QUAD-CITIES NUCLEAR POWER STATION

UNITS 1 AND 2

MONTHLY PERFORMANCE REPORT

JANUARY 1980

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

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, Inc. 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, Telephone number 309-654-2241, extension 245.

II. SUMMARY OF OPERATING EXPERIENCE

A. Unit One

January 1: Unit One began the reporting period operating at 700 MWe. Load was reduced to 550 MWe for main condenser flow reversal. Load was subsequently increased at a rate of 8 MWe/hr.

January 2-5: Unit One held an average load of 816 MWe.

January 6: Load was reduced to 600 MWe for main condenser flow reversal.

January 7-12: Unit One held an average load of 808 MWe. On January 10, load was reduced to 766 MWe in order to change over condensate demineralizers.

January 13: Load was reduced to 600 MWe for turbine weekly and MSIV monthly testing.

January 14-19: Unit One held an average load of 758 MWe. On January 19 at 2245 load was reduced at the rate of 100 MWe/hr to 550 MWe for control rod pattern adjustment.

January 20: While load was reduced to 550 MWe, control rod pattern adjustments and main condenser flow reversal were performed. Load was subsequently increased at the rate of 8 MWe/hr.

January 21-25: Unit One held an average load of 800 MWe. On January 25 at 2200, load was reduced to 650 MWe in order to change over condensate demineralizers.

January 26: Load was held at 650 MWe. The 1E condensate demineralizer was placed on-line and load was increased at 50 MWe/hr.

January 27-31: Unit One held an average load of 775 MWe. Load was reduced by 10 MWe on January 27 and 31 in order to change over reactor feed pumps.

B. Unit Two

January 1-31: Unit Two remained shut down for End of Cycle Four Refueling Outage.

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

A. Amendments to Facility License or Technical Specification

The following amendment was added to the Technical Specifications during the reporting period:

Amendment 54

The NRC issued Amendment No. 54 to Facility Operating License No. DPR-29, in response to Commonwealth Edison Company letters dated December 4, 1979, and December 20, 1979. The amendment extends the MAPLHGR curves for improved 7x7 (7D230) and 7x7 mixed oxide fuel bundles to planar average exposure values of 40,000 MWD/t. This license amendment becomes effective December 28, 1979.

B. Facility or Procedure Changes Requiring NRC Approval

There were no facility or procedure changes requiring NRC approval.

C. Tests and Experiments Requiring NRC Approval

There were no tests or experiments performed during the reporting period requiring NRC approval.

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. The headings indicated in this summary include 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
Q02687		Reactor water Level Instrument (1-263-57A & 57B)	Instruments were out of calibration	Instruments read approx. 10" higher than the other Yarways. Trip functions of instruments not affected.	Instruments were calibrated & tested.
Q02967	80-02/03L	1/2 SBGTS (1/2B-7509)	A gasket was worn.	The charcoal adsorber failed the freon test.	The gasket was replaced and the adsorber was tested.
Q02973		Reactor Building Vent System	The coil in the 1B-5741 Reactor Bldg. Supply Air isolation valve was shorted.	The vent system tripped & would not reset. The Reactor Bldg was isolated, & SBGTS started.	The coil was replaced & the system was tested.
Q03122		SBLC Level Indicator (LI-1-1140-2)	Bubbler tube was plugged.	The level indicator was pegged upscale. Actual level and concentration were within Tech Spec limits.	Bubbler tube was cleaned.

UNIT TWO MAINTENANCE SUMMARY

W.R. NUMBER	LER NUMBER	COMPONENT	CAUSE OF MALFUNCTION	RESULTS & EFFECTS ON SAFE OPERATION	ACTION TAKEN TO PREVENT REPETITION
Q00694		Channel 2 LPRM/APRM	A connector pin on J55 was pushed out in PS-7.	The LPRM's were erratic, causing a 1/2 scram. Other APRM's were functional.	The pin was replaced. The system was tested.
Q02512		Refuel Platform (834)	The air piston on the main mast was defective.	The open-close switch on the main mast would not cause the action.	The air piston on the grapple was replaced.
Q02003		D.G. (2-6601)	The oil seal was worn.	Oil was leaking from the scavenging oil pump inlet. The D.G. was available.	The oil seal was replaced & the line checked for leaks.
Q02023		RHR shutdown cooling valve (2-1001-43D)	The valve stem was burned	RHR was available. The valve was hanging on closing.	The shaft was cleaned & the valve was stroked three times.
Q02870	80-02/03L	Cond Pump Room vault penetration P12.	The bolts were loose.	The penetration failed leak rate testing.	The bolts were tightened & the penetration was leak rate tested.
Q02646	79-27/03L	F.W. Check Valve (2-220-62A)	The O-Ring & seal were worn.	The valve failed Leak Rate Testing.	The O-Ring & seal were replaced & the valve was tested.
Q02647	79-27/03L	F.W. Check Valve (2-220-58A)	The seat was worn.	The valve failed leak rate testing.	The seat was re-built & the valve was tested.
Q02211	79-27/03L	Drywell Purge Valve (2-1601-21)	The valve was out of adjustment	The valve failed leak rate testing.	The valve was adjusted & tested.

UNIT TWO MAINTENANCE SUMMARY

W.R. NUMBER	LER NUMBER	COMPONENT	CAUSE OF MALFUNCTION	RESULTS & EFFECTS ON SAFE OPERATION	ACTION TAKEN TO PREVENT REPETITION
Q02240		IRM Channel 18	The cable was damaged.	The other IRM channels were operational.	The damaged cable was replaced & the channel was tested.
Q02241		IRM Channel 13	The cable was damaged.	The other IRM channels were operational.	The damaged cable was replaced & the channel was tested.

IV. LICENSEE EVENT REPORTS

The following is a tabular summary of all license 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 of Occurrence	Title of Occurrence
80-01/03L	01-11-80	Torus to Drywell Delta-P Transmitter 1-8741-51 would not calibrate.
80-02/03L	01-11-80	SBGTS (B Train) failed Freon Test; charcoal absorbers were found to have leakage in excess of 1%.

UNIT TWO

80-01/03L	01-08-80	SBLC Relief Valve setting failure.
80-02/03L	01-08-80	Leak Rate Test failure on Condensate Pump Room vault Penetration P-12.

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.

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 during the reporting period.

B. Control Rod Drive Scram Timing Data For Units One And Two

There were no control rod drive scram timing operations during the reporting period.

VIII. 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.

Revision 5
February 1977

OPERATING DATA REPORT

DOCKET NO. 50-254
UNIT ONE
DATE January 1, 1980
COMPLETED BY B. Brown
TELEPHONE 309-654-2241, ext. 245

OPERATING STATUS

1. Reporting period: 0000 010180 / 2400 013180 Gross hours in reporting period: 744
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	744	744	55458.1
6.	Reactor reserve shutdown hours	0	0	3421.9
7.	Hours generator on line	744	744	52784.9
8.	Unit reserve shutdown hours.	0	0	909.2
9.	Gross thermal energy generated (MWH)	1747213	1747213	106291194
10.	Gross electrical engergy generated (MWH)	576126	576126	34199180
11.	Net electrical Energy Generated	549771	549771	31965307
12.	Reactor service factor	100	100	81.9
13.	Reactor availabilify factor	100	100	86.9
14.	Unit service factor	100	100	77.9
15.	Unit availability factor	100	100	79.3
16.	Unit capactiy factor (Using MDC)	96.1	96.1	61.4
17.	Unit capacity factor (Using Des. MWe)	93.7	93.7	59.8
18.	Unit forced outage rate	0	0	8.1

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 ambiant temperature due to the thermal performance of the spray canal.

MAR 16 1977

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Revision 5
February 1977

OPERATING DATA REPORT

DOCKET NO. 50-265

UNIT TWO

DATE January 1, 1980

COMPLETED BY B. Brown

TELEPHONE 309-654-2241 ext. 245

OPERATING STATUS 0000 010180
2400 013180

1. Reporting period: _____ Gross hours in reporting period: 744
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	0	0	53128.9
6. Reactor reserve shutdown hours	0	0	2985.8
7. Hours generator on line	0	0	50791.8
8. Unit reserve shutdown hours.	0	0	702.9
9. Gross thermal energy generated (MWH)	0	0	03016109.
10. Gross electrical engergy generated (MWH)	7	7	32863057
11. Net electrical Energy Generated	-13815	-13815	30728710.
12. Reactor service factor	0	0	79.5
13. Reactor availabilify factor	0	0	84.0
14. Unit service factor	0	0	76.0
15. Unit availability factor	0	0	77.1
16. Unit capactiy factor (Using MDC)	0	0	59.8
17. Unit capacity factor (Using Des. MWe)	0	0	58.3
18. Unit forced outage rate	0	0	9.2

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: March 10, 1980

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

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QTP 300-S11
Revision 4
June 1976

APPENDIX B
AVERAGE DAILY UNIT-POWER LEVEL

Docket No. 50-254

Unit ONE

Date 2-1-80

Completed by B. Brown

Telephone 309-654-2241, ext. 245

MONTH January 1980

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1.	598	17.	727
2.	752	18.	750
3.	770	19.	744
4.	774	20.	615
5.	763	21	750
6.	698	22.	753
7.	802	23.	736
8.	745	24.	775
9.	763	25.	753
10.	766	26.	610
11.	771	27.	739
12.	766	28.	745
13.	720	29.	743
14.	771	30.	739
15.	761	31.	737
16.	773		

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JUN 20 1976

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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.

QTP 300-S11
Revision 4
June 1976

APPENDIX B
AVERAGE DAILY UNIT-POWER LEVEL

Docket No. 50-265

Unit TWO

Date 2-1-80

Completed by B. Brown

Telephone 309-654-2241 ext. 245

MONTH January 1980

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1.	-16.7	17.	-13.1
2.	-18.5	18.	-17.9
3.	-18.7	19.	-18.7
4.	-18.4	20.	-18.2
5.	-18.2	21	-20.1
6.	-18.6	22.	-17.7
7.	-19.7	23.	-19.4
8.	-17.4	24.	-19.8
9.	-17.9	25.	-17.5
10.	-18.2	26.	-18.6
11.	-20.3	27.	-18.6
12.	-17.6	28.	-19.2
13.	-18.0	29.	-18.5
14.	-19.6	30.	-19.6
15.	-19.1	31.	-18.9
16.	-22.7		

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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 D
UNIT SHUTDOWNS AND POWER REDUCTIONS

QTP 300-S13
Revision 5
March 1978

DOCKET NO. 50-254

UNIT NAME Quad-Cities Unit One

COMPLETED BY B. Brown

DATE February 1, 1980

REPORT MONTH January 1980

TELEPHONE 309-654-2241 ext. 245

*

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
28	800126	F	MA	NA	NA	NA	HG	DEMINX	Load was reduced to change over condensate demineralizers.

APPENDIX D
UNIT SHUTDOWNS AND POWER REDUCTIONS

QTP 300-S13
Revision 5
March 1978

DOCKET NO. 50-265
UNIT NAME Quad-Cities Unit Two
DATE February 1, 1980
REPORT MONTH January 1980
COMPLETED BY D. Hannum
TELEPHONE 309-654-2241 ext.179

*

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
13	791125	S	744	C	1	NA	NA	NA	Unit Two Cycle 4 Refueling Outage

QUAD-CITIES REFUELING
INFORMATION REQUEST

March 1973

1. Unit: 1 Reload: 5 Cycle: 6

2. Scheduled date for next refueling shutdown: 8-31-80 (Shutdown (EOC5)

3. Scheduled date for restart following refueling: 12-7-80(Startup BOC6)

4. Will refueling or resumption of operation thereafter require a technical specification change or other license amendment: No, Plan 10CFR50.59 reloads for future cycles of Quad Cities Unit 1. The review will be conducted in June, 1980.

5. Scheduled date(s) for submitting proposed licensing action and supporting information: June, 1980 for 10CFR50.59 related changes ~ 90 days prior to shutdown.

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:
New fuel designs: Retrofit 8x8 fuel 2.65 w/o% (~ 224)

7. The number of fuel assemblies.

   a. Number of assemblies in core: 724

   b. Number of assemblies in spent fuel pool: 596

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: 1460

   b. Planned increase in licensed storage: None

9. The projected date of the last refueling that can be discharged to the spent fuel pool assuming the present licensed capacity: September, 1985
(end of batch discharge capability)

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Q.C.O.S.R.

Revision 1
March 1978

QUAD-CITIES REFUELING INFORMATION REQUEST

1. Unit: 2 Reload: 4 Cycle: 5

2. Scheduled date for next refueling shutdown: 11-4-79 (Shutdown EOC4

3. Scheduled date for restart following refueling: 1-17-80 (Startup BOC5)

4. Will refueling or resumption of operation thereafter require a technical specification change or other license amendment: No, Plan 10CFR50.59 Reloads for future cycles of Quad Cities Unit 2. The review will be conducted by early September, 1979.

5. Scheduled date(s) for submitting proposed licensing action and supporting information: Early August, 1979 for 10CFR50.59 related changes ~ 90 days prior to shutdown.

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:
New Fuel Design: Retrofit 8x8 fuel (180)

   a) nat. U at bundle top and bottom
   b) two larger water rods
   c) new enrichment distribution
   d) prepressurized

   This fuel design was previously used for Quad Cities Unit 1 Cycle 5 and Dresden Unit 2 Cycle 7.

7. The number of fuel assemblies.

   a. Number of assemblies in core: 724

   b. Number of assemblies in spent fuel pool: 492

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: 1460

   b. Planned increase in licensed storage: None

9. The projected date of the last refueling that can be discharged to the spent fuel pool assuming the present licensed capacity: March, 1986
(End of batch discharge capability)

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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:

CRD	-	Control Rod Drive System
SBLC	-	Stand-By Liquid Control System
MSIV	-	Main Steam Isolation Valve
RHRS	-	Residual Heat Removal System
RCIC	-	Reactor Core Isolation Cooling System
HPCI	-	High Pressure Coolant Injection System
SRM	-	Source Range Monitor
IRM	-	Intermediate Range Monitor
LPRM	-	Local Power Range Monitor
APRM	-	Average Power Range Minitor
TIP	-	Traveling Incore Probe
RBCCW	-	Reactor Building Closed Cooling Water System
TBCCW	-	Turbine Building Closed Cooling Water System
RWM	-	Rod Worth Minimizer
SBGTS	-	Stand-By Gas Treatment System
HEPA	-	High-Efficientry Particulate Filter
RPS	-	Reactor Protection System
IPCLRT	-	Integrated Primary Containment Leak Rate Test
LPCI	-	Low Pressure Coolant Injection Mode of RHRS
RBM	-	Rod Block Monitor
BWR	-	Boiling Water Reactor
ISI	-	In-Service Inspection
MPC	-	Maximum Permissable Concentration

PCI	-	Primary Containment Isolation
SDC	-	Shutdown Cooling Mode of RHRS
LLRT	-	Local Leak Rate Testing
MAPLHGR	-	Maximum Average Planar Linear Heat Generation Rate
R.O.	-	Reportable Occurrence
DW	-	Drywell
Rx	-	Reactor
EHC	-	Electro-Hydraulic Control System
MCPR	-	Minimum Critical Power Ratio
PCIOMR	-	Preconditioning Interim Operating Management Recommendations
LER	-	Licensee Event Report
ANSI	-	American National Standards Institute
NIOSH	-	National Institute for Occupational Safety and Health
ACAD/CAM	-	Atmospheric Containment Atmospheric Dilution/Containment Atmospheric Monitoring