



Commonwealth Edison

Quad Cities Nuclear Power Station
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RLB-93-038

February 23, 1993.

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

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

Enclosed is Licensee Event Report (LER) 93-004, 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)(i)(B). The
licensee shall report any operation or condition prohibited by the
plant's Technical specification.

Respectfully,

COMMONWEALTH EDISON COMPANY
QUAD CITIES NUCLEAR POWER STATION

R.L. Bax
Station Manager

RLB/TB/as

Enclosure

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

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LICENSEE EVENT REPORT (LER)

Form Rev 2.0

Facility Name (1)

Docket Number (2)

Page (3)

Quad Cities Unit Two

0 | 5 | 0 | 0 | 0 | 2 | 6 | 5 | 1 | of | 0 | 5

Title (4)

Missed Off Gas Recombiner Technical Specification Surveillances (4.8.A.5) Due To Personnel Error

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 1 1 4 9 3 9 3				0 0 4	0 1	0 2 2 7 9 3				0 5 0 0 0 0 1 1

OPERATING
MODE (9)THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10CFR
(Check one or more of the following) (11)

POWER LEVEL (10)	0 7 4	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(c)
		20.405(a)(1)(ii)	50.36(c)(2)	50.73(a)(2)(vii)	Other (Specify
		20.405(a)(1)(iii)	X 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	TELEPHONE NUMBER
Terry Barber, Regulatory Assurance, Ext. 3103	AREA CODE 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 NPRDS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS

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)

ABSTRACT:

On January 14, 1993 at 0100 hours, Unit Two was in the RUN mode at 74 percent of rated core thermal power. The shift one Nuclear Station Operator (NSO) noticed that the recombinder temperatures had not been verified to be in the allowable band during the previous four shifts as required by Technical Specification 4.8.A.5.

The missed surveillance was caused by personnel error with inadequate procedures as a contributing cause. The Nuclear Station operators confused two different Off Gas system surveillance requirements when they assumed that the recombinder temperatures did not have to be verified while the reactor was at less than thirty percent of rated core thermal power.

This event will be tailgated with all operating personnel. Procedures and surveillance sheets used to verify that the recombinder temperature was within limits will also be revised.

This report is being written in accordance with 10CFR50.73(a)(2)(i)(b): The licensee shall report any operation or condition prohibited by the plant's Technical Specifications.

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 Two	0 5 0 0 0 2 6 5	9 3	-	0 0 4	-	0 1	0 2 OF 0 5

TEXT Energy Industry Identification System (EIIS) 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: Missed Off Gas Recombiner Technical Specification surveillances (4.8.A.5) due to personnel error.

A. CONDITIONS PRIOR TO EVENT:

Unit: Two Event Date: January 14, 1993 Event Time: 0100
Reactor Mode: 4 Mode Name: RUN Power Level: 74%

This report was initiated by Deviation Report D-4-2-93-006.

RUN Mode (4) - In this position the reactor system pressure is at or above 825 psig, and the reactor protection system is energized, with APRM protection and RBM interlocks in service (excluding the 15% high flux scram).

B. DESCRIPTION OF EVENT:

On January 14, 1993 at 0100 hours, Unit Two was in the RUN mode at 74 percent of rated core thermal power. The shift one Nuclear Station Operator (NSO) noticed that the Unit Two Recombiner [RCB] apparently had not been verified to be within allowable band during the previous four shifts. The NSO's are required to compare the current recombinder temperatures from the temperature recorder (2-5440-7) [TR] to the base-line plot of Recombiner Outlet Temperature vs. Reactor Power (QOP 5400-T7). This is required to be performed once every eight hours in accordance with Technical Specification 4.8.A.5 and is documented by initialling form QOS 005-S19, Operations Department Weekly Summary of Daily Surveillances Unit Two.

The original Licensee Event Report (LER) was issued on February 8, 1993. However, subsequent discussions with the operators who performed the shift surveillances indicate that the original LER was inaccurate. The following accurately describes the event.

The NSO who was working on the afternoon shift on January 12, 1993 was starting the unit up after a short outage and was using QCGP 1-1 "Normal Unit Startup" procedure. Per this procedure when reactor pressure reached 900 psig the NSO was to verify that the operating Off-Gas Recombiner is within the baseline plot of Recombiner outlet temperature versus Reactor power. At this time he was unable to verify this because the graph contained in QOP 5400-T7, which is used to verify the explosive gas mixture, does not go below 25% rated reactor power. At this time he asked the Shift Engineer (SE) and Shift Control Room Engineer (SCRE) to check and verify this item. The SE and SCRE intrapolated the graph and determined the Off-Gas Recombiner was within the limits and signed off the step in QCGP 1-1. The NSO then signed off the step in QOS 005-S1 as < 30% because the graph does not indicate well below the 30% reactor power line.

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 Two	0 5 0 0 0 2 6 5	9 3	-	0 0 4	-	0 1	0 3	OF	0 5	

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On the midnight shift on January 13, 1993 the NSO also wrote < 30% power on QOS 005-S1. Because the previous shift had written < 30% power in the blank this NSO confused the requirements of step 19 of QOS 005-1 which is required above 900 psig reactor pressure and step 21 which is required above 30% power. The NSO did look at the temperature recorder but did not verify that the temperature was within the limits.

The day shift NSO verified that the recombiner was within its limits by requesting a digital printout from the 2-5440-3 recorder. After verifying the temperature was within the band he went to initial QOS 005-1. Upon seeing that the previous two shifts had logged < 30% this caused him to confuse the requirements for recombiner operability (step 19) with the adsorber Bed Valve line-up (step 21). Although the NSO incorrectly logged < 30% power on QOS 005-S1 he did verify the recombiner was operating within its limits.

The afternoon shift NSO on January 13, 1993 also verified the recombiner temperature was within the limits of QOP 5400-T7. Because the chart does not provide data below 25% the NSO reviewed QOS 005-1 for guidance. The procedure does not indicate at what power or pressure this step is required. Since the Unit was only at 27% power and the previous NSO's had written < 30% this NSO also wrote < 30% power.

On January 14, 1993 at 0100 the midnight shift NSO determined that the previous four shifts had incorrectly logged < 30% for step 19 of QOS 005-S1. After consulting with the SCRE and the previous midnight shift NSO it was determined that a required Technical Specification requirement had been missed.

A review of the recorder data revealed that during all the shifts in question the recombiner was within the limits required for T.S. 4.8.A.5.

C. APPARENT CAUSE OF EVENT:

This report is being written in accordance with 10CFR50.73(a)(2)(i)(b): The licensee shall report any operation or condition prohibited by the plant's Technical Specifications.

The cause of this event is personnel error. The personnel error occurred when the NSO on the midnight shift on January 13, 1993 failed to check the recombiner temperatures and wrote < 30% instead of initialing the surveillance. The other NSO's although incorrectly initialing step 19 on QOS 005-S1 did verify that the recombiner temperature was within limits.

A contributing cause to this event is inadequate procedures. When the first NSO logged < 30% on step 19 of QOS 005-S1 it was to indicate that the graph was not useful under 30% power. This log entry and the lack of guidance in QOS 005-1 caused the next three NSO's to also log < 30% on step 19 of QOS 005-S1.

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 Two		0	5	0	0	0	2	6	5	9	3	-	0	0	4	-	0	1	0	4	OF	0	5
TEXT Energy Industry Identification System (EIIIS) codes are identified in the text as [XX]																							

D. SAFETY ANALYSIS OF EVENT:

The safety consequences of this event were minimal because the recombiner was still performing its design function. This was shown by the increase in the recombiner temperature on the recombiner temperature recorder and by the lack of hydrogen present in the Off Gas system documented on the hydrogen analyzer recorder.

In addition, Technical Specification 3.8.A.5 allows the recombiner to be inoperable for 48 hours and the recombiner was never out of its allowable band.

E. CORRECTIVE ACTIONS:

The immediate corrective action was to have the NSO verify that the recombiner was within the allowable band for the current operating conditions. The NSO then notified the SCRE of the situation and a DVR was initiated.

QOS 005-S19 and S1 will be revised to specifically state that the recombiner must be verified to be in the allowable band whenever the reactor pressure is above 900 psi (NTS #2652009300601). Recombiner temperature profile curves QOP 5400-T4, T5, T6 and T7 have been revised to include an allowable band for rated core thermal powers less than 25 percent.

This event will be tailgated with all operating personnel stressing the need for questioning attitude when reviewing previous shift surveillance sheets (NTS #2652009300602). This event will also be discussed with all Shift Engineers and SCRE's identifying what is expected of them when they review the NSO surveillance sheets (NTS #2652009300603).

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 Two	0 5 0 0 0 2 6 5	9 3	-	0 0 4	-	0 1	0 5	QF	0 5
TEXT Energy Industry Identification System (EIIS) codes are identified in the text as [XX]									

F. PREVIOUS EVENTS:

A search of previous events over the last three years, found the following as missed Technical Specification surveillances due to personnel error.

- LER 1-92-016 Missed Tech Spec. Surveillance on Fire Valve 1-4199-72 not being verified during QOS 4100-S3 due to a personnel error during the review process.
- LER 2-91-013 Entering EGC without performing the required surveillance due to a personnel error.
- LER 1-91-020 Missed Off Gas Recombiner Technical Specification Surveillance (4.8.A.5) due to personnel error.
- LER 1-90-019 Missed T.S. surveillances on the main steam line radiation monitors due to operator misjudgments.
- LER 1-90-024 Missed T.S. surveillance for continuous fire watch to personnel inattention.

The corrective actions for these events involved counselling the individuals involved. The personnel error committed by the NSO's was different and not related to the previous missed recombinder surveillance. This event is not considered to be related to any of the other four previous event identified.

G. COMPONENT FAILURE DATA:

This event was not caused by a component failure.