Commonwealth Edison
LaSalle County Nuclear Station
2601 N. 21st. Rd.
Marseilles, Illinois 61341
Telephone 815/357-6761

July 13, 1992

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

Dear Sir:

Licensee Event Report #92-007-00, Docket #050-374 is being submitted to your office in accordance with 10CFR50.73(a)(2)(iv).

for G. J. Diederich
Station Manager
LaSalle County Station

GJD/JDS/mkl

Enclosure

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

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 4

Title (4)

Spurious Auto Start of Control Room Ventilation Emergency Make-up Train Due to High Radiation Spike

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 6	1 3	9 2	9 2	0 0 7	0 0	0 7	1 3	9 2		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)			
	1	___ 20.402(b)	___ 20.405(c)	X 50.73(a)(2)(iv)	___ 73.71(b)
POWER LEVEL (10)	1 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
	AREA CODE
Joseph Sparacino, Technical Staff Engineer Ext. 2421	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	P R			No					
X	V C			No					

SUPPLEMENTAL REPORT EXPECTED (14)		Expected Submission Date (15)	Month	Day	Year
___ X Yes (If yes, complete EXPECTED SUBMISSION DATE)	___ NO		0 6	3 0	9 3

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

On June 13, 1992 at approximately 1617 hours Unit 2 was in Operational Condition 1 (RUN) at 100 percent power. At that time a High Radiation Spike was received from the Control Room Ventilation (VC) [VI] Process Radiation Monitor (RP) [IL] 2D18-R751C. This High Radiation Spike initiated the "B" Emergency Make-up Train (EMU). As the Detector was being reset, the Nuclear Station Operator (NSO) noticed that the EMU Train had shut down. The NSO informed the Shift Control Room Engineer (SCRE) that the EMU Train had shut down without being reset. After consulting the electrical schematic drawings, the SCRE determined that the EMU Train should have continued running until it was reset, due to the seal-in circuit.

The apparent cause of the High Radiation Spike is unknown at this time and is presently being investigated by the Instrument Maintenance Department. The apparent cause of the shutdown of the EMU Train without being reset was do to the failure of the seal-in logic. The reset of the logic occurred because the reset push button OHS-VC184 had failed, causing an open circuit w...in the seal-in circuitry.

The safety consequence of this event was minimal due to the fact that the Emergency Make-up Train did start as designed.

The corrective action for the High Radiation Spike is unknown as of now. The troubleshooting will continue until a correction to this problem can be found. The corrective action for the open circuit was to replace the reset push button OHS-VC184 for the VC EMU Train.

This event is reportable pursuant to 10CFR50.73(a)(2)(iv) due to an automatic actuation of an Engineered Safety Feature.

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: 06/13/92 Event Time: 1617 Hours

Reactor Mode(s): 1 Mode(s) Name: Run Power Level(s): 100%

B. DESCRIPTION OF EVENT

On June 13, 1992 at approximately 1617 hours Unit 2 was in Operational Condition 1 (RUN) at 100 percent power. At that time a High Radiation Spike was received from the Control Room Ventilation (VC) [VI] Process Radiation Monitor (PR) [IL] 2D18-K751C. This High Radiation Spike initiated the "B" Emergency Make-up Train (EMU). At the time of the event the "B" VC Train was in the Operation Mode and the "A" Train was in the Standby Mode. Upon investigation, it was verified that the High Radiation Signal was false and the detector could be reset. As the detector was being reset, the Nuclear Station Operator (NSO) noticed that the EMU Train had shut down. The NSO informed the Shift Control Room Engineer (SCRE) that the EMU Train had shut down without being reset. After consulting the electrical schematic drawings, the SCRE determined that the EMU Train should have continued running until it was reset, due to the seal-in circuit. The Electrical Maintenance Department was notified to troubleshoot the problem.

C. APPARENT CAUSE OF EVENT

The apparent cause of the High Radiation Spike is unknown at this time and is presently being investigated by the Instrument Maintenance Department. It is believed by the Instrument Maintenance Department and the Technical Staff that the cause is electrical in nature and different solutions are being tried under the investigation. The results of this investigation will be described within Action Item Record 373-180-91-08201 for the two more recent previous events.

The apparent cause of the shut down of the EMU Train without being reset was do to the failure of the seal-in logic. The reset of the logic occurred because the reset push button 0VC184 had failed, causing an open circuit within the seal-in circuitry. This open circuit prevented the seal-in relay from staying energized after the High Radiation Signal was reset.

D. SAFETY ANALYSIS OF EVENT

The safety consequence of this event was minimal due to the fact that the Emergency Make-up Train did start as designed. The fact that the Train did not seal-in can be answered because if it was a true High Radiation Signal then all four of the VC Radiation Monitors would have seen the High Radiation Signal and the monitors would not have been able to be reset. The High Radiation Signals would have performed in the same manor as a seal-in circuit. Also the "A" EMU Train was in Standby if it was needed.

E. CORRECTIVE ACTIONS

The corrective action for the High Radiation Spike is unknown as of now. The troubleshooting will continue until a correction to this problem can be found. Presently, the next attempted solution is to replace the Geiger-Muller Tubes in each of the VC Radiation Detectors. The Detector Output Signal will then be observed for any change in spiking behavior. Action Item Report (AIR) 374-180-92-05801 will track completion of this investigation.

The corrective action for the open circuit was to replace the reset push button OHS-VC1B4 for the VC EMU Train. Troubleshooting of the reset pushbutton lead to the conclusion that dirty contacts caused the problem. No similar problems have been experienced. Once the reset push button was replaced, the Electrical Maintenance Department checked for circuit continuity which was satisfactory. Then the Technical Staff performed LTS-400-17, "Control Room HVAC Isolation Damper Surveillance Smoke And Radiation Detection", to ensure proper operation of the EMU Train. This surveillance was also completed satisfactorily.

F. PREVIOUS EVENTS

LER Number	Title
373/91-010-00	Spurious Auto Start Of Control Room Ventilation Emergency Make-up Train Due to High Radiation Spike
373/91-008-00	Spurious Auto Start Of Control Room Ventilation Emergency Make-up Train
373/88-016-00	Auto Start of "A" VC EMU On Spurious Spike Of The Intake Rad Monitor
373/87-034-00	Auto Start Of "A" VC EMU On Spurious Rad Spike
373/86-025-00	Spurious Trip Of Control Room Ventilation High Radiation Monitor
373/86-021-00	Control Room Ventilation Actuation Due To Spurious Rad Monitor Trip

G. COMPONENT FAILURE DATA

There are no known component failures for the High Radiation Spike problem. A NPRDS search was done for the PRM and nothing was found.

There was a component failure for the open circuit problem for the VC EMU Trai The failed component was the OHS-VC184 reset push button. A NPRDS search was done for the push button and nothing was found.