



PECO ENERGY

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10CFR 50.73

July 26, 1994  
Docket No. 50-352  
License No. NPF-39

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

SUBJECT: Licensee Event Report  
Limerick Generating Station - Unit 1

This LER concerns an unplanned isolation of two Primary Containment Isolation Valves, an Engineered Safety Feature Actuation due to personnel error during the removal of a fuse for the application of a clearance.

Reference:	Docket No. 50-352
Report Number:	1-94-010
Revision Number:	00
Event Date:	June 26, 1994
Report Date:	July 26, 1994
Facility:	Limerick Generating Station P.O. Box 2300, Sanatoga, PA 19464-2300

This LER is being submitted pursuant to the requirements of 10 CFR 50.73(a)(2)(iv).

Very truly yours,

KOS:cah

cc: T. T. Martin, Administrator Region I, USNRC  
N. S. Perry, USNRC Senior Resident Inspector, LGS

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## LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Limerick Generating Station, Unit 1										DOCKET NUMBER (2) 0 5 0 0 0 3 5 2					PAGE (3) 1 OF 0 4		
TITLE (4) Two Primary Containment Isolation Valves inadvertently isolated, an ESF, due to a personnel error during the application of a clearance																	
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)			
0 6	2 6	9 4	9 4	0 1 0	0 0	0 7	2 6	9 4						0 5 0 0 0			
OPERATING MODE (9)		THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR § (Check one or more of the following) (11)															
1		20.402(b)				20.405(c)				<input checked="" type="checkbox"/> 50.73(a)(2)(iv)				73.71(b)			
POWER LEVEL (10)		20.405(a)(1)(i)				50.36(a)(1)				50.73(a)(2)(v)				73.71(c)			
1 0 0		20.405(a)(1)(ii)				50.36(a)(2)				50.73(a)(2)(vii)				OTHER (Specify in Abstract below and in Text, NRC Form 366A)			
		20.405(a)(1)(iii)				50.73(a)(2)(i)				50.73(a)(2)(viii)(A)							
		20.405(a)(1)(ix)				50.73(a)(2)(ii)				50.73(a)(2)(viii)(B)							
		20.405(a)(1)(v)				50.73(a)(2)(iii)				50.73(a)(2)(x)							
LICENSEE CONTACT FOR THIS LER (12)																	
NAME										TELEPHONE NUMBER							
J. L. Kantner - Manager, Experience Assessment, LGS										6 1 0 3 2 7 1 - 1 2 0 0							
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			
<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 June 26, 1994, during the process of clearance application to support scheduled work on the Unit 1 cooling tower stilling well heater, the Unit 1 Reactor Operator pulled an incorrect fuse which caused the indicating lights for the containment leak detector outboard Primary Containment Isolation Valves to extinguish. The RO immediately reinstalled the fuse, and the CO identified that the valves had closed on the loss of power, thereby constituting an Engineered Safety Feature (ESF) actuation. The CO then re-opened the valves. The actual and potential consequences of this event were minimal. The affected valves repositioned and functioned as designed in response to the loss of power. The primary cause of this event is less than adequate attention to detail in that the RO and CO did not exercise proper self-check techniques. Corrective actions include disciplining the involved individuals regarding the importance of proper self-checking practices, increased requirements for the evaluation of self-checking by Operations personnel in the Main Control Room, and the publication of lessons learned from self checking related events and distribution to appropriate personnel to reinforce the importance of self checking.

## LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 3150-0104

EXPIRES: 8/31/85

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
Limerick Generating Station, Unit 1	0 5 10 0 0 3 5 2	9 4	0 1 0	0 0	0 2	OF	0 4

TEXT (If more space is required, use additional NRC Form 365A's) (17)

Unit Conditions Prior to the Event:

Unit 1 was in Operational Condition 1 (Power Operation) at 100% power level. There were no structures, systems, or components out of service that contributed to this event.

Description of the Event:

On Jun. 26, 1994 at 1502 hours the Assistant Control Room Supervisor (ACRS) approved a clearance to support scheduled work on the Unit 1 cooling tower stilling well heater. The clearance was given to an Auxiliary Plant Operator (APO) for application. The APO reviewed the clearance and observed that the initial steps were Main Control Room items. He discussed this with the licensed Chief Operator (CO), who took the clearance and commenced application.

Upon completing steps 1, 2 and 3 of the clearance, the CO started to return the clearance to the APO to continue application. Steps 4 and 5 involved removing a fuse (EIIS:FU) in panel 10C665. The APO told the CO that he believed steps 4 and 5 were the CO's responsibility, implying that the fuse was in the Control Room. The CO briefly reviewed the clearance and agreed.

The CO proceeded to 10C655 (Main Control Room), not 10C665 (Aux Equipment Room) as specified on the clearance, to pull the fuse. The licensed Unit 1 Reactor Operator (RO) observed the CO working in 10C655 and offered to take over the clearance application, since the CO had other tasks to do. The CO gave the clearance to the RO. At 1710 hours, the RO located fuse FU-11. The CO monitored the cooling tower makeup instrumentation affected by the clearance while the RO pulled the fuse. When the RO pulled the fuse, the CO incidentally observed that the indicating lights for the containment leak detector outboard Primary Containment Isolation Valves (EIIS:ISV) SV-026-190B and SV-026-190D went out. He immediately directed the RO to reinstall the fuse. The fuse was reinstalled at 1711 hours and the CO identified that the valves had closed on the loss of power, thereby constituting an Engineered Safety Feature (ESF) actuation. The CO then re-opened the valves.

A four hour notification was made to the NRC at 1926 hours on May 26, 1994, in accordance with the requirements of 10CFR50.72(b)(2)(ii), since this event resulted in an automatic ESF actuation. This report is being submitted in accordance with the requirements of 10CFR50.73(a)(2)(iv).

## LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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TEXT (If more space is required, use additional NRC Form 365A's) (17)

Analysis of the Event:

The actual and potential consequences of this event were minimal and there was no release of radioactive material to the environment as a result of this event. The affected valves, SV-026-190B and SV-026-190D repositioned and functioned as designed in response to the loss of power. MCR Operations personnel responded properly to the loss of power. MCR Operations personnel immediately restored the valves to their pre-transient condition, thereby preventing any adverse impact on plant systems.

If the operators had not immediately identified the valve closure, the containment leak detector low flow alarm would have alerted them to the valve closure. The safety function of these valves is to close in response to a containment isolation signal. Therefore, had an accident occurred concurrent with this error, the safety function of these valves would not have been compromised.

Cause of the Event:

The cause of this event is less than adequate attention to detail in that the RO and CO did not exercise proper self-check techniques. The RO and CO did not verify that the panel number and fuse label matched the information on the clearance exactly. Since the clearance correctly identified the fuse and panel, increased attention to detail when reading the clearance would have prevented this event. The following factors contributed to this less than adequate attention to detail:

- o An improper assumption was made by the RO during the transfer of responsibility. He assumed that the CO had correctly identified the equipment and no additional verification was necessary.
- o The close proximity of steps 1,2, and 3 of the clearance to each other, located on or near panel 10C655. This contributed to the CO focusing on panel 10C655 when looking for the fuse.

Corrective Actions:

Both the RO and CO were disciplined for failure to meet management's expectations regarding proper self-checking practices.

Guidelines for observation and evaluation of Operations activities have been revised to strengthen evaluations of self-checking practices in the MCR. This change has been communicated to all personnel performing the observation function.

## LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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

Expectations regarding responsibilities when transferring ownership of tasks should be clearly defined and disseminated throughout the Operations organization. This expectation will emphasize the individual's accountability for each task he performs and will be distributed by August 31, 1994.

Lessons learned from self-checking related events will be assembled on a routine basis and provided to appropriate personnel by their supervision to reinforce the importance of self-checking. The initial briefing should include lessons learned from this event, specifically the importance of believing indications and the potential pitfalls of tunnel vision. This initial briefing will be issued by August 31, 1994.

A review of the RO's actions in the context of other recent events indicates a need to increase sensitivity to the importance of believing information and indications and involving Supervision when discrepancies arise. Management's expectations in this area have been clearly communicated to all Operations personnel. Additionally, these expectations will be reinforced and distributed to all work groups by August 31, 1994. Self-checking performance will be monitored as a part of the Station's routine self assessment process.

Previous Similar Occurrences:

LERs 1-88-010, 1-91-016, 2-90-017, 2-91-016, 2-91-014, 2-92-005, 2-92-007 and Voluntary LER 1-94-003 reported various actuations and isolations due to less than adequate attention to detail. None of these events, however were due to pulling the incorrect fuse during application of a clearance. The corrective actions for these previous event involved the counseling of the individuals and all-hands meetings emphasizing the need for attention to detail and self-check principles. Each of these previous events and this event being reported involved different procedures and different individuals.