Commonwealth Edison
LaSalle County Nuclear Station
2601 N. 21st Road
Marseilles, Illinois 61341
Telephone 815/357-6761

December 2, 1994

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

Licensee Event Report #94-009-00, Docket #050-374 is being submitted to your office in accordance with 10CFR50.73(a)(2)(v).

D. J. Ray
Station Manager
LaSalle County Station

DJR/MRC/lja

Enclosure

cc: NRC Region III Administrator
NRC Senior Resident Inspector
INPO - Records Center
IDNS Resident Inspector
IDNS Senior Reactor Analyst
Nuclear Licensing Administrator

IE22

LICENSEE EVENT REPORT (LER) Form Rev 3.0

Facility Name (1)	Docket Number (2)	
LaSalle County Station Unit 2	0 5 0 0 0 3 7 4	1 of 0 4

Title (4)
RCIC Declared Inoperable Due to Inability to Determine System Filled and Vented

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)
1 1	0 2	9 4	9 4	---	0 0 9	---	0 0	1 2	0 2	9 4		

OPERATING MODE (9)	1	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10CFR (Check one or more of the following) (11)									
POWER LEVEL (10)	0 9 5		20.402(b)		20.405(c)		50.73(a)(2)(iv)		73.71(b)		
			20.405(a)(1)(i)		50.36(c)(1)	X	50.73(a)(2)(v)		73.71(c)		
			20.405(a)(1)(ii)		50.36(c)(2)		50.73(a)(2)(vii)		Other (Specify		
			20.405(a)(1)(iii)		50.73(a)(2)(i)		50.73(a)(2)(viii)(A)		in Abstract		
			20.405(a)(1)(iv)		50.73(a)(2)(ii)		50.73(a)(2)(viii)(B)		below and in		
			20.405(a)(1)(v)		50.73(a)(2)(iii)		50.73(a)(2)(x)		Text)		

LICENSEE CONTACT FOR THIS LER (12)

Name	TELEPHONE NUMBER
	AREA CODE
Russell Gremchuk, System Engineer, Extension 2809	8 1 5 3 5 7 - 6 7 6 1

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFAC-TURER	REPORTABLE TO NPRDS	///	CAUSE	SYSTEM	COMPONENT	MANUFAC-TURER	REPORTABLE TO NPRDS	///
				N							

SUPPLEMENTAL REPORT EXPECTED (14)		Expected Submission Date (15)	Month	Day	Year
YES (If yes, complete EXPECTED SUBMISSION DATE)	X NO				

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

On November 2, 1994, at 1050 hours with Unit 2 in Operating Condition 1 (Run) at 95% power, the Reactor Core Isolation Cooling (RCIC) System was declared inoperable. The steam supply was isolated to the RCIC turbine when Operating Personnel could not determine that the system was properly filled and vented.

The RCIC pump had been lined up to take a suction from the Pressure Suppression Pool (PSP) to support scheduled maintenance on the PSP suction motor operated valve (MOV)(2E51-F010). The procedure for aligning the system in this method required that a once per shift verification of system fill and vent status be made. When the verification was made during the day shift on November 2, 1994, the Auxiliary Operator performing the verification could not visually determine the fill and vent of the system at the system high point vent sightglass.

The RCIC System was declared inoperable at 1050 hours on November 2, 1994, and removed from standby operation. An investigation into the cause of the problem was initiated. The investigation determined that the system was properly filled and vented by monitoring input into the Reactor Building Equipment Drain Tank (RBEDT) when the high point vent was open. The tank input stopped when the high point vent was closed. The sightglass flow indication "flapper" was in the open position, and when combined with the clarity of the water, the Operator was not able to detect flow through the sightglass.

The System was subsequently declared operable at 2215 hours on November 2, 1994.

PLANT AND SYSTEM IDENTIFICATION

General Electric - Boiling Water Reactor

Energy Industry Identification System (EIIS) codes are identified in the text as [XX].

A. CONDITION PRIOR TO EVENT

Unit(s): 2 Event Date: 11/02/94 Event Time: 1050 Hours

Reactor Mode(s): 1 Modes(s) Name: RUN Power Level(s): 95%

B. DESCRIPTION OF EVENT

On November 2, 1994, at approximately 1050 hours with LaSalle Unit 2 in Operating Condition 1 (RUN) at 95% power, with the Reactor Core Isolation Cooling (RCIC,RI)[BN] System lined up for standby operation, the pump suction path had been previously swapped from the Cycled Condensate Storage Tank (CST, CD)[SD] to the Pressure Suppression Pool (PSP). This was done in accordance with LaSalle Special Procedure LLP-94-101, "RCIC Availability During MOV Inspection of 2E51-F010", to support scheduled motor operated valve maintenance on the PSP Suction Valve 2E51-F010. This is an acceptable and fully analyzed alternate suction path.

RCIC System piping is maintained filled by a waterleg pump which takes suction from the same water source as the RCIC Pump. Due to elevation differences between the CST and the PSP, suction pressure at the RCIC Pump was approximately 15 psig below normal. Due to this decrease in suction pressure, RCIC System pressure was slightly below the system low pressure alarm setpoint, and a special log was kept to verify locally that the system was filled and vented on a shiftly basis. This involved opening the high point vent valves and visually observing flow through a downstream sightglass, which is permanently piped to the Reactor Building Equipment Drain Tank (RBEDT).

On November 2, 1994 at 1050 hours, the Auxiliary Operator dispatched to check the system fill and vent reported that there was no water visible in the high point vent line sightglass. The RCIC System was declared inoperable and removed from standby operation. The steam supply to the RCIC turbine was isolated, and an investigation into the cause of the problem was initiated. During this period, the high point vent valves were left in the open position. Investigation of the problem included a verification of the proper valve lineup, and no reasons were discovered for the system not remaining filled. At approximately 1130 hours, the high point vents were

B. DESCRIPTION OF EVENT (Continued)

reclosed, and the waterleg pump suction valve from the CST was throttled partially closed. This increased system pressure slightly and cleared the system low pressure alarm, thereby indicating the system was, in fact, filled. Further, when the high point vents were subsequently opened, flow was observed. It was noted at that time that it was difficult to observe the water flowing through the sightglass. The flow indicating "flapper" in the sightglass was open and did not move in the stream.

The sightglass flow indication "flapper" serves no containment isolation or other safety function. Its purpose is to enable detection of flow when the system high point vent valves are opened. There is no mechanism to cause the "flapper" to reposition to the closed position, and due to its orientation in a horizontal section of piping, it does not gravity close.

A subsequent review of the RBEDT level during the time when the high point vent valves were open indicated that the input to this tank confirmed that the system had been filled throughout this period.

The Reactor Core Isolation Cooling System was returned to the standby mode with the pump taking suction from the PSP, and the system was declared operable at 2215 hours on November 2, 1994. Motor operated valve maintenance and testing was completed, and the system was realigned to take suction from the CST by 0520 hours on November 3, 1994.

This event is reportable pursuant to 10CFR50.73(a)(2)(v) due to RCIC being declared inoperable.

C. APPARENT CAUSE OF EVENT

The apparent cause of the event was man/machine interface. The sightglass flow indication "flapper" in the high point vent line was in the open position and, combined with the clarity of the water being vented, allowed Operating Personnel to erroneously determine the system to be not filled. Based on that determination, the RCIC System was declared inoperable, and the steam supply to the RCIC turbine was isolated.

D. SAFETY ANALYSIS OF EVENT

The safety consequences of this event are minimal due to the High Pressure Core Spray System (HPCS,HP)[BG] being operable throughout this event as a high pressure safety

D. SAFETY ANALYSIS OF EVENT (Continued)

injection system. Further, the RCIC System could have been manually started and utilized to supply makeup coolant to the reactor vessel. No RCIC System components failed in the course of this event.

E. CORRECTIVE ACTIONS

1. Upon receiving indications that the RCIC System was not completely filled, the system was immediately secured from standby operation and declared inoperable.

2. A review and assessment will be performed to identify the proper mechanism to prevent this event from recurring. This review will include the need for:

   a. additional Operator training and

   b. possible design changes to reorient or replace the sightglass.

3. A Technical Specification Change Request is being processed to allow a lower setpoint for the system low pressure alarm which would preclude the need to verify system filled and vented when pump suction is aligned to the PSP.

F. PREVIOUS EVENTS

None.

G. COMPONENT FAILURE DATA

None.