

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Quad-Cities Nuclear Power Station, Unit 1										DOCKET NUMBER (2) 0 5 0 0 0 2 5 4										PAGE (3) 1 OF 0 3																													
TITLE (4) HPCI Turbine Could Not Be Reset																																																	
EVENT DATE (5) MONTH DAY YEAR 0 2 0 5 8 5										LER NUMBER (6) SEQUENTIAL NUMBER REVISION NUMBER 0 0 1 0 0 2 2 8 8 5										REPORT DATE (7) MONTH DAY YEAR 0 2 2 8 8 5										OTHER FACILITIES INVOLVED (8) FACILITY NAMES DOCKET NUMBER(S) NA 0 5 0 0 0 0																			
OPERATING MODE (9) 4										THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5: (Check one or more of the following) (11)																																							
POWER LEVEL (10) 0 9 3										20.402(b)										20.406(c)										50.73(a)(2)(iv)										73.71(b)									
										20.406(a)(1)(i)										50.36(e)(1)										<input checked="" type="checkbox"/> 50.73(a)(2)(v)										73.71(a)									
										20.406(a)(1)(ii)										50.36(e)(2)										50.73(a)(2)(vi)										OTHER (Specify in Abstract below and in Text, NRC Form 365A)									
										20.406(a)(1)(iii)										50.73(a)(2)(i)										50.73(a)(2)(vii)(A)																			
										20.406(a)(1)(iv)										50.73(a)(2)(ii)										50.73(a)(2)(vii)(B)																			
										20.406(a)(1)(v)										50.73(a)(2)(iii)										50.73(a)(2)(x)																			
LICENSEE CONTACT FOR THIS LER (12)																																																	
NAME Scott Reynolds															TELEPHONE NUMBER AREA CODE 3 0 9 6 5 4 - 2 2 4 1																																		
COMPLETE - LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)																																																	
CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPROS		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPROS		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPROS		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPROS		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPROS																					
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SUPPLEMENTAL REPORT EXPECTED (14)															EXPECTED SUBMISSION DATE (15)																																		
<input type="checkbox"/> YES (If yes, complete EXPECTED SUBMISSION DATE)															<input checked="" type="checkbox"/> NO																																		

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

On February 5, 1985, Unit 1 was operating at 93 percent thermal power. At 0045 hours, during the performance of the HPCI Pump Operability test, QOS 2300-2, the High Pressure Coolant Injection (HPCI) (BJ) Turbine could not be reset from the Control Room. HPCI was declared inoperable. At 0238 hours a Generating Station Emergency Plan (GSEP) Unusual Event was declared when the decision was made to shutdown.

The cause of this event was the failure of the HPCI Turbine trip and reset solenoid valves of the HPCI Stop Valve. The cause of the failure was corrected and the GSEP Unusual Event was terminated at 1703 hours on February 5, 1985.

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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

APPROVED OMB NO 3150-0104

EXPIRES 8/31/85

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
Quad-Cities Nuclear Power Station, Unit 1	0 5 0 0 0 2 5 4 8 5	—	0 0 1	—	0 0	0 2	OF 0 3

TEXT (If more space is required, use additional NRC Form 366A's) (17)

Event Description

On February 5, 1985, at 0045 hours, Unit 1 was in the RUN mode and operating at 93 percent thermal power. During the performance of QOS 2300-2, HPCI Pump Operability, it was found that the High Pressure Coolant (HPCI)(BJ) Turbine could not be reset from the Control Room. The HPCI System was immediately declared inoperable. Testing of the Residual Heat Removal (BO), Core Spray (BM), and Reactor Core Isolation Cooling (BN) Systems in accordance with Technical Specification 4.5.C.2 were initiated while the Shift Foreman investigated the problem. The Shift Foreman was able to reset and trip the Turbine manually several times at the Turbine, but not from the Control Room.

Work Request Q40203 was written to investigate and correct the problem. At 0238 hours the decision to shutdown was made, and a Generating Station Emergency Plan (GSEP) Unusual Event was declared due to the unit shutdown because of a limiting condition for operation. The Unusual Event was terminated at 1703 hours on February 5 when the problem had been corrected, and HPCI was declared operable.

This report is being submitted as required by the Code of Federal Regulations, Title 10, Part 50.73(a)(2)(v).

Cause

The cause of this occurrence was the failure of the Turbine trip and reset solenoid valves (PSV) for the HPCI Stop Valve. The solenoid valves failed because of a broken termination point through which power is fed to the valve's solenoids. It is believed that the termination point broke because of mechanical failure; the wires connected to the terminal point were poorly secured to the solenoid housing and the vibration associated with HPCI operation eventually led to the failure of the termination point. The Turbine reset and trip solenoid valves are manufactured by Barksdale, Catalog No. 178250HC2D4, and 178250H02D4.

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Quad-Cities Nuclear Power Station, Unit 1	0 5 0 0 0 2 5 4 8 5 -	0 0 1	-	0 0	0 3	OF	0 3

TEXT (If more space is required, use additional NRC Form 388A's) (17)

Corrective Action

Immediate corrective action was to declare HPCI inoperable and begin the necessary surveillances. Further corrective actions were to repair the termination and to secure the wires to the solenoid housing in order to prevent future recurrences. The solenoid valves were then functionally tested by tripping and resetting the HPCI Turbine three times from the Control Room. HPCI was inoperable for approximately 16 hours. Work Request Q40285 was written to inspect the solenoid valves on the Unit 2 HPCI.

This is the first failure of the HPCI Turbine trip and reset solenoid valves. The corrective action taken is deemed adequate to prevent future occurrences.



Commonwealth Edison

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NJK-85-67

February 28, 1985

U. S. Nuclear Regulatory Commission
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Washington, DC 20555

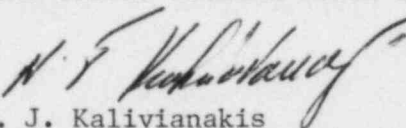
Reference: Quad-Cities Nuclear Power Station
Docket Number 50-254, DPR-29, Unit One

Enclosed please find Licensee Event Report (LER) number 85-001, Revision 0, for Quad-Cities Nuclear Power Station.

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

Respectfully,

COMMONWEALTH EDISON COMPANY
QUAD-CITIES NUCLEAR POWER STATION


N. J. Kalivianakis
Station Superintendent

NJK:HQD/bb

Enclosure

cc B. Rybak
A. Madison
INPO Records Center
NRC Region III

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11