

LICENSEE EVENT REPORT (LER)

(See reverse for required number of digits/characters for each block)

APPROVED BY OMB NO. 3150-0104 EXPIRES 06/30/2001
Estimated burden per response to comply with this mandatory information collection request: 50 hrs. Reported lessons learned are incorporated into the licensing process and fed back to industry. Forward comments regarding burden estimate to the Records Management Branch (T-6 F33), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, and to the Paperwork Reduction Project (3150-0104), Office of Management and Budget, Washington, DC 20503. If an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

FACILITY NAME (1)
Limerick Generating Station, Unit 1

DOCKET NUMBER (2)
05000352

PAGE (3)
1 OF 3

TITLE (4)
Unit 1 Reactor Core Isolation Cooling (RCIC) PCIV discovered inoperable resulting in a TS non-compliance

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
09	25	1999	1999	-- 012	-- 00	10	22	1999	FACILITY NAME	DOCKET NUMBER
										05000
									FACILITY NAME	DOCKET NUMBER
										05000

OPERATING MODE (9)	POWER LEVEL (10)	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)							
1	100	20.2201(b)		20.2203(a)(2)(v)	<input checked="" type="checkbox"/>	50.73(a)(2)(i)		50.73(a)(2)(viii)	
		20.2203(a)(1)		20.2203(a)(3)(i)		50.73(a)(2)(ii)		50.73(a)(2)(x)	
		20.2203(a)(2)(i)		20.2203(a)(3)(ii)		50.73(a)(2)(iii)		73.71	
		20.2203(a)(2)(ii)		20.2203(a)(4)		50.73(a)(2)(iv)		OTHER	
		20.2203(a)(2)(iii)		50.36(c)(1)		50.73(a)(2)(v)		Specify in Abstract below or in NRC Form 366A	
		20.2203(a)(2)(iv)		50.36(c)(2)		50.73(a)(2)(vii)			

LICENSEE CONTACT FOR THIS LER (12)

NAME K. P. Bersticker, Manager - Experience Assessment	TELEPHONE NUMBER (Include Area Code) (610) 718-3400
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COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)									
CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX

SUPPLEMENTAL REPORT EXPECTED (14)				EXPECTED SUBMISSION DATE (15)		
<input type="checkbox"/> YES (If yes, complete EXPECTED SUBMISSION DATE).	<input checked="" type="checkbox"/> NO			MONTH	DAY	YEAR

ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) (16)

On September 25, 1999 at 18:00 hours, an operations supervisor discovered that the Unit 1 RCIC vacuum breaker outboard primary containment isolation valve (PCIV) isolation logic had been inoperable for a period that exceeded the Technical Specification (TS) allowed outage time (AOT). This discovery occurred during a review of historical clearance data. This event was caused by personnel error when logic control fuses were removed without accounting for the effect on the isolation logic portion of the circuit.

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Limerick Generating Station Unit 1	05000				2 OF
	-352	1999	012	00	3

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

Unit Conditions Prior to the Event

LGS Unit 1 was in Operational Condition (OPCON) 1 (Power Operation) at 100% power at the time of this event. There were no other systems, structures, or components inoperable that contributed to the event.

Description of the Event

On September 25, 1999 at 18:00 hours, an operations supervisor was performing a review of a clearance in history status while planning the clearance for a similar maintenance activity. He discovered that logic control power fuses (EIS:FU) specified on the history clearance affected the isolation logic portion of the circuit and resulted in defeating the automatic isolation capability of the Unit 1 RCIC exhaust vacuum breaker outboard PCIV (EIS:ISV).

A subsequent review of past maintenance activities determined the following periods of inoperability of PCIV HV-049-1F080 due to removal of these logic control power fuses.

On 06/11/96 at 17:48 hours, clearance 96002263 was applied for Unit 1 RCIC system maintenance. The "A" relay logic power fuses 10C621 E51A-FU-1 and FU-2 were removed causing HV-049-1F080 to become inoperable. The clearance was removed on 06/14/96 at 10:00 hours and the PCIV was restored to operable status (2 days, 16 hours and 12 minutes duration).

On 09/07/99 at 03:29 hours, clearance 99003064 was applied for Unit 1 RCIC system maintenance. On 09/07/99 at 20:34 hours, the clearance was revised to add removal of the logic control power fuses 10C621 E51A-FU-1 and FU-2 causing HV-049-1F080 to become inoperable. The clearance was removed on 09/09/99 at 08:25 hours and the PCIV was restored to operable status (1 days, 11 hours and 51 minutes duration).

Technical Specification 3.6.3, Primary Containment Isolation Valves, requires that with one or more PCIVs inoperable, maintain at least one PCIV operable in each affected penetration that is open and within 4 hours either restore operability or isolate the penetration. Otherwise, be in Hot Shutdown within the next 12 hours and in Cold Shutdown within the following 24 hours.

Contrary to the above requirement, this PCIV remained inoperable for periods of approximately 64 hours and 36 hours thus exceeding the AOT for this LCO. Therefore, this event was determined to be reportable under the requirements of 10CFR50.73(a)(2)(i)(B).

Analysis

The actual consequences of this event were minimal. There was no release of radioactive material to the environment. The potential consequences of this event were also minimal since the redundant PCIV in this penetration remained operable for the duration of this event.

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Cause of the Event

The event was caused by cognitive personnel error when the impact of removing the logic control power fuses was not comprehended during clearance preparation, approval and application.

Corrective Actions

The following corrective actions have been completed:

1. The PCIV has been restored to operable status.
2. Operations training has been conducted on the clearance and tagging manual requirements for review, approval and authorization of clearances. This training included the requirement for validation of information copied from historical clearance using controlled plant drawings.
3. The history clearance has been electronically locked to prevent future duplication.
4. Library clearances have been created for future work on valves HV-050-1F045 and HV-050-2F045.

The following corrective action is planned:

Library clearances will be developed, including independent technical reviews, for all Emergency Core Cooling Systems (ECCS) motor operated valves by December 31, 2000.

Previous Similar Occurrences:

There were no previous similar occurrences.