

LICENSEE EVENT REPORT

CONTROL BLOCK:

(PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)

0	1			L	L	S	C	1	(2)	0	0	-	0	0	0	0	0	-	0	0	(3)	4	1	0	0	0	(4)			(5)																																
7	6	5	4	3	2	1	0	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35																																	
								LICENSEE CODE																	LICENSE NUMBER																	LICENSE TYPE																	JD		57 CAT 58	

CONT

REPORT SOURCE: 01 L 5 0 5 0 0 1 0 1 3 7 1 3 7 0 7 1 1 4 8 1 3 2 0 7 2 5 8 1 3 9

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

02 The -129" RWL Div 1 ECCS initiation switch failed its surveillance because it failed  
03 to start the Div 1 ECCS pumps. Investigation revealed that 2 leads had been switched  
04 which effectively placed Hi DW Press in series with the -129" signal. This meant that  
05 an ECCS Div 1 initiation solely from -129" would not have occurred, however, Hi DW  
06 Press, proper combination of Hi DW Press and -129" RWL and manual initiation were still  
07 functional. The surveillance was satisfactory on 6/17/83 so this is the worst case  
08 date of inoperability. HPCS was inop for 13 days of this time, however, available  
ECCS would have protected the Reactor.

SYSTEM CODE		CAUSE CODE		CAUSE SUBCODE		COMPONENT CODE						COMP. SUBCODE		VALVE SUBCODE	
S	F	A		X		I	N	S	T	R	U	S		Z	
9	10	11	12	13	14	15	16	17	18	19	20	21	22		
EVENT YEAR		SEQUENTIAL REPORT NO.		OCCURRENCE CODE		REPORT TYPE		REVISION NO.							
8	3		0	7	3	0	1	T	0						
21	22	23	24	25	26	27	28	29	30						
ACTION TAKEN		EFFECT ON PLANT		SHUTDOWN METHOD		HOURS		ATTACHMENT SUBMITTED		NPRO-A FORM SUB.		PRIME COMP. SUPPLIER		COMPONENT MANUFACTURER	
X	X	Z	Z	Z		0	0	0	Y	N		Z		Z	9
18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS	
1 0	The cause was unknown. An extensive investigation did not indicate when the leads
1 1	may have been switched. The leads were landed correctly and the surveillance was per-
1 2	formed satisfactorily. An hourly security patrol of ECCS instrument panels on the 761
1 3	elevation was instituted until leaded seal wires could be installed on the panel junc-
1 4	tion boxes. The wiring in these panels was verified satisfactorily against "as built" drawings. The effectiveness of the seal wires will be evaluated in 30 days.

7 8 9  
FACILITY STATUS % POWER OTHER STATUS (30) METHOD OF DISCOVERY DISCOVERY DESCRIPTION (32)

1 3 B (28) 0 7 4 (29) NA B (31) LIS-NB-04

7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50

ACTIVITY CONTENT  
RELEASED OF RELEASE

1 5 2 33 7 34 NA

AMOUNT OF ACTIVITY (35)

LOCATION OF RELEASE (36)

PERSONNEL EXPOSURES									
NUMBER			TYPE	DESCRIPTION					
1	7	0	0	0	37	Z	38	NA	

PERSONNEL INJURIES		DESCRIPTION	
NUMBER			
1	3	0	0
0	0	0	40
		NA	

8 9		11 12	
LOSS OF OR DAMAGE TO FACILITY		(43)	
TYPE	DESCRIPTION		
1 9	Z (42)	NA	

7 8 9 10  
PUBLICITY  
ISSUED DESCRIPTION (45)  
20 N (44)  
8308040254 830725  
PDR ADOCK 05000373  
S PDR  
NRC USE ONLY

NAME OF PREPARER Baron S. Westphal

PHONE: (815) 357-6764 Ext. 247

- I. LER NUMBER: 83-073/01T-0
- II. LASALLE COUNTY STATION: Unit 1
- III. DOCKET NUMBER: 050-373
- IV. EVENT DESCRIPTION:

During the performance of LIS-NB-04 it was noted that a -129" RWL test signal to pressure switch 1B21-N037A did not initiate the LPCS and LPCI "A" pump start circuits as expected. This ECCS initiation channel was placed in the tripped condition per T.S. 3.3.3. Troubleshooting determined that incorrectly landed leads prevented proper operation of this circuit. The leads were re-landed properly, the surveillance was performed satisfactorily and the channel was declared operable.

V. PROBABLE CONSEQUENCES OF THE OCCURRENCE:

The improperly landed leads placed cable 1NB2AB1J2AB on terminal JJ-8 of panel 1H22-P026 and cable 1LPAD1PI on terminal JJ-6 of the same panel. This is exactly the reverse of how it should be wired.

The Division I ECCS initiation sequence is begun upon receipt of either of the following:

1. Two -129" RWL signals.
2. Two Hi Drywell Pressure Signals.
3. A combination of -129" RWL and Hi Drywell Pressure in different channels of the Div. I logic system.
4. Manual initiation.

The incorrectly landed leads removed the capability of auto initiation solely from two -129" RWL signals. The reversed leads added the Hi DW Pressure signal in series with the -129" RWL signal of the same channel. The other three modes of Division I initiation were unaffected. Additionally, if the Channel A -129" RWL and Hi DW Pressure signals coupled with the Channel C -129" RWL were present, Division I would have initiated.

The last time that 1B21-N037A was verified operable was on 6/17/83 during the performance of the same surveillance, LIS-NB-04. It is undetermined when during the interval between 6/17/83 and 7/14/83 the leads were swapped. The following ECCS systems were available during this time frame:

1. Division I consisting of LPCS, LPCI "A" and ADS with the exception that the Div. I pumps and "O" D/G would not have initiated solely from two -129" RWL signals.
2. Division II consisting of LPCI B & C and ADS.
3. Division III consisting of the HPCS system.
  - a. During the time period 6/17/83 through 6/30/83 HPCS was declared inoperable because the HPCS testable check valve and its bypass valve were stuck open. The RCIC system was operable during this time. It is indeterminable when Div. I became inoperable as per the Technical Specification, however, worst case places this time

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PROBABLE CONSEQUENCES OF THE OCCURRENCE: (Cont'd)

back to 6/17/83. Consequently, Unit 1 was operated outside of T.S. 3.3.5 while HPCS was inoperable.

The reactor was adequately protected from a worst case event even though the ECCS systems were not completely operable. The reactor was operated safely during the time period 6/17/83 to 7/14/83 and at all times the health and safety of the public was protected.

VI. CAUSE:

An investigation to determine when and why the leads were reversed resulted in an unknown cause. The following areas were covered during the investigation:

1. The previous performance of LIS-NB-04 on 6/17/83 and 6/18/83 was satisfactory although a discussion with those involved determined that there was a problem at one point where the correct indications weren't attainable. The foreman explained that a volt-ohm meter was placed on the wrong terminals which was quickly corrected yielding the proper results. This confusion did not occur in the same junction box where the leads were found reversed and the troubleshooting for this problem did not involve lifting any leads.
2. A review of the surveillance determined that:
  - a. Leads are not required to be lifted to perform the surveillance.
  - b. A previous revision superceded in June 1983 did not require lifted leads to accomplish the surveillance.
  - c. LIS-NB-04 has been satisfactory each of the nineteen (19) times it has been performed since January 1983.
3. LIS-PC-03 was satisfactorily completed on 6/30/83. This surveillance verified operable the Hi Drywell Pressure instruments but its performance doesn't aid in determining when the leads were reversed because it would work in either case.
4. Instrument and Electrical Maintenance Departments reviewed work in progress and work completed during the time frame 6/17/83 to 7/14/83 and found no work that required access to panel 1H22-P026.
5. The Work Request Log was reviewed back to 2/1/83 in a search to identify work that may have been related to the associated instrument rack - nothing was found.
6. Electrical Maintenance Dept. reviewed logic tests performed during this period of time and found no related testing.
7. The Jumper and Lifted Lead Log was reviewed without finding anything that related to panel 1H22-P026.
8. The Out Of Service Log was reviewed without finding any indication of work on this panel.

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CAUSE: (Continued)

9. The investigating committee explored the possibility that contractors from Unit 2 (under construction) may have done work on Unit 1 by mistake, however, nothing was found. The following areas were pursued:
  - a. The Temporary Turnover Agreement Log was reviewed.
    - (1) A TTA was located that called for work on 2B21-N037A, however, it was verified that no work had been done.
  - b. The Work Permit Log was reviewed.
  - c. Station Construction and General Electric personnel were asked if they were aware of any occasions when construction personnel were on the wrong unit.
  - d. PT-NB-201 was accomplished within this time frame. This pre-op tested the Reactor Water Level instrumentation on Unit 2. The Test Engineer stated that there was no reason for any testing to involve the respective Unit 2 panel, 2H22-P026, and that to his knowledge the people who worked with him during this pre-op were not on the wrong unit.

#### VII. CORRECTIVE ACTION:

1. WR L25968 was generated to troubleshoot the 1B21-N037A circuit. This effort generated the reversed lead finding, which was corrected, thereby returning the 1B21-N037A to complete operability. During the troubleshooting and repair time the channel was tripped per Technical Specifications within one hour of discovery.
2. Terminal checks against current wiring diagrams were made on the following instrument panels: 1H22-P002, 1H22-P004, 1H22-P006, 1H22-P026, 1H22-P027, 1H22-P075, and 1H22-P076. These are Safety Related panels on the same elevation as 1H22-P026 where the reversed leads were found. A loose terminal was found in panel 1H22-P026 and white and black power supply leads were reversed in panel 1H22-P004 with no effect to operation.
3. A security hourly check of the above identified panels was instituted but subsequently discontinued when lead seals were installed on these panels. The lead seals are installed for a trial period of 30 days at which time a re-evaluation of the need for these seals will be conducted. (AIR 01-83-67040).

Prepared by: Baron S. Westphal



**Commonwealth Edison**  
LaSalle County Nuclear Station  
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Marseilles, Illinois 61341  
Telephone 815/357-6761

July 25, 1983

James G. Keppler  
Regional Administrator  
Region III  
U.S. Nuclear Regulatory Commission  
799 Roosevelt Road  
Glen Ellyn, IL 60137

Dear Sir:

Reportable Occurrence Report #83-073/01T-0 Docket #050-373 is being submitted to your office in accordance with LaSalle County Nuclear Power Station Technical Specification 6.6.B.1.b., Operation of the unit or affected systems when any parameter or operation subject to a limiting condition is less conservative than the least conservative aspect of the limiting condition for operation established in the technical specifications.

G. J. Diederich  
Superintendent  
LaSalle County Station

GJD/GW/rg

Enclosure

cc: Director of Inspection & Enforcement  
Director of Management Information & Program Control  
U. S. NRC Document Management Branch  
Inpo-Records Center  
File/NRC

7/29/83

IE2211