

NRC FORM 366 (7-2001)		U.S. NUCLEAR REGULATORY COMMISSION			APPROVED BY OMB NO. 3150-0104			EXPIRES 7-31-2004		
LICENSEE EVENT REPORT (LER)					Estimated burden per response to comply with this mandatory information 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 Management Branch (T-6 E6), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to bjs1@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 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 05000254			3. PAGE 1 of 3			
4. TITLE Technical Specifications Allowable Value Exceeded for Main Steam Flow Switches due to Inadequate Drift Allowance										
5. EVENT DATE			6. LER NUMBER			7. REPORT DATE			8. OTHER FACILITIES INVOLVED	
MO	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REV NO	MO	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
07	13	2004	2004	- 001	- 00	09	10	2004	N/A	N/A
9. OPERATING MODE		1		11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check all that apply)						
10. POWER LEVEL		085		20.2201(b)		20.2203(a)(3)(ii)		50.73(a)(2)(ii)(B)		50.73(a)(2)(ix)(A)
				20.2201(d)		20.2203(a)(4)		50.73(a)(2)(iii)		50.73(a)(2)(x)
				20.2203(a)(1)		50.36(c)(1)(i)(A)		50.73(a)(2)(iv)(A)		73.71(a)(4)
				20.2203(a)(2)(i)		50.36(c)(1)(ii)(A)		50.73(a)(2)(v)(A)		73.71(a)(5)
				20.2203(a)(2)(ii)		50.36(c)(2)		50.73(a)(2)(v)(B)		OTHER Specify in Abstract below or in NRC Form 366A
				20.2203(a)(2)(iii)		50.46(a)(3)(ii)		50.73(a)(2)(v)(C)		
				20.2203(a)(2)(iv)		50.73(a)(2)(i)(A)		50.73(a)(2)(v)(D)		
				20.2203(a)(2)(v)	X	50.73(a)(2)(i)(B)		50.73(a)(2)(vii)		
				20.2203(a)(2)(vi)		50.73(a)(2)(i)(C)		50.73(a)(2)(viii)(A)		
				20.2203(a)(3)(i)		50.73(a)(2)(ii)(A)		50.73(a)(2)(viii)(B)		
12. LICENSEE CONTACT FOR THIS LER										
NAME Wally Beck, Regulatory Assurance Manager						TELEPHONE NUMBER (Include Area Code) (309) 227-2800				
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
B	SB	FS	I204	N						
14. SUPPLEMENTAL REPORT EXPECTED								15. EXPECTED SUBMISSION DATE		
YES (If yes, complete EXPECTED SUBMISSION DATE)								X	NO	

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

On July 13, 2004, during performance of the Unit 1 Main Steam Line (MSL) High Flow Switch Calibration and Functional Test, two main steam [SB] flow instruments [FS] were determined to have as-found setpoints that exceeded the Technical Specifications (TS) Allowable Value. The instruments were re-calibrated to be within the TS allowable range. A total of 16 switches, four per steam line, are installed on the Unit 1 main steam lines. The switches feed into the Primary Containment Isolation System [JM], with a "one out of two twice" logic.

The root cause of this event is that inadequate drift allowance was used in the engineering setpoint calculations for the MSL flow switches in this application.

The safety significance of this event was minimal. The instruments would have provided the trip signal within the analytical values assumed in the accident analysis.

Corrective actions will include a revised drift analysis including a review of the current Allowable Value, Setpoint, Setting Tolerance, Expanded Tolerance and calibration frequencies as appropriate to improve margin to the Technical Specifications Allowable Value. Additionally, a previous event (LER 2-04-005) indicated our plans to replace the MSL instruments with an improved design.

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(If more space is required, use additional copies of NRC Form 366A)(17)

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

Technical Specifications Allowable Value Exceeded for Main Steam Flow Switches due to Inadequate Drift Allowance

A. CONDITION PRIOR TO EVENT

Unit: 1	Event Date: July 13, 2004	Event Time: 1252 hours
Reactor Mode: 1	Mode Name: Power Operation	Power Level: 085%

Power Operation (1) - Mode switch in the RUN position with normal operating temperature and pressure.

B. DESCRIPTION OF EVENT

On July 13, 2004, during performance of the Unit 1 Main Steam Line (MSL) High Flow Switch Calibration and Functional Test, two main steam [SB] flow instruments [FS] were determined to have as-found setpoints that exceeded the Technical Specifications (TS) Allowable Value. The instruments were re-calibrated to be within the TS allowable range. A total of 16 switches, four per steam line, are installed on the Unit 1 MSLs. The switches feed into the Primary Containment Isolation System [JM], with a "one out of two twice" logic.

C. CAUSE OF EVENT

The root cause of this event is that inadequate drift allowance was used in the engineering setpoint calculations for the MSL flow switches in this application. The drift data assumed in the calculation was limited and did not bound actual instrument performance.

A programmatic issue was also identified. The instrument trending program did not provide timely feedback to identify potential instrument performance issues.

D. SAFETY ANALYSIS

The safety significance of this event was minimal. Although two MSL instruments were found to have setpoints outside the TS Allowable Value, there is reasonable assurance the instruments would have provided their safety function due to the considerable margin between the as-found setpoints and the Analytical Limit assumed in the plant safety analysis. This event is being reported as operation prohibited by TS due to the fact that multiple instruments were found out of calibration during the same surveillance, providing sufficient evidence that the situation existed longer than allowed by TS.

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E. CORRECTIVE ACTIONS

Immediate Actions:

Prior to returning the MSL instruments to service, TS compliance was restored by re-calibrating the instruments to within the setpoint tolerance allowed by procedure.

Corrective Actions to be Completed:

A revised drift analysis for the U1 and U2 MSL flow switches will be performed using additional as-found calibration data. The current Allowable Value, Setpoint, Setting Tolerance, Expanded Tolerance and calibration frequency will be reviewed and revised as appropriate to improve margin to the Technical Specifications Allowable Value. As an interim measure, the MSL instrument calibration frequency will be increased from bi-Monthly to Monthly until the setpoint analyses and reviews described above are completed and implemented.

The instrument trending process will be enhanced to ensure a timely review of drift data to identify potential instrument performance issues.

F. PREVIOUS OCCURRENCES

LER 2-03-005, "Technical Specification Allowable Value Exceeded for Main Steam Flow Switches due to Inadequate Drift Allowance used in Setpoint Calculation," documented a previous instance of two MSL flow switches being found outside of TS Allowable Value. That instance was also attributed to the use of inadequate drift allowance in the engineering setpoint calculations. Because the MSL flow switches were newly installed at the time the setpoint calculations were performed, there was no historical drift data available. Therefore, setpoint allowances were determined using uncertainty values provided by the manufacturer along with an assumed drift term in accordance with procedural guidance. Based on the historical data that became available, the drift that was experienced exceeded the values assumed. New calibration uncertainty values were developed in response to this event. Further drift data has shown that the calibration uncertainty values developed in response to LER 2-03-005 were also inadequate. As noted above, a revised drift analysis for the U1 and U2 MSL flow switches will be performed utilizing additional historical drift data.

As indicated in LER 2-03-005, the Unit 1 and Unit 2 Barton MSL flow switches are scheduled to be replaced with differential pressure transmitters during the next refueling outages.

G. COMPONENT FAILURE DATA

The MSL flow switches are Barton Model 288A Differential Pressure Indicating Switches, with a setting range of 0 to 400 psid.