



LWP-96-023

March 11, 1996

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) 96-006, Revision 0, for Quad Cities Nuclear Power Station. This LER is being submitted voluntarily.

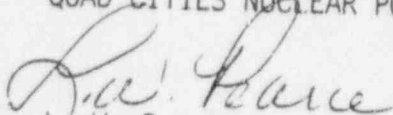
The following commitments are being made by this letter:

1. Identify and revise Local Leak Rate Test (LLRT) procedures, that impact Primary Containment (PC) when testing at power or greater than 212 degrees F., to include an adequate description of the application and interpretation of associated TSs. This will be completed by November 15, 1996 and applied to any individual LLRT procedure that may be conducted prior to this date.
2. Applicable Technical Specification (TS) 3.0.A interpretive information will be included in the SRO initial training and SRO requalification training programs. This will be completed by May 31, 1996.
3. Lessons learned from this event will be incorporated into Engineering continuing training and distributed to applicable Onsite Review personnel. This will be completed by May 31, 1996.

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 COMPANY
QUAD CITIES NUCLEAR POWER STATION


L. W. Pearce
Station Manager

LWP/NC/plm

Enclosure

cc: P. Piet
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 One

Docket Number (2)

Page (3)

0 | 5 | 0 | 0 | 0 | 2 | 5 | 4 | 1 | of | 0 | 4

Title (4)

Technical Specification 3.0.A Was Incorrectly Invoked, Due To Procedural and Operator Knowledge Deficiencies On Technical Specification Requirements, When Primary To Secondary Containment Flowpaths Were Established During Local Leak Rate Testing.

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)												
0	2	1	0	9	6	9	6	--	0	0	6	--	0	0	0	3	0	7	9	6		

OPERATING MODE (9)

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10CFR
(Check one or more of the following) (11)

4	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)	<input checked="" type="checkbox"/> 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)	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)

NAME

LICENSEE CONTACT FOR THIS LER (12)

Nick Chrissotimos, Regulatory Assurance, Ext. 3100

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)

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:

On 02/10/96 at 0152 hours, Unit 1 was in the RUN mode at 15% power when Technical Specification (TS) 3.0.A was incorrectly invoked to provide a Limiting Condition for Operation (LCO) for a planned opening of a system flowpath from the Primary Containment (PC) System [NH] to the Secondary Containment (SC) [NH] above 212 degrees Fahrenheit (F). While using an approved procedure during local leak rate testing (LLRT), the PC to SC flowpath occurred when a 3/4" manual test tap isolation valve in the Residual Heat Removal [BO] containment spray header line was opened. The PC to SC flowpath was terminated when the manual valve was closed and TS 3.0.A was exited at 0207 hours. The erroneous use of the general TS LCO was caused by an inadequate procedure that did not recognize design basis or TS issues and operator knowledge deficiencies. Corrective actions included training of operators on NRC Generic Letter 87-09 and the basis of Technical Specification 3.0.A.

This Licensee Event Report is being submitted voluntarily as a result of inappropriate use of TS 3.0.A. The site has determined that entry into TS 3.0.A was not required.

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 6		- 0 0 6		- 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: Technical Specification 3.0.A was incorrectly invoked, due to procedural and Operator knowledge deficiencies when Primary to Secondary Containment Flowpaths were established during Local Leak Rate Testing.

A. CONDITIONS PRIOR TO EVENT:

Unit: One
Reactor Mode: 4

Event Date: February 10, 1996
Mode Name: RUN

Event Time: 0152
Power Level: 15%

This report was initiated by Licensee Event Report LER 254\96-006.

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 EVENT:

On 04/20/94 QCTS 600-18, RHRS SUPPRESSION CHAMBER SPRAY LOCAL LEAK RATE TEST (MO-1(2)-1001-34A/B, 36A/B, AND 37A/B) was implemented utilizing a revised method to provide local draining through a 3/4" test tap valve, 1(2)-1001-151A/B, when reactor coolant temperature was greater than 212 degrees Fahrenheit (F). QCTS 600-18 prerequisites included: "Reactor Mode Switch must be in SHUTDOWN or REFUEL, or the applicable Residual Heat Removal (RHR) system [BO] loop declared inoperable." These prerequisites do not preclude performing the Local Leak Rate Test (LLRT), with the unit at power, if the affected RHR loop is declared inoperable.

QCTS 600-18, step H.2 states: "Locally drain and test MO 1(2)-1001-36A/B as follows:

- Open MO 1(2)-1001-36A/B.
- Uncap and open test tap 1(2)-1001-151A/B vent draining.
- When vent air suction through 1(2)-1001-151A/B stops, close MO 1(2)-1001-36A/B."

When these steps are performed, a flowpath from Primary Containment (PC) [NH] is created as the Pressure Suppression Chamber [NH] is opened to the Secondary Containment (SC) [NH] through the 3/4" test tap during venting. The procedure revision paperwork for this revision indicates that a 10CFR50.59 Safety Evaluation screening was required and performed on 04/04/94. The associated screening/evaluation was apparently deficient in that it did not properly evaluate the design bases implications of opening a flowpath nor did the procedure review and approval process associated with QCTS 600-18 recognize the flowpath from PC as a potential issue. Consequently, the LLRT procedures were inadequate.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

Form Rev. 2.0

FACILITY NAME (1) Quad Cities Unit One	DOCKET NUMBER (2) 0 5 0 0 0 2 5 4	LER NUMBER (6)						PAGE (3) 3 OF 0 4
		Year		Sequential Number		Revision Number		
		9 6	-	0 0 6	-	0 0		

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

On 02/10/96 at 0152 hours, while Unit-1 was in the RUN mode at 15% power, "Primary Containment not intact, MO1-1001-36A open and vent 1-1001-151A open per QCTS 600-18. Enter TS LCO 3.0.A", was made in the Nuclear Station Operator's logbook. Current TS section 3.7/4.7, on containment, does not include specific action statements which describe an LCO during this LLRT evolution and the US incorrectly invoked TS 3.0.A when no other LCO was apparent.

At 0207 hours TS 3.0.A was exited when MO1-1001-36A was logged closed. At 0235 hours TS 3.0.A was again invoked when the MO1-1001-37A valve was opened with the 1-1001-151A vent open and then exited at 0236 hours when the MO1-1001-37A valve was closed.

At 0408 hours, Unit 1 was scrammed and the Mode Switch transferred to SHUTDOWN. TS LCO 3.0.A was invoked from 0429 hours to 0432 hours when the MO1-1001-36B valve was open and from 0508 hours to 0511 hours when the MO1-1001-37B valve was open.

On 2/10/96 at 2330 hours, an extra US was reviewing another issue when he noted that a Licensee Event Report (LER) would be required for the entry of TS LCO 3.0.A. and recalled this had not been performed on the previous night shift. A Problem Identification Form (PIF) was generated to initiate the LER.

C. APPARENT CAUSE OF EVENT:

This LER is being submitted voluntarily.

An inadequate safety evaluation and the development and approval of an inadequate procedure (QCTS 600-18) caused (cognitive errors) this event. This led operators to incorrectly believe that primary containment integrity was not met.

The cause for the misinterpretation of the intent and application of TS 3.0.A are related to a training/qualification (cognitive error) causal factor. Our current custom TS initial and requalification training content for Senior Reactor Operators (SROs) has not adequately addressed that voluntary entry into TS 3.0.A LCO is not an option to enable completion of work.

D. SAFETY ANALYSIS OF EVENT:

The safety significance of this event was minimal. The plant was operated within Technical Specifications. In addition, while performing LLRTs in the aforementioned system configuration, the administrative controls, which are consistent with industry practice that allows intermittent PC flow path openings, were implemented.

Therefore, no significant increased risk to the health and safety of the public was posed as a result of this testing.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION													
FACILITY NAME (1)				DOCKET NUMBER (2)				LER NUMBER (6)				Form Rev. 2.0	
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								Year		Sequential Number		Revision Number	
Quad Cities Unit One				0 5 0 0 0 2 5 4				9 6		- 0 0 6		- 0 0	
TEXT Energy Industry Identification System (EIIIS) codes are identified in the text as (XX)													
								4		OF		0 4	

E. CORRECTIVE ACTIONS:

Corrective Actions Completed:

1. A policy statement, developed by Operations Management, was presented to Licensed Operators that clarified expectations for use and entry into TS section 3.0.A. Completion of this training was documented in the training records system.

Corrective Actions to be Completed:

1. Identify and revise LLRT procedures, that impact PC when testing at power or greater than 212 degrees F., to include an adequate description of the application and interpretation of associated TSs. This will be completed by November 15, 1996 and applied to any individual LLRT procedure that may be conducted prior to this date. (System Engineering; NTS # 2541809600601)
2. Applicable TS 3.0.A interpretive information will be included in the SRO initial training and SRO requalification training programs. This will be completed by May 31, 1996. (Operations, NTS #2541809600603)
3. Lessons learned from this event will be incorporated into Engineering continuing training and distributed to applicable OSR personnel. This will be completed by May 31, 1996. (Technical Training; NTS # 2541809600602)

F. PREVIOUS EVENTS:

A review of previous Quad Cities Station LERs (since 1/1/90), concerning inappropriate entry into TS 3.0.A, has indicated no related occurrences.

G. COMPONENT FAILURE DATA:

There were no component failures associated with this event.