QUAD-CITIES NUCLEAR POWER STATION

UNITS 1 AND 2

MONTHLY PERFORMANCE REPORT

JANUARY 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 Water Reactors, each with a Maximum Dependable Capacity of 789 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 were October 18, 1971, and April 26, 1972, respectively. 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.

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II. SUMMARY OF OPERATING EXPERIENCE

A. Unit One

January 1-19: Unit One began the month operating on Economic Generation Control (EGC). On January 4, at 0000 hours, load was dropped to 700 MWe for weekly Turbine tests. At 0312 hours load was increased to 720 MWe to place the unit in EGC operation. On January 13, at 2345 hours, load was dropped to perform weekly Turbine tests. At 0140 hours load was increased to 730 MWe to place the unit in EGC operation. On January 18, at 0107 hours, load was dropped to 750 MWe to place the unit on EGC operation. On January 19, at 0315 hours, load was dropped to 700 MWe for weekly Turbine tests. At 0415 hours load was increased to 740 MWe to place the unit in EGC operation.

January 20-31: On January 24, at 0015 hours, load was dropped to place the unit on EGC operation. On January 25, at 1605 hours, load was dropped to 400 MWe to take the 1C Reactor Feedwater Pump out of service. At 1935 hours the unit began a normal load increase to full power. On January 27, at 0945 hours, load was dropped to place the unit in EGC operation.

B. Unit Two

January 1-14: Unit Two began the month increasing load for fuel preconditioning. On January 5, at 0905 hours, load was dropped to 700 MWe for a Reactor Feedwater Pump changeover. At 1015 hours the unit began a normal load increase to full power. On January 8, at 2030 hours, load was dropped to 700 MWe for weekly Turbine tests. At 0145 hours the unit began a normal increase to full power. On January 11, at 1620 hours, load was dropped to 700 MWe for Low Pressure Heater problems. At 1742 hours the unit began a normal increase to full power. On January 14, at 1000 hours, load was dropped to 720 MWe to set the Feedwater Level Controller. At 1020 hours the unit began a normal load increase to full power.

January 15-31: On January 16, at 0622 hours, load was dropped due to low Condenser vacuum. At 0628 hours the Reactor scrammed on low vacuum. On January 22, at 2314 hours, the Reactor was critical and at 1140 hours the unit was on line. On January 25, at 0128 hours, the Reactor scrammed due to #4 Control Valve fast closure during testing. At 1745 hours the Reactor was critical and at 2208 hours the unit was on line. On January 30, at 0300 hours, load was dropped due to failure of the High Pressure Coolant Injection (HPCI) valve 2301-8 to open during tests. At 1600 hours, the unit began a normal load increase 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 1 MAINTENANCE SUMMARY

W.R. NUMBER	LER NUMBER	COMPONENT	CAUSE OF MALFUNCTION	RESULTS & EFFECTS ON SAFE OPERATION	ACTION TAKEN TO PREVENT REPETITION
Q39579		Replaced Diesel Generator Cooling Water Pump	Insulation breakdown of the motor windings.	Pump failed to start which made the Unit 1 Diesel Generator inoperable. The 1/2 Diesel Generator was proven operable; therefore, redundant safety systems were available.	Replaced motor. The environment in the in the RHR Service Water Vault has, and will be improved.

UNIT 2 MAINTENANCE SUMMARY

W.R. NUMBER	LER NUMBER	COMPONENT	CAUSE OF MALFUNCTION	RESULTS & EFFECTS ON SAFE OPERATION	ACTION TAKEN TO PREVENT REPETITION
Q39690		Repaired the 'B' Core Spray Pump Control Circuitry	Auxiliary contacts for breaker were stuck open.	Core Spray pump not starting. Only one pump is needed and the other one was operable.	Cleaned and inspected entire breaker in accordance with QMS 200-5.

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

There were no Licensee Event Reports for the reporting period.

UNIT TWO

Licensee Event Report Number	Date	Title of Occurrence
85-01	01-25-85	Reactor scram due to #4 Control Valve Fast Closure.
85-02	01-29-85	HPCI inoperable.
85-03	01-16-85	Reactor scram due to loss of Condenser vacuum.

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 February 5

COMPLETED BY DAVE KIMLER

TELEPHONE 309-654-2241x192

OPERATING STATUS

0000 010185

1. Reporting period: 2400 013185 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	744.0	744.0	89066.5
6. Reactor reserve shutdown hours	0.0	0.0	3421.9
7. Hours generator on line	744.0	744.0	85779.3
8. Unit reserve shutdown hours.	0.0	0.0	909.2
9. Gross thermal energy generated(MWH)	1722980	1722980	177469370
10. Gross electrical energy generated(MWH)	571874	571874	57349325
11. Net electrical energy generated(MWH)	547864	547864	53503566
12. Reactor service factor	100.0	100.0	79.8
13. Reactor availability factor	100.0	100.0	82.9
14. Unit service factor	100.0	100.0	76.9
15. Unit availability factor	100.0	100.0	77.7
16. Unit capacity factor (Using MDC)	95.8	95.8	62.4
17. Unit capacity factor (Using Des.MWe)	93.3	93.3	60.8
18. Unit forced outage rate	0.0	0.0	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 February 5

COMPLETED BY DAVE KIMLER

TELEPHONE 309-654-2241x192

OPERATING STATUS

1. Reporting period: 0000 010185 / 2400 013185 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	591.0	591.0	85497.0
6. Reactor reserve shutdown hours	0.0	0.0	2985.8
7. Hours generator on line	574.1	574.1	82623.3
8. Unit reserve shutdown hours.	0.0	0.0	702.9
9. Gross thermal energy generated(MWH)	1250036	1250036	172769103
10. Gross electrical energy generated(MWH)	409441	409441	55062852
11. Net electrical energy generated(MWH)	392123	392123	51710108
12. Reactor service factor	79.4	79.4	77.3
13. Reactor availability factor	79.4	79.4	80.0
14. Unit service factor	77.2	77.2	74.7
15. Unit availability factor	77.2	77.2	75.3
16. Unit capacity factor (Using MDC)	68.5	68.5	60.8
17. Unit capacity factor (Using Des.MWe)	66.8	66.8	59.2
18. Unit forced outage rate	22.8	22.8	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 February 5
COMPLETED BY DAVE KIMLER
TELEPHONE 309-654-2241x192

MONTH January 1985

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1.	689.8	17.	793.0
2.	712.1	18.	720.8
3.	730.8	19.	714.7
4.	717.2	20.	756.2
5.	726.8	21.	793.1
6.	714.4	22.	795.5
7.	722.8	23.	801.7
8.	713.5	24.	717.9
9.	724.9	25.	687.5
10.	720.0	26.	758.7
11.	713.5	27.	764.1
12.	716.1	28.	736.4
13.	722.4	29.	727.9
14.	710.0	30.	741.8
15.	762.4	31.	766.0
16.	794.7		

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 February 5
COMPLETED BY DAVE KIMLER
TELEPHONE 309-654-2241x192

MONTH January 1985

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1.	583.0	17.	-9.5
2.	682.0	18.	-8.6
3.	779.1	19.	-8.6
4.	768.4	20.	-8.6
5.	743.4	21.	-9.0
6.	771.2	22.	81.5
7.	794.1	23.	538.0
8.	770.6	24.	562.6
9.	758.9	25.	41.1
10.	785.0	26.	478.7
11.	762.5	27.	561.6
12.	771.1	28.	692.1
13.	788.5	29.	772.5
14.	784.4	30.	440.3
15.	786.1	31.	644.1
16.	192.8		

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

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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-C' ies Unit 1

COMPLETED BY D Kimler

DATE February 6, 1985

REPORT MONTH JANUARY 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
85-1	850104	S	0.0	B	5		HA	TURBIN	Reduced load for Turbine tests.
85-2	850113	S	0.0	B	5		HA	TURBIN	Reduced load for Turbine tests.
85-3	850118	S	0.0	F	5		ZZ	ZZZZZZ	Reduced load to place the unit in EGC operation.
85-4	850119	S	0.0	B	5		HA	TURBIN	Reduced load for Turbine tests.
85-6	850124	S	0.0	F	5		ZZ	ZZZZZZ	Reduced load to place the unit in EGC operation.
85-7	850125	F	0.0	A	5		CH	PUMPXX	Reduced load to repair 1C Reactor Feedwater Pump.
85-8	850127	S	0.0	F	5		ZZ	ZZZZZZ	Reduced load to place the unit in EGC operation.

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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 D Kimler

DATE February 6, 1985

REPORT MONTH JANUARY 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
85-1	850105	S	0.0	H	5		CH	PUMPXX	Reduced load for Reactor Feedwater Pump changeover.
85-2	850108	S	0.0	B	5		HA	TURBIN	Reduced load for Turbine tests.
85-3	850111	F	0.0	H	5		CH	HTEXCH	Reduced load for Low Pressure Heater problems.
85-4	850114	S	0.0	B	5		CH	INSTRU	Reduced load to set Feedwater Level Controller.
85-5	850116	F	149.2	A	3		HC	XXXXXX	Reactor scram on low Condenser vacuum due to failed boot.
85-6	850125	F	20.7	A	3		CC	VALVEX	Reactor scram due to #4 Control Valve fast closure during test.
85-7	850130	F	0.0	A	5		SB	VALVEX	Reduced load due to failure of High Pressure Coolant Injection Valve 2301-8 to operate 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: Two

Date: January 16, 1985

Valves Actuated: 2-203-3B

No. & Type of Actuations: 1 Automatic

Plant Conditions: Reactor Pressure - 1065 lbs

Description of Events: Automatic Actuation Due to Pressure Spike

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 1-1-85 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.	
1-22	89	0.30	0.68	1.46	2.58	2.95 (G-9)	Unit 2 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.

QTP 300-S32
Revision 1
March 1978

QUAD-CITIES REFUELING INFORMATION REQUEST

*

1. Unit: 01 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 will be 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:

   January 31, 1985

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-85-37

February 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 January 1985.

Respectfully,

COMMONWEALTH EDISON COMPANY
QUAD-CITIES NUCLEAR POWER STATION

L. J. Gerner for

N. J. Kalivianakis
Station Superintendent

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Enclosure

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