Commonwealth Edison
LaSalle County Nuclear Station
Rural Route #1, Box 220
Marseilles, Illinois 61341
Telephone 815/357-6761

February 16, 1990

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

Dear Sir:

Licensee Event Report #89-013-01, Docket #050-~~373~~ 374 is being submitted to your office to supercede previously submitted Licensee Event Report 89-013-00.

WRO
for G. J. Diederich
Station Manager
LaSalle County Station

GJD/DAC/kg

Enclosure

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

IE22
1/1

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 6

Title (4)

Primary Containment Isolation During Instrument Surveillance Testing Due to Procedural Deficiency

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 0 0 0
0 9	0 7	8 9	8 9	0 1 3	0 1	0 2	1 6	9 0		0 5 0 0 0

OPERATING MODE (9)	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10CFR (Check one or more of the following) (11)											
4	___	20.402(b)	___	20.405(c)	X	50.73(a)(2)(iv)	___	73.71(b)				
POWER LEVEL (10) 0 0 0	___	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
Don Crowl, Regulatory Assurance, extension 2860	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 NPRDS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS
D	S B			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 September 7, 1989 with Unit 2 in Cold Shutdown (Operational Condition 4) a Group I Isolation (closes Main Steam isolation and steam line drain valves) was received during the performance of LaSalle Instrument Surveillance LIS-MS-401, "Unit 2 Main Steam Line Low Pressure MSIV Isolation Functional Test."

The Group I isolation occurred when the Instrument Maintenance personnel depressurized one of the Main Steam line low pressure switches (PS-2B21-N015C). Pressure switch 2B21-N015C was tested without resetting the half isolation which existed after testing isolation logic channel B1.

The unit was in Cold Shutdown with all Main Steam line isolation valves closed. No valve motion or transient was caused due to this event.

The surveillance had been recently revised to split it into two separate parts, one if the unit is in the Run Mode and the other if the unit is in the Shutdown Mode. The review failed to identify the requirement for resetting the half isolation when one part of the surveillance was completed prior to testing the other half of the logic.

The Group I isolation was reset and the surveillance was completed without further problems.

This report is being submitted pursuant to the requirements of 10CFR50.73(a)(2)(iv) due to the actuation of an Engineered Safety Feature System.

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: 9/7/89 Event Time: 0108 Hours

Reactor Mode(s): 4 Mode(s) Name: Cold Shutdown Power Level(s): 0%

B. DESCRIPTION OF EVENT

On September 7, 1989 at 0108 hours with Unit 2 in Cold Shutdown (Operational Condition 4), a full Group 1 Primary Containment Isolation (closes Main Steam (MS) [SB] isolation (MSIV) and Main Steam line drain valves) was received during the performance of LaSalle Instrument Surveillance LIS-MS-401, "Unit 2 Main Steam Line Low Pressure MSIV Isolation Functional Test." The LaSalle Instrument Surveillance LIS-MS-401 was revised in November 1988 in order to split the procedure into two separate parts, one part to be used if the unit is in the Run Mode and the other part to be used if the unit is in the Shutdown Mode. This was done to simplify the procedure and to prevent errors which could lead to inadvertent isolation. This was the first time the functional test was being performed with the unit in Cold Shutdown since its revision.

The Group 1 isolation logic (PCIS) [JM] is "one-out-of-two-taken-twice." The Main Steam line low pressure (854 psig) isolation signal is bypassed when the reactor mode switch is not in the Run position. (Refer to attached simplified schematic of one subchannel.)

Below is a chronological description of the events which lead up to the Group 1 isolation:

The field side leads were lifted off terminal FF-39 in Control Room panel 2H13-P609. This removes the reactor mode switch "Not in Run" bypass of the low pressure isolation signal for pressure switch PS-2B21-N015A (reactor low pressure 854 psig) and creates a channel A1 isolation signal.

PS-2B21-N015B was pressurized to approximately 1000 psig which clears the Division 1 (B1) Main Steam Line pressure low alarm.

PS-2B21-N015A was pressurized to approximately 1000 psig which clears the Division 1 (A1) Main Steam line pressure low alarm. Both the A1 and the B1 alarms must be clear to reset the alarm window "Div I Main Steam Line Press Lo" (B301) on Control Room panel 2H13-P603.

The Nuclear Station Operator (NSO, licensed Reactor Operator) reset the valve isolation logic by momentarily depressing the reset pushbuttons for inboard and outboard isolation logic on Control Room panel 2H13-P601. At this time the PS-2B21-N015A (A1) and the PS-2B21-N015B (B1) are pressurized (i.e., not tripped) and the PS-2B21-N015A (A1) is also not bypassed due to the lifted lead.

B. DESCRIPTION OF EVENT (Continued)

PS-2B21-N015A is slowly depressurized until alarm window "Div I Main Steam Line Press Lo" on the Control Room panel 2H13-P603 has annunciated. Depressurizing PS-2B21-N015A creates a subchannel A1 isolation signal.

PS-2B21-N015A test pressure was increased to approximately 1000 psig.

The NSO reset the valve isolation logic by momentarily depressing Reset pushbuttons for the inboard and outboard isolation logic, on Control Room panel 2H13-P601. All isolations were reset; no isolation signals present.

Field side leads removed previously from terminal FF-39 on Control Room panel 2H13-P609 were landed. This reinstates the mode switch "Not in Run" bypass logic for PS-2B21-N015A (A1).

Field side lead was lifted off of terminal FF-39 on Control Room panel 2H13-P611. This removes the bypass for PS-2B21-N015B (B1).

PS-2B21-N015B test pressure was decreased until alarm window "Div I Main Steam Line Pressure LO" (B301), on Control Room panel 2H13-P603 annunciated. Depressurizing PS-2B21-N015B creates a subchannel B1 isolation signal.

Field side lead of terminal FF--39 on Control Room panel 2H13-P611 is landed. This reinstates the mode switch "Not in Run" bypass for PS-2B21-N015B, however the isolation logic is not yet reset. The B1 isolation signal is still present because no reset pushbuttons have been depressed at this point.

PS-2B21-N015A pressure is reduced to zero. This depressurizes the PS-2B21-N015A (A1), but this is bypassed so no new isolation signal is present.

No reset pushbuttons have been depressed yet.

Field side lead was lifted from terminal AA-39 of Control Room panel 2H13-P609. This removed the mode switch "Not in Run" bypass of switch PS-2B21-N015C (A2). This action generated a subchannel A2 isolation signal with the B1 signal still present creating a full Group 1 isolation. All Group 1 isolation valves were closed prior to this event, therefore no valve movement took place.

C. APPARENT CAUSE OF EVENT

The procedure did not provide steps for resetting the isolation signal prior to completing the surveillance on subchannel B1 in order to allow additional low pressure switches to be tested without causing an actual isolation.

The procedure revision review process failed to identify this deficiency when the revision was in progress.

C. APPARENT CAUSE OF EVENT (Continued)

No warning was provided to the Unit NSO prior to creating the isolation signal on subchannel A2. The NSO may have stopped the test knowing that an isolation signal was going to be created with one already active.

D. SAFETY ANALYSIS OF EVENT

The safety consequences of this event is minimal. All the isolation valves associated with the Group 1 isolation logic were closed prior to this event. The unit was in Cold Shutdown and no transient resulted from the initiation of the Group 1 isolation signal. This particular portion of the surveillance is only performed when the unit is shutdown.

If this event would have occurred when the unit was at full power a reactor scram would be initiated from the closure of the MSIV's due to the initiation of the PCIS Group 1 isolation.

E. CORRECTIVE ACTIONS

The Group 1 Primary Containment Isolation System (PCIS) signal was reset and the surveillance completed without any further event.

LIS-MS-301 and LIS-MS-401 procedures will be revised to provide instruction to reset and verify isolation logic has been reset when required, in order to prevent isolations from occurring when trying to complete this surveillance. Also a requirement to notify the NSO prior to any 1/2 scram or 1/2 isolation signal will become a normal maintenance practice per a new Maintenance Memo. Action Item Report number (AIR) 374-200-89-04901 will track this procedure revision.

The individuals involved in the preparation and approval of LIS-MS-401 (Revision number 3) have been tailgated about this event with emphasis placed on the importance of attention to detail. The review of LaSalle Administrative Procedure LAP-820-2, "Station Procedure Preparation and Revision," has been incorporated into annual required reading for all On Site Review participants and personnel who develop and revise procedures. AIR 374-200-89-04902 to track this corrective action has been completed.

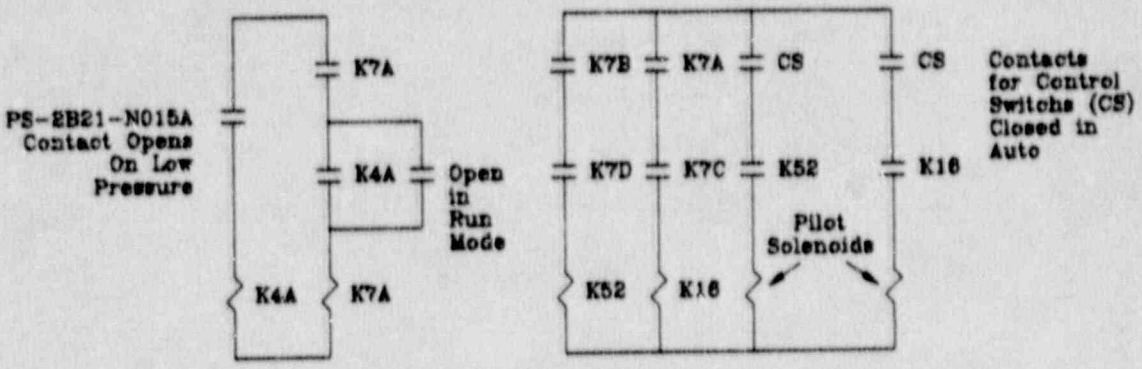
The Instrument Maintenance Department has completed a review of other surveillance procedures which has been revised or created since 1987 for proper resetting of logic during testing. One surveillance, LIS-RP-07, "APRM Flow Biased Neutron Flux High-High Scram Response Time Test," was identified as also needing a revision. AIR 374-200-89-04903 has been submitted to track the completion of this revision.

F. PREVIOUS EVENTS

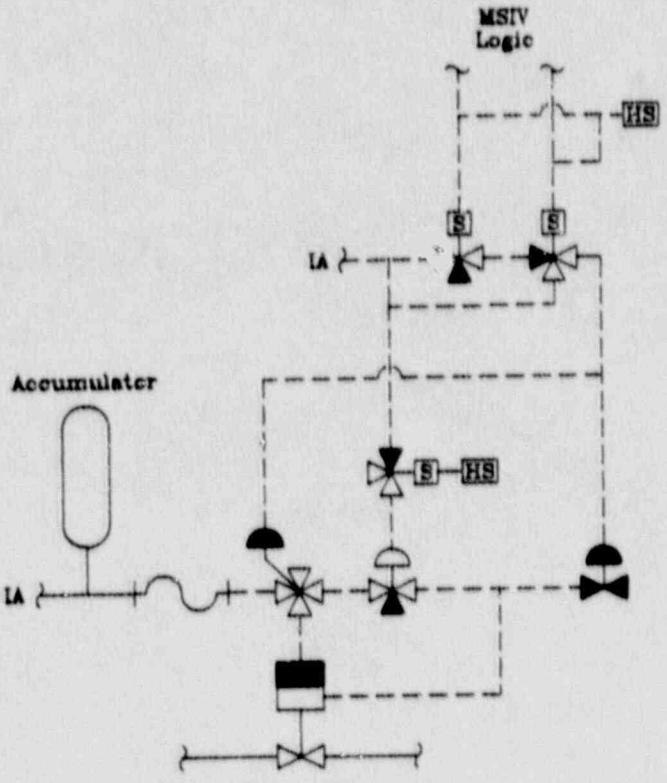
LER NUMBER	TITLE
373-84-057-00	Group 1 Isolation
373-85-011-00	Scram Due to MSIV Isolation

G. COMPONENT FAILURE DATA

Not applicable.



2B21-F028A
Outboard Main Steam Isolation Schematic
(Typical)
Division A1



2B21-F023A
Outboard Main Steam Isolation Valve
(Typical)