QUAD-CITIES NUCLEAR POWER STATION

UNITS 1 AND 2

MONTHLY PERFORMANCE REPORT

FEBRUARY 1983

COMMONWEALTH EDISON COMPANY

AND

IOWA-ILLINOIS GAS & ELECTRIC COMPANY

NRC DOCKET NOS. 50-254 AND 50-265

LICENSE NOS. DPR-29 AND DPR-30

TABLE OF CONTENTS

I. Introduction

II. Summary of Operating Experience

- A. Unit One
- B. Unit Two

III. Plant or Procedure Changes, Tests, Experiments, and Safety Related Maintenance

- A. Amendments to Facility License or Technical Specifications
- B. Facility or Procedure Changes Requiring NRC Approval
- C. Tests and Experiments Requiring NRC Approval
- D. Corrective Maintenance of Safety Related Equipment

IV. Licensee Event Reports

V. Data Tabulations

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

VI. Unique Reporting Requirements

- A. Main Steam Relief Valve Operations
- B. Control Rod Drive Scram Timing Data

VII. Refueling Information

VIII. Glossary

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 condenser cooling method is a closed cycle spray canal, and 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 1 and 2 respectively were October 18, 1971, and April 26, 1972. Commercial generation of power began on February 18, 1973 for Unit 1 and March 10, 1973 for Unit 2.

This report was compiled by Becky Brown and Randall Buss, telephone number 309-654-2241, extensions 127 and 181.

II. SUMMARY OF OPERATING EXPERIENCE

A. UNIT ONE

February 1-15: The unit began the month holding load at approximately 826 MWe. On February 6 load was reduced to 700 MWe to perform weekly Turbine tests and was increased to approximately 830 MWe that same day. Load was decreased again on February 13 to 700 MWe for Turbine tests then increased to 831 MWe by 1750 hours. On February 14, at 2300 hours, load was dropped to 700 MWe to backwash and precoat Condensate Demineralizers and to change Reactor Feedwater Pumps. Load began increasing on February 15.

February 16-22: On February 16 the unit scrammed on a Main Steam Line High Flow signal after contractor personnel inadvertently jarred an instrument rack, resulting in a spurious trip. The Reactor was made critical at 2100 hours and the unit was on line at 0125 hours on February 17. Load was held at 560 MWe for eight hours before increasing to maximum. On February 19 load was decreased to 700 MWe for weekly Turbine tests, then increased to approximately 811 MWe on February 20.

February 23-28: On February 23 load was dropped to 700 MWe to backwash and precoat a Condensate Demineralizer. Load was increased to 808 MWe by 1500 hours but decreased at 1900 hours to 700 MWe for backwashing and precoating Condensate Demineralizers. Load was increased to approximately 807 MWe on February 24. On February 26 load was reduced to perform weekly Turbine tests and to reverse flow through the main condenser. Load was increased to 803 MWe by 2200 hours.

B. UNIT TWO

February 1-11: The unit began the month shutdown for a Maintenance Outage to repair the casing on the 2C Circulating Water Pump. The Reactor was made critical on February 3 and the unit was on line on February 4 at 0155 hours. On February 6 the unit dropped load from 700 MWe to 435 MWe to repair the 2A Moisture Separator Drain Tank Emergency Drain Valve. Load was increased to 808 MWe by February 8.

February 12-19: On February 12 load was reduced to perform weekly Turbine tests. Load was increasing at 5 MWe/hour when load was dropped to approximately 650 MWe to backwash Condensate Demineralizers. Load was then increased to 803 MWe by February 13. On February 14 load was dropped 200 MWe to repair the 2B Reactor Feed Pump Seal water line. The Load Dispatcher requested a further drop to approximately 400 MWe. At 2330 hours load was increased at 100 MWe/hour for three hours then 50 MWe/hour to 800 MWe to perform a maximum capacity test on the Turbine.

February 20-28: On February 20 load was decreased to 500 MWe for control rod pattern adjustments. Load began increasing at 5 MWe/hour to 805 MWe on February 22. At 2120 hours on February 22 the 2B Recirculation Pump Motor-Generator Set tripped on low oil pressure and load was decreased further when the 2A Recirc Pump M-G Set was reduced to minimum speed. The 2B Motor-Generator Set was restarted and load was increased to 802 MWe by February 24. On February 27, load was reduced to 600 MWe to perform weekly Turbine tests, reverse main condenser flow and adjust the control rod pattern. At 0300 hours, load began increasing at 5 MWe/hour to 792 MWe by February 28.

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 Test or Experiments requiring NRC approval for the reporting period.

D. Corrective Maintenance of Safety Related Equipment

The following represents a tabular summary of the safety related maintenance performed on Unit One and Unit Two during the reporting period. This summary includes the following headings: 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
Q23580	82-39/03L	1/2 Diesel Generator	A cracked air line to the Diesel Generator air start pilot valve.	The 1/2 Diesel Generator failed to start during testing.	The cracked air line was replaced.
Q23300		Clean-up Inlet Isolation Valve 1-1201-2	The torque switch on the 1-1201-2 valve failed.	The valve would not go closed sufficiently to actuate the closed position switch.	A new torque switch was installed.
Q24385		Drywell Equipment Drain Sump 1-2001-16	A loose coupling to the operator was found. This prevented proper closed position indication.	The valve had dual indication when in the closed position.	Locked coupling to operator stem.
Q24408	83-7/03L	Torus Purge Valve 1-1601-56	The valve operator air supply solenoid valve failed to open.	Valve 1-1601-56 failed to close; Containment integrity intact at all times.	A new solenoid valve was installed.

UNIT TWO MAINTENANCE SUMMARY

W.R. NUMBER	LER NUMBER	COMPONENT	CAUSE OF MALFUNCTION	RESULTS & EFFECTS ON SAFE OPERATION	ACTION TAKEN TO PREVENT REPETITION
Q24359		TIP Machine #2	The ball valve position switch failed to provide an open indication to the TIP drive logic.	TIP #2 would not retract completely into its shield. Containment integrity was intact at all times.	Replaced the ball valve.

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
83-6/03L	2-13-83	Condenser Pit Level Switch 1-4441-25B Failure
83-7/03L	2-14-83	1-1601-56 Valve Failed to Isolate on Group II Signal
83-8/03L	2-10-83	1-1705-16A Fuel Pool Radiation Monitor Failed Source Check
83-9/03L	2-22-83	RCIC Flow Switch Instrument Drift

UNIT TWO

There were no Licensee Event Reports for Unit Two for the reporting period.

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

OPERATING DATA REPORT

DOCKET NO. 50-254

UNIT ONE

DATE March 01 1983

COMPLETED BY Randall D Buss

TELEPHONE 309-654-2241x181

OPERATING STATUS

1. Reporting period: 0000 020183 2400 022883 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	667.1	1411.1	76582.3
6. Reactor reserve shutdown hours	0.0	0.0	3421.9
7. Hours generator on line	662.7	1406.7	73493.3
8. Unit reserve shutdown hours.	0.0	0.0	909.2
9. Gross thermal energy generated(MWH)	1603134	3420096	149633087
10. Gross electrical energy generated(MWH)	527212	1125668	48247549
11. Net electrical energy generated(MWH)	496728	1060102	44889010
12. Reactor service factor	99.3	99.7	80.9
13. Reactor availability factor	99.3	99.7	84.5
14. Unit service factor	98.6	99.3	77.6
15. Unit availability factor	98.6	99.3	78.6
16. Unit capacity factor (Using MDC)	96.1	97.4	61.6
17. Unit capacity factor (Using Des.MWe)	93.7	94.9	60.1
18. Unit forced outage rate	1.4	.7	6.6

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 01 1983

COMPLETED BY Randall D Buss

TELEPHONE 309-654-2241x181

OPERATING STATUS

0000 020183

1. Reporting period: 2400 022883 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	606.4	1266.1	73529.5
6. Reactor reserve shutdown hours	0.0	0.0	2985.8
7. Hours generator on line	598.1	1254.0	70842.1
8. Unit reserve shutdown hours.	0.0	0.0	702.9
9. Gross thermal energy generated(MWH)	1368597	2815719	147407213
10. Gross electrical energy generated(MWH)	437466	887702	46925237
11. Net electrical energy generated(MWH)	411061	833622	44017189
12. Reactor service factor	90.2	89.4	78.4
13. Reactor availability factor	90.2	89.4	81.6
14. Unit service factor	89.0	88.6	75.5
15. Unit availability factor	89.0	88.6	76.3
16. Unit capacity factor (Using MDC)	79.5	76.6	61.0
17. Unit capacity factor (Using Des.MWe)	77.5	74.6	59.5
18. Unit forced outage rate	0.0	6.6	9.1

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 01 1983

COMPLETED BY Randall D Buss

TELEPHONE 309-654-2241x181

MONTH February 1983

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1.	775.8	17.	490.0
2.	782.5	18.	687.8
3.	780.7	19.	756.5
4.	783.6	20.	734.2
5.	707.1	21.	754.1
6.	823.6	22.	761.6
7.	782.4	23.	706.5
8.	782.3	24.	744.7
9.	779.8	25.	759.1
10.	783.8	26.	760.4
11.	781.8	27.	694.0
12.	784.7	28.	739.7
13.	754.7		
14.	761.0		
15.	736.8		
16.	508.0		

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 01 1983
COMPLETED BY Randall D Buss
TELEPHONE 309-654-2241x181

MONTH February 1983

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1.	-5.0	17.	756.4
2.	-6.0	18.	747.7
3. *	-8.4	19.	738.9
4.	413.6	20.	530.4
5.	571.3	21.	638.0
6.	553.9	22.	708.5
7.	653.5	23.	721.4
8.	733.1	24.	752.0
9.	754.0	25.	749.0
10.	758.5	26.	743.8
11.	753.8	27.	600.3
12.	656.0	28.	704.2
13.	730.1		
14.	712.8		
15.	714.8		
16.	751.8		

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 sheet should be footnoted to explain the apparent anomaly

ID/5A

APPENDIX D
UNIT SHUTDOWNS AND POWER REDUCTIONS

QTP 300-S13
Revision 6
August 1982

DOCKET NO. 050-254

UNIT NAME Quad-Cities Unit One

COMPLETED BY Randall Buss

DATE March 3, 1983

REPORT MONTH February 1983

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
83-8	830206	S	0.0	B	5		HA	XXXXXX	Load reduced to perform weekly Turbine tests
83-9	830213	S	0.0	B	5		HA	XXXXXX	Load reduced to perform weekly Turbine tests
83-10	830214	F	0.0	B	5		HG	DEMINX	Reduced load due to Condensate Demineralizer problems and to change Reactor Feed Pumps
83-11	830216	F	9.3	H	3		ZZ	ZZZZZZ	Reactor scram from Main Steam Line High Flow signal caused by contractors hitting instrument rack resulting in a spurious trip
83-12	830219	S	0.0	B	5		HA	XXXXXX	Load reduced to perform weekly Turbine tests
83-13	830223	F	0.0	B	5		HG	DEMINX	Reduced load due to Condensate Demineralizer problems
83-14	830223	F	0.0	B	5		HG	DEMINX	Reduced load due to Condensate Demineralizer problems
83-15	830227	S	0.0	B	5		HA	XXXXXX	Load reduced to perform weekly Turbine tests

APPROVED
AUG 16 1982
QCOSR

ID/5A

APPENDIX D
UNIT SHUTDOWNS AND POWER REDUCTIONS

QTP 300-S13
Revision 6
August 1982

DOCKET NO. 050-265

UNIT NAME Quad-Cities Unit Two

COMPLETED BY Randall Buss

DATE March 3, 1983

REPORT MONTH February 1983

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
83-13	830128	S	73.9	B	4		HF	PUMPXX	Continuation of Maintenance Outage to repair 2C Circulating Water Pump casing
83-14	830206	F	0.0	B	5		HC	VALVEX	Reduced load to repair Moisture Separator Drain Tank Emergency Drain Valve
83-15	830212	S	0.0	B	5		HA	XXXXXX	Reduced load to perform weekly Turbine tests
83-16	830212	F	0.0	B	5		HG	DEMINX	Load reduced due to Condensate Demineralizer problems
83-17	830214	F	0.0	B	5		CH	PUMPXX	Load reduced to repair leak in 2B Reactor Feed Pump Seal Water System
83-18	830214	S	0.0		5		EA	ZZZZZZ	Load reduction requested by Load Dispatcher due to low system demand
83-19	830219	S	0.0		5		RB	CONROD	Load reduced to adjust Control Rod Pattern
83-20	830227	S	0.0	B	5		HA	XXXXXX	Load reduced to perform weekly Turbine tests

APPROVED

AUG 16 1982

QCOSR

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

There were no Main Steam Relief Valve Operations for the reporting period.

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-S32
Revision 1
March 1978

QUAD-CITIES REFUELING INFORMATION REQUEST

*

1. Unit: Q1 Reload: 6 Cycle: 7

2. Scheduled date for next refueling shutdown: 9-6-82

3. Scheduled date for restart following refueling: 12-18-82

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

5. Scheduled date(s) for submitting proposed licensing action and supporting information: 8-19-82: Tech. Spec. changes submitted to the NRC.

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:
   a) All 7x7 fuel assemblies will be removed from the core.
   b) MAPLHGR curves for fuel types in the core are being extended to 40,000 MWD/ST.
   c) MCPR limits will be determined by GE's ODYN computer code.
   d) The vessel pressure safety limit is being modified to accommodate the potential for higher reactor pressures as calculated by ODYN.

7. The number of fuel assemblies.
   a. Number of assemblies in core: 724
   b. Number of assemblies in spent fuel pool: 800

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

APPROVED
APR 20 1978
Q.C.O.S.R.

QTP 300-S32
Revision 1
March 1978

QUAD-CITIES REFUELING INFORMATION REQUEST

1. Unit: Q2 Reload: 6 Cycle: 7

2. Scheduled date for next refueling shutdown: 9-11-83

3. Scheduled date for restart following refueling: 11-20-83

4. Will refueling or resumption of operation thereafter require a technical specification change or other license amendment:
   Depending upon the Licensing analyses, a MCPR limit change may be needed.

5. Scheduled date(s) for submitting proposed licensing action and supporting information: 8-22-83 (if necessary)

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:
   NFS intends to apply 10CFR50.59 to the Q2R6C7 reload unless MCPR Technical Specification change is required.

7. The number of fuel assemblies.

   a. Number of assemblies in core: 724

   b. Number of assemblies in spent fuel pool: 1140

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

APPROVED
APR 20 1978
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	-	Traveling Incore Probe
TSC	-	Technical Support Center