

## LICENSEE EVENT REPORT (LER)

APPROVED ONS N: 180-0104  
EXPIRES - 8/31/84

FACILITY NAME (1) <b>Limerick Generating Station - Unit 1</b>										DOCKET NUMBER (2) <b>0 5 0 0 0 3 5 2</b>				PAGE (3) <b>1 OF 03</b>					
TITLE (4) <b>Reactor Water Cleanup System Isolation</b>																			
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 (2)						
1	2	1	68	4	8	4	0	3	5	0	0	1	23	8	5	0 5 0 0 0 1 1			
OPERATING MODE (9) <b>4</b>			THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5. (Check one or more of the following) (11)																
POWER LEVEL (10) <b>0 0 0</b>			20.402(b)				20.406(a)				<input checked="" type="checkbox"/> 60.73(a)(2)(iv)				73.71(b)				
			20.406(a)(1)(ii)				60.36(a)(1)				60.73(a)(2)(v)				73.71(d)				
			20.406(a)(1)(iii)				60.36(a)(2)				60.73(a)(2)(vi)				OTHER (Specify in Abstract below and in Text, NRC Form 366A)				
			20.406(a)(1)(iv)				60.73(a)(2)(ii)				60.73(a)(2)(vii)(A)								
			20.406(a)(1)(v)				60.73(a)(2)(iii)				60.73(a)(2)(viii)(B)								
			20.406(a)(1)(vi)				60.73(a)(2)(iv)				60.73(a)(2)(ix)								
LICENSEE CONTACT FOR THIS LER (12)																			
NAME <b>John C. Nagle, Engineer - Special Projects</b>										TELEPHONE NUMBER									
										AREA CODE <b>2 1 5 8 4 1 - 5 1 8 4</b>									
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									
B	C/E	TDS	B 2 7 8	Y															
SUPPLEMENTAL REPORT EXPECTED (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 1000 words, i.e., approximately fifteen single-space typewritten lines) (16)

Abstract: 84-035

On December 16, 1984 at 11:13 a.m. prior to initial criticality on Unit 1, a spurious isolation of the Reactor Water Cleanup System (RWCU) occurred. The outboard isolation valve, HV-44-1F004, closed to its isolation position on the trip of a steam leak detection temperature switch. The isolation was reset and the RWCU system was returned to service. There were no adverse effects as a result of the RWCU isolation.

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## LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 3150-0104

EXPIRES 8/31/85

FACILITY NAME (1) Limerick Generating Station Unit 1	DOCKET NUMBER (2)  0 5 0 0 0 3 5 2 8 4 - 0 3 5 - 0 0 0 2 OF 0 3	LER NUMBER (8)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			

TEXT (If more space is required, use additional NRC Form 366a) (17)

Description of the Event:

On December 16, 1984 at 11:13 a.m. prior to initial criticality on Unit No. 1, a spurious isolation of the Reactor Water Cleanup System (RWCU) occurred. The outboard isolation valve, HV-44-1F004, closed to its isolation position on the trip of a steam leak detection temperature switch. The isolation was reset and the RWCU system was returned to service.

Consequences of the Event:

Unit No. 1 was at zero percent power prior to initial criticality. There were no adverse effects as a result of the Reactor Water Cleanup system isolation. Reactor water chemistry, because of the short duration of the isolation, was not adversely affected.

Cause of the Event:

Review of the RWCU isolation logic indicates that the probable cause of the isolation was the trip of a temperature switch in the steam leak detection system. The alarm which annunciates on the trip of the RWCU temperature switch was already actuated due to ongoing surveillance testing which shares the common annunciator.

## LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1) Limerick Generating Station Unit 1	DOCKET NUMBER (2) 0 5 0 0 0 3 52 8 4	LER NUMBER (6)			PAGE (3)		
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		8 4	0 3 5	0 0	0 3	OF	0 3

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

Personnel involved with the concurrent surveillance testing were interviewed to determine if the RWCU isolation steam leak detection temperature switch was inadvertently actuated. No such inadvertent trip was uncovered. The steps of the surveillance test which were ongoing at the time of the event were repeated in an attempt to recreate the isolation. The isolation did not reoccur. The concurrent surveillance testing was being conducted on the same panel as the RWCU temperature switch.

Although no conclusive evidence could be found, it is believed that the most likely cause of the event was the use of the RWCU "READ" switch (used to monitor RWCU area temperature). Use of this "READ" switch has caused previous isolations. A design defect in the temperature differential transmitter switch is believed to be responsible for the spurious isolation signal.

Corrective Actions:

Information Tags have been placed on the inboard and outboard RWCU ambient temperature indicating panels in the Auxiliary Equipment Room, stating that prior to operating the differential temperature switches, the main control room must be notified that a RWCU isolation may occur. A modification is being pursued to the "READ" circuit which will prevent inadvertent trips when using the "READ" switch on the temperature switch.

Previous Similar Occurrences:

LER's 84-012, 84-026, 84-034.

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January 23, 1985

Docket No. 50-352

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

SUBJECT: Licensee Event Report  
Limerick Generating Station - Unit 1

This LER concerns the isolation of the Reactor Water Cleanup System on Unit 1 prior to initial criticality.

Reference:	Docket No. 50-352
Report Number:	84-035
Revision Number:	00
Event Date:	December 16, 1984
Report Date:	January 23, 1985
Facility:	Limerick Generating Station P.O. Box A, Sanatoga, PA 19464

This LER is being submitted pursuant to the requirements of 10 CFR 50.73(a)(2)(iv). The delayed submittal of this LER was discussed with Robert M. Gallo of your staff and found acceptable. We regret any inconvenience this late submittal may have caused.

Very truly yours,



W. T. Ullrich  
Superintendent  
Nuclear Generation Division

cc: Dr. Thomas E. Murley, Administrator, Region I, USNRC  
J. T. Wiggins, Senior Site Inspector  
See Service List

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