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March 6, 2006

SVP-06-015

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

Quad Cities Nuclear Power Station, Unit 1
Renewed Facility Operating License No. DPR-29
NRC Docket No. 50-254

Subject: Licensee Event Report 254/06-001, "Failure of the Unit 1 B Core Spray Pump Breaker to Operate due to Racking Deficiency"

Enclosed is Licensee Event Report (LER) 254/06-001, "Failure of the Unit 1 B Core Spray Pump Breaker to Operate due to Racking Deficiency," 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), which requires the reporting of any operation or condition prohibited by Technical Specifications, and Part 50.73(a)(2)(v)(D), which requires reporting of any event or condition that could have prevented the fulfillment of the safety function of structures or systems that are needed to mitigate the consequences of an accident.

Should you have any questions concerning this report, please contact Mr. W. J. Beck at (309) 227-2800.

Respectfully,



Timothy J. Tulon
Site Vice President
Quad Cities Nuclear Power Station

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

IE22

LICENSEE EVENT REPORT (LER)

(See reverse for required number of
digits/characters for each block)

Estimated burden per response to comply with this mandatory collection request: 50 hours. Reported lessons learned are incorporated into the licensing process and fed back to industry. Send comments regarding burden estimate to the Records and FOIA/Privacy Service Branch (T-5 F52), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to infocollects@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3150-0104), Office of Management and Budget, Washington, DC 20503. If a means used to impose 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.

1. FACILITY NAME Quad Cities Nuclear Power Station, Unit 1	2. DOCKET NUMBER 05000 254	3. PAGE 1 of 4
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4. TITLE Failure of the Unit 1 B Core Spray Pump Breaker to Operate due to Racking Deficiency
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5. EVENT DATE			6. LER NUMBER			7. REPORT DATE			8. OTHER FACILITIES INVOLVED	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REV NO.	MONTH	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
01	04	2006	2006	- 01 -	00	03	06	2006	N/A	
									FACILITY NAME	DOCKET NUMBER
									N/A	

9. OPERATING MODE 11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR§: (Check all that apply)

1	<input type="checkbox"/> 20.2201(b)	<input type="checkbox"/> 20.2203(a)(3)(i)	<input type="checkbox"/> 50.73(a)(2)(i)(C)	<input type="checkbox"/> 50.73(a)(2)(vii)
	<input type="checkbox"/> 20.2201(d)	<input type="checkbox"/> 20.2203(a)(3)(ii)	<input type="checkbox"/> 50.73(a)(2)(ii)(A)	<input type="checkbox"/> 50.73(a)(2)(viii)(A)
085	<input type="checkbox"/> 20.2203(a)(1)	<input type="checkbox"/> 20.2203(a)(4)	<input type="checkbox"/> 50.73(a)(2)(ii)(B)	<input type="checkbox"/> 50.73(a)(2)(viii)(B)
	<input type="checkbox"/> 20.2203(a)(2)(i)	<input type="checkbox"/> 50.36(c)(1)(i)(A)	<input type="checkbox"/> 50.73(a)(2)(iii)	<input type="checkbox"/> 50.73(a)(2)(ix)(A)
	<input type="checkbox"/> 20.2203(a)(2)(ii)	<input type="checkbox"/> 50.36(c)(1)(ii)(A)	<input type="checkbox"/> 50.73(a)(2)(iv)(A)	<input type="checkbox"/> 50.73(a)(2)(x)
	<input type="checkbox"/> 20.2203(a)(2)(iii)	<input type="checkbox"/> 50.36(c)(2)	<input type="checkbox"/> 50.73(a)(2)(v)(A)	<input type="checkbox"/> 73.71(a)(4)
	<input type="checkbox"/> 20.2203(a)(2)(iv)	<input type="checkbox"/> 50.46(a)(3)(ii)	<input type="checkbox"/> 50.73(a)(2)(v)(B)	<input type="checkbox"/> 73.71(a)(5)
	<input type="checkbox"/> 20.2203(a)(2)(v)	<input type="checkbox"/> 50.73(a)(2)(i)(A)	<input type="checkbox"/> 50.73(a)(2)(v)(C)	<input type="checkbox"/> OTHER
	<input type="checkbox"/> 20.2203(a)(2)(vi)	<input checked="" type="checkbox"/> 50.73(a)(2)(i)(B)	<input checked="" type="checkbox"/> 50.73(a)(2)(v)(D)	Specify in Abstract below or in NRC Form 366A

12. LICENSEE CONTACT FOR THIS LER

NAME Wally Beck, Regulatory Assurance Manager	TELEPHONE NUMBER (Include Area Code) (309) 227-2800
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13. COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT

CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX
X	BM	BKR	G080	Y					

14. SUPPLEMENTAL REPORT EXPECTED

☐ YES (If yes, complete 15. EXPECTED SUBMISSION DATE)☒ NO

15. EXPECTED SUBMISSION DATE

MONTH	DAY	YEAR

ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines)

On January 4, 2006, during performance of the quarterly Core Spray (CS) system flow rate surveillance, the Unit 1 B CS pump breaker did not close to start the CS pump. The 1B CS system was declared inoperable and a 7-day Allowed Outage Time was entered in accordance with Technical Specification 3.5.1, Condition B.

The most probable cause of the breaker not to close was poor contact between the breaker's secondary disconnect pins and the secondary disconnect slides of the cubicle as a result of the breaker not being fully racked into the connect position due to misalignment. The breaker was racked out to permit an inspection of the cubicle and breaker, racked back in and verified to operate. Other similar breakers were visually inspected to ensure they were properly racked in.

The safety significance of this event was minimal. Other than for normal maintenance and surveillance, the remaining Emergency Core Cooling Systems were operable.

The breaker racking procedure is being revised to provide additional guidance.

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PLANT AND SYSTEM IDENTIFICATION

General Electric - Boiling Water Reactor, 2957 Megawatts Thermal Rated Core Power

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

EVENT IDENTIFICATION

Failure of the Unit 1 B Core Spray Pump Breaker to Operate due to Racking Deficiency

A. CONDITION PRIOR TO EVENT

Unit: 1	Event Date: January 4, 2006	Event Time: 1047 hours
Reactor Mode: 1	Mode Name: Power Operation	Power Level: 085%

B. DESCRIPTION OF EVENT

On January 4, 2006, during performance of the quarterly Core Spray (CS) [BM] system flow rate surveillance, the Unit 1 B CS pump breaker [BKR] did not close to start the CS pump. The 1B CS system was declared inoperable and a 7-day Allowed Outage Time was entered in accordance with Technical Specification 3.5.1, Condition B.

During the troubleshooting, before removal of the breaker from the cubicle, the breaker was observed to be flush with the cubicle sides at the bottom, but extending out approximately 5/8 inch at the top of the cubicle. The troubleshooting did not identify any additional anomalies. After completion of troubleshooting, the breaker was then racked into the connect position. The top of the breaker was positioned 1/4 inch further in than originally observed. It was then possible to close the breaker from the Control Room, and as-left resistance readings in the closing circuit between the cubicle and breaker were acceptable.

The 1B CS pump breaker was racked out of the connect position into test position on April 7, 2005, during the performance of a bus undervoltage functional test. The breaker was racked back into the fully connect position following this surveillance, and on April 12, 2005, the breaker was successfully operated. The breaker was also successfully closed and opened on July 6, 2005, and October 6, 2005. There is no evidence that the breaker was racked out of the connect position between April 7, 2005, and January 4, 2006.

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C. CAUSE OF EVENT

The most probable cause of the breaker not to close was poor contact between the breaker's secondary disconnect pins and the secondary disconnect slides of the cubicle as a result of the breaker not being fully racked into the connect position on April 7, 2005, due to misalignment. The misalignment may have increased each time the breaker was operated, until the control power connection was lost during the successful operation of the breaker on October 6, 2005. A root cause evaluation is in progress. A supplemental report will be issued if the resulting root cause is other than the probable cause described here.

D. SAFETY ANALYSIS

The safety significance of this event was minimal. Based on the failure mode described in the Cause of Event section of this report, the 1B CS pump would not have operated during the time since it was last operated successfully, which was October 6, 2005. Therefore, the inoperability was greater than the Technical Specification Allowed Outage Time. However, the Main Feedwater, Condensate, High Pressure Coolant Injection, Rector Core Isolation Cooling, Low Pressure Coolant Injection (LPCI) and 1A CS systems were operable during this time frame, other than for normal maintenance and surveillance.

Because there were instances of the 1A and 1B CS systems being inoperable at the same time due to normal maintenance/surveillance on the 1A CS and the breaker issue on 1B CS, this event is reportable in accordance with 10 CFR 50.73(a)(2)(v)(D), condition that could have prohibited fulfillment of a safety function needed to mitigate the consequences of an accident.

Because of the length of time that the 1B CS system was inoperable, and because there were instances of the 1A CS system or the LPCI system being inoperable during this time for maintenance or surveillance, this event is reportable in accordance with 10 CFR 50.73(a)(2)(i)(B), operation prohibited by TS.

E. CORRECTIVE ACTIONSImmediate Actions

The 1B CS pump breaker was racked out to permit an inspection of the cubicle and breaker, racked back in and verified to operate.

All 4KV breakers in the plant similar to the breaker involved in this event were walked down to ensure that they were fully racked in and properly aligned. All of the breakers were determined to be nominally plumb and flush with the top of the cubicle sides.

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Corrective Actions Completed:

Operator rounds were revised to include a visual inspection of safety related 4KV switchgear to verify that the front faces of the breakers are aligned flush with switchgear.

Corrective Actions to be Completed:

Breaker racking procedures will be revised to provide additional detail to verify breakers are properly aligned in the 4KV safety related switchgear.

A root cause evaluation is in progress. A supplemental report will be issued if the resulting root cause is other than the probable cause described in this report.

F. PREVIOUS OCCURRENCES

No incidents during the past two years involving failure of a 4KV breaker to close after being placed in service due to racking deficiencies have been identified.

G. COMPONENT FAILURE DATA

The breaker is a Merlin Gerin model AMHG-5-350-12.