LICENSEE EVENT REPORT (LER)

Facility Name (1)	Docket Number (2)	Page (3)
QUAD-CITIES, NUCLEAR POWER STATION, UNIT 1	0 5 0 0 0 2 5 4	1 of 0 3

Title (4) Leak Rate for MSIV (Main Steam Isolation Valve) in excess of Technical Specification limit

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 5 0 0 0
0 1	0 7	8 6	8 6	---	0 0 2	0 1	0 6	1 1	8 6		0 5 0 0 0

OPERATING MODE (9)		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)
POWER LEVEL (10)	0 0 0	___ 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 in Abstract below and in Text)
		___ 20.405(a)(1)(iii)	___ 50.73(a)(2)(i)	___ 50.73(a)(2)(viii)(A)	
		___ 20.405(a)(1)(iv)	X 50.73(a)(2)(ii)	___ 50.73(a)(2)(viii)(B)	
		___ 20.405(a)(1)(v)	___ 50.73(a)(2)(iii)	___ 50.73(a)(2)(x)	

LICENSEE CONTACT FOR THIS LER (12)

Name	TELEPHONE NUMBER
Nicos P. Digrindakis, Technical Staff Engineer Ext. 2158	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
X	S B	I S V	C 6 8 4	Y	X	S B	I S V	C 6 8 4	Y
X	S B	I S V	C 6 8 4	Y					

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)

On January 7, 1986, Unit One was shutdown for a refueling and maintenance outage. At 1530 hours, while performing the Main Steam Isolation Valve Local Leak Rate Tests (LLRT) (QTS 100-3), valves AO 1-203-2A, AO 1-203-2B, and AO 1-203-2C were found to leak in excess of the 11.5 standard cubic feet per hour limit specified in Technical Specification 3.7.A.2.a.3. The cause of the leak rate test failures was due to equipment failure. The valve seat for the 2A valve was grimy and pitted. The 2B valve seat was dirty and pitted. The 2C valve seat was also dirty and rusty and there were dirt spots on the valve disc. The conditions were caused by normal operational wear. Repairs were made as needed, including lapping of the valve seats and repair or replacement of the main valve discs and stems. Long term corrective action includes the use of a new valve lapping tool and development of a preventative maintenance program for the valve operators to assure adequate valve seating forces. This report is submitted in accordance with the requirements of 10 CFR 50.73(a)(2)(ii).

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PLANT AND SYSTEM IDENTIFICATION:

General Electric - Boiling Water Reactor - 2511 MWt rated core thermal power. Energy Industry Identification System (EIIS) codes are identified in the text as [XX].

IDENTIFICATION OF OCCURRENCE:

Leakage through Main Steam Isolation Valves AO 1-203-2A, AO 1-203-2B, and AO 1-203-2C is in excess of the Technical Specification limit of 11.5 SCFH as determined by Local Leak Rate Testing.

Discovery Date: 01-07-86

Report Date: 06-11-86

This report was initiated by Deviation Report D-4-1-86-6

CONDITIONS PRIOR TO OCCURRENCE:

SHUTDOWN Mode(1) - Rx Power 0% - Unit Load 0 MWe

SHUTDOWN Mode(1) - In this position, a reactor scram is initiated power to the control rod drives is removed and the reactor protection trip systems have been deenergized for 10 seconds prior to permissive for manual reset.

DESCRIPTION OF OCCURRENCE:

On January 7, 1986, Unit One was in cold shutdown for the end of cycle eight refueling and maintenance outage. At 1530 hours, while performing the Main Steam Isolation Valves [JM] Local Leak Rate Test (LLRT) (QTS 100-3), Valves AO 1-203-2A, AO 1-203-2B, and AO 1-203-2C were found to leak in excess of the 11.5 standard cubic feet per hour (SCFH) limit specified in Technical Specification 3.7.A.2.a.3. The leakage for the individual valves were as follows.

VALVE	LEAKAGE
AO 1-203-2A	292.7 SCFH
AO 1-203-2B	38.0 SCFH
AO 1-203-2C	82.9 SCFH

This report is submitted in accordance with the requirements of 10 CFR 50.73(a)(2)(ii).

APPARENT CAUSE OF OCCURRENCE:

After inspecting the valve internals of AO 1-203-2A, grime and pitting were discovered on the valve seat. Also, a cracked cage weld was discovered. However, the cracked cage weld did not affect valve leakage.

After inspecting the valve internals of AO 1-203-2B, dirt and pitting were discovered on the valve seat.

After inspecting the valve internals of AO 1-203-2C, dirt and rust were discovered on the valve seat and dirt spots were discovered on the valve disc.

These conditions were caused by normal operational wear.

ANALYSIS OF OCCURRENCE:

The through-line leakages of the A, B, and C steam lines are 0.0 SCFH due to the fact that the inboard valves AO 1-203-1A, AO 1-203-1B, and AO 1-203-1C were leak tight as shown by the Local Leak Rate Testing. Therefore, the safety implications of this occurrence were minimal.

CORRECTIVE ACTION:

Valve AO 1-203-2A seat was lapped. Also, the main disc, stem, piston ring, and packing were replaced.

The AO 1-203-2B valve seat and main disc were lapped and, the stem, piston ring, and packing were replaced.

The AO 1-203-2C valve seat and main disc were lapped. Also, the valve stem, pilot disc, piston ring, and packing were replaced.

After the repairs were made, the "as left" leak rate values were as follows.

Valve	Leakage
AO 1-203-2A	1.15 SCFH
AO 1-203-2B	0 0 SCFH
AO 1-203-2C	0.0 SCFH

To improve the MSIV leak rate performance, the station has purchased a new valve seat lapping machine for repair of the MSIVs. This tool was used for the first time this outage and it is anticipated that use of this machine will improve MSIV leak rate performance. If lapping the valve seat proves to be unsuccessful during an MSIV repair, a new valve seat will be installed. The station also intends to develop a preventative maintenance program for the MSIV air operators to assure that the valve seating forces are satisfactory.

FAILURE DATA:

At Quad Cities Station there have been 46 Main Steam Isolation Valves that have failed Local Leak Rate Testing. The last failures are documented on LERS 50-265/85-006 and 50-254/84-004.

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

RLB-86-82

June 11, 1986

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 please find Licensee Event Report (LER) 86-002, Revision 01, for Quad-Cities Nuclear Power Station.

This report is submitted to you in accordance with the requirements of the Code of Federal Regulations, Title 10, Part 50.73(a)(2)(ii), which requires the reporting of any event or condition that resulted in the condition of a nuclear power plant, including its principle safety barrier, being seriously degraded.

Respectfully,

COMMONWEALTH EDISON COMPANY
QUAD-CITIES NUCLEAR POWER STATION

R. L. Bax
Station Manager

RLB/MSK/dak

Enclosure

cc: J. Wojnarowski
A. Madison
INPO Records Center
NRC Region III

0526H

Commonwealth Edison

DEVIATION REPORT

DVR NO. 04 - 1 - 86 - 6
STA UNIT YEAR NO.

PART 1 TITLE OF DEVIATION

EXCESSIVE LEAKAGE THROUGH U-1 MSIV'S DURING LLRT

OCCURRED 1-7-86 DATE 1530 TIME

SYSTEM AFFECTED	PLANT STATUS AT TIME OF EVENT		TESTING
203	MODE S/D , POWER(%) 0	WORK REQUEST NO.	[X] YES [ ] NO

DESCRIPTION OF EVENT

THE LEAKAGE THROUGH MSIV'S 1-203-2A, 1-203-2B, AND 1-203-2C EXCEEDED THE TECHNICAL SPECIFICATION LIMIT OF 11.5 SCFH AS DETERMINED BY LOCAL LEAK RATE TESTING.

POTENTIALLY SIGNIFICANT EVENT PER NSD DIRECTIVE A-07 [ ] YES [X] NO

10CFR50.72 NRC RED PHONE NOTIFICATION MADE [ ] 1 HOUR [X] 4 HOUR 1605 TIME [ ] NO

ALEX L. MISAK RESPONSIBLE SUPERVISOR 1-7-86 DATE

PART 2 OPERATING ENGINEER'S COMMENTS

MSIV'S WILL BE REPAIRED AND TESTED PRIOR TO START-UP

[ ] NON REPORTABLE EVENT

[X] 30 DAY REPORTABLE/10CFR 50.73 (a) (2) (v) (c)

[ ] 5 DAY REPORT PER 10CFR21

[ ] ANNUAL/SPECIAL REPORT REQUIRED

A.I.R. #

L.E.R. # 86-02

NOTIFICATION ____ REGION III ____ DATE ____ TIME

____ NSD ____ DATE ____ TIME

[ ] CECO CORPORATE NOTIFICATION MADE IF ABOVE NOTIFICATION IS PER 10CFR21

TELECOPY ____ CECO CORPORATE OFFICER ____ DATE ____ TIME

PRELIMINARY REPORT COMPLETED AND REVIEWED J. SWALES OPERATING ENGINEER 1-8-86 DATE

INVESTIGATION REPORT & RESOLUTION ACCEPTED BY STATION REVIEW

RESOLUTION APPROVED AND AUTHORIZED FOR DISTRIBUTION ____ STATION MANAGER 7-14-86 DATE

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86-5176 11-85 (FORM 15-52-1)