



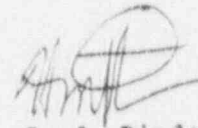
Commonwealth Edison
LaSalle County Nuclear Station
Rural Route #1, Box 220
Marseilles, Illinois 61341
Telephone 815/357-6761

January 24, 1991

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

Dear Sir:

Licensee Event Report #90-014-00, Docket #050-373 is being
submitted to your office in accordance with
10CFR50.73(a)(2)(v).

for 
G. J. Diederich
Station Manager
LaSalle County Station

GJD/HTV/kg

Enclosure

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

2

9101290309 910124
PDR ALOCK 05000373
S PIR

JG22
1/

LICENSEE EVENT REPORT (LER)

Form Rev 2.0

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

Title (4)
 Reactor Core Isolation Cooling System Inoperable Due To Low 250 VDC Battery Electrolyte Temperature Caused By The Inability Of The Temperature Controller To Maintain Proper Temperatures

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	22	90	90	014	00	01	24	91		0 5 0 0 0 1 1

OPERATING MODE (9) 1

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

20.402(b)	20.405(c)	50.73(a)(2)(iv)	73.71(b)
20.405(a)(1)(i)	50.36(c)(1)	X 50.73(a)(2)(v)	73.71(c)
20.405(a)(1)(ii)	50.36(c)(2)	50.73(a)(2)(vii)	Other (Specify
20.405(a)(1)(iii)	50.73(a)(2)(i)	50.73(a)(2)(viii)(A)	in Abstract
20.405(a)(1)(iv)	50.73(a)(2)(ii)	50.73(a)(2)(viii)(B)	below and in
20.405(a)(1)(v)	50.73(a)(2)(iii)	50.73(a)(2)(x)	Text)

LICENSEE CONTACT FOR THIS LER (12)

Name Harold T. Vinyard, Technical Staff Engineer, Extension 2499
 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	MANUFAC-TURER	REPORTABLE TO NPRDS	CAUSE	SYSTEM	COMPONENT	MANUFAC-TURER	REPORTABLE TO NPRDS
B	V F	T C		N					

SUPPLEMENTAL REPORT EXPECTED (14)

Expected Submission Date (15) _____
 Yes (If yes, complete EXPECTED SUBMISSION DATE) X | NO

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

On December 25, 1990 at 1140 hours, with Unit 1 in Operational Condition 1 (Run) at 97% power, the average electrolyte temperature of the Unit 1 250V battery was found to be 62 degrees F. Although there are no Technical Specification temperature requirements on this battery, LaSalle Operating Surveillance LOS-AA-D1 "Unit Daily Surveillances" requires the Unit 1 250V battery to be declared inoperable should average electrolyte temperature fall below 65 degrees F. Since this battery also provides emergency power to the Reactor Core Isolation Cooling (RCIC) system, the RCIC system was also declared inoperable and a 14-day timeclock initiated in accordance with Technical Specifications.

The apparent cause of this event appears to be the inability of the Unit 1 Division I Switchgear Heat Removal System (VX) temperature controller to maintain proper temperature in the 250V battery room due to outside seasonal temperature changes.

The consequences of this event were minimal. The High Pressure Core Spray system, which is the alternate high pressure injection system, was fully operable throughout this event. In addition, the Automatic Depressurization System and all Emergency Core Cooling System (ECCS) low pressure injection systems were fully operable.

Initial corrective actions were to restore the Division I switchgear room to normal temperature. This was accomplished by locating portable heaters in the switchgear room to increase the heat input to the room and the failed outside ventilation air damper was closed to reduce the admission of cool outside air. These actions quickly restored room temperature and battery electrolyte temperature to normal within 24 hours. The RCIC system was then declared operable and the Technical Specification timeclock exited on December 26 at 0345 hours.

This event is reported pursuant to 10CFR50.73(a)(2)(v) due to the loss of a safety function system.

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 1	0 5 0 0 0 3 7 3	9 0	- 0 1 4	-	0 0				0 2	OF	0 4

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

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): 1 Event Date: 12/25/90 Event Time: 1140 Hours

Reactor Mode(s): 1 Mode(s) Name: RUN Power Level(s): 97%

B. DESCRIPTION OF EVENT

On December 25, 1990 at 1140 hours, with Unit 1 in Operational Condition 1 (Run) at 97% power, the average electrolyte temperature of the Unit 1 250V battery (DC)[EJ] was found to be 62 degrees F. Battery temperatures were being taken in accordance with LaSalle Operating Surveillance LOS-DC-Q2, "Safety-Related Battery Equalizing Charges". Although there are no Technical Specification temperature requirements on this battery, LaSalle Operating Surveillance LOS-AA-D1 "Unit Daily Surveillances" requires the Unit 1 250V battery to be declared inoperable should average electrolyte temperature fall below 65 degrees F. Since this battery also provides emergency power to the Reactor Core Isolation Cooling system (RCIC)(RI)[BN], the RCIC system was also declared inoperable and a 14-day timeclock initiated in accordance with Technical Specification 3.7.3. Work Request L03979 was initiated to resolve the problem.

This event is reportable pursuant to 10CFR50.73(a)(2)(v) due to a condition that could have prevented the fulfillment of a safety function of RCIC if needed to remove residual heat.

C. APPARENT CAUSE OF EVENT

The cause of this event was battery electrolyte temperature falling below its minimum calculated acceptable value (with respect to battery capacity). This condition necessitated the RCIC system being declared inoperable and a Technical Specification timeclock entered.

The apparent cause of this event appears to be the inability of the Unit 1 Division I Switchgear Heat Removal System (VX)[VF] temperature controller to maintain proper temperature in the 250V battery room due to outside seasonal temperature changes.

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 1	0 5 0 0 0 3 7 3	9 0	- 0 1 4	- 0 0	0 3	OF 0 4	

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

D. SAFETY ANALYSIS OF EVENT

The consequences of this event were minimal. The High Pressure Core Spray system (HPCS)(HF)(BG) which is the alternate high pressure injection system, was fully operable throughout this event. In addition, the Automatic Depressurization System (ADS)(NB)(SB) and all Emergency Core Cooling System (ECCS) low pressure injection systems were fully operable.

Although no Technical Specifications address electrolyte temperature of the Unit 1 250V battery, previous calculations per the LaSalle Electrical Load Monitoring System (ELMS) indicates the capacity of the battery is insufficient to satisfy the requirements of the Updated Final Safety Analysis Report (UFSAR) with electrolyte temperature below 65 degrees F. Since electrolyte temperature was 62 degrees F, substantial battery capacity still remained to provide emergency power to the RCIC system if need-d.

Division I Switchgear Room temperatures were verified satisfactory per LOS-AA-01 approximately 8 hours prior to this event.

E. CORRECTIVE ACTIONS

Initial corrective actions were to restore the Division I switchgear room to normal temperature. This was accomplished two-fold: 1) portable heaters were located in the switchgear room to increase the heat input to the room, and 2) the failed outside ventilation air damper was wired closed (per an approved Temporary System Change) to reduce the admission of cool outside air. These actions quickly restored room temperature and battery electrolyte temperature to normal within 24 hours. The RCIC system was then declared operable and the Technical Specification timeclock exited at 0345 hours of December 26, 1990.

A design deficiency has been identified with the temperature controllers which position the VX system dampers. This problem will be resolved per a design change to install controllers capable of better responding to outside seasonal temperature changes. Although this event was specifically related to Division I VX, this corrective action will also be applied to Division II VX since it currently utilizes the same design. Action Item Record (AIR) 373-200-90-09102 will track the completion of these design changes.

As an interim measure, a surveillance to seasonally position the VX outside air dampers will be generated and placed in the LaSalle surveillance program. AIR 373-200-90-09101 will track this action.

The Unit 1 250V battery is scheduled to be replaced during the Unit 1 fourth refueling outage. This outage is currently scheduled for February 1991. The battery is being replaced with a larger capacity battery in compliance with 10 CFR Part 50.63 (Station Blackout). Following the replacement, the larger capacity battery will allow the battery to remain operable to 37 degrees F.

F. PREVIOUS EVENTS

LER Number	Title
374/89-018-00	Reactor Core Isolation Cooling System Inoperable due to 250 vdc Battery Low Temperatures Caused by Failed Damper and Low Outside Air Temperatures

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 1	0 5 0 0 0 3 7 3	9 0	- 0 1 4	- 0 0	0 4	0 4

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

COMPONENT FAILURE DATA

Manufacturer	Nomenclature	Model Number	MFG Part Number
Love Controls	Temperature Controller	N/A	541-834-8160-838-8133