QUAD-CITIES NUCLEAR POWER STATION

UNITS 1 AND 2

MONTHLY PERFORMANCE REPORT

FEBRUARY 1985

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 Becky Brown and Dave Kimler, telephone number 309-654-2241, extensions 127 and 192.

II. SUMMARY OF OPERATING EXPERIENCE

A. Unit One

February 1-10: Unit One began the month holding load. On February 2, at 0030 hours, load was dropped to 700 MWe for weekly Turbine tests. At 0215 hours the unit began a normal load increase to place the unit on Economic Generation Control (EGC). On February 5, at 0245 hours, load was dropped due to inoperability of the High Pressure Coolant Injection System (HPCI). At 1720 hours the unit began increasing load to full power. On February 9, at 2300 hours, load was dropped to 700 MWe for weekly Turbine tests. At 0100 hours, on February 10, the unit began a normal load increase to full power.

February 11-28: On February 11, at 2255 hours, load was dropped to place the unit on EGC. On February 15, at 2200 hours, load was dropped and the unit was placed in HOT STANDBY to repair an EHC oil leak. At 0411 hours, on February 16, the Turbine was tripped. On February 17, at 0532 hours, the unit was on-line and increasing load to full power. On February 23, at 0135 hours, load was dropped to place the unit on EGC. On February 25, at 0750 hours, load was dropped to 700 MWe for a Reactor Feedwater Pump changeover. At 0910 hours load was increased to 740 MWe and the unit was placed on EGC.

B. Unit Two

February 1-13: Unit Two began the month increasing load at 5 MWe/hour for fuel preconditioning following a load reduction to repair the HPCI 2301-8 valve. On February 3, at 0050 hours, load was dropped to 700 MWe for weekly Turbine tests. At 0215 hours the unit began a normal load increase to full power. On February 8, at 1110 hours, load was dropped to 700 MWe for a Condensate Pump changeover. At 1240 hours the unit began a normal load increase to full power. On February 9, at 2200 hours, load was dropped to 600 MWe for a Control Rod Pattern adjustment. At 0300 hours, on February 10, the unit began a normal load increase to full power. On February 13, at 0745 hours, load was dropped to repair a seal leak on the 2C Reactor Feedwater Pump. At 0835 hours the unit began a normal load increase to full power.

February 14-28: On February 16, at 2315 hours, load was dropped to 600 MWe for a Control Rod Pattern adjustment. At 0200 hours, on February 17, the unit began a normal load increase to full power. On February 19, at 0024 hours, the Reactor scrammed due to full closure of the 2B Outboard MSIV during bi-weekly testing. At 1712 hours, the Reactor was critical and at 2200 hours the unit was on-line and increasing load to full power.

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, LER Numbers, Components, Cause of Malfunctions, Results and Effects on Safe Operation, and Action Taken to Prevent Repetition.

UNIT ONE MAINTENANCE SUMMARY

W.R. NUMBER	LER NUMBER	COMPONENT	CAUSE OF MALFUNCTION	RESULTS & EFFECTS ON SAFE OPERATION	ACTION TAKEN TO PREVENT REPETITION
Q40205		Repaired HPCI Cooling Return Valve 1-2301-48	Valve motor end bell broken.	Valve would not open or close. HPCI remained operable.	Replaced end bell. Investigation by Technical Staff is in progress to alleviate recurring problems.

UNIT TWO MAINTENANCE SUMMARY

W.R. NUMBER	LER NUMBER	COMPONENT	CAUSE OF MALFUNCTION	RESULTS & EFFECTS ON SAFE OPERATION	ACTION TAKEN TO PREVENT REPETITION
Q37619	84-14	Adjusted Limit Switches on HPCI Steam Isolation Valve 2-2301-4	Closed side-limits of switch; set too close.	Valve failed to open completely. HPCI declared inoperable for 25 minutes; minimal impact on safety.	Adjusted limit switches; stroked successfully three times.
Q40141	85-002	Repair HPCI Motor Gear Unit	Failed capacitor in power supply to signal convertor circuitry.	Drove MGU to its low speed stop. HPCI declared inoperable for 1½ hours.	Replaced capacitor.

IV. LICENSEE 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.1. and 6.6.B.2. of the Technical Specifications.

UNIT ONE

Licensee Event Report Number	Date	Title of Occurrence
85-01	2-5-85	HPCI System Inoperable

UNIT TWO

85-04	2-8-85	HPCI Room Cooler Motor Failure
85-05	2-19-85	Reactor Scram due to 2B MSIV Full Closure

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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

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OPERATING DATA REPORT

DOCKET NO. 50-254

UNIT ONE

DATE March 5 1985

COMPLETED BY DAVE KIMLER

TELEPHONE 309-654-2241x192

OPERATING STATUS

0000 020185

1. Reporting period: 2400 022885 Gross hours in reporting period: 672

2. Currently authorized power level (MWt): 2511 Max.Depend capacity (MWe-Net): 769* Design electrical rating (MWe-Net): 789

3. Power level to which restricted(if any)(MWe-Net): NA

4. Reasons for restriction (if any):

	This Month	Yr.to Date	Cumulative
5. Number of hours reactor was critical	672.0	1416.0	89738.5
6. Reactor reserve shutdown hours	0.0	0.0	3421.9
7. Hours generator on line	646.7	1390.7	86426.0
8. Unit reserve shutdown hours.	0.0	0.0	909.2
9. Gross thermal energy generated(MWH)	1484121	3207101	178953491
10. Gross electrical energy generated(MWH)	492048	1063922	57841373
11. Net electrical energy generated(MWH)	471714	1019578	53975280
12. Reactor service factor	100.0	100.0	79.9
13. Reactor availability factor	100.0	100.0	83.0
14. Unit service factor	96.2	98.2	77.0
15. Unit availability factor	96.2	98.2	77.8
16. Unit capacity factor (Using MDC)	91.3	93.6	62.5
17. Unit capacity factor (Using Des.MWe)	89.0	91.3	60.9
18. Unit forced outage rate	3.8	1.8	6.0

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 NA

*The MDC may be lower than 769 MWe during periods of high ambient temperature due to the thermal performance of the spray canal.

*UNOFFICIAL COMPANY NUMBERS ARE USED IN THIS REPORT

OPERATING DATA REPORT

DOCKET NO. 50-265

UNIT TWO

DATE March 5 1985

COMPLETED BY DAVE KIMLER

TELEPHONE 309-654-2241x192

OPERATING STATUS

0000 020185

1. Reporting period: 2400 022885 Gross hours in reporting period: 672

2. Currently authorized power level (MWt): 2511 Max.Depend capacity (MWe-Net): 769* Design electrical rating (MWe-Net): 789

3. Power level to which restricted(if any)(MWe-Net): NA

4. Reasons for restriction (if any):

	This Month	Yr.to Date	Cumulative
5. Number of hours reactor was critical	655.2	1246.2	86152.2
6. Reactor reserve shutdown hours	0.0	0.0	2985.8
7. Hours generator on line	650.4	1224.5	83273.7
8. Unit reserve shutdown hours.	0.0	0.0	702.9
9. Gross thermal energy generated(MWH)	1549629	2799665	174318732
10. Gross electrical energy generated(MWH)	505818	915259	55568670
11. Net electrical energy generated(MWH)	485301	877424	52195409
12. Reactor service factor	97.5	88.0	77.4
13. Reactor availability factor	97.5	88.0	80.1
14. Unit service factor	96.8	86.5	74.8
15. Unit availability factor	96.8	86.5	75.4
16. Unit capacity factor (Using MDC)	93.9	80.6	61.0
17. Unit capacity factor (Using Des.MWe)	91.5	78.5	59.4
18. Unit forced outage rate	3.2	13.5	8.5

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 NA

*The MDC may be lower than 769 MWe during periods of high ambient temperature due to the thermal performance of the spray canal.

*UNOFFICIAL COMPANY NUMBERS ARE USED IN THIS REPORT

APPENDIX B
AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-254

UNIT ONE

DATE March 5 1985

COMPLETED BY DAVE KIMLER

TELEPHONE 309-654-2241x192

MONTH February 1985

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1.	783.9	17.	275.3
2.	785.5	18.	578.5
3.	792.6	19.	762.8
4.	783.4	20.	781.9
5.	406.1	21.	728.1
6.	676.6	22.	735.3
7.	786.9	23.	734.7
8.	788.3	24.	731.8
9.	794.8	25.	729.5
10.	779.4	26.	735.2
11.	798.5	27.	780.5
12.	731.8	28.	867.8
13.	791.3		
14.	788.4		
15.	778.2		
16.	30.9		

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 sheet should be footnoted to explain the apparent anomaly

APPENDIX B
AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-265

UNIT TWO

DATE March 5 1985

COMPLETED BY DAVE KIMLER

TELEPHONE 309-654-2241x192

MONTH February 1985

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1.	779.7	17.	640.6
2.	790.0	18.	709.7
3.	768.8	19.	10.0
4.	787.9	20.	493.5
5.	790.8	21.	621.2
6.	791.6	22.	735.3
7.	790.0	23.	772.5
8.	774.4	24.	790.1
9.	783.7	25.	784.4
10.	607.5	26.	776.0
11.	730.0	27.	793.9
12.	787.1	28.	776.6
13.	790.0		
14.	771.1		
15.	786.7		
16.	783.4		

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 sheet should be footnoted to explain the apparent anomaly

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APPENDIX D
UNIT SHUTDOWNS AND POWER REDUCTIONS

QTP 300-S13
Revision 6
August 1982

DOCKET NO. 050-254

UNIT NAME Quad-Cities Unit 1

COMPLETED BY Dave Kimler

DATE March 5, 1985

REPORT MONTH FEBRUARY 1985

TELEPHONE 309-654-2241

NO.	DATE	TYPE F OR S	DURATION (HOURS)	REASON	METHOD OF SHUTTING DOWN REACTOR	LICENSEE EVENT REPORT NO.	SYSTEM CODE	COMPONENT CODE	CORRECTIVE ACTIONS/COMMENTS
85-9	850202	S	0.0	B	5		HA	TURBIN	Reduced load to 700 MWe for weekly Turbine tests
85-10	850204	S	0.0	F	5		XX	ZZZZZZ	Reduced load to place Unit on Economic Generation Control (EGC)
85-11	850205	F	0.0	D	5	85-01	SF	VALVEX	Reduced load due to HPCI System inoperability
85-12	850209	S	0.0	B	5		HA	TURBIN	Reduced load to 700 MWe for weekly Turbine tests
85-13	850211	S	0.0	F	5		XX	ZZZZZZ	Reduced load to place Unit on EGC
85-14	850215	S	25.4	B	9		HB	XXXXXX	Reduced load and placed Unit in HOT STAND-BY to repair EHC oil leak
85-15	850223	S	0.0	F	5		XX	ZZZZZZ	Reduced load to place Unit in EGC
85-16	850225	S	0.0	H	5		CH	PUMPXX	Reduced load for Reactor Feedwater Pump changeover

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APPENDIX D
UNIT SHUTDOWNS AND POWER REDUCTIONS

QTP 300-S13
Revision 6
August 1982

DOCKET NO. 050-265

UNIT NAME Quad-Cities Unit 2

COMPLETED BY Dave Kimler

DATE March 5, 1985

REPORT MONTH FEBRUARY 1985

TELEPHONE 309-654-2241

NO.	DATE	TYPE F OR S	DURATION (HOURS)	REASON	METHOD OF SHUTTING DOWN REACTOR	LICENSEE EVENT REPORT NO.	SYSTEM CODE	COMPONENT CODE	CORRECTIVE ACTIONS/COMMENTS
85-8	850203	S	0.0	B	5		HA	TURBIN	Reduced load to 700 MWe for weekly Turbine tests
85-9	850208	S	0.0	H	5		HC	PUMPXX	Reduced load to 700 MWe for Condensate Pump changeover
85-10	850209	S	0.0	H	5		RB	CONROD	Reduced load for Control Rod Pattern Adjustment
85-11	850213	F	0.0	A	5		CH	PUMPXX	Reduced load to repair seal leak on 2C Reactor Feedwater Pump
85-12	850216	S	0.0	H	5		RB	CONROD	Reduced load for Control Rod Pattern Adjustment
85-13	850219	F	21.6	A	3	85-05	HB	VALVEX	Reactor scram due to 2B Outboard MSIV full closure during test

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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: February 16, 1985

Valves Actuated	No. & Type of Actuations
1-203-3A	1 Manual
1-203-3B	1 Manual
1-203-3C	1 Manual
1-203-3D	1 Manual
1-203-3E	1 Manual

Plant Conditions: Reactor Pressure - 940 lbs

Description of Events: Surveillance Technical Specification 4.5.D.1.b

B. Control Rod Drive Scram Timing Data for Units 1 and 2

The basis for reporting this data to the Nuclear Regulatory Commission are specified in the surveillance requirements of Technical Specifications 4.3.C.1 and 4.3.C.2.

The following table is a complete summary of Units 1 and 2 Control Rod Drive Scram Timing for the reporting period. All scram timing was performed with Reactor pressure greater than 800 psig.

RESULTS OF SCRAM TIMING MEASUREMENTS

PERFORMED ON UNIT 1 & 2 CONTROL

ROD DRIVES, FROM 1-1 TO 12-31-85

DATE	NUMBER OF RODS	AVERAGE TIME IN SECONDS AT % INSERTED FROM FULLY WITHDRAWN				Max. Time For 90% Insertion	DESCRIPTION
		5	20	50	90		Technical Specification 3.3.C.1 & 3.3.C.2 (Average Scram Insertion Time)
		0.375	0.900	2.00	3.5	7 sec.	
2-17	89	0.28	0.66	1.42	2.51	2.90 (D-2)	Unit 1 Sequence B Hot Scram Timing

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.

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QTP 300-S32
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March 1978

QUAD-CITIES REFUELING INFORMATION REQUEST

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1. Unit: Q1 Reload: 7 Cycle: 8

2. Scheduled date for next refueling shutdown: 1-2-86

3. Scheduled date for restart following refueling: 4-2-86

4. Will refueling or resumption of operation thereafter require a technical specification change or other license amendment:

   NOT AS YET DETERMINED.

5. Scheduled date(s) for submitting proposed licensing action and supporting information:

   DECEMBER 19, 1985; IF LICENSING ACTION REQUIRED.

6. Important licensing considerations associated with refueling, e.g., new or different fuel design or supplier, unreviewed design or performance analysis methods, significant changes in fuel design, new operating procedures:

   NONE PLANNED AT PRESENT TIME.

7. The number of fuel assemblies.

   a. Number of assemblies in core: 724

   b. Number of assemblies in spent fuel pool: 2340

8. The present licensed spent fuel pool storage capacity and the size of any increase in licensed storage capacity that has been requested or is planned in number of fuel assemblies:

   a. Licensed storage capacity for spent fuel: 3657

   b. Planned increase in licensed storage: 0

9. The projected date of the last refueling that can be discharged to the spent fuel pool assuming the present licensed capacity: 2003

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QTP 300-S32
Revision 1
March 1978

QUAD-CITIES REFUELING INFORMATION REQUEST

*

1. Unit: Q2 Reload: 7 Cycle: 8

2. Scheduled date for next refueling shutdown: 3-16-85

3. Scheduled date for restart following refueling: 5-28-85

4. Will refueling or resumption of operation thereafter require a technical specification change or other license amendment:

   Yes. A routine MAPLHGR amendment has been submitted as a preparatory change to allow a 10 CFR 50.59 review.

5. Scheduled date(s) for submitting proposed licensing action and supporting information:

   Not Applicable.

6. Important licensing considerations associated with refueling, e.g., new or different fuel design or supplier, unreviewed design or performance analysis methods, significant changes in fuel design, new operating procedures:

   None planned at present time.

7. The number of fuel assemblies.

   a. Number of assemblies in core: 724

   b. Number of assemblies in spent fuel pool: 0

8. The present licensed spent fuel pool storage capacity and the size of any increase in licensed storage capacity that has been requested or is planned in number of fuel assemblies:

   a. Licensed storage capacity for spent fuel: 3897

   b. Planned increase in licensed storage: 0

9. The projected date of the last refueling that can be discharged to the spent fuel pool assuming the present licensed capacity: 2003

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Q.C.O.S.R.

VIII. GLOSSARY

The following abbreviations 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
ATWS	-	Anticipated Transient Without Scram
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
LPRM	-	Local Power Range Monitor
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
RPS	-	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

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

NJK-85-69

March 1, 1985

Director, Office of Inspection & Enforcement
United States Nuclear Regulatory Commission
Washington, D. C. 20555
Attention: Document Control Desk

Gentlemen:

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 February 1985.

Very truly yours,

COMMONWEALTH EDISON COMPANY
QUAD-CITIES NUCLEAR POWER STATION

N. J. Kalivianakis
Station Superintendent

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Enclosure

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