



Commonwealth Edison

Quad Cities Nuclear Power Station
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ATTACHMENT 2

GGC-94-079

May 16, 1994

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 is Licensee Event Report (LER) 94-008, Revision 00, for Quad Cities Nuclear Power Plant Station.

This report is submitted in accordance with the requirements of the Code of Federal Regulations, Title 10, Part 50.73(a)(2)(ii)(B). Any event or condition that resulted in the condition of the nuclear power plant, including its principal safety barriers being seriously degraded or that resulted in the nuclear plant being in a condition that was outside the design basis of the plant.

The following commitments are being made by this letter:

- Stroking of the AO 2-220-45 valve will be performed at varying frequencies to ensure the failure does not recur due to inactivity.
- At the next outage of sufficient duration, the valves and valve operators will be disassembled and inspected.
- A supplemental report, including any additional corrective actions determined, will be submitted upon the completion of the investigation.

If there are any questions or comments concerning this letter, please refer them to Nick Chrissotimos, Regulatory Assurance Administrator at 309-654-2241, ext. 3100.

Respectfully,

COMMONWEALTH EDISON
QUAD CITIES NUCLEAR POWER STATION

G. G. Campbell
Station Manager

GGC/TB/plm

Enclosure

cc: J. Schrage
C. Miller
INPO Records Center
NRC Region III

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LICENSEE EVENT REPORT (LER)

Form Rev. 2.0

Facility Name (1) Quad Cities Unit Two										Docket Number (2) 0 5 0 0 0 2 6 5										Page (3) 1 of 0 4																													
Title (4) Inboard And Outboard Reactor Recirculation Sample Isolation Valve AO-2-220-44 And 45 Failure To Close During Quarterly Surveillance.																																																	
Event Date (5) Month: 04, Day: 17, Year: 94										LER Number (6) Sequential Number: 008, Revision Number: 00										Report Date (7) Month: 05, Day: 16, Year: 94										Other Facilities Involved (8) Facility Names: , Docket Number(s): 050000																			
OPERATING MODE (9) 4										THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10CFR (Check one or more of the following) (11)																																							
POWER LEVEL (10) 0 9 5										<input type="checkbox"/> 20.402(b) <input type="checkbox"/> 20.405(a)(1)(i) <input type="checkbox"/> 20.405(a)(1)(ii) <input type="checkbox"/> 20.405(a)(1)(iii) <input type="checkbox"/> 20.405(a)(1)(iv)										<input type="checkbox"/> 20.405(c) <input type="checkbox"/> 50.36(c)(1) <input type="checkbox"/> 50.36(c)(2) <input type="checkbox"/> 50.73(a)(2)(i) <input checked="" type="checkbox"/> 50.73(a)(2)(ii) <input type="checkbox"/> 50.73(a)(2)(iii)										<input type="checkbox"/> 50.73(a)(2)(iv) <input type="checkbox"/> 50.73(a)(2)(v) <input type="checkbox"/> 50.73(a)(2)(vii)(A) <input type="checkbox"/> 50.73(a)(2)(vii)(B) <input type="checkbox"/> 50.73(a)(2)(viii)										<input type="checkbox"/> 73.71(b) <input type="checkbox"/> 73.71(c) <input type="checkbox"/> Other (Specify in Abstract below and in Text)									
LICENSEE CONTACT FOR THIS LER (12)																																																	
NAME Dan Brigi, Regulatory Assurance, Ext. 3115															TELEPHONE NUMBER 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 NRPDS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRPDS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRPDS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRPDS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRPDS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRPDS																				
X																																																	
SUPPLEMENTAL REPORT EXPECTED (14)																																																	
X YES (If yes, complete EXPECTED SUBMISSION DATE)															NO																																		
Expected Submission Date (15)															Month: , Day: , Year:																																		
ABSTRACT (Limit to 1400 spaces, i.e., approximately fifteen single-space typewritten lines) (16)																																																	

ABSTRACT:

At 0850 on 04/17/94, Unit-2 was in the Run mode at approximately 95% rated core thermal power. During performance of quarterly Reactor Recirculation System Air Operated Valve Testing (QCOS 202-12), the inboard and outboard Reactor Recirculation (RR) sample isolation valves AO 2-220-44 and 45 failed to close. Additional attempts to close both valves were successful.

The valves were declared inoperable due to failure to meet inservice inspection testing (IST) requirements.

The valves AO 2-220-44 and 45 were verified closed and taken out of service at 1000, on 4/17/94.

At 1140 the station made a 1 hour ENS phone call under 10CFR50.72(b)(1)(ii), degraded condition while operating.

The cause of the event and recommended corrective actions will be determined based on continuing testing and investigation. Further information will be provided as a supplement to this report.

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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 4 -	0 0 8 -	0 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: Inboard and outboard reactor recirculation sample isolation valves AO 2-220-44 and 45 failure to close during quarterly surveillance.

A. CONDITIONS PRIOR TO EVENT:

Unit: Two Event Date: April 17, 1994 Event Time: 0850
Reactor Mode: 04 Mode Name: RUN Power Level: 95

This report was initiated by Licensee Event Report 265\94-008.

RUN (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 EVENTS:

At 0850 on 04/17/94, Unit-2 was in the Run mode at approximately 95% of rated core thermal power. During performance of quarterly Reactor Recirculation System Air Operated Valve Testing (QCOS 202-12), the inboard Reactor Recirculation (RR) [AD] sample isolation valve AO 2-220-44 [SMV] failed to indicate closed (in the control room) when attempting to operate the valve.

The unit process computer indicated the valve had closed, however, open indication was noted on control panel 902-4. A second attempt to close the valve was successful, with closed indication from both the process computer and the control panel.

The valve AO 2-220-44 was reopened per procedure.

At 0853, the RR outboard sample isolation valve AO 2-220-45 was tested per the next step of QCOS 202-12. This valve also indicated closed on the process computer but failed to indicate closed on control panel 902-4.

Further closure attempts were made and on the fourth attempt the valve indicated closed on both the process computer and the control panel.

The valve AO 2-220-45 was reopened per procedure.

At approximately 0950 the valves were declared inoperable due to failure to meet inservice inspection testing (IST) requirements.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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TEXT Energy Industry Identification System (EIS) codes are identified in the text as [XX]

The Unit-2 Supervisor generated priority Nuclear Work Requests (NWR) #Q15877 and #Q15878 to investigate the event.

The valves AO 2-220-44 and 45 were closed and taken out of service at 1000, on 4/17/94. Isolation of the process sample line was verified by direct observation of no flow through the sample line at the sample sink.

After review of the event, the SE determined it was reportable at approximately 1045 on 4/17/94. At 1140 the station made a 1 hour ENS phone call to the NRC under 10CFR50.72(b)(1)(ii), degraded condition while operating.

Problem Identification Form (PIF) 94-967 was generated by the Operations Department on 4/17/94 to document the valves AO 2-220-44 and 45 failure to close.

C. CAUSE OF THE EVENT:

This event is being reported in accordance with 10CFR50.73(a)(2)(ii). The licensee shall report any serious degradation in the condition of the plant or safety barriers.

The investigation into the cause of the valves AO 2-220-44 and 45 failure to close is still in progress.

D. SAFETY ANALYSIS:

The failure of the valves AO 2-220-44 and 45 to close had no impact on the plant's operating conditions at the time of the event. There is limited safety significance due to both sample isolation valves failing to close during the first attempt.

Had a Design Basis Accident occurred simultaneously with a break in the RR sample line, the event is bound by FSAR analysis 15.6.2.. This section analyzes a scenario involving the reactor coolant pressure boundary and a 1 inch instrument line break outside of primary containment. The sample line isolated by AO 2-220-44 and 45 is a 3/4 inch line. Failure of valves AO 2-220-44 and 45 did not place the station in an unanalyzed condition.

E. CORRECTIVE ACTIONS:

The immediate corrective actions associated with this event were to declare the valves AO 2-220-44 and 45 inoperable.

The NRC was notified, and priority NWR's were generated to investigate the valves failure to close.

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TEXT Energy Industry Identification System (EIS) codes are identified in the text as [XX]

Recent failures of valve AO 2-220-45 to close were attributed to solenoid valve problems. The solenoid was replaced as a preventive action under NWR #Q15878, on 4/21/94. The removed solenoid was bench tested, and disassembled for internal inspection. No abnormalities were noted in respect to the bench test or internal inspection.

Continuing efforts to determine the cause of the event include investigation and testing of an appropriate stroking schedule for the valves and valve operators, as well as disassembly and inspection of the valves.

Stroking of valve AO 2-220-45 will be performed weekly, bi-weekly and then monthly to ensure the failure does not recur due to inactivity. Appropriate corrective actions for both the AO 2-220-44 and 45 valves will be determined based on the results of this testing (NTS# 2651809400801).

At the next outage of sufficient duration, the valves and valve operators will be disassembled and inspected. Appropriate corrective actions will be taken based on the results of the inspections (NTS# 2651809400802).

A supplemental report, including any additional corrective actions determined, will be submitted upon the completion of the investigation (NTS# 2651809400803).

The RR sample valves provide a primary containment isolation of the RR sampling pathway. With either valve inoperable, one valve must remain closed at all times. The valve AO 2-220-44 will remain out of service closed until corrective actions for valve AO 2-220-45 can be determined.

F. PREVIOUS OCCURRENCE:

After review of the Nuclear Tracking System data base, there were no LER's generated in the past three years which involved RR sample isolation valve failure on either unit at Quad Cities Station.

G. COMPONENT FAILURE DATA:

There has not been any specific failed component identified in this event to date.