



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

April 30, 1993

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

Dear Sir:

Licensee Event Report #92-008-01, Docket #050-374 is being submitted to your office in accordance with 50.73(a)(2)(v).

G. F. Spedl
Station Manager
LaSalle County Station

GJD/MT/mk1

Enclosure

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

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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 4	
Title (4) Thermal Overload Trip Of RCIC Exhaust Vacuum Breaker Upstream Valve 2E51-F086															

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 1 5 9 2	9 2	---	0 0 8	---	0 1	0 4	3 0 9 3				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) 1 0 0			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 Michael Tennyson, Technical Staff Engineer, Extension 2421										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
X	B N			Y					

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)

On June 15, 1992, at 2151 hours, while Unit 2 was in Operational Condition 1 (Run), at 100% power, the Reactor Core Isolation Cooling (RCIC, RI) [BN] Turbine Exhaust Vacuum Breaker Upstream Stop Motor Operated Valve 2E51-F086 tripped due to thermal overload on the Motor Control Center 236Y-2, Compartment E2. This event occurred while the Operating Department was performing the quarterly surveillance, that exercises and obtains required Inservice Test Data for the RCIC System Valves.

The RCIC Turbine Exhaust Vacuum Breaker Downstream Stop, 2E51-F080 was closed and taken out of service. Inspections performed by the Electrical Maintenance Department found no definite problem(s) with the valve or operator.

The RCIC System was declared inoperable and entered in the Degraded Equipment Log (DEL) 59-92-2-10 at 2355 hours on June 15, 1992. A work request, L16206 has been initiated for lubrication of the valve stem. Current trace and motor current data was obtained and compared with previous data; no malfunction was observed.

During the time of this incident the High Pressure Core Spray (HPCS) System, and the other Emergency Core Cooling Systems were fully operable. There were no adverse consequences to this event.

This event is reported to the Nuclear Regulatory Commission as a Licensee Event Report in accordance with 10CFR50.73(a)(2)(v) due to RCIC being declared inoperable (loss of a safety system function).

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							Year	Sequential Number		Revision Number														
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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): 2 Event Date: 06/15/92 Event Time: 2151 Hours

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

B. DESCRIPTION OF EVENT

On June 15, 1992, at 2151 hours, while Unit 2 was in Operational Condition 1 (Run) at 100% power, the Reactor Core Isolation Cooling (RCIC, RI) [BN] Turbine Exhaust Vacuum Breaker Upstream Stop Motor Operated Valve 2E51-F086 tripped due to thermal overload on the Motor Control Center 236Y-2, Compartment E2.

This event occurred while the Operating Department was performing the quarterly surveillance that exercises and obtains required Inservice Test Data for the RCIC System Valves. This LaSalle Operating Surveillance is LOS-RI-Q1, "RCIC Valve Inservice Test for Operating, Startup, and Hot Shutdown Conditions".

Shortly after the Nuclear Station Operator had moved the hand switch to the closed position valve 2E51-F086 tripped from thermal overload. The valve was later cycled satisfactorily with LaSalle Operating Procedure, LOP-AP-21, "Motor Operated Valves".

The RCIC Turbine Exhaust Vacuum Breaker Downstream Stop Valve, 2E51-F080 was closed and taken out of service per Technical Specification 3.6.3 for compliance with Primary Containment Integrity.

No other inoperable equipment/systems contributed to this event. No automatic or manual safety system actuations occurred and none were required. No Operator actions contributed to the causation or severity of this event.

This event is reported to the Nuclear Regulatory Commission as a Licensee Event Report in accordance with 10CFR50.73(a)(2)(v) due to RCIC being declared inoperable (loss of a safety system function).

C. APPARENT CAUSE OF EVENT

The exact cause of the Thermal Overload Trip to the valve is not known. Inspections performed by the Electrical Maintenance Department found no definite problem(s) with the valve or operator. The Thermal Overload Trip of the Motor Control Center 236Y-2 Compartment E2 could not be duplicated from valve cycling.

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

C. APPARENT CAUSE OF EVENT (CONTINUED)

2E51-F086 was last inspected per LaSalle Electrical Surveillance LES-EQ-112, "Inspection and Minor Maintenance of Environmental Qualified Limitorque Valve Operators", on April 4, 1990. Since the valve and motor maintenance inspection, the Inservice Test which involves valve cycling was performed. This test is performed once every quarter.

During testing of the valve on June 15, 1992 it was determined the Thermal Overload Trip occurred due to either:

- Hardening of the valve packing which resulted in keeping the stem in place while the motor was attempting to close the valve; or
- The rotating valve stem and stem nut configuration, which moves the valve disc up and down during the cycling was bound due to hard and dried up lubricant.

In either of these two different situations, once the valve disc and stem were moved and cycled manually, following the thermal overload trip, the situation could not be repeated, or duplicated.

D. SAFETY ANALYSIS OF EVENT

The RCIC Turbine Exhaust Vacuum Breaker Upstream Stop, 2E51-F086 functions to isolate the Primary Containment during accident conditions. The RCIC Turbine Exhaust Vacuum Breaker Downstream Stop, 2E51-F080 was closed, and taken out of service due to the failure of 2E51-F086 to stroke electrically.

During the time of this incident the High Pressure Core Spray (HPCS) System, and the other emergency core cooling systems were fully operable. There were no adverse consequences to this event.

E. CORRECTIVE ACTIONS

The RCIC system was declared inoperable and entered in the Degraded Equipment Log (DEL) 59-92-2-10 at 2355 hours on June 15, 1992. The valve was then declared inoperable per DEL 59-92-2-11 at 0215 hours on June 16, 1992. Work request L16201 was written to inspect and repair the RCIC Turbine Exhaust Vacuum Breaker Upstream Stop, 2E51-F086. During the inspection, there were no problems encountered with the valve and motor. The valve had been cycled twice satisfactorily prior to the inspection per LOP-AP-21.

Work request L16206 has been initiated to lubricate the valve stem. Lubrication of the valve stem is not possible at this time because there is no approved lubricant at the station. The lubricant is on order and as soon as the lubricant arrives at the station, the stem will be lubricated. Current trace data, motor meggering data, motor winding resistance, motor current data, and bus voltage data was obtained in accordance with LaSalle Electrical Surveillance, LES-GM-125, "Motor Operated Valve Current Signature Trace".

The data was compared with previous data and no malfunction was observed. The Thermal Overload Relay was replaced, and tested satisfactorily. The RCIC Turbine Exhaust Vacuum Breaker Upstream Stop, 2E51-F086 was declared operable on June 17, 1992 at 0330, and the RCIC System was declared operable on June 17, 1992 at 0620 hours.

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LaSalle County Station Unit 2	0 5 0 0 0 3 7 4	9 2	-	0 0 8	-	0 1	0 4	OF	0 4						
TEXT Energy Industry Identification System (EIIS) codes are identified in the text as [XX]															

E. CORRECTIVE ACTIONS (CONTINUED)

Preventative Maintenance inspections which involve stem lubrication for the RCIC Turbine Exhaust Vacuum Breaker Upstream Stop, 2E51-F086 valve every other refuel cycle will be rescheduled in the General Surveillance Program to be performed every refuel cycle. This change will be tracked by Action Item Record AIR 374-180-92-05901.

The rotating and rising stem type motor operated valves require lubrication at the stem that will remain in a condition that is suitable for valve operation. Hardened lubricant at the stem and packing can always create problems and failures. Due to the potential for more failure of this type, Action Item Record AIR 374-180-92-05902 will track investigations that will identify a possible solution.

F. PREVIOUS EVENTS

None

G. COMPONENT FAILURE DATA

None