NRC Form 366
(9-83)

U.S. NUCLEAR REGULATORY COMMISSION
APPROVED OMB NO. 3150-0104
EXPIRES 8/31/85

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
LaSalle County Station, Unit 1	0 5 0 0 0 3 7 3	1 OF 0 3

TITLE (4):
Chlorine Detector Actuation

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	2 7	8 5	8 5	0 5 1	0 0	0 7	2 5	8 5	LaSalle County, U-2	0 5 0 0 0 3 7 4
										0 5 0 0 0

OPERATING MODE (9)	1	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)					
POWER LEVEL (10)	0 8 5	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, NRC Form 366A)
		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
	AREA CODE
Richard J. Rohrer, extension 575	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	
X	V I	D E T	W 0 2 5	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)

At 1520 hours on June 27, 1985, with Unit 1 at 85% power and Unit 2 in Cold Shutdown, an alarm for "High Chlorine/Ammonia Concentration" was received for the "B" train of the Control Room/Auxiliary Electrical Equipment Room HVAC (VC/VE) system. Engineered Safety Features (ESF's) were activated to isolate the VC/VE system from outside air and to initiate recirculating airflow through charcoal filters.

Investigation did not identify a problem with the chlorine detectors for the "B" VC/VE train but one of the detectors was alarming. It was immediately reset, resulting in proper detector operation.

It is suspected that the spurious alarm was caused by radio-frequency interference. Action Item Record 373-200-85-00072 has been initiated to evaluate the need for corrective action to protect the chlorine detectors at LaSalle from radio-frequency interference.

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I. EVENT DESCRIPTION

At 1520 hours on June 27, 1985, the Control Room received an alarm for "High Chlorine/Ammonia Concentration" for the "B" train of the Control Room/Auxiliary Electrical Equipment Room HVAC (VC/VE), (VI) system. The alarm results in automatic operation of Engineered Safety Feature (ESF) dampers, isolating the "B" VC/VE train from outside air and initiating recirculating airflow through charcoal filters. These measures are intended to prevent toxic gases from entering the vital control areas of the plant.

Proper operation of the dampers was verified and Instrument Maintenance personnel were dispatched to investigate the problem. They found the source of the actuation to be an alarming chlorine detector (OAE-VC091A) for the "B" VC/VE train. The detector was immediately reset and proper operation was observed.

During this event Unit 1 was in Operational Condition 1 (Power Operation) at 85% power and Unit 2 was in Operational Condition 4 (Cold Shutdown) at 0% power.

II. CAUSE

The cause of the ESF actuations was a spurious alarm from a chlorine detector. No specific cause for this alarm could be found, but it is known that radio-frequency interference has caused at least one actuation of chlorine detectors, so it is possible that the actuation was caused by radio-frequency interference.

The chlorine detector was manufactured by Wallace and Tiernan and is model number 50-125.

III. PROBABLE CONSEQUENCES OF THE OCCURRENCE

The ESF actuations caused by this event placed the VC/VE system into a conservative configuration. The spurious alarm rendered the chlorine detector inoperable, eliminating redundancy for chlorine monitoring on the "B" VC/VE train. Action Statement a. of Technical Specification 3.3.7.8 allows seven days to restore operability to an inoperable chlorine detector. Since the instrument which tripped in this event was successfully reset immediately upon discovery, the requirements of this Action Statement were met.

IV. CORRECTIVE ACTION

Upon discovery, the tripped chlorine detector was immediately reset successfully, resulting in proper detector operation. Action Item Record 373-200-85-00072 has been initiated to evaluate the sensitivity of the chlorine detectors at LaSalle Station to radio-frequency interference, and to recommend further corrective action.

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		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
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TEXT (If more space is required, use additional NRC Form 366A's) (17)

V. PREVIOUS OCCURRENCES

Radio-frequency interference was identified as a likely cause for invalid chlorine detector trips in Licensee Event Report 373/85-042-00. Three other chlorine detector alarms were initially identified as spurious, but it is possible that these, too, were the result of radio-frequency interference. These are reported in Licensee Event Reports 373/84-084-00, 373/85-007-00 and 373/85-044-00.

VI. NAME AND TELEPHONE NUMBER OF PREPARER

Richard J. Rohrer, 815/357-6761, extension 575.

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

July 25, 1985

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

Dear Sir:

Reportable Occurrence Report #85-051-00, Docket #050-373 is being submitted to your office in accordance with 10CFR 50.73.

R. D. Bishop
for G. J. Diederich
Station Manager
LaSalle County Station

GJD/DRR/sga

Enclosure

xc: NRC, Regional Director
INPO-Records Center
File/NRC

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