



Commonwealth Edison

Quad Cities Nuclear Power Station
22710 206 Avenue North
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Telephone 309/654-2241

RLB-92-056

March 2, 1992

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

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

Enclosed is Licensee Event Report (LER) 92-003, Revision 00, 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)(ii). 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.

Respectfully,

COMMONWEALTH EDISON COMPANY
QUAD CITIES NUCLEAR POWER STATION

R. L. Bax
R. L. Bax
Station Manager

RLB/TB/plm

Enclosure

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

STM/R 304

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LICENSEE EVENT REPORT (LER)

Form Rev 2.0

Facility Name (1) Quad Cities Unit One
 Docket Number (2) 0151010021514
 Page (3) 1 of 0 4
 Title (4)

Unit One HPCI Suction Lube Oil Pressure Relief Line Pipe Hanger Found Outside FSAR Compliance Due To Unknown Causes

Event Date (5) Month Day Year Year LER Number (6) Sequential Number Revision Number Report Date (7) Month Day Year Other Facilities Involved (8) Facility Names Docket Number(s)
 012069292 0103 00 030492 0151010021514

OPERATING MODE (9) 4
 POWER LEVEL (10) 1 0 0
 THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10CFR (Check one or more of the following) (11)
 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) 50.73(a)(2)(i) 50.73(a)(2)(viii)(A) in Abstract
 20.405(a)(1)(iv) X 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 Nick Radloff, Tech Staff Ext. 2942
 TELEPHONE NUMBER AREA CODE 309 6154-2241

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:

At 1220 hours on February 6, 1992, Unit One was in the RUN mode at 100 percent rated core thermal power. The High Pressure Coolant Injection (HPCI) system was already in a 14 day Limited Condition of Operation (LCO) per Technical Specifications. At this time, Boiling Water Reactor Site Engineering (BWRSE) personnel informed the station that the HPCI lube oil cooler inlet pressure relief line pipe hanger support, M-284D-251, was outside the Final Safety Analysis Report (FSAR) allowables for thermal and seismic loadings. The pipe hanger support was found to be acceptable for operability, thus no immediate action was required by the station.

The exact cause of this event is unknown. A minor design change, PO4-1-92-022, was initiated to correct the problem. This report is being submitted in accordance with 10CFR50.73(a)(2)(ii)(B).

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION										Form Rev 2.0	
FACILITY NAME (1)	POCKET NUMBER (2)	LER NUMBER (6)			Page (3)						
		Year	Sequential Number	Revisior Number							
Quad Cities Unit One	015101012514	912	01012	010	012	01	01	01	01		

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: Unit One HPCI suction lube oil cooler pressure relief line pipe hanger found outside FSAR compliance due to unknown causes.

A. CONDITIONS PRIOR TO EVENT:

Unit: One Event Date: February 6, 1992 Event Time: 1230
Reactor Mode: 4 Mode Name: RUN Power Level: 100%

This report was initiated by Deviation Report D-4-1-92-011.

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:

At 1230 hours on February 6, 1992, Unit One was in the RUN mode at 100 percent rated core thermal power. The High Pressure Coolant Injection (HPCI) [BJ] system was already declared inoperable and in day 1 of a 14 day Limiting Condition of Operation per Technical Specification requirements. At this time, Boiling Water Reactor Site Engineering (BWRSE) personnel informed the Station that the HPCI lube oil cooler [LL] inlet pressure relief line pipe hanger [H] support, M-284D-251, was outside Final Safety Analysis Report (FSAR) allowables for thermal and seismic loadings due to a misaligned hanger. The pipe hanger support was evaluated and found to be acceptable for operability. Therefore, no immediate action was required by the station.

At 1308 hours on February 6, 1992, the NRC was notified of the event via the Emergency Notification System (ENS) in order to comply with the requirements of 10CFR50.72(b)(1)(ii)(B).

Nutech had checked and analyzed the piping as part of the Piping Configuration Verification Program and transmitted the piping loads to Impell to include the loads in their qualification of the support. The results were transmitted to Impell for concurrence in March, 1990. Nutech had found no particular problems with the pipe hanger.

During Nutech's project closeout activities in October, 1991, this hanger was identified as still awaiting calculations from Impell. Impell was contracted so the item could be closed out.

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TEXT Energy Industry Identification System (EII5) codes are identified in the text as [XX]																								

Impell walked this line down in November, 1991. During this walkdown, they discovered that a slight misalignment existed between the spring can, tie rod, and pipe. The tie rod was approximately 4 degrees off from the vertical axis. The drawing showed this pipe hanger to be vertically mounted. Impell determined the tie rod would impart the support steel during a seismic event. Because this hanger was analyzed for a vertical support only, the hanger was unable to meet Final Safety Analysis Report (FSAR) criteria. BWRSE was subsequently notified of the pipe support finding as detailed above.

C. APPARENT CAUSE OF EVENT:

This report is being submitted to comply with 10CFR50.73(a)(2)(11)(b) which requires the licensee report any event or condition that resulted in the nuclear power plant being in a condition that was outside the design basis of the plant.

The cause of this event is unknown. Nutech walked this line down in March of 1992 and found it acceptable. There has been no work done on this hanger or pipe since that time. This hanger is not located in an area where it could be accidentally moved. The pipe does run next to the HPCI room cooler and work was performed on this cooler during the last Unit One outage but it could not be determined if the hanger was misaligned during this work.

D. SAFETY ANALYSIS OF EVENT:

This event was of minimal safety consequences in terms of plant personnel safety. Nutech determined that the operability criteria of the pipe hanger were satisfied.

The function of the line supported by this hanger is to provide a flow path from the lube oil cooler inlet to the HPCI Pump Torus suction piping header. In case of failure of the HPCI pressure control valve [PCV], 1-2301-46, a pressure relief valve [RV] connected to the 1-2325-6" line would open, thus protecting the lube oil cooling piping from overpressurization.

E. CORRECTIVE ACTIONS:

No immediate corrective actions were necessary, as the pipe hanger was determined to be operable.

The current support configuration does not satisfy FSAR stress limits in response to dead weight, thermal, Mark I, and seismic loads. It does, however, meet operability stress limits. Therefore, a minor design change has been initiated under P04-92-022 to correct the pipe hanger configuration. The change should be installed during the next refueling outage, which is scheduled for the fall of 1992 (KTS #254200971101).

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						Year	Sequence Number	Revision Number			
Quad Cities Unit One		0 5 0 0 0 2 5 4				9 2	-	0 0 3	-	0 0	0 4 OF 0 4
TEXT Energy Industry Identification System (EIIIS) codes are identified in the text as [XX]											

The Technical Staff System Engineer walked down the Unit Two lube oil cooler pressure relief line and verified pipe hangers were in their correct configurations.

The Technical Staff System Engineer will continue to monitor the pipe hanger for any configuration changes until the minor design change is installed (NTS #2542009201102).

F. PREVIOUS EVENTS:

There have been various other events where system piping and/or supports were found outside design basis.

<u>LER #</u>	<u>DESCRIPTION</u>
265/90-076	HPCI stm. drain line outside FSAR
254/90-022	Piping system outside FSAR compliance
265/90-15	HPCI Drain Pot Lines outside FSAR allowables
254/88-004	Piping outside FSAR allowable stress
265/89-004	Inability of ACAD to perform - design error
265/88-033	MSIV pneumatic line stress outside FSAR
265/88-027	Pipe supports outside FSAR
265/88-012	Improper design of RWCU supports
254/88-010	Rx Head vent line stress outside FSAR
265/87-061	HPCI/RHR pipe supports outside FSAR

A review of these events did not reveal any significant trends that would require further action.

G. COMPONENT FAILURE DATA:

No specific component failure is associated with this event.