

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) LaSalle County Station Unit 2	DOCKET NUMBER (2) 0 5 0 0 0 3 7 4 1	PAGE (3) 1 OF 0 4
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TITLE (4)
Reactor Water Cleanup Isolations

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 5	2 9	8 4	8 4	0 2 3	0 0	0 6	1 1	8 4	NA		0 5 0 0 0 0
									NA		0 5 0 0 0 0

OPERATING MODE (9) 1	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)									
POWER LEVEL (10) 0 4 3	<input type="checkbox"/> 20.402(b)	<input type="checkbox"/> 20.408(e)	<input checked="" type="checkbox"/> 80.73(a)(2)(iv)	<input type="checkbox"/> 73.71(b)						
	<input type="checkbox"/> 20.408(a)(1)(i)	<input type="checkbox"/> 80.26(a)(1)	<input type="checkbox"/> 80.73(a)(2)(v)	<input type="checkbox"/> 73.71(e)						
	<input type="checkbox"/> 20.408(a)(1)(B)	<input type="checkbox"/> 80.26(a)(2)	<input type="checkbox"/> 80.73(a)(2)(vi)	OTHER (Specify in Abstract below and in Text, NRC Form 306A)						
	<input type="checkbox"/> 20.408(a)(1)(iii)	<input type="checkbox"/> 80.73(a)(2)(ii)	<input type="checkbox"/> 80.73(a)(2)(vii)(A)							
	<input type="checkbox"/> 20.408(a)(1)(iv)	<input type="checkbox"/> 80.73(a)(2)(iii)	<input type="checkbox"/> 80.73(a)(2)(vii)(B)							
<input type="checkbox"/> 20.408(a)(1)(v)	<input type="checkbox"/> 80.73(a)(2)(iv)	<input type="checkbox"/> 80.73(a)(2)(ix)								

LICENSEE CONTACT FOR THIS LER (12)

NAME Charles K. Sprunger, extension 330	TELEPHONE NUMBER 8 1 5 3 5 7 1 - 6 7 6 1 1
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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
X	C E	R V	L 2 6 5	N					
X	J M	T I S	R 2 7 9	N					

SUPPLEMENTAL REPORT EXPECTED (14) <input type="checkbox"/> YES (If yes, complete EXPECTED SUBMISSION DATE)	<input checked="" type="checkbox"/> NO	EXPECTED SUBMISSION DATE (15)
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ABSTRACT (Limit to 1400 spaces, i.e., approximately fifteen single-space typewritten lines) (16)

On 5/29/84 beginning at 0851 hours the Unit 2 Reactor Water Cleanup System isolated three separate times on RWC High Differential Temperature. After each isolation, the RWC area temperatures were found to be normal, no leaks were present, and the RWC system was restarted. All of these isolations occurred during a RCIC Instrument Surveillance, LIS-RI-203, that was being performed by the Instrument Mechanics.

On the same day at 1045 hours, shortly after the RWC System was restarted for the third time, the system isolated on High Differential Flow. A shell side safety relief valve for the regenerative heat exchanger had lifted and damaged itself in such a way that it could not reset.

The damaged valve was replaced. An offset in the piping connecting the valve to the system that caused an abnormal shear stress was corrected. After all repairs were completed the system was put back on line. Safe plant conditions were maintained at all times.

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

I. EVENT DESCRIPTION

On May 29, 1984 at 0851 hours with the reactor in the RUN Mode at about 43% power, the Unit 2 Reactor Water Cleanup System (CE, RWCU) isolated on Division 1 RWCU High Differential Temperature (JM).

Following the isolation, the Unit 2 NSO (Licensed Operator) checked the RWCU area ambient temperatures and differential temperatures. They were all found to be normal. Then the NSO sent an Operator to the RWCU areas to check for leaks. None were found. The NSO also notified the SCRE of the event. Next the NSO cleared the isolation and restarted the RWCU System.

The system ran for a short period of time and then isolated a second time on Division 1 RWCU High Differential Temperature. Again the area ambient and differential temperatures were found to be normal and no leaks were present in the RWCU areas. The RWCU System was restarted for a second time.

The NSO approached some Instrument Mechanics (IM's) who were performing an Instrument Surveillance, LIS-RI-203, on the RCIC System (BN) Leak Detection, in the vicinity of the Division 1 RWCU Leak Detection Temperature Switches at Panel 2H13-P632. The NSO discussed the problems that were being encountered with the IM's for a possible cause. After the discussion the IM's continued working on LIS-RI-203 only now they were in the vicinity of the Division 2 RWCU Leak Detection Temperature Switches at panel 2H13-P642.

Soon after the IM's changed divisions, a Division 2 RWCU High Differential Temperature isolation was received. Again area ambient and differential temperatures were found to be normal and no leaks were present in the RWCU areas. The RWCU System was then restarted for the third time.

At 1045 hours with the reactor at about 45% power, a RWCU High Differential Flow Isolation occurred (JM). The system isolated properly and the NSO sent an Operator to the RWCU areas to determine the problem. The Operator found the shell side safety relief valve 2G33-F340B for the regenerative heat exchanger had lifted and damaged itself such that it could not reset.

Leakage from the valve was present and Rad Chem was notified to check the Reactor Building for abnormal radiation in the area of the safety relief valve.

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TEXT (if more space is required, use additional NRC Form 305A's) (17)

II. CAUSE

At the time of the RWCU High Differential Temperature isolations, the IM's were performing LIS-RI-203. In this instrument surveillance the RCIC Pipe Routing Area High Temperature and High Vent Differential Temperature Isolation calibrations are performed. LIS-RI-203 was performed from 0800 hours to 1145 hours on April 29, 1984; during this time RWCU System isolated three times due to High Differential Temperatures. The temperature switches the IM's were calibrating are located next to the RWCU Leak Detection Temperature switches that caused the isolations. While the IM's were not working on the RWCU temperature switches it is believed that the wires next to them were moved during LIS-RI-203 inducing voltage spikes causing the system to isolate.

After the RWCU System had been restarted for the third time, the system isolated on RWCU High Differential Flow. It is believed that starting and stopping the system numerous times caused several sudden pressure transients that lifted and damaged safety relief valve 2G33-F340B. When the valve was removed for repair it was noticed that the inlet piping flange and the outlet piping flange were offset and had subjected the valve to an abnormal shear stress. This also contributed to the damage done to the valve when it lifted.

III. PROBABLE CONSEQUENCES OF THE OCCURRENCE

The RWCU System shut down and placed the plant in a safe condition after each isolation signal was received. The leakage from the damaged safety relief valve was contained within the secondary containment boundaries. The isolation system functioned as designed in each case. Loss of the RWCU System did not unduly affect the operation of the unit.

IV. CORRECTIVE ACTIONS

AIR-01-84-67089 was written to have the Technical Staff investigate how LIS-RI-203 could have caused the RWCU System to isolate. On June 4, 1984, LIS-RT-202 that checks the calibration of the RWCU High Area Temperature Isolation switches was performed and no problems were discovered by the IM's. The safety relief valve 2G33-F340B was replaced after the system was depressurized. A section of piping was removed and rewelded so that the inlet piping flange and outlet piping flange to this valve would line up properly.

V. PREVIOUS EVENTS

There have been no previous Unit 2 RWCU isolations from LIS-RI-203. There were several spurious Unit 2 RWCU High Ambient Temperature isolations that occurred on April 23, 1984. These were discussed by LER 84-016-00/50-374.

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TEXT (If more space is required, use additional NRC Form 386A's) (17)

V. PREVIOUS EVENTS (Continued)

The "A" train RWCU shell side safety relief valve 2G33-F340A lifted and failed to reset on April 3, 1984. This event was discussed by LER 84-013-00/50-374.

VI. NAME AND TELEPHONE NUMBER OF PREPARER

Charles K. Sprunger, 815/357-6761, extension 330.



Commonwealth Edison
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June 11, 1984

U. S. Nuclear Regulatory Commission
Document Control Desk
Washington, D.C. 20555

Dear Sir:

Reportable Occurrence Report #84-023-00, Docket #050-374 is being submitted to your office in accordance with 10 CFR 50.73.

G. J. Diederich
Superintendent
LaSalle County Station

GJD/MLD/kg

Enclosure

xc: NRC, Regional Director
INPO-Records Center
File/NRC

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