

LICENSEE EVENT REPORT (LER)

APPROVED OMB NO. 3180-0104
EXPIRES - 8/31/93FACILITY NAME (1)
Limerick Generating Station - Unit 1DOCKET NUMBER (2)
0 5 0 0 0 3 5 2PAGE (3)
1 OF 0 3

TITLE (4)

Automatic Isolations of the Reactor Water Cleanup System

EVENT DATE (5)
MONTH DAY YEAR YEAR SEQUENTIAL NUMBER REVISION NUMBER REPORT DATE (7)
MONTH DAY YEAR OTHER FACILITIES INVOLVED (8)
FACILITY NAMES DOCKET NUMBER(S)
0 1 1 2 8 5 8 5 - 0 1 0 - 0 0 0 2 1 9 8 5 0 5 0 0 0 1 1OPERATING MODE (9) 2 THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR § (Check one or more of the following) (11)
POWER LEVEL (10) 0 0 4
20.402(a) 20.406(a) 60.73(a)(2)(iv) 73.71(w)
20.406(a)(1)(U) 60.36(a)(1) 60.73(a)(2)(v) 73.71(x)
20.406(a)(1)(V) 60.36(a)(2) 60.73(a)(2)(vi) OTHER (Specify in Abstract below and in Text, NRC Form 366A)
20.406(a)(1)(III) 60.73(a)(2)(U) 60.73(a)(2)(vii)(A)
20.406(a)(1)(iv) 60.73(a)(2)(W) 60.73(a)(2)(viii)(B)
20.406(a)(1)(v) 60.73(a)(2)(III) 60.73(a)(2)(ix)LICENSEE CONTACT FOR THIS LER (12)
NAME John C. Nagle, Engineer
TELEPHONE NUMBER
AREA CODE 2 1 5 8 4 1 - 5 1 8 4COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)
CAUSE SYSTEM COMPONENT MANUFACTURER REPORTABLE TO NRCs CAUSE SYSTEM COMPONENT MANUFACTURER REPORTABLE TO NRCsSUPPLEMENTAL REPORT EXPECTED (14)
YES (If yes, complete EXPECTED SUBMISSION DATE) X NO
EXPECTED SUBMISSION DATE (15) MONTH DAY YEAR

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

Abstract: 85-010

On January 12, 1985, at 1430 hours, during surveillance testing with Unit No. 1 in the startup condition at 3.5 percent power, the Reactor Water Cleanup system (RWCU) inboard suction isolation valve closed when the Nuclear Steam Supply Shutoff System (NSSSS) circuitry was inadvertently de-energized. The isolation was immediately reset and the RWCU was returned to service. At 2043 hours, during surveillance testing with the unit at 3.6 percent power, the RWCU inboard suction isolation valve closed again when the NSSSS circuitry was again de-energized. The RWCU isolation was reset and the system returned to service within one-half hour. Both isolations, which occurred during surveillance testing, were caused by faulty jumper installation. Jumpers must be installed to facilitate surveillance testing because surveillance testing requires demonstration that the contact opens, and the contact cannot be opened without causing an isolation of the RWCU without jumpering across the specific contact.

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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMS 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	LER NUMBER (5)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	DIVISION NUMBER			
		85	0 1 0	0 0	0 2	OF	0 3

TEXT (if more space is required, use additional NRC Form 360A (1/7))

Description of the Event:

On January 12, 1985, at 1430 hours (day shift), during performance of surveillance test, ST-2-044-630-1, "NSSSS-RWCU Area Differential Temperature - High; Division I Functional Test", the RWCU inboard suction isolation valve closed. The isolation occurred when I&C Technicians inadvertently de-energized The NSSSS logic while removing a jumper. The de-energization occurred when a wire on the same terminal screw as the jumper momentarily lost contact when technicians were loosening the terminal screw to remove the jumper, causing the isolation relays to actuate. The RWCU isolation was immediately reset and the system was returned to service.

At 2043 hours the same day (afternoon shift), during performance of the same surveillance test, the RWCU inboard suction isolation valve again closed to its isolated position. This isolation occurred for the same reason as the previous isolation. Technicians, while removing a jumper, inadvertently de-energized the NSSSS isolation logic circuitry. The RWCU isolation was reset and the system was returned to service by 2108.

Consequences of the Event:

On both occasions, the Reactor Water Cleanup system isolated as designed upon de-energization of the isolation relays at 1430 hours and 2043 hours. There were no adverse consequences because the duration of each isolation was not sufficient to adversely affect reactor water chemistry.

Cause of the Event:

The design of the panel for the logic circuits of the RWCU Differential Temperature, Area Temperature and Differential Flow makes the installation and removal of jumpers without causing an isolation, for these particular surveillance tests, very difficult. During the removal of two jumpers the isolation circuit de-energized when the wires at the same terminal points lost continuity.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 3150-0104
EXPIRES 8/31/85

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		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			

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

Corrective Actions:

As an immediate corrective action, a Temporary Procedure Change (TPC) was made to ST-2-044-630-1 on January 12, 1985, to allow for the de-energization of the valve (opening the breaker to the isolation valve), during the surveillance test rather than utilizing jumpers to prevent the RWCU isolations during the simulated trip signals. This change was also made to the NSSSS RWCU area differential temperature and area temperature functional surveillance tests ST-2-044-631-1, ST-2-044-602-1, and ST-2-044-603-1. As an interim measure, this change will be made to the NSSSS RWCU differential flow functional surveillance tests ST-2-044-600-1 and ST-2-044-601-1.

As a long term corrective action, our Engineering and Research Department is pursuing a hardware design modification to accommodate access to panels to eliminate the difficulty encountered while performing surveillance testing of this type.

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February 19, 1985

Docket No. 50-352

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Washington, DC 20555

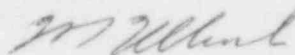
SUBJECT: Licensee Event Report
Limerick Generating Station - Unit 1

This LER deals with automatic isolations of the Reactor Water Cleanup system.

Reference:	Docket No. 50-352
Report Number:	85-010
Revision Number:	00
Event Date:	January 12, 1985
Report Date:	February 19, 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). We regret the late submission of this LER. The delay in the reporting of this LER was the result of the time required to determine and to initiate an appropriate long term corrective action in response to this event.

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

LE22
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1/16/85