

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Quad-Cities Nuclear Power Station, Unit 2										DOCKET NUMBER (2) 0 5 0 0 0 2 6 5				PAGE (3) 1 OF 0 3									
TITLE (4) Unit 2 Shutdown to Repair Electromatic Relief Pilot Valve																							
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 None				DOCKET NUMBER(S)										
0	5	0	8	8	4	8	4	0	0	5	0	0	0	5	2	2	8	4	0	5	0	0	0
OPERATING MODE (9) 3		THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR § (Check one or more of the following) (11)																					
POWER LEVEL (10) 0 1 0 1		20.402(b)				20.405(c)				50.73(a)(2)(iv)				73.71(b)									
		20.405(a)(1)(i)				50.36(c)(1)				50.73(a)(2)(v)				73.71(e)									
		20.405(a)(1)(ii)				50.36(c)(2)				50.73(a)(2)(vii)				OTHER (Specify in Abstract below and in Text, NRC Form 366A)									
		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)(ix)													
LICENSEE CONTACT FOR THIS LER (12)																							
NAME J. Carney										TELEPHONE NUMBER 3 0 9 6 5 4 - 2 2 4 1													
COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)																							
CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPDOS		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPDOS													
X	S	B	I	P	C	V	D	2	4	5	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)

During normal unit startup, following a routine Maintenance Outage, Electromatic Relief Valve 2-203-3C was found to have a leaking pilot valve. Relief Valve 2-203-3E also had an abnormally high discharge line temperature. Examination of the pilot valve assembly revealed steam cutting of the valve seat and disc surfaces. The 2-203-3C Electromatic Relief Valve pilot valve assembly was replaced with a new assembly and, as a preventative maintenance measure, the 2-203-3E Electromatic Relief Valve pilot valve assembly was also replaced.

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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

APPROVED OMB NO. 3150-0104

EXPIRES: 8/31/85

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

Event Description

On May 8, 1984, following a routine Maintenance Outage, Unit Two was in normal STARTUP mode at approximately one percent thermal power and holding at 30 pounds Reactor pressure. At 1715 hours, alarm E-14 was received on Panel 902-3, "Acoustic Monitor Safety Relief Valve Open". Also, valve leak detection recorder (2-260-20) indicated a high discharge line temperature for Electromatic Relief Valve 2-203-3C.

A Drywell entry was made to check the pilot valve on the 2-203-3C Relief Valve. Visual examination revealed no external leakage but steam could be heard passing through the pilot valve's discharge line. Also, the discharge line of the 2-203-3E pilot valve was found to be abnormally warm. It was decided that replacement of the 3C pilot valve would rectify the leakage problem and the 3E pilot valve would be replaced as a preventative maintenance measure. Work Requests Q34724 and Q34725 were written to replace these valves. At 1910 hours Unit Two was shutdown for the valve replacements.

Cause

The cause of this event was equipment failure. The two pilot valves were removed and overhauled under Work Requests Q34748 and Q34749. After disassembly, the seating surfaces of the valves were found to have several scored areas. The scoring of the seat and disc surfaces is attributed to dirt accumulating between the two surfaces. When this occurs the valve does not seat properly and the action of steam passing through the seating area scores (steam cuts) the surfaces. Both the 2-203-3C and 3E Relief Valves were at all times fully operable and would have performed their designed functions, if needed.

The pilot valves are manufactured by Dresser Industries, and are Model C-5512.

Corrective Action

Two new pilot valves were tested, and installed on the 3C and 3E Electromatic Relief Valves. The new pilot valves were stroke tested three times and proved to be operating properly. On May 9, 1984, at 1430 hours, with Reactor pressure at 920 pounds, QOS 201-1, "Manual Operation of Electromatic Relief Valves", was successfully performed on the 2-203-3C and 3E Relief Valves.

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

Corrective Action (continued)

Because Electromatic Relief Valve pilots have experienced seat leakage in the past, present procedures call for monitoring relief valve discharge line temperatures very closely and recording each valve's temperature daily. In addition, during each refueling outage, all relief valve pilots are removed and replaced with either new or rebuilt assemblies.

Close attention to relief valve discharge line temperatures, as in this case, and the practice of replacing all relief valve pilots during each refuel outage has prevented pilot valve seat leakage as a mode of Electromatic Relief Valve failure.



Commonwealth Edison

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NJK-84-176

May 23, 1984

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

Reference: Quad-Cities Nuclear Power Station
Docket Number 50-265, DPR-30, Unit Two

Enclosed please find Licensee Event Report Number (LER)
84-005, 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)(i), concerning the completion of any nuclear
plant shutdowns required by the plant's Technical Specifica-
tions.

Respectfully,

COMMONWEALTH EDISON COMPANY
QUAD-CITIES NUCLEAR POWER STATION

N. J. Kalivianakis
Station Superintendent

NJK:JV/bb

Enclosure

cc B. Rybak
A. Morrongiello
INPO Records Center
NRC Region III
ANI Library

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