Range Monitor (IRM) detectors of the Neutron Monitoring System were inoperable, however, the 'B' channel of the Reactor Protection System (RPS) logic had not been placed in the safe (tripped) condition (half-scam). The 'F' IRM was blocked out of service and the 'B' IRM was bypassed. Both of these detectors input to the 'B' channel of the RPS logic. With the reactor mode switch in the 'refuel' position, this condition is a violation of Technical Specification Table 3.1.1 since there were less than the minimum number (3) of operable IRMs. Upon discovery of this condition, the 'B' IRM was taken out of bypass.

The 'F' IRM was blocked out-of-service on May 2, 1985 to facilitate repair work on the detector. When the 'F' IRM was blocked, an information tag was placed on the bypass switch (one switch per four detectors in the same channel of the RPS logic) stating that the 'F' IRM was out-of-service and not to bypass any other detectors in the 'B' channel. Some time thereafter (but prior to 8:00 a.m. on June 12, 1985) and by undetermined personnel, the information tag was removed from the bypass switch and the switch was placed in position to bypass the 'B' IRM while the 'F' IRM remained out-of-service.

Any number of IRMs may be inoperable when the reactor mode switch is in the 'shutdown' position, however, in the 'refuel' position, at least three of the four IRMs in the same channel of RPS must be operable. The reactor mode switch was changed from the 'shutdown' position to the 'refuel' position several times between May 2, 1985 and June 12, 1985, during which time the mode switch was in the 'refuel' position a total of approximately twenty-nine days.

The EIIS code for the affected system is "JC" and for the components is "DET".

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMS NO. 3150-0104

EXPIRES: 8/31/85

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		YEAR 8 5	SEQUENTIAL NUMBER 0 0 5	REVISION NUMBER 0 0	0 3	OF	0 4

TEXT (if more space is required, use additional NRC Form 366A (1))

Consequences of the Event:

The 'B' and 'F' IRMs input to the B1 channel of the RPS logic. With both detectors inoperable, this resulted in the inoperability of the B1 channel of RPS when required by Technical Specifications (reactor mode switch in the 'refuel' position). The 'H' and 'D' IRMs, which input to the B2 channel of the RPS logic, were operable during this event and would have initiated a scram on the 'B' channel of RPS in the case of high neutron flux. Both the A1 and A2 channels of the 'A' RPS logic were fully operable. Therefore, there was no loss of full scram capability.

The reactor mode switch in the 'refuel' position gives a one rod permissive which allows a single rod to be pulled. As a result, the reactor remained in an analyzed condition based on the design basis single control rod drop analysis. Therefore, the consequences of this event were minimal.

Cause of the Event:

This event was caused by a deficiency in the blocking sequence. The blocking sequence does not require the bypass switch for the IRMs to be placed in bypass and red tagged when an individual IRM is blocked out of service for repair work. As a result, the operations personnel were not required to clear the block on the 'F' IRM before bypassing the 'B' IRM, ensuring that only one IRM was inoperable at any given time.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMS NO. 3150-0104

EXPIRES: 8/31/86

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		YEAR 8 5	SEQUENTIAL NUMBER 0 0 5	REVISION NUMBER 0 0		0 4	OF 0 4

TEXT (if more space is required, use additional NRC Form 366A (17))

Corrective Actions:

Upon discovery of this condition, the 'B' IRM was taken out of bypass restoring the B1 channel of the RPS logic to an operable status. The blocking sequence will be revised by October 1, 1985 to require placing the bypass switch in the bypass position and red tagging it in that position when an individual IRM is blocked out of service. This will ensure that only one IRM is bypassed or made inoperable at any given time. In the interim, a letter has been issued to the Shift Superintendent requiring the bypass switch to be red tagged when an IRM is blocked.

Previous Similar Occurrences:

None.

PHILADELPHIA ELECTRIC COMPANY

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July 17, 1985

Docket No. 50-277

Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, DC 20555

SUBJECT: Licensee Event Report
Peach Bottom Atomic Power Station - Unit 2

This LER deals with the less than minimum number of IRM inputs to the B RPS logic as required by Technical Specifications as the result of the simultaneous inoperability of the 'B' and 'F' IRM detectors.

Reference:	50-277
Report Number:	2-85-05
Revision Number:	00
Event Date:	June 12, 1985
Report Date:	July 17, 1985
Facility:	Peach Bottom Atomic Power Station RD #1, Bcx 208, Delta, PA 17314

This LER is being submitted pursuant to the requirements of 10 CFR 50.73(a)(2)(i). We regret the delayed submittal of this LER and any inconvenience this may have caused.

Very truly yours,



W. T. Ullrich
Superintendent
Nuclear Generation Division

cc: Dr. Thomas E. Murley, Administrator
Region I, USNRC
Mr. T. P. Johnson, Resident Inspector

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