



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

February 14, 1992

Director of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Mail Station P1-137
Washington, D.C. 20555

Dear Sir:

Licensee Event Report #92-001-00, Docket #050-374 is being submitted to your office in accordance with 10CFR50.73(a)(2)(iv).

fo/ G. J. Diederich
Station Manager
LaSalle County Station

GJD/JEB/mk1

Enclosure

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

180097

9202190320 920214
PDR ADDCK 05000374
S PDR

FE22

LICENSEE EVENT REPORT (LER)

Form Rev 2.0

Facility Name (1)

Docket Number (2)

Page (3)

LaSalle County Station Unit 2

0 | 5 | 0 | 0 | 0 | 3 | 7 | 4 | 1 | of | 0 | 4

Title (4)

Spurious Level 2 Primary Containment Isolation System (PCIS) Trip/Leaking Isolation Valve

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	1	17	9	2	---	0	1	4		0 5 0 0 0 1 1	
0	1	17	9	2	---	0	1	4		0 5 0 0 0 1 1	

OPERATING MODE (9)

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10CFR (Check one or more of the following) (11)

POWER LEVEL (10)

5	20.402(b)	20.405(c)	<input checked="" type="checkbox"/>	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	TELEPHONE NUMBER
Jeffrey E. Bryant, Technical Staff Engineer, Extension 2319	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 NRRDS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRRDS
X	J	M	P D C V	Y					

SUPPLEMENTAL REPORT EXPECTED (14)

<input type="checkbox"/> Yes (If yes, complete EXPECTED SUBMISSION DATE)	<input checked="" type="checkbox"/> NO	Expected Submission Date (15)	Month	Day	Year
--	--	-------------------------------	-------	-----	------

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

On January 17, 1992 at approximately 20:10, during the performance of LaSalle Instrument Surveillance LIS-MS-207B, "Unit 2 Reactor Vessel Low Water Level 1&2 Isolation Channels B&D Refuel Calibration" an inadvertent Primary Containment Group II isolation occurred.

The isolation occurred 26 seconds after the Instrument Department actuated the Division 1 Channel B trip system. A leaking instrument vent valve on the Division 2 Channel A Reactor Water Level transmitter allowed a pressure release from the high (variable) side of the transmitter causing it to see decreasing reactor water level. At 20:10:56 pressure had decreased sufficiently to allow the slave trip unit to reach it's trip setpoint of -48.13" indicated reactor water level. Together the two tripped systems caused the actuation.

The actuation caused the Primary Containment Chilled Water A Loop Valves 2VP113A and 2VP114A to close. Isolation signals were also received by Primary Containment Chilled Water Valves 2VP113B and 2VP114B and Reactor Building Closed Cooling Water Isolation Valves 2WR179 and 2WR180. Since these valves were closed they did not change position.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

Form Rev 2.0

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			Page (3)		
		Year	Sequential Number	Revision Number			
LaSalle County Station Unit 2	0 5 0 0 0 3 7 4	9 2	- 0 0 1	- 0 0	0 2	OF	0 4

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

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: 01/17/92 Event Time: 2010 Hours

Reactor Mode(s): 5 Mode(s) Name: Defueled Power Level(s): 0%

B. DESCRIPTION OF EVENT

On January 17, 1992 with Unit 2 defueled at 0% power during the performance of LaSalle Instrument Surveillance LIS-MS-207B "Unit 2 Reactor Vessel Low Water Level 1 & 2 Isolation Channels B&D Refuel Calibration" an unexpected Primary Containment Isolation (PCIS, PC) [JM] occurred. The Division 1 Channel B system had been manually tripped as directed in LIS-MS-207B at 20:10:30 hours. An unexpected trip from the Division 2 Channel A Reactor Vessel Low Level 2 slave trip unit (2B21-N704C) was then received at 20:10:56, causing the PCIS Group 2 Primary Containment Chilled Water (VP) [KM] System A loop isolation valves (2VP113A, 2VP114A) to close. The B loop VP system isolation valves (2VP113B, 2VP114B) received an isolation signal but were previously closed when the loop was shut down. Reactor Building Closed Cooling Water (WR) [CC] isolation valves (2WR179, 2WR180) also received an isolation signal but were Out of Service.

This event is reportable to the NRC pursuant to the requirements of 10CFR50.73(a)(2)(iv) due to the actuation of an Engineered Safety Feature (ESF) System.

C. APPARENT CAUSE OF EVENT

The apparent cause of the event is attributed to the Division 2 Channel A Reactor Vessel Low Level 2 transmitter (2B21-N402C) valve manifold having a leak in the high side (variable leg) instrument stop valve. The transmitter was taken out of service by closing the high side instrument stop valve, following guidance from LIS-NB-215 "Unit 2 High Pressure Excess Flow Check Valve Refuel Operability Test", in preparation for testing. A small leak developed in the manifold's high side instrument stop valve (the volume of water lost was negligible) allowing a gradual pressure release from inside the high side of the manifold. This allowed the transmitter to erroneously sense a constant decrease in reactor water level. The decrease allowed the transmitter's slave trip unit (2B21-N704C) to eventually reach its trip setpoint (144" water column, -48.13" indicated reactor water level) and trip the 2B21-K103C relay. This trip occurred 26 seconds after the Instrument Maintenance Technician tripped the Division 1 Channel B transmitter and trip unit system.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

Form Rev 2.0

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (5)						Page (3)		
		Year	Sequential Number	Revision Number						
LaSalle County Station Unit 2	0 5 0 0 0 3 7 4	9 2	- 0 0 1	- 0 0			0 3	OF	0 4	

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

C. APPARENT CAUSE OF EVENT (CONTINUED)

The transmitter was taken Out Of Service in accordance with LaSalle Administrative Procedure LAP-900-4 "Equipment Out Of Service Procedure" which states that the Instrument Maintenance (IM) Department procedures should be consulted for methods of taking the equipment out of service. Work was to be performed on Excess Flow Check Valve 2B21-F370 so the Excess Flow Check Valve Surveillance procedure, (LIS-NB-215) was referenced to facilitate writing and placing the Out Of Service. A contributing cause to this event was, this procedure did not require isolation of the low side instrument stop valve or opening the equalizing valve. The out of service originator interpreted LAP-900-4 and referenced an inappropriate procedure for taking the transmitter out of service. It was expected by the Out of Service originator that LIS-NB-215 would cover the extent of the necessary work in the original scope. The proper procedure to reference would have been LIS-M5-207A, "Unit 2 Reactor Vessel Low Water Level 1&2 Isolation Channels A&C Refuel Calibration". Had this procedure been followed, both the high and low side instrument stop valves would have been closed and the equalizing valve would have been opened. This would have left the transmitter in an "upscale" condition (reactor water level higher than the instrument could read). In this condition the valve leak would not have an affect on the transmitter, there would be no differential pressure across the sensing cell.

Had the instrument stop valve not leaked, the actions taken would have been sufficient to prevent an actuation. The leak in the high side stop valve would not have generated an actuation on its own, it would require another system in a tripped condition. At the beginning of LIS-M5-207B the Instrument Maintenance Department verified none of the systems were in this condition. After the Division 1 Channel B system was tripped the proper conditions existed for the actuation. The slave trip unit reached its trip sentient 26 seconds after the IM's tripped the Division 1 Channel B system. The combination of the two trips was enough to cause the actuation of the VP and WR systems.

D. SYSTEMS AFFECTED BY EVENT

The safety consequences of this event were minimal. All Primary Containment Isolation Systems actuated as designed. The Primary Containment Chilled Water System is not safety related and not required for operation in the current defueled condition. The PC system itself is not required to be operable in the existing plant condition (defueled).

This type of work is not usually performed when the plant is in Operational Condition 1 (Run), 2 (Startup), or 3 (Hot Shutdown). Had this event occurred in one of these conditions the affected valves would have closed. These actuations, by themselves, would not have caused a scram or placed the Unit in an unsafe condition. It would however require immediate attention from the control room operators to prevent a Unit scram.

E. CORRECTIVE ACTIONS

All remaining isolation functions from Reactor Water Level Transmitters 2B21-N402A, B, C and D were jumpered out, with the exception of shutdown cooling, and will remain jumpered until testing is completed or until fuel load. All hanging out of services with PCIS (ESF) actuation instrumentation were reviewed to verify that no similar problems existed. By direction of the Unit 2 Operating

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

Form Rev. 2.0

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (5)			Page (3)		
		Year	Sequential Number	Revision Number			
LaSalle County Station Unit 2	0 5 0 0 0 3 7 4	9 2	- 0 0 1	- 0 0	0 4	OF	0 4

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

E. CORRECTIVE ACTIONS (CONTINUED)

Engineer, as of 1/18/92 all applicable out of services will now have both high and low instrument stop valves closed and the manifold equalizing valve opened. This will equalize pressure on the instrument and leave it in a known condition to prevent inadvertent isolations. LaSalle Administrative Procedure LAP-900-4 "Equipment Out Of Service Procedure" was reviewed by the Operating Engineer and a revision to the procedure was made to include the proper method for taking instruments with high and low pressure sides out of service.

Work Request L12949 was written to replace the high pressure instrument stop valve bonnet assembly. The work was completed February 3, 1992.

General Information Notice (GIN) 91-014 will be developed and issued to inform the appropriate operating department shift personnel on the proper method of taking a differential pressure instrument out of service.

No further corrective actions are required for this event.

F. PREVIOUS EVENTS

The cause of this event has been determined to be a leaking instrument stop valve. Previous Events were searched using this as a constraint. No previous events could be found.

G. COMPONENT FAILURE DATA

Manufacture	Nomenclature	Model No.	Serial No.
Anderson Greenwood Inst.	5-Valve Manifold	DPMHS-4B?-N	N/A