



Commonwealth Edison

Quad Cities Nuclear Power Station
22710 206 Avenue North
Cordova, Illinois 61242-9740
Telephone 309/654-2241

RLB-90-300

December 3, 1990

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) 90-027, 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)(i)(B), which requires the reporting of any operation or condition prohibited by the plant's Technical Specifications.

Respectfully,

COMMONWEALTH EDISON COMPANY
QUAD CITIES NUCLEAR POWER STATION

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

RLB/MJB/jlg

Enclosure

cc: R. Stols
T. Taylor
INPO Records Center
NRC Region III

3206H

9012100351 901204
PDR ADDCK 05000254
S PDC

IF 22
111

LICENSEE EVENT REPORT (LER)

Form Rev 2.0

Facility Name (1) Quad Cities Unit One
 Docket Number (2) 0 | 5 | 0 | 0 | 0 | 2 | 5 | 4 | 1 | of | 0 | 4
 Page (3) 1 of 0 4

Title (4) Improperly Performed Technical Specification Surveillance While in Economic Generation Control 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)
11	04	90	90	027	00	12	04	90		0 5 0 0 0
										0 5 0 0 0

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 3	<input type="checkbox"/> 20.402(b)	<input type="checkbox"/> 20.405(c)	<input type="checkbox"/> 50.73(a)(2)(iv)	<input type="checkbox"/> 73.71(b)
	<input type="checkbox"/> 20.405(a)(1)(i)	<input type="checkbox"/> 50.36(c)(1)	<input type="checkbox"/> 50.73(a)(2)(v)	<input type="checkbox"/> 73.71(c)
	<input type="checkbox"/> 20.405(a)(1)(ii)	<input type="checkbox"/> 50.36(c)(2)	<input type="checkbox"/> 50.73(a)(2)(vii)	<input type="checkbox"/> Other (Specify in Abstract below and in Text)
	<input checked="" type="checkbox"/> 20.405(a)(1)(iii)	<input checked="" type="checkbox"/> 50.73(a)(2)(i)	<input type="checkbox"/> 50.73(a)(2)(viii)(A)	
	<input type="checkbox"/> 20.405(a)(1)(iv)	<input type="checkbox"/> 50.73(a)(2)(ii)	<input type="checkbox"/> 50.73(a)(2)(viii)(B)	
	<input type="checkbox"/> 20.405(a)(1)(v)	<input type="checkbox"/> 50.73(a)(2)(iii)	<input type="checkbox"/> 50.73(a)(2)(x)	

LICENSEE CONTACT FOR THIS LER (12)

Name: James Griffin, Technical Staff Engineer, Ext. 2171

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 NPRDS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS

SUPPLEMENTAL REPORT EXPECTED (14)

Expected Submission Date (15)

[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 November 4, 1990, Quad Cities Unit One was in the RUN mode at approximately 93 percent of rated core thermal power. At 1714 hours while the Nuclear Station Operator (NSO) was doing a surveillance to change the recirculation (RR) flow control to Master - Auto, the NSO discovered that the Core Monitoring Code (CMC) had not been run for approximately 24 hours. A check of the previous shift surveillances showed that Shift 1 and Shift 2 had used CMC data that were not current to their shift for the Economic Generation Control (EGC) surveillances. The unit was in EGC during Shift 1 and 2. At 1745 hours, a new CMC case was demanded by the NSO and a Qualified Nuclear Engineer (QNE) was contacted.

The apparent cause of this event is that the NSO's did not adequately check the date and time that CMC was calculated for their shift surveillances resulting in an improperly performed Technical Specification surveillance. Contributing causes were a formatting problem with the Unit Operating Console (UOC) output, a CMC identification problem, and the procedures being used.

The corrective actions taken to prevent recurrence of this event are to enhance procedures and correct the UOC formatting. An operator aid has been posted at both units which identifies how a CMC case identification is read and the differences between calculated and printed time.

This report is provided to comply with requirements of 10CFR50.73(a)(2)(i)(B).

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 One	0 5 0 0 0 2 5 4	9 0	- 0 2 7	- 0 0	0 2	OF	0 4
TEXT Energy Industry Identification System (EIIS) codes are identified in the text as [XX]							

PLANT AND SYSTEM IDENTIFICATION:General Electric - Boiling Water Reactor - 25¹/₂ MWT rated core thermal power.EVENT IDENTIFICATION: Improperly Performed Technical Specification Surveillance While in Economic Generation Control Due to Personnel Error.A. CONDITIONS PRIOR TO EVENT:

Unit: One Event Date: November 4, 1990 Event Time: 1715
 Reactor Mode: 4 Mode Name: RLN Power Level: 93%

This report was initiated by Deviation Report D-4-1-90-112

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 November 4, 1990, Quad Cities Unit One was in the RUN mode at approximately 93 percent of rated core thermal power. At 1714 hours, the Unit Nuclear Station Operator (NSO) demanded a Performance Log Edit Option, OD-17, for procedure QOS 202-1, Nuclear Limits Verification Prior to Operation in Master - Auto Recirculation Flow Control Mode. At 1715 hours, the NSO noticed that the date and time at the top of the Core Monitoring Code (CMC) edit did not correspond to a time during the shift (Shift 3, 1500-2300 hours) and that the thermal limits were the same as those he had logged at the beginning of the shift. The NSO brought this to the attention of the Shift Control Room Engineer (SCRE) and the Shift Engineer (SE). A review of surveillance checklists QOS 005-S1, U-1 Operations Weekly Summary of Daily Surveillance, and QOS 5670-S1, Unit One Operations Weekly Summary for EGC Operation, and the Unit One Typer [PRNT], showed that the thermal limits recorded for the previous shifts (Shift 1, 2300-0700 hours and Shift 2, 0700-1500 hours) were from CMC cases not calculated on those shifts. The Unit One Shift 1 NSO has used thermal limits from a CMC case calculated at 1500 hours on November 3, 1990. The Shift 2 NSO had used limits from a case calculated at 1700 hours on November 3, 1990. Unit One had been in Economic Generation Control (EGC) during both Shift 1 and Shift 2. A Core Performance Calculation, OD-20, was demanded at 1725 hours and a Qualified Nuclear Engineer (QNE) was contacted. This CMC case printed out at 1734 hours and was used by the NSO to reperform QOS 005-S1 and QOS 5670-S1. The QNE found that the automonitoring function (MONSCHED) of CMC had failed after the CMC case of 1700 hours on November 3, 1990. The QNE restarted MONSCHED at 1725 hours. At 1800 hours, the QNE was contacted by the SCRE to calculate thermal limits for Shift One and Two. The QNE completed the thermal limits calculations at 2104 hours and provided the NSO with thermal limit values for 0300 hours and 1100 hours. These values were recorded in the Unit One Log Book at 2139.

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 One	0 5 0 0 0 2 5 4	9 0	- 0 2 7	- 0 0	0 3	OF	0 4

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

C. APPARENT CAUSE OF EVENT:

This report is submitted in accordance with 10CFR50.73(a)(2)(i)(B), which requires the reporting of any operation or condition prohibited by the plant's Technical Specifications. Technical Specification 4.3.F requires that prior to entering EGC and once per shift while operating in EGC, the EGC operating parameters will be reviewed for acceptability.

The apparent cause of this event is that the NSO's did not adequately check the date and time that CMC was calculated for their shift surveillances resulting in an improperly performed Technical Specification surveillance. Contributing causes were a formatting problem with the Unit Operating Console (UOC) [MON] output, a CMC identification problem, and the procedures being used.

The UOC spooler routine currently scrolls the CMC UOC log too far on the cathode ray tube (CRT) [CRT] screen after an OD-17 is run. This causes the CMC case identification, which includes the calculated time, to be scrolled off the screen. This is due to a revision of CMC installed on September 7, 1989. This revision added two carriage returns to the spooler routine for all outputs. The CRT screen is updated to the latest CMC UOC log when an OD-17 is run. The latest CMC output is also printed to the unit's typer at the same time the CRT screen is updated. The Shift 1 and Shift 2 NSO's both demanded an OD-17 during their shift and used the CRT screen information for their surveillances. Without a CMC case identification on the CRT screen, the only way to verify that the output on the screen was calculated during the shift was to check the typer output. The Shift 1 NSO checked the CRT screen information using the Current Power Data Screen [MON]. This misled the NSO since reactor power was approximately the same as that on the output case displayed on the CRT screen.

The Shift 2 NSO checked the CRT screen information using the typer output. The CMC output on the typer includes both the time CMC was calculated and the time the output was printed. In reviewing the typer output, the NSO mistakenly used the 'print time' information instead of the information concerning when CMC is calculated.

The surveillance procedures being used did not require that the time and date CMC is calculated be recorded with the CMC thermal limit values. A step requiring the recording of the time and date CMC is calculated would have assisted the NSO's in identifying that current thermal limit data was not being used.

D. SAFETY ANALYSIS OF EVENT:

The safety significance of this event is minimal.

The EGC operational requirements that total core flow be between 65 percent and 100 percent of rated and reactor power be above 20 percent were met during the period that CMC was not being calculated. Each NSO recorded the power and flow in the unit's logbook from the Process Computer Power Log, OD-5, as the NSO came on shift. The information recorded showed that the EGC operational requirements were met.

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	5	
Quad Cities Unit One	0 5 0 0 0 1 5 4	9 0	- 0 2 7	- 0 0	0 4	OF 0 4

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

The core thermal limits not being calculated for 24.57 hours is within the 125% surveillance interval identified in the plant's Technical Specifications. The calculations provided by the QNE showed that the thermal limits were not exceeded during the shifts that CMC was not running. The thermal limits are required to be checked daily to determine if fuel burnup or control rod movement has caused changes in power distribution. Since no control rod maneuvers were made during this period except for those required for Control Rod Drive (CRD) [AA] weekly exercises, a surveillance on November 3, 1990 and on November 4, 1990 was sufficient to identify any power distribution shifts.

E. CORRECTIVE ACTIONS:

A new operator aid has been posted at the Unit One and Unit Two computer consoles which identifies how a CMC case identification is read and the difference between calculated and printed time. Procedures QOS 005-3, QOS 005-S1, QOS 005-S19, QOS 5670-2 and QOS 5670-S1 will be revised to add a step to record the date and time CMC is calculated (NTS 2542009011201). The CMC UOC log will be revised to eliminate one blank line at the bottom of the output by December 31, 1990. This fix will allow the case identification to be displayed on the screen (NTS 2542009011202). The UOC spooler routine problem will be fixed and the calculated time listed on the UOC log by May 31, 1991 (NTS 2542009011203).

F. PREVIOUS EVENTS:

There are no previous LERs written for improperly performed Technical Specification surveillances.

G. COMPONENT FAILURE DATA:

There was no component failure involved in this event.