



**Commonwealth Edison**

Quad Cities Nuclear Power Station  
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RLB-92-085

April 9, 1992

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

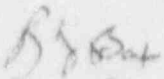
Reference: Quad Cities Nuclear Power Station  
Docket Number 50-254, DPR-29, Unit One

Enclosed is Licensee Event Report (LER) 92-005, Revision 01, for Quad Cities Nuclear Power Station.

This report is submitted in accordance with the requirements of the Code of Federal Regulations, Title 10, Part 50.73(a)(2)(v)(D). The licensee shall report any event or condition that alone could have prevented the fulfillment of the safety function of structures or systems that are needed to mitigate the consequences of an accident.

Respectfully,

COMMONWEALTH EDISON COMPANY  
QUAD CITIES NUCLEAR POWER STATION

  
R. L. Bax  
Station Manager

RLB/TB/plm

Enclosure

cc: J. Schrage  
T. Taylor  
INPO Records Center  
NRC Region III

STMGR 303

9204160039 920407  
PDR ADDCK 05000254  
S PDR

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LICENSEE EVENT REPORT (LER)

Form Rev 2.0

Facility Name (1) Quad Cities Unit One  
Docket Number (2) 015000254  
Page (3) 1 of 04  
Title (4) RCIC 1-1301-49 Would Not Open Due To An Unknown Problem

Event Date (5) 11/2/91  
LER Number (6) 0105  
Report Date (7) 01/04/92  
Other Facilities Involved (8)  
Facility Names  
Docket Number(s) 015000011

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 Terry Barber, Regulatory Assurance Ext. 3103  
TELEPHONE NUMBER  
AREA CODE 309 654-2241

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

SUPPLEMENTAL REPORT EXPECTED (14)

Expected Submission Date (15) 1/4/92  
Yes (If yes, complete EXPECTED SUBMISSION DATE) X NO

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

ABSTRACT:

At 0528 hours on December 01, 1991, Unit One was in the Shutdown Mode at 0 percent rated core thermal power. The Reactor Core Isolation Cooling (RCIC) system was being tested to prove valve operability. While performing Temporary Procedure 7253 "Switchgear Operations for Modification MO4-(1)2-091-034", the RCIC 1-1301-49 pump discharge valve failed to open.

The cause of this event is unknown. The Nuclear Station Operator (NSO) cycled the 1-1301-48 pump discharge valve, then successfully cycled the 1-1301-49 valve.

On January 24, 1992 the station received a severity level IV violation in Inspection Report 254/91024; 265/91020 for failing to report this event as a Licensee Event Report (LER) in accordance with the requirements for 10CFR50.73(a)(2)(v)(D). This report is being submitted to fulfill this requirement.

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								
Quad Cities Unit One	0   5   0   0   0   2   5   4	9   2	-	0   0   5	-	0   1	0   2	OF	0   4					
TEXT Energy Industry Identification System (EIS) codes are identified in the text as [XX]														

# PLANT AND SYSTEM IDENTIFICATION:

General Electric - Boiling Water Reactor - 2511 MWT rated core thermal power

EVENT IDENTIFICATION: RCIC 1-1301-49 would not open due to an unknown problem.

## A. CONDITIONS PRIOR TO EVENT:

Unit: One                                      Event Date: December 01, 1991    Event Time: 0528  
Reactor Mode: 1                                Mode Name: SHUTDOWN                      Power Level: 00%

This report was initiated by Deviation Report D-4-1-92-0.5

SHUTDOWN (1) - In this position, a reactor scram is initiated, power to the control rod drives is removed, and the reactor protection trip systems have been deenergized for 10 seconds prior to permissive for manual reset.

## B. DESCRIPTION OF EVENT:

At 0528 hours on December 1, 1991, Quad Cities Unit One was operating in the shutdown mode at approximately 0 percent Reactor Core Thermal (RCT) power.

The Reactor Core Isolation Cooling (RCIC) Motor Operated (MO) Pump Discharge Valve 1-1301-49 was in the closed position and the motor operated (MO) Pump Discharge Valve 1-1301-48 was in the open position.

The NSO was performing Temporary Procedure 7253 (switchgear operations for modification MO4-(1)2-091-034), Step 71g. Valve 1-1301-49 failed to display dual light indication on the 901-4 panel, when the NSO tried to open to valve.

The NSO closed the 1-1301-48 valve. He then made three unsuccessful attempts to open the 1-1301-49 valve. The 1-1301-48 valve was then opened and closed (1 cycle). Afterwards, the NSO successfully opened and closed the 1-1301-49 valve three times.

At 0600 hours Temporary Procedure 7253 was completed.

The Electrical Maintenance (EM) Department was notified of the problem and Nuclear Work Request (NWR) #QD6681 was initiated on 12/01/91 to investigate the 1-1301-49 valve problem.

A Total Job Management (TJM) search of work requests between the April 24, 1991 test and the failure of the valve on December 1, 1991 revealed no work having been done on the valve.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION												Form Rev. 2.0													
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						Year	Sequential Number	Revision Number																	
Quad Cities Unit One		0	1	5	0	0	0	0	2	5	4	9	2	-	0	0	5	-	0	1	0	3	Of	0	4
TEXT Energy Industry Identification System (EIIIS) codes are identified in the text as [XX]																									

On January 24, 1992 the station received a severity level IV violation in Inspection Report 254/91024; 265/91020 for failing to report this event as an LER in accordance with the requirements for 10CFR50.73(a)(2)(v)(D).

C. APPARENT CAUSE OF EVENT:

This event is being reported according to 10CFR50.73(a)(2)(v)(D). The licensee shall report any event or condition that alone could have prevented the fulfillment of the safety function of structures or systems that are needed to mitigate the consequences of an accident. This report is being submitted to fulfill this requirement.

The exact cause of this event is unknown. The EM departments investigation checked the overload relay, the cubicle aux contacts and performed a strip chart of the motor current and an inspection of the heater cubicle. No abnormalities were found that could be attributed to this failure

D. SAFETY ANALYSIS OF EVENT:

The safety of the public and plant personnel was not affected during this event.

At the time of the event, the reactor was in the Shutdown Mode at 0 percent Reactor Core Thermal Power. RCIC is not required to be operable per Tech Specs 3.5.E/4.5.E.

The RCIC system automatically initiates on reactor low-low water level (-59 inches) [JE] and is designed to provide core cooling water in the event the reactor becomes isolated from the main condenser simultaneously with a loss of the reactor feedwater system.

Valves 1-1301-48 and 1-1301-49 are the RCIC pump discharge valves. The two valves are installed in series and only one is closed at any time during normal standby operation. If valve 1-1301-49 remained closed and an actual auto-initiation had occurred, a failure of this type could have prevented RCIC from injecting into the vessel. However, all three Emergency Core Cooling Systems (ECCS) were available throughout this event to supply make-up water to the vessel in an emergency. These include High Pressure Coolant Injection (HPCI) [BJ], Core spray [BM] and Low Pressure Coolant Injection (LPCI) mode of Residual Heat Removal (RHR) [BO]. These systems could have adequately protected the core.

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						Year		Sequential Number		Revision Number													
Quad Cities Unit One		0	5	0	0	0	2	5	4	9	2	-	0	0	5	-	0	1	0	4	of	0	4

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

E. CORRECTIVE ACTIONS:

The corrective actions for the failure of the MO-1-1301-49 valve consisted of cycling the MO-1-1301-48 valve and then successfully stroking the 1-1301-49 valve for three complete cycles. NWR #Q96681 was then initiated to investigate the 1-1301-49 valve. The NWR was cancelled and no work was done. The EM Department initiated a second NWR #Q96731 on 12/04/91. EM personnel investigated the failure of the valve and could not determine the cause. The EM technician reset the overload relay even though it did not appear to be tripped.

The EM Department connected a strip chart recorder to monitor/record the operating voltage across the contacts in the MCC once per week for the first four weeks, then once per month. Analysis of the chart readings to present indicates that the valve has functioned properly for the five cycles that the valve has been operated. In an effort to ascertain the failure mode strip chart recorder monitoring of the valve is continuing and is planned to continue once per month until an outage of sufficient duration occurs which will allow work to be done on the cubicle. The cubicle will then be inspected and overhauled on NWR #Q93221(NTS #2542009201501). If the exact cause is determined, a supplemental report will be submitted(NTS #2542009201502).

F. PREVIOUS EVENTS:

A search was performed of previous events where the RCIC 1301-49 valve failed. One occurrence was identified.

Licensee Event Report 1-91-029	RCIC 1-1301-49 valve would not open, the cause of this event is unknown
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G. COMPONENT FAILURE DATA:

No search of the Nuclear Plant Reliability Data System (NPRDS) was performed since there was no specific component failure identified in this event.