

GCT-92-37

September 2, 1992

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

SUBJECT: Quad Cities Nuclear Station Units 1 and 2

Monthly Performance Report

NRC Docket Nos. 50-254 and 50-265

Enclosed for your information is the Monthly Performance Report covering the operation of Quad-Cities Nuclear Power Station, Units One and Two, during the month of August 1992.

Respectfully,

COMMONWEALTH EDISON COMPANY QUAD-CITIES NUCLEAR POWER STATION

Gerald C. Tit Gerald C. Tietz

Technical Superintendent

GCT/MB/dak

Enclosure

cc: A. B. Davis, Regional Administrator T. Taylor, Senior Resident Inspector

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QUAD-CITIES NUCLEAR POWER STATION

UNITS 1 AND 2

MONTHLY PERFORMANCE REPORT

AUGUST 1992

COMMONWEALTH EDISON COMPANY

AND

IOWA-ILLINOIS GAS & ELECTRIC COMPANY

NRC DOCKET NOS. 50-254 AND 50-265

LICENSE NOS. DPR-29 AND DPR-30

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I. INTRODUCTION

Quad-Cities Nuclear Power Station is composed of two Boiling Water
Reactors, each with a Maximum Dependable Capacity of 769 MWe Net, located in
Cordova, Illinois. The Station is jointly owned by Commonwealth Edison
Company and Iowa-Illinois Gas & Electric Company. The Nuclear Steam Supply
Systems are General Electric Company Boiling Water Reactors. The
Architect/Engineer was Sargent & Lundy, Incorporated, and the primary
construction contractor was United Engineers & Constructors. The Mississippi
River is the condenser cooling water source. The plant is subject to license
numbers DPR-29 and DPR-30, issued October 1, 1971, and March 21, 1972,
respectively; pursuant to Docket Numbers 50-254 and 50-265. The date of
initial Reactor criticalities for Units One and Two, respectively were October
18, 1971, and April 26, 1972. Commercial generation of power began on
February 18, 1973 for Unit One and March 10, 1973 for unit Two.

This report was compiled by Matt Benson and Debra Kelley, telephone number 309-654-2241, extensions 2995 and 2240.

II. SUMMARY OF OPERATING EXPERIENCE

A. Unit One

Quad Cities Unit One was in coast down for the month of August in preparation for the upcoming refuel outage.

Only one significant load reduction occured in August. On August 15, Unit One took a manual SCRAM when the electro-hydraulic control (EHC) system loss level due to a fluid leak.

Numerous normal load reductions of less than 20% were performed per our Load Dispatcher but not reported.

B. Unit Two

Quad Cities Unit Two reduced power to 200 MWe on August 2, 9, and 13 so that work could be performed in the Main Steam Isolation Valve (MSIV) room. Power was also reduced on August 22, to 650 MWe for a weekly turbine surveillance.

Chicago Load Dispatch requested the following load reductions for Unit Two for the month of August;

Date	Load
8-1-92 7-6-92 7-7-92 7-8-92 7-11-92 7-12-92 7-14-92 7-15-92 7-16-92 7-18-92 7-20-92 7-21-92 7-23-92 7-25-92 7-26-92	470 MWe 550 MWe 455 MWe 555 MWe 625 MWe 538 MWe 600 MWe 545 MWe 600 MWe 550 MWe 600 MWe 550 MWe 600 MWe 550 MWe
7-27-92 7-28-92 7-31-92	475 MWe 470 MWe 500 MWe

III. PLANT OR PROCEDURE CHANGES, TESTS, EXPERIMENTS, AND SAFETY RELATED MAINTENANCE

- A. Amendments to Facility License or Technical Specifications

 There were no Amendments to the Facility License or Technical Specifications for the reporting period.
- B. Facility or Procedure Changes Requiring NRC Approval

 There were no Facility or Procedure changes requiring NRC approval for the reporting period.
- C. Tests and Experiments Requiring NRC Approval

 There were no Tests or Experiments requiring NRC approval for the reporting period.
- D. Corrective Maintenance of Safety Related Equipment

 The following represents a tabular summary of the major safety related maintenance performed on Units One and Two during the reporting period. This summary includes the following: Work Request Numbers, Licensee Event Report Numbers, Components, Cause of Malfunctions, Results and Effects on Safe Operation, and Action Taken to Prevent Repetition.

UNIT 1 MAINTENANCE SUMMARY

WORK REQUEST	SYSTEM	EID DESCRIPTION	WORK PERFORMED
Q02353	5200	Repair leak on Diesel Generator fuel oil return line.	Removed old union, cleaned threads, sealed mating surfaces, reinstalled and tightened union.
Q02391	9400	Check refrigerant charge on refrigeration condenser unit control room HVAC "B" train.	Installed new filters and adjusted the thermal expansion valve.
Q02659	6601	Investigate and adjust U1/2 Diesel Generator and adjust governor for drift.	Adjusted the 1/2 Diesel Generator governor compensation screw and compensation pointer.
Q02462	6601	Investigate Unit 1 Diesel Generator.	Adjusted governor bleed screw and compensation. After adjustment there was no governor drift and the engine speed was stable.
Q02471	5727	Investigate Unit 1 Diesel Generator vent fan.	Cut back burnt wires and crimped two new lugs or one phase inside peckerhead. Taped all leads. Fan ran acceptably.
Q02494	6601	Repair fuel oil leak at suction to engine driven pump.	As Found: Leak found to be cracked thread on nipple. As Left: Repaired and replace nipple. Replaced pipe reducer.
Q02514	6601	Repair fuel oil leak at discharge of shaft driven oil pump.	Repaired and tested. Test failed. New work request written (Q02521).
Q02521	6601	Repair fuel oil leak at discharge of shaft driven oil pump.	As Found: Found cracks inside the nipple of the pipe. As Left: Replaced with new fuel oil pump. Welded new nipple. Replaced fuel oil line. Retightened one fitting.

UNIT 2 MAINTENANCE SUMMARY

WORK REQUEST	S/STEM	EID DESCRIPTION	WORK PERFORMED
Q01126	640	Reprogram LED digital scaling on reactor level/pressure/steam flow recorder.	Reprogrammed recorder PEU #3 to read out in psig and changed scale for PEU #3.
Q01293	2301	Troubleshoot and repair air-operated steam trap bypass valve operator. AO 2-2301-31 HPCI steam trap bypass.	The pressure and exhaust ports were reversed.
Q02047	1002	Tighten or repair 2B RHR pump motor bottom motor bearing oil plug.	As Found: Found plug leaking and slightly loose. As Left: Tightened plug.
Q02365	261	Repair main steam temperature switch.	As Found: 2-261-150 switch reads open after being sprayed with water for a long period of time. As Left: Replaced switch with like for like and stopped water leak.
Q02412	5745	Investigate D RHR service water pump :oom cooler motor.	Replace both contactor coil leads.
Q74199	1705	Replace back plate of 2B fuel pool radiation monitor.	As Found: Back plate was broken. As Left: Installed new trip unit and set trip points. Installed sensor convertor.
Q98851	300	Repair sealtight on U2 CRD module 50-51.	Replace damaged sealtite and documented lifted leads on 700-14.

IV. LICENSER EVENT REPORTS

The following is a tabular summary of all licensee event reports for Quad-Cities Units One and Two occurring during the reporting period, pursuant to the reportable occurrence reporting requirements as set forth in sections 6.6.B.l and 6.6.B.2 of the Technical Specifications.

UNIT 1

Licensee Event Report Number	Date	Title of Occurence
92-017	08-04-92	Control Room HVAC A/C Comp Inop.
92-018	08-13-92	Chlorine Analyzer Failed to Trip.
92-019	08-15-92	U-1 Rx Scram Due to EHC Fluid Leak at the #3 Turbine Control Valve
92-021	08-25-92	1/2 DG Inop from Governor instability.
		UNIT 2
Licensee Event Report Number	Date	Title of Occurence
92-020	06-12-92	"R" Gate Found Open. Cancelled - investigated under a Radiation Occurence Report.
92-020	U8-11-92	RCIC Failure to Reach Speed Or Pressure.

V. DATA TABULATIONS

The following data tabulations are presented in this report:

- A. Operating Data Report
- B. Average Daily Unit Power Level
- C. Unit Shutdowns and Power Reductions

APPENDIX C OPERATING DATA REPORT

DOCKET NO 50-254

UNIT One DATE September 4, 1992 COMPLETED BY Matt Benson TELEPHONE (309) 654-2241 OPERATING STATUS 0000 080192 1. REPORTING PERIOD: 2400 083192 GROSS HOURS IN REPORTING PERIOD: 744 2. CURRENTLY AUTHORIZED POWER LEVEL (MWt): 2511 MAX. DEPEND. CAPACITY: 769 DESIGN ELECTRICAL RATING (MWe-Net): 789 3. POWER LEVEL TO WHICH RESTRICTED (IF ANY) (MWe-Net): N/A 4. REASONS FOR RESTRICTION (IF ANY): THIS MONTH YR TO DATE CUMULATIVE 666.30 5. NUMBER OF HOURS REACTOR WAS CRITICAL 5381.90 141893.00 6. REACTOR RESERVE SHUTDOWN HOURS 0.0 0.0 3421.9 5329.50 137560.60 B. UNIT RESERVE SHUTDOWN HOURS 0.0 909.2 0.0 9. GROSS THERMAL ENERGY GENERATED (MWH)...... 296149280.60 1163726.40 12082257.6 10. GROSS ELECTRICAL ENERGY GENERATED (MWH)........... 361522.0 95965259.0 3890923.0 3740411.0 90449779.0 91.92 79.39 13. REACTOR AVAILABILITY FACTOR..... 89.56 81.31 91.92 87.94 14, UNIT SERVICE FACTOR 76.97 91.02 15. UNIT AVAILABILITY FACTOR 87.94 91.02 77,48 65.81 83.07 17. UNIT CAPACITY FACTOR (Using Design Mwe) 58.19 80.97 54,14 19. SHUTDOWNS SCHEDULED OVER NEXT 6 MONTHS (TYPE, DATE, AND DURATION OF EACH): 20. IF SHUTDOWN AT END OF REPORT PERIOD. ESTIMATED DATE OF STARTUP: 21. UNITS IN TEST STATUS (PRIOR TO COMMERCIAL OPERATION): FORECAST ACHIEVED INITIAL CRITICALITY INITIAL ELECTRICITY COMMERCIAL OPERATION

1.16-9

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APPENDIX C OPERATING DATA REPORT

DOCKET NO 50-265

UNIT Two
DATE September 4, 1992

COMPLETED BY Matt Benson
TELEPHONE (309) 654-2241

\ne	DATIME STATUS					
Jrt	RATING STATUS	0000	080192			
1.	REPORTING PERIOD:	2400	083192 GROSS HOURS	IN REPORTING PI	ERIOD: 744	
2.	CURRENTLY AUTHORIZED		/EL (MWt): <u>2511</u> -Net): <u>789</u>	MAX. DEPEN	ND. CAPACITY:	769
3.	POWER LEVEL TO WHI	CH RESTRICTE	ED (IF ANY) (MWe-Net)	: N/A		
4.	REASONS FOR RESTRI	CTION (IF A	(Y):			
5.	NUMBER OF HOURS REA	ACTOR WAS CE	RITICAL	THIS MONTH 744.00	YR TO DATE 2763.55	
6.	REACTOR RESERVE SHI	UTDOWN HOURS		0.0	0.0	2985.8
7.	HOURS GENERATOR ON	LINE		744.00	2692.55	132712.45
8.	UNIT RESERVE SHUTDO	OWN HOURS		0.0	0.0	702.9
9.	GROSS THERMAL ENERG	GY GENERATED) (MWH)	1671345.60	5703616.80	285787502.80
0.	GROSS ELECTRICAL EN	NERGY GENERA	NTED (MWH)	542083.00	1843561.00	91773751.00
1.	NET ELECTRICAL ENER	RGY GENERATE	D (MWH)	516722.00	1733546.00	86867721.00
2.	REACTOR SERVICE FAC	CTOR		100.00	47,20	76.90
3.	REACTOR AVAILABILI	TY FACTOR		100.00	47.20	78.59
4.	UNIT SERVICE FACTOR	R		100.00	45.99	74,91
5.	UNIT AVAILABILITY	FACTOR		100.00	45,99	75.31
6.	UNIT CAPACITY FACTO	OR (Using MC	OC)	90.31	38.50	63.76
7.	UNIT CAPACITY FACTO	OR (Using De	sign MWe)	08.03	37.53	62.14
8.	UNIT FORCED OUTAGE	RATE	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	0.0	0.0	7.94
0.	IF SHUTDOWN AT END	OF REPORT P	6 MONTHS (TYPE, DATE PERIOD, ESTIMATED DATE COMMERCIAL OPERATION	E OF STARTUP:		
				FORECAST	ACHIEVED	
	INITIAL CRITICALITY				Company Company Company	
	INITIAL ELECTRICITY				-	
	COMMERCIAL OPERATIO)N				

APPENDIX B AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO	50-254
UNIT	One
DATE	September 4, 1992
COMPLETED BY	Matt Benson
TELEPHONE	(309) 654-2241

DAY AVE	RAGE DAILY POWER LEVEL (MWe-Net)	DAY AVER	AGE DAILY POWER LEVEL (MWe-Net)
١	525	17.	-8
2.	538	18.	4
	576	19.	429
	556	20.	549
j	555	21.	503
	564	22.	501
	543	23	520
	553	24.	532
	547	25.	547
0	552	26	516
1	546	27.	515
2.	515	28.	486
3	536	29.	468
4	499	30	504
5	40	31	511
6	-8		

INSTRUCTIONS

On this form, list the average daily unit power level in MWe-Net for each day in the reporting month. Compute to the nearest whole megawatt. These figures will be used to plot a graph for each reporting month. Note that when maximum dependable capacity is used for the net electrical rating of the unit, there may be occasions when the daily average power level exceeds the 100% line (or the restricted power level line). In such cases, the average daily unit power output sneet should be footnoted to explain the apparent anomaly.

APPENDIX B AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO 50-265

30. 742

31. 703

UNIT Two DATE September 4, 1992

		COMPLETED	
MONTH A	ugust 1992		
DAY AVER	AGE DAILY POWER LEVEL (MWe-Net)	DAY AVERA	AGE DAILY POWER LEVEL (MWe-Net)
1.	644	17.	776
2.	334	18.	732
3	646	19	777
4	774	20.	694
5.	775	21	711
6	695	22.	733
7	686	23	736
8.	701	24	773
9	342	25	750
10	769	26	715
11	749	27	700
12	719	28	696
13	572	29	763

INSTRUCTIONS

16.

14. 730

715

663

On this form, list the average daily unit power level in MWe-Net for each day in the reporting month. Compute to the nearest whole megawatt. These figures will be used to plot a graph for each reporting month. Note that when maximum dependable capacity is used for the net electrical rating of the unit, there may be occasions when the daily average power level exceeds the 100% line (or the restricted power level line). In such cases, the average daily unit power output sheet should be footnoted to explain the apparent anomaly.

APPENDIX D
UNIT SHUTDOWNS AND POWER REDUCTIONS

DOCKET NO. 50-254

UNIT NAME One

Matthew Benson

COMPLETED BY

September 4, 1992	er 4,	1992		REY.	REFORT MONTH	August 1992	1992	TELEPHONE 309-654-2241
DATE	LAPE S	DURATIGN (HOURS)	REASON	NETHOD OF	LICENSEE EVENT REPORT NO.	SYSTEM	CODE	CORRECTIVE ACTIONS/COMMENTS
	Eas			5				EHC System Leak
					-1-(-1-(final)	,	

APPENDIX L UNIT SHUTDOWNS AND POWER REDUCTIONS

DOCKET NO. 50-265

UNIT NAME

Two

DAIL September 4, 1992

REPORT MONTH August 1992

COMPLETED BY Matthew Benson

TELEPHONE

309-654-2241

7.7 F 8.6 B 6.7 F 7.1 F			1		CORRECTIVE ACTIONS/COMMENTS
6.7 F 7.1 F					Load Drop Per Chicago Load Dispatcher
7.1 F					MSIV Repairs
					Load Drop Per Chicago Load Dispatcher
7.3 F					
17.0 B			30		MSIV Room Work
4.4 F					Load Drop Per Chicago Load Dispatcher
4.9 F					" " " "
8.6 B	5				MSIV Room Maintenance
5.7 F	5				Load Drop Per Chicago Load Dispatcher
5.8 F	5				n n n
8.1 F	5				n n n
5.5 F	5				11 11 11
8.3 F	5				" " "
6.4 F	5				11 11 11
6.7 F	5				Turbine Weekly Surveillance
2.9 F	5				Load Drop Per Chicago Load Dispatcher
2.5 F	5				
		10 5 T T E			" " "
					39 H H
5.0 7.0 6.0 6.9	F	F 5 F 5	F 5	F 5	F 5

VI. UNIQUE REPORTING REQUIREMENTS

The following items are included in this report based on prior commitments to the commission:

A. Main Steam Relief Valve Operations

Relief valve operations during the reporting period are summarized in the following table. The table includes information as to which relief valve was actuated, how it was actuated, and the circumstances resulting in its actuation.

Unit: One

Date: 08/18/92

Valves Actuated

No. & Type of Actuation

All manual actuations.

1-203-3A

1-203-3B

1-203-30

1-203-3D

1-203-3E

Plant Conditions: Rx. pressure: 922 psig.

Description of Events: Routine surveillance and Post Maintenance

following adjustment of 3B pilot. (OCOS 203-3)

B. Control Rod Drive Scram Timing Data for Units One and Two

There was no Control Rod Drive scram timing data for Units One and Two for the reporting period.

VII. REFUELING INFORMATION

The following information about future reloads at Quad-Cities Station was requested in a January 26, 1978, licensing memorandum (78-24) from D. E. O'Brien to C. Reed, et al., titled "Dresden, Quad-Cities and Zion Station-NRC Request for Refueling Information", dated January 18, 1978.

QTP 300-532 Revision 2 October 1989

QUAD CITIES REFUELING INFORMATION REQUEST

1.	Unit: Q1	Reload:	11	Cycle: 12
2.	Scheduled date for	next refueling	shutdown:	9-20-92
3.	Scheduled date for	restart follow	ng refueling:	12-12-92
4.	Will refueling or re Specification change 1. Modification to	e of other lice	inse amendment:	ter require a Technical
5.	Scheduled date(s) for supporting information	or submitting p	roposed licensi	ng action and
	1. 06/30/92			
6.	Important licensing or dilferent fuel de analysis methods, si procedures:	STUIL OF SUPPLE	DY IIPPALL ALLAN	h refueling, e.g., new design or performance ign, new operating
	NONE AT PRESENT TIME			
7.	The number of fuel a	ssemblies.		
	a. Number of assem	blies in core:		724
	b. Number of assemi	bites in spent	fuel pool:	1405
١.	The present licensed any increase in licer planned in number of	nsed storage ca	Dacity that has	ity and the size of been requested or is
	a. Licensed storage	capacity for	spent fuel:	3657
	b. Planned increase	in licensed s	torage:	0
*	The projected date of spent fuel pool assum	the last refu iing the presen	eling that can t licensed capa	be discharged to the city: 2009

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QTP 300-S32 Revision 2 October 1989

QUAD CITIES REFUELING INFORMATION REQUEST

1.	Unit: Q2	Reload:	11	Cycle:	-12	
2.	Scheduled date for nex	t refueling	shutdown:		03/06/93	
3.	Scheduled date for res	tart follows	ng refueling:		06/05/93	
4.	Will refueling or results Specification change of NOT AS YET DETERMINED.	mption of op r other lice	eration theres	ter requi	re a Techni	cal
5.	Scheduled date(s) for supporting information	submitting p	roposed licensi	ng action	and	
	NOT AS YET DETERMINED.					
6.	Important licensing cor or different fuel designalysis methods, signi procedures:		OF HERMANNEY			ew e
	NONE AT PRESENT TIME.					
7.	The number of fuel asse	emblies.				
	a. Number of assembli	es in core:		- Contraction -	724	
	b. Number of assembli	es in spent	fuel pool:	2	439	THE REAL PROPERTY.
) .	The present licensed speany increase in licensed planned in number of fue	o storage ca	Dacity that hae	ity and the been requ	he size of uested or i	S
	a. Licensed storage ca	apacity for	spent fuel:	3	897	TOMORNO
	b. Planned increase in	n licensed s	torage:	-	0	To the later of
	The projected date of the spent fuel pool assuming	he last refue g the present	eling that can ! t licensed capac	be dischar city: 200	ged to the	

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Q.C.O.S.R.

VIII. GLOSSARY

The following aboreviations which may have been used in the Monthly Report, are defined below:

ACAD/CAM - Atmospheric Containment Atmospheric Dilution/Containment Atmospheric Monitoring ANSI - American National Standards Institute APRM - Average Power Range Monitor - Anticipated Transient Without Scram ATWS BWR - Boiling Water Reactor CRD - Control Rod Drive EHC - Electro-Hydraulic Control System EOF - Emergency Operations Facility GSEP - Generating Stations Emergency Plan HEPA - High-Efficiency Particulate Filter HPCI - High Pressure Coolant Injection System HRSS - High Radiation Sampling System IPCLRT - Integrated Primary Containment Leak Rate Test IRM - Intermediate Range Monitor ISI - Inservice Inspection LER - Licensee Event Report LLRT - Local Leak Rate Test LPCI - Low Pressure Coolant Injection Mode of RHRs - Local Power Range Monitor LPRM MAPLHGR - Maximum Average Planar Linear Heat Generation Rate MCPR - Minimum Critical Power Ratio MFLCPR - Maximum Fraction Limiting Critical Power Ratio MPC - Maximum Permissible Concentration MSIV - Main Steam Isolation Valve NIOSH - National Institute for Occupational Safety and Health PCI - Primary Containment Isolation PCIOMR - Preconditioning Interim Operating Management Recommendations RBCCW - Reactor Building Closed Cooling Water System RBM - Rod Block Monitor RCIC - Reactor Core Isolation Cooling System RHRS - Residual Heat Removal System RES - Reactor Protection System RWM - Rod Worth Minimizer SBGTS - Standby Gas Treatment System SBLC - Standby Liquid Control SDC - Shutdown Cooling Mode of RHRS SDV - Scram Discharge Volume SRM - Source Range Monitor TBCCW - Turbine Building Closed Cooling Water System TIP - Traversing Incore Probe

TSC

- Technical Support Center