

## LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)  
LaSalle County Station Unit 2DOCKET NUMBER (2)  
0 5 0 0 0 3 7 4 1 OF 0 3TITLE (4)  
Ammonia 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 (2)						
0	2	1	3	8	5	8	5	0	0	8	0	0	0	3	7	4
									LaSalle Co. Sta. Unit 1	0 5 0 0 0 3 7 4						
										0 5 0 0 0 3 7 4						

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 9.9		20.402(b)		20.406(a)	X	80.73(a)(2)(iv)		73.71(b)					
		20.406(a)(1)(i)		80.38(a)(1)		80.73(a)(2)(v)		73.71(a)					
		20.406(a)(1)(ii)		80.38(a)(2)		80.73(a)(2)(vi)		OTHER (Specify in Abstract below and in Text, NRC Form 306A)					
		20.406(a)(1)(iii)		80.73(a)(2)(i)		80.73(a)(2)(viii)(A)							
		20.406(a)(1)(iv)		80.73(a)(2)(ii)		80.73(a)(2)(viii)(B)							
		20.406(a)(1)(v)		80.73(a)(2)(iii)		80.73(a)(2)(ix)							

LICENSEE CONTACT FOR THIS LER (12)  
NAME  
Richard J. Rohrer, extension 319  
TELEPHONE NUMBER  
AREA CODE  
8 1 5 3 5 7 1 - 6 1 7 6 1 1

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)											
CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC		
D	V	I	D E T	X X X X	N						

SUPPLEMENTAL REPORT EXPECTED (14)  
YES (If yes, complete EXPECTED SUBMISSION DATE) ☐ NO ☒  
EXPECTED SUBMISSION DATE (15)  
MONTH DAY YEAR

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

At 1433 on February 13, 1985, the Control Room received a "High Chlorine/Ammonia Concentration" alarm for the "B" train of the Control Room/Auxiliary Electric Equipment Room HVAC (VC) system. All resulting automatic Engineered Safety Feature (ESF) damper actuations occurred satisfactorily. At the time of this event the 1 "A" VC train was in operation and the "B" VC train was idle. Unit 1 was in Operational Condition 1 at 74% power and Unit 2 was in Operational Condition 1 at 99.5% power.

The Instrument Maintenance personnel who were dispatched to investigate the alarm discovered that the chemcassette of the "A" ammonia detector for the "B" VC train (OXY-VC165A) had run out of tape, causing the alarm and damper actuations. The weekly surveillance procedure calls for the replacement of the ammonia detectors' chemcassettes before they run out of tape. During the most recent performance of this surveillance the chemcassette for OXY-VC165A was not replaced because a new one had recently been installed.

The exhausted chemcassette was replaced. A revision to the surveillance procedure has been initiated to emphasize the importance of replacing all four chemcassettes each time the surveillance is performed.

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## LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO 3150-0104

EXPIRES 8/31/85

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
LaSalle County Station Unit 2	05000374	85	008	00	00	12	OF 03

TEXT (If more space is required, use additional NRC Form 365A's) (17)

I. EVENT DESCRIPTION

At 1433 on February 13, 1985, the Control Room received a "High Chlorine/Ammonia Concentration" alarm for the "B" train of the Control Room/Auxiliary Electric Equipment Room HVAC (VC) (VI) system which resulted in actuation of Engineered Safety Features (ESF's). At the time of the alarm, Unit 1 was in Operational Condition 1 at 74% power and Unit 2 was in Operational Condition 1 at 99.5% power. The "B" VC train was not in use. Upon receiving the alarm, the Nuclear Station Operator observed that all automatic ESF damper actuations had occurred satisfactorily, and personnel from the Instrument Maintenance Department were dispatched to investigate the problem.

Upon investigation, the Instrument Maintenance personnel discovered that the cause for the alarm was the chemcassette of the "A" ammonia detector of the "B" VC train (OXY-VC165A) being out of tape. This detector is made by MDA Scientific Incorporated and is model number 7060-FAN.

The chemcassette consists of a spool of chemically treated tape which, when exposed to ammonia concentrations, produces a dark stain on the exposed portion of the tape. Ordinarily, this tape slowly travels past the sample line and optical equipment which compares the darkened tape portion to an unexposed section of the tape through use of photocells which measure the amount of light reflected by the tape. When the tape stopped traveling because the spool had run out, one section of the tape was continuously exposed to impurities from the sample line and darkened to the point that the alarm for the detector tripped, annunciating in the Control Room, and causing ESF damper actuations. These actuations consisted of isolating the idle "B" VC train from outside air and lining up dampers for recirculating airflow through charcoal filters, and had no effect on the operating "A" VC train.

II. CAUSE

The chemcassettes for the ammonia detectors contain enough tape to last seven days before running out. Surveillance procedure LIP-GM-940, which calls for replacement of the chemcassettes, is performed by the Instrument Maintenance Department on a six-day interval to prevent the chemcassettes from running out of tape. Surveillance records show that this surveillance was performed on February 8, 1985, five days prior to the event, but the detector which ran out of tape (OXY-VC165A) was not serviced because a fresh chemcassette had recently been installed in this detector. This installation probably took place during the performance of the ammonia detector's monthly functional test (LIS-VC-053) two days earlier (February 6, 1985).

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III. PROBABLE CONSEQUENCES OF THE OCCURRENCE

Once tripped, the ammonia detector provided the proper alarm and ESF actuations as if the ammonia concentration had actually reached the detector's setpoint (25 ppm). This action was conservative and had no adverse impact on the plant. Another redundant ammonia detector for the "B" VI train remained fully operable and provided an accurate indication of ammonia concentration throughout this event.

IV. CORRECTIVE ACTIONS

The Instrument Maintenance personnel who investigated the alarm replaced the exhausted chemcassette per LIP-GM-940. The trip was reset and the system was returned to normal.

A revision has been initiated to surveillance procedure LIP-GM-940 to emphasize the importance of changing all four chemcassettes during the surveillance. Also, a revision to surveillance procedure LIS-VC-053 has been initiated to include a reference to LIP-GM-940 to document any change-out of chemcassettes during the monthly functional test of the ammonia detectors. AIR 1-85-67038 will track these revisions.

V. PREVIOUS EVENTS

None.

VI. NAME AND TELEPHONE NUMBER OF PREPARER

Richard J. Rohrer, 815/357-6761, extension 319.



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

March 6, 1985

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

Dear Sir:

Reportable Occurrence Report #85-008-00, Docket #050-374 is being submitted to your office in accordance with 10CFR 50.73.

*for R.D. Bishop*  
G. J. Diederich  
Superintendent  
LaSalle County Station

GJD/MLD/kg

Enclosure

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

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