




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

January 11, 1991

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

Dear Sir:

Licensee Event Report #90-012-00, Docket #050-374 is being submitted to your office in accordance with 10CFR50.73(a)(2)(1).


fo G. J. Diederich
Station Manager
LaSalle County Station

GJD/DAC/mkl

Enclosure

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

9101220106 910111
PDR ADOCK 05000374
S PDR

440000

TEPZ
11

LICENSEE EVENT REPORT (LER)

Form Rev 2.0

Facility Name (1) LaSalle County Station Unit 2
 Docket Number (2) 0 | 5 | 0 | 0 | 0 | 3 | 7 | 4
 Page (3) 1 | of | 0 | 5

Missed Off Gas Hydrogen Sample Due To A Missed Communication During Unit Shutdown

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)	
11	2	1990	1990	012	00	0	11	1991		0 5 0 0 0	

OPERATING MODE (9) 1

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

POWER LEVEL (10) 0 1 2	20.402(b)	20.405(c)	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) X	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: Donald Crowl, Regulatory Assurance, Extension 2860
 TELEPHONE NUMBER: 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
A	W	F		N					

SUPPLEMENTAL REPORT EXPECTED (14)

[Yes (If yes, complete EXPECTED SUBMISSION DATE)] X | NO
 Expected Submission Date (15) Month | Day | Year

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

On December 15, 1990 during a Unit 2 planned shutdown for repairs on Low Pressure Feedwater Heater 23C, the required hydrogen samples for the Off Gas System were not taken. The samples were required per LaSalle Technical Specification 3.3.7.11, because both Hydrogen Analyzers were placed in the standby mode of operation and declared inoperable due to the erratic flow indication. The cause of the missed hydrogen sample was due to a miscommunication. The Shift Control Room Engineer failed to provide a follow up notification to the Radiation Protection Shift Supervisor when the Off Gas Hydrogen Analyzers were declared inoperable. The Hydrogen Analyzers were declared inoperable at 2110 hours on December 14, 1990 and hydrogen samples were required once per four hours.

The Off Gas Hydrogen sample was obtained and analyzed at 0500 hours and the Off Gas system was later secured which allowed the sampling to be secured.

This event is being reported pursuant to the requirements of 10CFR50.73(a)(2)(i) due to a missed Technical Specification Surveillance.

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 0	-	0 1 2	-	0 0		0 2	OF	0 5	

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

PLANT AND SYSTEM IDENTIFICATION

General Electric - Boiling Water Reactor

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

A. CONDITION PRIOR TO EVENT

Unit(s): 2 Event Date: 12/15/90 Event Time: 0110 Hours

Reactor Mode(s): 1 Mode(s) Name: Run Power Level(s): 12%

B. DESCRIPTION OF EVENT

On December 14, 1990 during the afternoon shift (1500-2300 hours), a Unit 2 shutdown was in progress per LaSalle General Procedure LGP-2-1. "Normal Unit Shutdown" in preparation for a planned maintenance outage to repair Low Pressure Feedwater Heater (HD) [SM] tube leaks.

At approximately 2105 hours, the Shift Control Room Engineer (SCRE licensed Senior Reactor Operator) called the Radiation Protection (RP) Shift Supervisor to inform him that the Off Gas (OG) [WF] system hydrogen analyzers would soon become inoperable. The SCRE mentioned during the call that this was a "for information only" call at this time and that the hydrogen analyzers had not yet been declared inoperable. Following the phone conversation with the RP Shift Supervisor, the SCRE informed the Instrument Maintenance Technicians to place the Off Gas hydrogen analyzers in the standby mode due to erratic flow indications.

The RP Shift Supervisor later informed the Chemistry Technician that the Off Gas hydrogen analyzers would be inoperable soon and to prepare for taking the required samples.

At 2110 hours, the Off Gas analyzers were placed in the standby mode and declared inoperable. The Unit 2 Nuclear Station Operator (NSO, licensed Reactor Operator) entered in the Unit Log the appropriate information as required by LaSalle Administrative Procedure LAP-220-2, "Unit Operators Log". At this time the Unit NSO questioned whether the Radiation Protection Department was informed and the SCRE replied that the Radiation Protection Department had been informed of the required sampling.

The Timeclock Easel located in the Control Room was updated with the description of the inoperable equipment (hydrogen analyzers) and the timeclock expiration time, January 13, 1991. The SCRE turnover was also updated to reflect this timeclock and a note was added to the special log portion of the SCRE turnover that once per three hour samples were required.

At 2245 hours an Operating Department pre-shift briefing was held with the same RP Shift Supervisor who worked the previous shift in attendance. The RP Shift Supervisor also obtained a copy of the turnover package (this package consists of copies of the written turnovers developed by the SCRE, Control Room NSO's and Unit Shift Supervisors). Operating evolutions were discussed including a discussion about the impending Off Gas system shutdown. After listening to this discussion, the RP Shift Supervisor believed he would soon be getting a call from the SCRE when the hydrogen analyzers were shutdown and declared inoperable.

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 0	- 0 1 2	- 0 0				0 3	OF	0 5

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

B. DESCRIPTION OF EVENT Continued

Following the Midnight Shift (2300-0700 hours) briefing, the RP Shift Supervisor informed the midnight shift Chemistry Technician of the potential for taking hydrogen samples when the Off Gas hydrogen analyzers are declared inoperable.

During the midnight shift, work load for the Radiation Protection Department increased due to the unit shutdown activities. Two additional RP Managers were called in to support shutdown evolutions (Initial Drywell Entry).

Contractor groups reported to Radiation Protection at 0100 hours on December 15, 1990, for scheduled work. This involved new Radiation Work Permits and Low Pressure Heater Bay work.

At 0200 hours, a plant announcement was made concerning the breaking of Unit 2 Main Condenser vacuum.

At 0430 hours, as work load slowed down for the Radiation Protection Department, the RP Shift Supervisor reviewed his turnover and noted the comment written on the turnover under Technical Specification samples for Unit 2 which stated, "maybe H2 later this shift."

Seeing this note the RP Shift Supervisor remembered he had not received a subsequent call from the SCRE and realized that since he had heard the announcement concerning the breaking of Main Condenser vacuum, the Off Gas system must be shutdown. The RP Shift Supervisor immediately called the SCRE and questioned him as to whether or not the Off Gas hydrogen analyzers had been declared inoperable. The SCRE informed the RP Shift Supervisor that the hydrogen analyzers were declared inoperable at 2110 hours, on December 14, 1990. The RP Shift Supervisor then informed the Chemistry Technician to take hydrogen samples.

C. APPARENT CAUSE OF EVENT

Verbal Communication -

The Shift Control Room Engineer (SCRE) failed to make a follow up telephone call to inform the Radiation Protection Shift Supervisor when the Off Gas hydrogen analyzers were declared inoperable. When questioned by the Unit Nuclear Station Operator as to whether or not the Radiation Protection Shift Supervisor had been informed, the SCRE replied that he had made the notification remembering that he had called earlier to notify the RP Shift Supervisor that the Off Gas hydrogen analyzers would soon become inoperable.

A contributing factor was that required timeclock actions, such as sample requirements are not normally required to be discussed during pre-job or pre-shift briefings per LaSalle Administrative Procedure LAP-1600-2, "Conduct of Operations." This might have prevented this event from occurring by discussing this information during the briefing with the RP Shift Supervisor present.

Another contributing factor was that the Chemistry Department Technical Specification Sampling Status form normally presented to the SCRE for completion at the beginning of the midnight shift, was not given to the SCRE by the RP Shift Supervisor.

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 0	- 0 1 2	- 0 0				0 4	OF	0 5

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

C. APPARENT CAUSE OF EVENT Continued

Written Communication -

The use of the Chemistry Department Technical Specification Sampling Status form is not procedurally required and is not consistently used by all radiation Protection Shift Supervisors, it is usually used by Chemistry Laboratory Supervisors. The use of this form would have provided another mechanism to identify the need for hydrogen samples by the Radiation Protection Shift Supervisor. Because the use of this form is normally coordinated by the Chemistry Department, the current format may not be designed for less practiced users. The reason why the RP Shift Supervisor usually presents this to the SCRE is that there is no Chemistry Laboratory Supervisor assigned to backshifts or weekends.

Resource Management -

This contributed to the event because sufficient supervisory resources were unavailable on site to provide the needed supervision. During unit shutdown evolutions, a large number of areas need radiation surveys and have the radiation status changed to allow scheduled work to start. There is also a large number of Radiation Work Permits which need to be reviewed. This work, in addition to the callout of additional Radiation Protection Managers to support initial drywell entry, prevented an earlier review of the Radiation Protection Shift Supervisors turnover notes which may have prevented this event.

Plant/System Design and Analysis -

The design of the hydrogen analyzers is such that during a shutdown evolution which reduces Off Gas flow significantly and may cause erratic flow to occur, the potential to trip the hydrogen analyzers exists. In order to prevent the trip of the analyzers, they are placed in the standby mode and declared inoperable. This requires samples to be taken per LaSalle Technical Specifications.

D. SAFETY ANALYSIS OF EVENT

The safety consequences of this event were minimal. Prior to declaring the hydrogen analyzers inoperable, the indicated hydrogen concentration was 0 percent. The subsequent hydrogen sample taken at 0500 hours on December 15, 1990 also indicated a 0 percent hydrogen concentration.

E. CORRECTIVE ACTIONS

The Off Gas hydrogen sample was obtained and analyzed at 0500 hours on December 15, 1990, and the Off Gas system was later secured which allowed the sampling to be secured.

A Human Performance Enhancement System (HES) evaluation has been completed. The results of this evaluation have been incorporated into this report.

Training was expedited for the new LaSalle Administrative Procedure LAP-100-37, "Station Communication". On December 18, 1990 a Department Head Meeting presentation was given to show the newly developed LaSalle Communications Practices Video and how it can be used to enhance the training. A General Information Notification (GIN) number 90-85 was issued to track the completion of this training.

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 0	-	0 1 2	-	0 0	0 5	OF	0 5	

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

E. CORRECTIVE ACTIONS Continued

A revision to LaSalle Administrative Procedure LAP-1600-2, "Conduct of Operations" step F.1.s.1) has been completed to include a discussion of critical surveillances. This corrective action was completed by Action Item Record (AIR) number 374-200-90-00803.

Revise the LaSalle General Procedure LGP-2-1, "Normal Unit Shutdown" to require Off Gas samples for hydrogen during every shutdown. The completion of this corrective action will be tracked by AIR number 374-399-90-01402.

Proceduralize the use of the Chemistry Turnover form and review the need to include a checklist of technical specification required sampling. The completion of this corrective action will be tracked by AIR number 374-399-90-01403.

Review the need to schedule Chemistry Supervision during startup and shutdown evolutions. The completion of this corrective action will be tracked by AIR number 374-399-90-01404.

Review the Off Gas hydrogen analyzers response to changes in the Unit Operation during startup and shutdown evolutions to determine if possible design changes can be incorporated to improve reliability. The completion of this corrective action will be tracked by AIR number 374-399-90-01405.

F. PREVIOUS EVENTS

- 373/82-041-00 Missed Station Vent Stack Noble Gas Sample Surveillance
- 373/84-027-00 Missed Off Gas Hydrogen Sample
- 373/85-018-00 Missed Off Gas H2 Sample Frequency
- 373/85-047-01 Missed Off Gas Hydrogen Sample
- 373/86-003-00 Missed Surveillance Reactor Water pH Due To Personnel Error
- 373/87-008-00 Missed Off Gas Hydrogen Sample Due To Personnel Error
- 374/84-053-00 Missed Hydrogen Sample Of Off Gas

G. COMPONENT FAILURE DATA

None