QUAD-CITIES NUCLEAR POWER STATION

UNITS 1 AND 2

MONTHLY PERFORMANCE REPORT

APRIL, 1988

COMMONWEALTH EDISON COMPANY

AND

IOWA-ILLINOIS GAS & ELECTRIC COMPANY

NRC DOCKET NOS. 50-254 AND 50-265

LICENSE NOS. DPR-29 AND DPR-30

IE24
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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 Verna Koselka and Lynne Deelsnyder, telephone number 309-654-2241, extensions 2240 and 2185.

II. SUMMARY OF OPERATING EXPERIENCE

A. Unit One

April 1-30

Unit One began operations for the month of April in Economic Generation Control (EGC). The unit remained in EGC with only minor interruptions to perform routine surveillances until April 8. At 0105, an Electro Hydraulic Control (EHC) Hi/Lo level alarm was received in the control room. An EHC oil leak was discovered on the #3 control valve and a load reduction was immediately taken. At 0140, EHC oil was added to the system. Control rods were inserted and the recirc pumps were ramped to minimum speed. At 0345, the turbine was manually tripped. At 0630, the EHC pumps were taken out-of-service. After investigations, Maintenance discovered a break in the EHC line. Repairs were made and, at 1220, the turbine was reset and the mode switch was placed in RUN. Control rod withdrawal was begun. However, the #3 control valve would not respond to input and rod withdrawal was halted. At 1505, rods were inserted and, at 1615, the mode switch was placed in STARTUP/HOT STANDBY. At 1800, a Group I isolation and Channel A 1/2 scram was received. At 1805, it was determined that this was a result of the Condensate Low Vacuum and Steam Valve closure relay dropping out. This is a function of the mode switch. At 1812, the mode switch was placed in REFUEL, then back to STARTUP/HOT STANDBY, and the relay then picked up. More repairs were performed on the EHC system on April 9. At 1435, on April 10, the turbine began to roll and, at 1533, the generator was synchronized to the grid. A power ascent was begun using control rods and recirc pumps. 780 MWe was reached at 2240. Control rod pattern adjustments were made and full load was achieved at 0740 on April 11. More rod pattern adjustments were made on April 11 and 12, and routine surveillances were performed. At 1112, the unit was placed in EGC. From April 13 to April 30, unit load was maintained near full power or the unit operated in Economic Generation Control with brief interruptions to perform routine surveillances.

B. Unit Two

April 1-30

Unit Two began the month of April operating in Economic Generation Control (EGC). Unit load was maintained near full power or the unit operated in EGC with brief interruptions to perform routine surveillances until April 10. At 0045, Unit Two was taken off of EGC and primary containment was deinerted to begin the Unit Two End of Cycle Nine Refueling Outage. At 1323, the turbine was tripped and at 1653, the reactor scram was completed. Normal refueling activities occurred thru the remainder of the month. The reactor head and steam dryer were removed on April 13 and the mode switch was locked in REFUEL on April 14. The core was unloaded on April 16 thru April 18. The vessel was drained on April 21 and decontamination of the recirc loops was begun on April 22 and continued thru the end of the month.

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

There were no Deviation Reports or License Events Report associated with the Safety Related Work Request Log this month.

UNIT 2 MAINTENANCE SUMMARY

WORK REQUEST NO.: Q52708

LER NUMBER: 86-13

COMPONENT: System 200 - Repaired valve AO-2-203-2D after failing LLRT by resating valve body and machining disc.

CAUSE OF MALFUNCTION: The cause of valve AO-2-203-2D to fail the Local Leak Rate Test was determined to be normal wear and erosion of valve internals.

RESULTS & EFFECTS ON SAFE OPERATION: Safety implications were minimal as the inboard valve, AO-2-203-1D, was within acceptable limits.

ACTION TAKEN TO PREVENT REPETITION: The immediate corrective action was to reseat the valve body and also to lap the valve seat and pilot seat. A new valve seat lapping machine used to repair this valve is anticipated to improve future MSIV performance.

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 1

Licensee Event Report Number	Date	Title of Occurrence
88-008	4-8-88	Group I Isolation in Startup/Hot Standby.

UNIT 2

88-006	4-4-88	Flued Head Anchors Don't Meet Design Requirements.
88-007	4-13-88	Leak Rate From All Valves & Penetration - > T.S. Limit.

V. DATA TABULATIONS

The folicwing 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 May 5, 1988

COMPLETED BY Lynne Deelsnyder

TELEPHONE 309-654-2241

OPERATING STATUS 0000 040188

1. REPORTING PERIOD: 2400 043088 GROSS HOURS IN REPORTING PERIOD: 719
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): N/A
4. REASONS FOR RESTRICTION (IF ANY):

	THIS MONTH	YR TO DATE	CUMULATIVE
5. NUMBER OF HOURS REACTOR WAS CRITICAL	719.0	2903.0	111967.3
6. REACTOR RESERVE SHUTDOWN HOURS	0.0	0.0	3421.9
7. HOURS GENERATOR ON LINE	659.2	2836.3	108294.5
8. UNIT RESERVE SHUTDOWN HOURS	0.0	0.0	909.2
9. GROSS THERMAL ENERGY GENERATED (MWH)	1576514	6769569	230110326
10. GROSS ELECTRICAL ENERGY GENERATED (MWH)	510823	2210059	74633561
11. NET ELECTRICAL ENERGY GENERATED (MWH)	486946	2112685	70015974
12. REACTOR SERVICE FACTOR	100.0	100.0	80.0
13. REACTOR AVAILABILITY FACTOR	100.0	100.0	82.4
14. UNIT SERVICE FACTOR	91.7	97.7	77.6
15. UNIT AVAILABILITY FACTOR	91.7	97.7	78.0
16. UNIT CAPACITY FACTOR (Using MDC)	88.1	94.6	65.0
17. UNIT CAPACITY FACTOR (Using Design MWe)	85.8	92.2	63.4
18. UNIT FORCED OUTAGE RATE	8.3	2.3	5.3

19. SHUTDOWNS SCHEDULED OVER NEXT 6 MONTHS (TYPE, DATE, AND DURATION OF EACH):

20. IF SHUT DOWN 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	_____	_____

APPENDIX C

OPERATING DATA REPORT

DOCKET NO. 50-265

UNIT TWO

DATE May 5, 1988

COMPLETED BY Lynne Deelsnyder

TELEPHONE 309-654-2241

OPERATING STATUS 0000 040188

1. REPORTING PERIOD: 2400 043088 GROSS HOURS IN REPORTING PERIOD: 719
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): N/A
4. REASONS FOR RESTRICTION (IF ANY):

	THIS MONTH	YR TO DATE	CUMULATIVE
5. NUMBER OF HOURS REACTOR WAS CRITICAL	228.9	2289.8	106946.9
6. REACTOR RESERVE SHUTDOWN HOURS	0.0	0.0	2985.8
7. HOURS GENERATOR ON LINE	228.4	2261.9	103797.2
8. UNIT RESERVE SHUTDOWN HOURS	0.0	0.0	702.9
9. GROSS THERMAL ENERGY GENERATED (MWH)	490072	5138743	222509310
10. GROSS ELECTRICAL ENERGY GENERATED (MWH)	162610	1669730	71227514
11. NET ELECTRICAL ENERGY GENERATED (MWH)	154454	1599345	67159370
12. REACTOR SERVICE FACTOR	31.8	78.9	76.9
13. REACTOR AVAILABILITY FACTOR	31.8	78.9	79.0
14. UNIT SERVICE FACTOR	31.8	77.9	74.6
15. UNIT AVAILABILITY FACTOR	31.8	77.9	75.1
16. UNIT CAPACITY FACTOR (Using MDC)	27.9	71.6	62.8
17. UNIT CAPACITY FACTOR (Using Design MWe)	27.2	69.8	61.2
18. UNIT FORCED OUTAGE RATE	0.0	6.2	8.3

19. SHUTDOWNS SCHEDULED OVER NEXT 6 MONTHS (TYPE, DATE, AND DURATION OF EACH):

20. IF SHUT DOWN 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	_____	_____

APPENDIX B
AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-254
UNIT ONE
DATE May 2, 1988
COMPLETED BY Lynne Deelsnyder
TELEPHONE 309-654-2241

MONTH APRIL

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	658	17	732
2	739	18	760
3	737	19	770
4	753	20	737
5	762	21	754
6	857	22	811
7	662	23	675
8	52	24	738
9	-16	25	727
10	143	26	726
11	777	27	763
12	761	28	759
13	747	29	750
14	776	30	756
15	730	31	
16	734		

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 May 2, 1988
COMPLETED BY Lynne Deelsnyder
TELEPHONE 309-654-2241

MONTH APRIL

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	707	17	-7
2	694	18	-7
3	689	19	-6
4	712	20	-7
5	692	21	-6
6	713	22	-4
7	706	23	-2
8	727	24	-1
9	738	25	-1
10	126	26	-3
11	-11	27	-2
12	-10	28	-2
13	- 9	29	-1
14	-10	30	-2
15	- 7	31	
16	- 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. 50-254

UNIT NAME QUAD CITIES UNIT ONE

COMPLETED BY Lynne Deelsnyder

DATE May 3, 1988

REPORT MONTH APRIL, 1988

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
88-3	880408	F	59.8	A	9	--------	HE	PIPEXX	Manually Tripped Turbine Due to EHC Line Oil Leak - Unit Remained in Startup/Hot Standby

APPROVED
AUG 16 1982
QCOSR

ID/5A

DOCKET NO. 50-265

UNIT NAME QUAD CITIES UNIT TWO

DATE May 3, 1988

APPENDIX D
UNIT SHUTDOWNS AND POWER REDUCTIONS

QTP 300-S13
Revision 6
August 1982

COMPLETED BY Lynne Deelsnyder

REPORT MONTH APRIL, 1988

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
88-5	880410	S	490.6	C	1	-------	RC	FUELXX	End of Cycle Nine Refueling Outage

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: 9 Cycle: 10

2. Scheduled date for next refueling shutdown: 6-24-89

3. Scheduled date for restart following refueling: 9-17-89

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:

   MARCH 24, 1989

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 AT PRESENT TIME.

7. The number of fuel assemblies.

   a. Number of assemblies in core: 724

   b. Number of assemblies in spent fuel pool: 1773

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: 2008

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Q.C.O.S.R.

QTP 300-S32
Revision 1
March 1978

QUAD-CITIES REFUELING INFORMATION REQUEST

1. Unit: 02 Reload: 8 Cycle: 9

2. Scheduled date for next refueling shutdown: 4-9-88

3. Scheduled date for restart following refueling: 6-18-88

4. Will refueling or resumption of operation thereafter require a technical specification change or other license amendment: YES. TECHNICAL SPECIFICATION CHANGES WILL BE REQUIRED FOR NEW FUEL TYPES (MAPHLGR CURVES). CHANGE TO MCPR LIMIT AND OPERATION AT INCREASED CORE FLOW/FINAL FEEDWATER TEMP. REDUCTION.

5. Scheduled date(s) for submitting proposed licensing action and supporting information:
   March 4, 1988

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:
   FIRST RELOAD OF GENERAL ELECTRIC, GE8E FUE. ,ITH 4 WATER-RODS AND LHGR LIMIT OF 14.4 KW/FT.

7. The number of fuel assemblies.
   a. Number of assemblies in core: 724
   b. Number of assemblies in spent fuel pool: 1311

8. The present licensed spent fuel pool storage capacity and the size of any increase in licensed storage capacity that has be 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: 2008

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APR 2 0 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	-	Traversing Incore Probe
TSC	-	Technical Support Center

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

RAR-88-20

April 29, 1988

U.S. NRC
Office of Nuclear Reactor Regulation
Washington, D. C. 20555
Attn: Document Control Desk

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 April, 1988.

Respectfully,

COMMONWEALTH EDISON COMPANY
QUAD-CITIES NUCLEAR POWER STATION

R. A. Robey
R. A. Robey
Services Superintendent

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Enclosure

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