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ComEd

September 13, 2000

SVP-00-130

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555

Quad Cities Nuclear Power Station, Units 1 and 2
Facility Operating License Nos. DPR-29 and DPR-30
NRC Docket Nos. 50-254 and 50-265

Subject: Supplemental Licensee Event Report Concerning Trip of Safety-Related Control Room Emergency Ventilation System Refrigeration Control Unit

Enclosed is Licensee Event Report (LER) 254/00-004, 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.

We are committing to the following actions:

A Preventive Maintenance Task will be implemented to replace the Control Room Emergency Ventilation (CREV) system Refrigeration Control Unit (RCU) local control switch in a year.

The CREV system RCU local control switch will be inspected after replacement to determine whether the replacement frequency can be changed.

Training on this root cause report will be provided to the Engineering Department as a lesson learned in troubleshooting.

Any other actions described in the submittal represent intended or planned actions by Commonwealth Edison (ComEd) Company. They are described for the NRC's information and are not regulatory commitments.

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Should you have any questions concerning this letter, please contact Mr. C.C. Peterson at (309) 654-2241, extension 3609.

Respectfully,

George P. Barnes for

Joel P. Dimmette, Jr.
Site Vice President
Quad Cities Nuclear Power Station

cc: Regional Administrator – NRC Region III
NRC Senior Resident Inspector – Quad Cities Nuclear Power Station

bcc: Project Manager – NRR
Office of Nuclear Facility Safety, - IDNS
Senior Reactor Analyst – IDNS
Resident Inspector - IDNS
Manager of Energy Practice – Winston and Strawn
Director, Licensing and Compliance – ComEd
Vice President, Regulatory Services– ComEd
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Regulatory Assurance Manager – Quad Cities Nuclear Power Station
NRC Coordinator – Quad Cities Nuclear Power Station
NSRB Site Coordinator – Quad Cities Nuclear Power Station
Site Vice President Quad Cities Nuclear Power Station
Station Manager Quad Cities Nuclear Power Station
SVP Letter File

NRC FORM 366 (6-1998) U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB NO. 3150-0104
EXPIRES 06/30/2001

Estimated burden per response to comply with this mandatory information collection request: 50 hrs. Reported lessons learned are incorporated into the licensing process and fed back to industry. Forward comments regarding burden estimate to the information and Records Management Branch (t-6 f33), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, and to the Paperwork Reduction Project (3150-0104), Office Of Management And Budget, Washington, DC 20503. If an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
Quad Cities Nuclear Power Station, Unit 1	05000254	1 of 3

TITLE (4)
Trip of Safety-Related Control Room Emergency Ventilation System Refrigeration Control Unit

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 NAME	DOCKET NUMBER
									Quad Cities Nuclear Power Station, Unit 2	05000265
05	19	2000	2000	004	01	09	13	2000	FACILITY NAME: N/A	DOCKET NUMBER: N/A

OPERATING MODE (9)	1	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR § (Check one or more) (11)							
POWER LEVEL (10)	100		20.2201(b)		20.2203(a)(2)(v)		50.73(a)(2)(i)		50.73(a)(2)(viii)
			20.2203(a)(i)		20.2203(a)(3)(i)		50.73(a)(2)(ii)		50.73(a)(2)(x)
			20.2203(a)(2)(i))		20.2203(a)(3)(ii)		50.73(a)(2)(iii)		73.71
			20.2203(a)(2)(ii)		20.2203(a)(4)		50.73(a)(2)(iv)		OTHER
			20.2203(a)(2)(iii)		50.36(c)(1)	X	50.73(a)(2)(v)		Specify in Abstract below or in NRC Form 366A
			20.2203(a)(2)(iv)		50.36(c)(2)		50.73(a)(2)(vii)		

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER (Include Area Code)
Charles Peterson, Regulatory Assurance Manager	(309) 654-2241 ext 3609

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX
A	VI	HS	G080	Yes						

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 15 single-spaced typewritten lines) (16)

On May 19, 2000, during performance of QCOS 5750-02, "Control Room Emergency Filtration Monthly Test," the safety related control room emergency ventilation (CREV) refrigeration control unit (RCU) tripped due to a loose local control switch cam follower retaining screw. The CREV RCU was declared inoperable and at 1334 hours a 4-hour Emergency Notification System phone call was made in accordance with 10CFR50.72(b)(2)(iii)(D).

On May 23, 2000, while the switch was being verified to operate correctly, it was discovered that the switch had been incorrectly assembled on December 16, 1999. The switch was reassembled correctly and tested.

The root cause for this event was determined to be an inadequate decision during a troubleshooting effort. A previous occurrence involving the loose retaining screw had not been adequately investigated.

The switch was replaced. Further corrective actions include replacement and inspection of the switch in one year, determination of further replacement frequency based on the inspection, and training for the Engineering department concerning troubleshooting.

The safety significance of this event was minimal. The CREV system filtration capability was not lost, control room temperature was maintained during the event, and the non-safety related train of control room ventilation was operable throughout this event.

PLANT AND SYSTEM IDENTIFICATION:

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

Energy Industry Identification System (EIIS) Codes are identified in the text as [XX] and are obtained from IEEE Standard 805-1984, IEEE Recommended Practice for System Identification in Nuclear Power Plants and Related Facilities.

EVENT IDENTIFICATION:

Trip of Safety-Related Control Room Emergency Ventilation System Refrigeration Control Unit

A. PLANT CONDITIONS PRIOR TO EVENT:

Unit: 1	Event Date: May 19, 2000	Event Time: 1045 hours
Reactor Mode: 1	Mode Name: Power Operation	Power Level: 100

Power Operation (1) - Mode switch in the RUN position with average reactor coolant temperature at any temperature.

B. DESCRIPTION OF EVENT:

On May 19, 2000, during performance of QCOS 5750-02, "Control Room Emergency Filtration Monthly Test," the safety related control room emergency ventilation (CREV) [VI] refrigeration control unit (RCU) tripped on low suction pressure. Subsequent investigation revealed that the RCU local control switch [HS] cam follower retaining screw was loose. This rendered the CREV RCU inoperable. A 4-hour Emergency Notification System phone call was made in accordance with 10CFR50.72(b)(2)(iii)(D) at 1334 hours.

On May 23, 2000, an operability determination was completed with interim corrective actions. The operability determination included a compensatory action to verify weekly that the switch operated correctly. While this action was initially being implemented, it was discovered that the cam follower was not installed correctly during a previous event. Interface of the switch and cam was worn, and the snaplock ball had fallen from its proper location into the switch. The switch was reassembled correctly and tested.

Previously, the switch failed on December 13, 1999 (reference LER 254/99005). The root cause arrived at for that event was malfunction of the switch cam follower because it was loose. Consequently, corrective actions included installing a new contact assembly, adjusting the cam follower, inspecting other switches in the plant, and implementing a preventive maintenance task. The fact that the interface of the switch and cam was worn, and the snaplock ball had fallen from its proper location into the switch was not identified. No work was performed on the switch subsequent to the December 16, 1999, work.

C. CAUSE OF EVENT:

The root cause for this event was determined to be an inadequate decision during the troubleshooting effort for the December 13, 1999, failure of the switch. When it was determined that the retaining screw was loose, the decision was made by Engineering to halt the troubleshooting effort rather than seeking additional expertise and examining the switch for further degradation in the cam assembly. This led to the May 19, 2000, failure due to the wear and misalignment of the cam follower.

D. SAFETY ANALYSIS

The safety significance of this event was minimal. The CREV system filtration capability was not lost, and control room temperature was maintained during this event. In addition, the non-safety related train of control room ventilation was operable throughout this event.

E. CORRECTIVE ACTIONS:

Corrective Action Completed:

The switch was reassembled correctly and tested on May 23, 2000. On June 7, 2000, the switch was replaced.

Corrective Actions to be Completed:

A Preventive Maintenance Task will be implemented to replace the CREV system RCU local control switch in a year.

The CREV system RCU local control switch will be inspected after replacement to determine whether the replacement frequency can be changed.

Training on this root cause report will be provided to the Engineering Department as a lesson learned in troubleshooting.

F. PREVIOUS OCCURRENCES:

Licensee Event Report 254/99-005 described a trip of the CREV RCU due to a loose cam follower retaining screw. This is the December 13, 1999, event referred to in the Root Cause section of this LER. The corrective actions from that event were inadequate in that the troubleshooting for that event did not identify the wear on the switch and the misalignment of the cam follower. Training for the Engineering Department concerning this event is discussed in the Corrective Actions section.

G. COMPONENT FAILURE DATA:

The switch is a General Electric CR 2940 control switch.