

## LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Limerick Generating Station - Unit 1										DOCKET NUMBER (2) 0 5 0 0 0 3 5 1 2										PAGE (3) 1 OF 0 3																			
TITLE (4) Nuclear Steam Supply Shutoff System Actuation and Standby Gas Treatment System Initiation Due to a Blown Fuse																																							
EVENT DATE (5) MONTH DAY YEAR 0 9 1 9 8 5 8 5										LER NUMBER (6) SEQUENTIAL NUMBER REVISION NUMBER 0 7 4 0 1										REPORT DATE (7) MONTH DAY YEAR 0 1 0 1 1 5 8 7										OTHER FACILITIES INVOLVED (8) FACILITY NAMES DOCKET NUMBER(S) 0 5 0 0 0 0 0 0									
OPERATING MODE (9) 1										THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5. (Check one or more of the following) (11)										73.71(b) 73.71(c) OTHER (Specify in Abstract below and in Part I, NRC Form 308A)																			
POWER LEVEL (10) 0 1 2 2										20.402(b) 20.405(a)(1)(i) 20.405(a)(1)(ii) 20.405(a)(1)(iii) 20.405(a)(1)(iv) 20.405(a)(1)(v)										20.406(a) 20.406(a)(1) 20.406(a)(2) 20.73(a)(2)(i) 20.73(a)(2)(ii) 20.73(a)(2)(iii) 20.73(a)(2)(iv)										20.73(a)(2)(v) 20.73(a)(2)(vi) 20.73(a)(2)(vii) 20.73(a)(2)(viii) 20.73(a)(2)(ix) 20.73(a)(2)(x)									
LICENSEE CONTACT FOR THIS LER (12) NAME Charles A. Mengers, Senior Engineer, Licensing Section																														TELEPHONE NUMBER AREA CODE 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) YES (If yes, complete EXPECTED SUBMISSION DATE) NO																				EXPECTED SUBMISSION DATE (15) MONTH DAY YEAR																			

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

Abstract: 85-074

During surveillance testing on September 19, 1985, with the unit at 22 percent power, an I&C technician inadvertently caused a fuse to blow which resulted in the automatic isolation of numerous Nuclear Steam Supply Shutoff System (NSSSS) components and initiation of Standby Gas Treatment (SBGT) system. Isolations were verified and reset per procedure and systems were returned to normal after the fuse was replaced.

Special metering and sectionalizing fuses which were installed as a result of LER 85-048 have shown no abnormalities. The incident has not reoccurred in over two years and is considered an isolated event. No further investigation or corrective actions are planned.

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## LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMS NO 3186-0104

EXPIRES 8/31/86

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		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
		0 7 4	0 1	0 2	OF	0 3	

TEXT (If more space is required, use additional NRC Form 205A (1/17))

Description of the Event:

With the Unit at 22 percent power, while performing surveillance test ST-2-42-658-1, "NSSSS-Reactor Vessel Water Level-Level 1 and 2; Division 1B, Channel B1 Functional Test (LIS-42-IN6811B, SL-42-IN684B)", the instrument and controls technician found it necessary to move cabling in order to verify the identity of a relay. The apparent movement of the cable resulted in the blowing of fuse B21H-F15A.

The de-energization of the NSSSS logic caused inboard Groups I, II, III, VI, VII and VIII isolation signals to be generated. The reactor water cleanup system, primary containment instrument gas system and secondary containment isolated as a result of that signal.

The EIIS code for this system is JM.

Consequences of the Event:

All systems performed as if valid isolation signals had been generated. The isolations were reset and the RWCU system was returned to service. There was not detrimental affect on reactor chemistry due to the temporary loss of the RWCU system. The consequences of this event are minimal.

Cause of the Event:

In order to determine the identity of a relay, the instrument and controls technicians was moving cables within panel 10C622. During a surveillance test, a verification of the state of relay was required. Coincidental with this cable movement, fuse B21H-F15A blew, generating the isolation signals.

Corrective Actions:

All of the isolations were confirmed and the fuse was replaced. Within a half-hour, the system was reset by procedure. The RWCU

## 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)  015010035285-074-0103 OF 03	LER NUMBER (6)			PAGE (3)  03
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	

TEXT (If more space is required, use additional NRC Form 305A-1 (17))

system was returned to service within 45 minutes of the isolation.

Actions Taken to Prevent Recurrence:

Attempts to recreate the events which led to the blown fuse in order to further define the fault location were unsuccessful.

As a result of a previous similar occurrence (LER 85-48), several secondary fuses had been temporarily installed as an aid in determining the fault location, were the problem to recur. During this failure, none of the additional fuses had blown; this helped to narrow down the possible fault location. At this time, two more fault indicators have been installed and a physical inspection of each wire spade connector and terminal has been completed.

No abnormalities have been found. A Maintenance Request Form (MRF) was initiated to trace each wire in an attempt to locate the possible fault. This MRF was cancelled after a decision was made not to disturb the NSSSS system wiring for the following reasons:

- 1) No similar NSSSS blown fuse incidents with an unknown cause have occurred in over two years and
- 2) Entering a control panel with a high concentration of sensitive relays and circuitry could result in other inadvertent NSSSS isolations and unnecessary challenges to safety systems and plant operations.

This incident has been viewed as an isolated event and no further investigation or corrective actions are planned.

Previous Similar Occurrences:

Similar events of blown fuses which resulted in ESF actuation were reported in LERs 85-08 and 85-48.

PHILADELPHIA ELECTRIC COMPANY

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January 15, 1988

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 revised LER concerns the spurious isolation of Nuclear Steam Supply Shutoff System (NSSSS) subsystems and the initiation of Standby Gas Treatment Systems as a result of a blown fuse.

Reference:	Docket No. 50-352
Report Number:	85-074
Revision Number:	01
Event Date:	September 19, 1985
Report Date:	January 15, 1988
Facility:	Limerick Generating Station P.O. Box A Sanatoga, PA 19464

This revised LER is being submitted pursuant to the requirements of 10 CFR 50.73(a)(2)(i). The purpose of this revision is to update the Actions Taken to Prevent Recurrence for the event. Changes are indicated by a vertical bar in the margin.

Very truly yours,



R. H. Logue  
Assistant to the Manager  
Nuclear Support Division

cc: W. T. Russell, Administrator, Region I, USNRC  
E. M. Kelly, Senior Resident Site Inspector

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