

## LICENSEE EVENT REPORT (LER)

APPROVED ONS NO. 2180-0104  
EXPIRES - 8/31/85

FACILITY NAME (1)

Limerick Generating Station - Unit 1

DOCKET NUMBER (2)

050003521 OF 03

PAGE (3)

TITLE (4)

Engineered Safety Feature Actuation Primary Containment Integrity System

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 NAME	DOCKET NUMBER (8)																														
05	01	85	85	049	00	05	21	85		050003521																														
OPERATING MODE (9)		THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5. (Check one or more of the following) (11)																																						
4		<table border="1"><tr><td>20.402(a)</td><td>20.406(a)</td><td>X</td><td>20.731(a)(1)(u)</td><td>73.711(a)</td></tr><tr><td>20.406(a)(1)(u)</td><td>20.406(a)(1)(v)</td><td></td><td>20.731(a)(2)(v)</td><td>73.711(a)</td></tr><tr><td>20.406(a)(1)(w)</td><td>20.406(a)(2)</td><td></td><td>20.731(a)(3)(u)</td><td></td></tr><tr><td>20.406(a)(1)(x)</td><td>20.731(a)(1)(u)</td><td></td><td>20.731(a)(3)(v)(A)</td><td>OTHER (Specify in Abstract below and in Text, NRC Form 206A)</td></tr><tr><td>20.406(a)(1)(y)</td><td>20.731(a)(2)(u)</td><td></td><td>20.731(a)(3)(v)(B)</td><td></td></tr><tr><td>20.406(a)(1)(z)</td><td>20.731(a)(3)(u)</td><td></td><td>20.731(a)(3)(z)</td><td></td></tr></table>									20.402(a)	20.406(a)	X	20.731(a)(1)(u)	73.711(a)	20.406(a)(1)(u)	20.406(a)(1)(v)		20.731(a)(2)(v)	73.711(a)	20.406(a)(1)(w)	20.406(a)(2)		20.731(a)(3)(u)		20.406(a)(1)(x)	20.731(a)(1)(u)		20.731(a)(3)(v)(A)	OTHER (Specify in Abstract below and in Text, NRC Form 206A)	20.406(a)(1)(y)	20.731(a)(2)(u)		20.731(a)(3)(v)(B)		20.406(a)(1)(z)	20.731(a)(3)(u)		20.731(a)(3)(z)	
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20.406(a)(1)(z)	20.731(a)(3)(u)		20.731(a)(3)(z)																																					

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER
John C. Nagle, Engineer	215841-5184

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
				N					

SUPPLEMENTAL REPORT EXPECTED (14)

YES (If you complete EXPECTED SUBMISSION DATE)	NO	EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
	X				

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

Abstract: 85-049

On May 1, 1985, with the unit in cold shutdown, a signal isolated the "A", "B", and "D" Main Steam Isolation Valves (MSIVs) and the inboard main steam line drain valve. This signal was generated by the Primary Containment Integrity System (PCIS), an Engineered Safety Feature (ESF). All of the MSIVs were closed at the time. Therefore, this isolation signal did not affect the position of these valves; however, the main steam line inboard drain valve did close from this signal as designed. The isolation signal occurred when Instrument and Control (I and C) technicians performing a Turbine Control Valve Fast Closure Test inadvertently blew a fuse in the Turbine Main Stop Valve (MSV) control logic. The MSVs were in the closed position, prior to the fuse blowing; however, three of the MSVs opened when the circuit was interrupted. The opening of these valves in conjunction with low condenser vacuum completed the MSIV and drain valve isolation logic.

The fuse was replaced and the isolation was reset.

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## LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 3150-0104

EXPIRES 8/31/95

FACILITY NAME (1)

Limerick Generating Station  
Unit 1

DOCKET NUMBER (2)

050003152

LER NUMBER (5)

PAGE (3)

YEAR

SEQUENTIAL  
NUMBERREVISION  
NUMBER

85

-049

-010

02

OF

03

TEXT (11 more spaces are required; use additional NRC Form 366A (17))

Description of the Event:

On May 1, 1985, at 11:15 a.m. with the unit in cold shutdown, I and C technicians performing a Turbine Control Valve Fast Closure test inadvertently blew a fuse in the Main Stop Valve (MSV) control logic. Prior to performing the test, the MSVs were in the closed position as were both the inboard and outboard Main Steam Isolation Valves (MSIVs). The inboard main steam line drain valve was open. The MSIV isolation logic has a bypass which allows the valves to open with low condenser vacuum if: 1) the bypass is selected by a control switch and 2) the MSVs are less than 90 percent opened. When the fuse in the stop valve logic blew, three of these stop valves moved to the open position because loss of control logic opens the valves. The bypass logic for the inboard and outboard "A", "B" and "D" MSIVs and the inboard main steam line drain valve was defeated when three MSVs (1,3,4) opened. Because the MSVs went greater than 90 percent open the low condenser bypass was no longer valid and the isolation signal was generated. The number 2 MSV is controlled by a different logic, which was unaffected by the blown fuse. The "C" MSIV is interlocked with the number 2 MSV; therefore, when the number 2 MSV did not open no isolation signal was generated for the "C" MSIV.

Consequences of the Event:

This event had minimal consequences because the MSIVs were in the closed position prior to the isolation signal.

Cause of the Event:

This event was caused by personnel error. The I and C technician performing an approved procedure (the Turbine Control Valve Fast Closure test) shorted out the MSV control logic by incorrectly installing test equipment which caused a protective fuse to blow.

## 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 5 - 0 4 9 - 0 0 0 3 OF 0 3	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			

TEXT (If more space is required, use additional NRC Form 364A (17))

Corrective Actions:

The fuse was replaced and the isolation reset. In addition, the technicians involved were counselled on the proper methods of performing tests and the importance of careful workmanship.

Previous Similar Occurrences:

- 84-011 - Short Circuit caused by I and C technician caused certain valves to isolate.
- 84-024 - While performing surveillance test, a Main Stop Valve inadvertently opened, generating a similiar isolation signal.
- 84-030 - Grounded lead blew a fuse in outboard isolation logic.
- 85-011 - I and C technician caused short while installing jumper.

PHILADELPHIA ELECTRIC COMPANY

2301 MARKET STREET

P.O. BOX 8699

PHILADELPHIA, PA. 19101

(215) 841-4000

May 20, 1985

Docket No. 50-352

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Washington, DC 20555

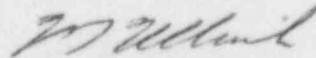
SUBJECT: Licensee Event Report  
Limerick Generating Station - Unit 1

This LER deals with an Engineered Safety Feature actuation of a portion of the Primary Containment Integrity System.

Reference:	Docket No. 50-352
Report Number:	85-049
Revision Number:	00
Event Date:	May 1, 1985
Report Date:	May 20, 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).

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

IE22  
1/1

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Docket & Service Section (3 Copies)  
James Wiggins  
Timothy R. S. Campbell

January 16, 1985