



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

June 30, 1994

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

Licensee Event Report #94-009-00, Docket #050-373 is being submitted to your office in accordance with 10CFR50.73(a)(2)(iv).

D. J. Ray
Station Manager
LaSalle County Station

DJR/JU/lja

Enclosure

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

00033

940706024B 940630
PDR ADDCK 05000373
S PDR

IE 22
11

LICENSEE EVENT REPORT (LER)

Facility Name (1) LaSalle County Station Unit 1										Docket No. (2) 3 5 0 1 3 2 1 1															
Title (4) Isolation of Shutdown Cooling Due to High Suction Flow																									
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		0 3		9 4		9 4		0 0 9		0 0 0		7 0 1		9 4											
OPERATING MODE (9) 5						THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10CFR (Check one or more of the following) (11)																			
POWER LEVEL (10) 0 0 0						20.402(b)				20.405(c)				X				50.73(a)(2)(iv)				73.71(b)			
						20.405(a)(1)(i)				50.36(c)(1)								50.73(a)(2)(v)				73.71(c)			
						20.405(a)(1)(ii)				50.36(c)(2)								50.73(a)(2)(vii)				Other (Specify in Abstract below and in Text)			
						20.405(a)(1)(iii)				50.73(a)(2)(i)								50.73(a)(2)(viii)(A)							
						20.405(a)(1)(iv)				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 John Ullrich, System Engineering, Extension 3080										TELEPHONE NUMBER AREA CODE 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		MANUFACTURER		REPORTABLE TO NPD		CAUSE		SYSTEM		COMPONENT		MANUFACTURER		REPORTABLE TO NPD							
D B O		D P S		S 3 B 2		No																			
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 June 3, 1994, at 0220 hours, while in the process of swapping Residual Heat Removal (RHR) [BO] Shutdown Cooling (SDC) from A Loop to B Loop, a High Suction Flow Isolation was received shortly after starting the 1B RHR Pump, isolating the SDC System. At the time of this event Unit 1 was in Operating Condition 5 (Refuel).

On June 5, 1994, at 0835 hours, while starting a second RHR Pump to support the Reactor Vessel Leakage Test, a High Suction Flow Isolation was again received. After verifying no leaks in the system, jumpers were installed, per procedure to bypass the High Suction Flow Isolation signal. Both 1A and 1P RHR Pumps were restarted. When the jumpers were removed, at 1039 hours, another High Suction Flow Isolation was received. At the time of these events Unit 1 was in Operating Condition 4 (Cold Shutdown).

On May 18, 1994, an Out of Service (OOS) had been hung so that maintenance could be performed on Excess Flow Check Valve 1E12-F359A. This OOS required draining the sensing lines to Differential Pressure Switches (DPS) DPS-1E12-N012AA and DPS-1E12-N012AB. When the OOS was cleared on May 30, 1994, the sensing lines for the DPS were apparently not backfilled.

The RHR System was verified to have no leaks, and then restarted in the Shutdown Cooling mode following each isolation.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION															Form Rev 3.0			
FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)																
		Year		///		Sequential Number		///		Revision Number								
LaSalle County Station Unit 1	0 5 0 0 0 3 7 3	9	4	-	0	0	9	-	0	0	0	2	OF	0 4				
TEXT Energy Industry Identification System (EIIIS) codes are identified in the text as [XX]																		

PLANT AND SYSTEM IDENTIFICATION

General Electric - Boiling Water Reactor

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

A. CONDITION PRIOR TO EVENT

Unit(s): 1 Event Date: 6/03/94 & 6/05/94 Time: 0220, 0836, 1039 Hours

Reactor Mode(s): 5 & 4 Modes(s) Name: Refuel & Cold Shutdown Power Level(s): 0%

B. DESCRIPTION OF EVENT

Nuclear Work Request #L28699 had been written to repair Excess Flow Check Valve (EFCV) 1212-F359A, because it had failed to isolate flow during testing. This EFCV is in the low pressure side sensing line for Division 1 Residual Heat Removal (RHR)[BO] Shutdown Cooling High Suction Flow differential pressure switch DPS-1E12-N012AA. This valve was taken Out of Service (OOS), OOS# 1-1068-94, on May 6, 1994, and the sensing line drained. On May 30, 1994, with no documentation indicating that the sensing lines were backfilled, the OOS was cleared.

On June 3, 1994, while in the process of swapping RHR Shutdown Cooling from the A Loop to the B Loop, a RHR Shutdown Cooling High Suction Flow Isolation signal was received within a few seconds of starting the 1B RHR Pump. This isolation signal resulted in both RHR pumps tripping and closure of the system's outboard isolation valves. LaSalle Operating Procedure, LOP-RH-07, cautions that a High Suction Flow Isolation might occur due to pressure fluctuations in the suction line during starting, securing or changing shutdown cooling flowrates. The system was checked for leaks, and when none were found the 1B RHR pump was started in the Shutdown Cooling Mode of operation.

On June 5, 1994, the 1B RHR pump was running in the Shutdown Cooling mode. In order to have two pumps running to support LOP-NB-01, "Reactor Vessel Leakage Test", the 1A RHR pump was started in the Shutdown Cooling mode. A High Suction Flow Isolation signal was received within a few seconds of starting the 1A RHR pump. This isolation signal resulted in both RHR pumps tripping and closure of the system's outboard isolation valves. Per LOP-RH-07, the system was checked for leaks, and jumpers were temporarily installed to defeat the High Suction Flow Isolation. Both the 1A and 1B RHR pumps were started and run for approximately 15 minutes with a combined flowrate of approximately 10,100 gpm. Immediately after the jumpers were removed another High Suction Flow Isolation was received. The jumpers were reinstalled, and the 1B RHR pump was restarted in the Shutdown Cooling mode, then the jumpers were removed.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION														Form Rev 3.0	
FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)													
		Year	///	Sequential Number	///	Revision Number									
LaSalle County Station Unit 1	0 5 0 0 0 3 7 3	9 4	-	0 0 9	-	0 0	0 3	OF	0 4						

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

B. DESCRIPTION OF EVENT (Continued)

The Instrument Maintenance Department was requested to check the Division 1 High Suction Flow switch, to verify proper operation. The switch, 1E12-N012AA, was functioning properly. However, it was determined that the sensing lines were not properly backfilled.

This event is reportable pursuant to 10CFR50.73(a)(2)(iv) due to an actuation of an Engineered Safety Feature system.

C. APPARENT CAUSE OF EVENT

The cause of this event is attributed to procedural deficiencies.

A failure in the Written Communications of NWR #L28699, which used LMP-GM-24, "Cleaning Excess Flow Check Valves", as the work instructions, and the Special Instructions for OOS #1-1068-94 are considered to be a Causal Factor. Neither of these instructions provided the necessary precautions to insure that the instrument sensing lines were backfilled upon completion of the work, or upon permanently clearing the OOS.

D. SAFETY ANALYSIS OF EVENT

The isolation of Shutdown Cooling had limited safety consequences under the conditions which it occurred (i.e. Refuel and Cold Shutdown). Reactor temperatures were monitored during the time Shutdown Cooling was secured and minimal increase was noted. The consequences of this event could have been greater had the unit been in Operating Condition 3, Hot Shutdown.

E. CORRECTIVE ACTIONS

1. LAP-900-4, "Equipment Out-Of-Service", will be revised to insure sensing lines are backfilled as part of the actions for clearing an Out of Service on any instrumentation.
2. . ilgate sessions will be held with the Operating Personnel who prepare Out of Service Checklists, to emphasize the necessity to include in the Special Instructions, contacting the IM Department to backfill sensing lines of OOS's which require draining instrument sensing lines.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION															Form Rev 3.0			
FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)																
		Year	///	Sequential Number	///	Revision Number												
LaSalle County Station Unit 1	0 5 0 0 0 3 7 3	9	4	-	0	0	9	-	0	0	0	4	OF	0	4			
TEXT Energy Industry Identification System (EIIIS) codes are identified in the text as (XX)																		

E. CORRECTIVE ACTIONS (Continued)

3. This event will be included in the operating experience portion of the Licensed Operator Training Program. The discussion will focus on the need for a questioning attitude and aggressive follow-up when unexpected system responses are observed.
4. Tailgate sessions will be held with the Maintenance Work Analysts, emphasizing the necessity to include backfilling sensing lines in work instructions of NWR's which require draining instrument sensing lines.

F. PREVIOUS EVENTS

None.

G. COMPONENT FAILURE DATA

None.