



Commonwealth Edison
Quad Cities Nuclear Power Station
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GCT-92-40

October 2, 1992

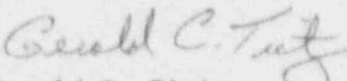
U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
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SUBJECT: Quad Cities Nuclear Station Units 1 and 2
Monthly Performance Report
NRC Docket Nos. 50-254 and 50-265

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 September 1992.

Respectfully,

COMMONWEALTH EDISON COMPANY
QUAD-CITIES NUCLEAR POWER STATION


Gerald C. Tietz
Technical Superintendent

GCT/MB/dak

Enclosure

cc: A. B. Davis, Regional Administrator
T. Taylor, Senior Resident Inspector

JEZ

QUAD-CITIES NUCLEAR POWER STATION

UNITS 1 AND 2

MONTHLY PERFORMANCE REPORT

September 1992

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 Matt Benson and Debra Kelley, telephone number 309-654-2211, extensions 2995 and 2240.

II. SUMMARY OF OPERATING EXPERIENCE

A. Unit One

Quad Cities Unit One was taken off line, for Refuel Outage Q1R12, in the early morning of September 20.

A containment valve test was performed on September 4 which required Unit One to reduce power to 300 MWe. Additional load reductions were performed by the request of Chicago Load Dispatch (CLD) as follows:

<u>Date</u>	<u>Load</u>	<u>Date</u>	<u>Load</u>
9-3-92	310 MWe	9-14-92	400 MWe
9-12-92	360 MWe	9-15-92	400 MWe
9-12-92	365 MWe	9-17-92	365 MWe
9-13-92	300 MWe	9-18-92	360 MWe

(Ten other load reductions of less than 20% were performed per CLD but not reported.)

B. Unit Two

Quad Cities Unit Two reduced power to 290 MWe on September 10 due to a condenser boot leak.

Chicago Load Dispatch requested the following load reductions for Unit Two for the month of September:

<u>Date</u>	<u>Load</u>	<u>Date</u>	<u>Load</u>
9-4-92	600 MWe	9-23-92	650 MWe
9-4-92	470 MWe	9-23-92	580 MWe
9-7-92	545 MWe	9-24-92	520 MWe
9-16-92	410 MWe	9-27-92	490 MWe
9-19-92	640 MWe		

(Four other load reductions of less than 20% were performed per CLD but not reported.)

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

A. Amendments to Facility License or Technical Specifications

Technical Specification Amendment No. 136 was issued on August 21, 1992 to Facility Operating License DPR-29 and Amendment No. 132 to Facility Operating License No. DPR-30 for Quad Cities Nuclear Power Station, Units 1 and 2, respectively. These amendments add an NRC-approved Topical Report to the list of analytical methods for determining the Cycle Specific Limits in the Core Operating Limits Report.

Technical Specification Amendment No. 137 was issued on August 27, 1992 to Facility Operating License DPR-29 and Amendment No. 133 to Facility Operating License No. DPR-30 for Quad Cities Nuclear Power Station, Units 1 and 2, respectively. These amendments change an action provision for the High Pressure Coolant Injection and Reactor Core Isolation Cooling Systems.

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

UNIT 1 MAINTENANCE SUMMARY

<u>WORK REQUEST</u>	<u>SYSTEM</u>	<u>EID DESCRIPTION</u>	<u>WORK PERFORMED</u>
Q69849	6705	Replace ammeter switch and light indication sockets.	Pa. tially refurbished cubicle.
Q97793	1001	Repair hand wheel on RHRS suction pump valve.	Repaired the locking set screw and tightened the hand wheel lock nut.

UNIT 2 MAINTENANCE SUMMARY

<u>WORK REQUEST</u>	<u>SYSTEM</u>	<u>EID DESCRIPTION</u>	<u>WORK PERFORMED</u>
Q02640	2321	Repair or fermanite drain from steam trap 2-2301-1 piping.	As Found: Elbow blowing steam. As Left: Replaced elbow and line adjacent to elbow.

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

<u>Licensee Event Report Number</u>	<u>Date</u>	<u>Title of Occurrence</u>
92-020	09-21-92	Technical Specification Containment Leakage Limit Exceeded.
92-022	09-17-92	While transferring 480 Volt Feeds 8" CR HVAC failed to autostart.
92-023	09-24-92	1B RHR Heat Exchanger failed heat transfer test (voluntary)
92-024	09-23-92	ESF actuation from the 1-1601-23 valve going closed.

UNIT 2

<u>Licensee Event Report Number</u>	<u>Date</u>	<u>Title of Occurrence</u>
92-022	09-25-92	2B RHRSW Pump INOP due to plug leaking.

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

APPENDIX C
OPERATING DATA REPORT

DOCKET NO 50-254
UNIT One
DATE October 6, 1992
COMPLETED BY Matt Benson
TELEPHONE (309) 654-2241

OPERATING STATUS

0000 090192
1. REPORTING PERIOD: 2400 093092 GROSS HOURS IN REPORTING PERIOD: 720

2. CURRENTLY AUTHORIZED POWER LEVEL (Mwt): 2511 MAX. DEPEND. CAPACITY: 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	<u>457.10</u>	<u>5839.00</u>	<u>142350.10</u>
6. REACTOR RESERVE SHUTDOWN HOURS	<u>0.0</u>	<u>0.0</u>	<u>3421.9</u>
7. HOURS GENERATOR ON LINE	<u>456.70</u>	<u>5785.20</u>	<u>138017.30</u>
8. UNIT RESERVE SHUTDOWN HOURS	<u>0.0</u>	<u>0.0</u>	<u>909.2</u>
9. GROSS THERMAL ENERGY GENERATED (MWH).....	<u>734352.00</u>	<u>12816609.6</u>	<u>296883632.60</u>
10. GROSS ELECTRICAL ENERGY GENERATED (MWH).....	<u>230188.0</u>	<u>4121111.0</u>	<u>96195447.0</u>
11. NET ELECTRICAL ENERGY GENERATED (MWH).....	<u>215033.0</u>	<u>3955444.0</u>	<u>90664812.0</u>
12. REACTOR SERVICE FACTOR.....	<u>63.49</u>	<u>88.81</u>	<u>79.33</u>
13. REACTOR AVAILABILITY FACTOR.....	<u>63.49</u>	<u>88.81</u>	<u>81.23</u>
14. UNIT SERVICE FACTOR	<u>63.43</u>	<u>88.00</u>	<u>76.91</u>
15. UNIT AVAILABILITY FACTOR	<u>63.43</u>	<u>88.00</u>	<u>77.42</u>
16. UNIT CAPACITY FACTOR (Using MDC).....	<u>38.84</u>	<u>78.23</u>	<u>65.70</u>
17. UNIT CAPACITY FACTOR (Using Design MWe)	<u>37.85</u>	<u>76.25</u>	<u>61.04</u>
18. UNIT FORCED OUTAGE RATE	<u>0.20</u>	<u>8.34</u>	<u>5.83</u>

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: _____

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 October 6, 1992
COMPLETED BY Matt Benson
TELEPHONE (309) 654-2241

OPERATING STATUS

- 0000 090192
1. REPORTING PERIOD: 2400 093092 GROSS HOURS IN REPORTING PERIOD: 720
2. CURRENTLY AUTHORIZED POWER LEVEL (Mwt): 2511 MAX. DEPEND. CAPACITY: 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 | <u>720.00</u> | <u>3483.55</u> | <u>136966.25</u> |
| 6. REACTOR RESERVE SHUTDOWN HOURS | <u>0.0</u> | <u>0.0</u> | <u>2985.8</u> |
| 7. HOURS GENERATOR ON LINE | <u>720.00</u> | <u>3412.55</u> | <u>133432.45</u> |
| 8. UNIT RESERVE SHUTDOWN HOURS | <u>0.0</u> | <u>0.0</u> | <u>702.9</u> |
| 9. GROSS THERMAL ENERGY GENERATED (MWH)..... | <u>1738236.00</u> | <u>7441852.80</u> | <u>287525738.80</u> |
| 10. GROSS ELECTRICAL ENERGY GENERATED (MWH)..... | <u>568721.00</u> | <u>2412282.00</u> | <u>92342472.00</u> |
| 11. NET ELECTRICAL ENERGY GENERATED (MWH)..... | <u>545372.00</u> | <u>2276918.00</u> | <u>87411093.00</u> |
| 12. REACTOR SERVICE FACTOR..... | <u>100.00</u> | <u>52.98</u> | <u>77.00</u> |
| 13. REACTOR AVAILABILITY FACTOR..... | <u>100.00</u> | <u>52.98</u> | <u>76.68</u> |
| 14. UNIT SERVICE FACTOR | <u>100.00</u> | <u>51.90</u> | <u>75.01</u> |
| 15. UNIT AVAILABILITY FACTOR | <u>100.00</u> | <u>51.90</u> | <u>75.41</u> |
| 16. UNIT CAPACITY FACTOR (Using MDC) | <u>98.14</u> | <u>45.03</u> | <u>63.90</u> |
| 17. UNIT CAPACITY FACTOR (Using Design MWe) | <u>95.65</u> | <u>43.89</u> | <u>62.28</u> |
| 18. UNIT FORCED OUTAGE RATE | <u>0.0</u> | <u>0.0</u> | <u>7.90</u> |
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: _____
21. UNITS IN TEST STATUS (PRIOR TO COMMERCIAL OPERATION):

	FORCAST	ACHIEVED
INITIAL CRITICALITY	_____	_____
INITIAL ELECTRICITY	_____	_____
COMMERCIAL OPERATION	_____	_____

APPENDIX B
AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO 50-254
UNIT One
DATE October 6, 1992
COMPLETED BY Matt Benson
TELEPHONE (309) 654-2241

MONTH September 1992

DAY AVERAGE DAILY POWER LEVEL
(MWe-Net)

1.	<u>513</u>
2.	<u>506</u>
3.	<u>499</u>
4.	<u>435</u>
5.	<u>527</u>
6.	<u>483</u>
7.	<u>483</u>
8.	<u>495</u>
9.	<u>489</u>
10.	<u>495</u>
11.	<u>489</u>
12.	<u>473</u>
13.	<u>441</u>
14.	<u>464</u>
15.	<u>474</u>
16.	<u>471</u>

DAY AVERAGE DAILY POWER LEVEL
(MWe-Net)

17.	<u>476</u>
18.	<u>488</u>
19.	<u>329</u>
20.	<u>-7</u>
21.	<u>-9</u>
22.	<u>-8</u>
23.	<u>-8</u>
24.	<u>-8</u>
25.	<u>-8</u>
26.	<u>-8</u>
27.	<u>-8</u>
28.	<u>-8</u>
29.	<u>-8</u>
30.	<u>-8</u>
31.	<u></u>

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 October 6, 1992
COMPLETED BY Matt Benson
TELEPHONE (309) 654-2241

MONTH September 1992

DAY AVERAGE DAILY POWER LEVEL
(MWe-Net)

DAY AVERAGE DAILY POWER LEVEL
(MWe-Net)

1. 750
2. 770
3. 777
4. 736
5. 673
6. 777
7. 709
8. 776
9. 778
10. 712
11. 670
12. 781
13. 779
14. 784
15. 782
16. 776

17. 688
18. 776
19. 770
20. 722
21. 782
22. 784
23. 766
24. 733
25. 738
26. 772
27. 702
28. 788
29. 787
30. 789
31. _____

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

DOCKET NO. 50-254

UNIT NAME Unit One

COMPLETED BY Mathew Benson

DATE October 6, 1992

REPORT MONTH September 1992

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
92-32	9-03-92	S	6.1	B	5	- - - -	- -	- - - -	Control Valve Testing
92-33	9-04-92	S	2.8	B	5	- - - -	- -	- - - -	Control Valve Testing
92-34	9-12-92	S	5.0	F	5	- - - -	- -	- - - -	Load Drop Per Chicago Load Dispatcher
92-35	9-12-92	S	9.1	F	5	- - - -	- -	- - - -	" " "
92-36	9-13-92	S	7.2	F	5	- - - -	- -	- - - -	" " "
92-37	9-14-92	S	6.0	F	5	- - - -	- -	- - - -	" " "
92-38	9-15-92	S	5.4	F	5	- - - -	- -	- - - -	" " "
92-39	9-17-92	S	3.3	F	5	- - - -	- -	- - - -	" " "
92-40	9-18-92	S	8.6	F	5	- - - -	- -	- - - -	" " "
92-41	9-19-92	S	262.9	C	1	- - - -	- -	- - - -	Reactor Shutdown For Q1R12 Outage

**APPENDIX D
UNIT SHUTDOWNS AND POWER REDUCTIONS**

DOCKET NO. 5G-265

UNIT NAME Unit Two

COMPLETED BY Matt Benson

DATE October 6, 1992

REPORT MONTH September 1992

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
92-64	9-04-92	S	4.4	F	5	- - - -	- -	- - - -	Load Drop per Chicago Load Dispatcher
92-65	9-04-92	S	8.0	F	5	- - - -	- -	- - - -	" " "
92-66	9-07-92	S	6.7	F	5	- - - -	- -	- - - -	" " "
92-67	9-10-92	F	8.5	A	5	- - - -	- -	- - - -	Condenser Boot Leak
92-68	9-16-92	S	7.9	F	5	- - - -	- -	- - - -	Load Drop per Chicago Load Dispatcher
92-69	9-19-92	S	8.0	F	5	- - - -	- -	- - - -	" " "
92-70	9-23-92	S	2.5	F	5	- - - -	- -	- - - -	" " "
92-71	9-23-92	S	6.6	F	5	- - - -	- -	- - - -	" " "
92-72	9-24-92	S	6.0	F	5	- - - -	- -	- - - -	" " "
92-73	9-27-92	S	9.3	F	5	- - - -	- -	- - - -	" " "

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.

QIAD CITIES REFUELING
INFORMATION REQUEST

1. Unit: Q1 Reload: 12 Cycle: 12
2. Scheduled date for next refueling shutdown: 9-20-92*
* Actual Shutdown at 0104 hrs.
3. Scheduled date for restart following refueling: 12-12-92
4. Will refueling or resumption of operation thereafter require a Technical Specification change or other license amendment:
 1. Modification to HPCI turbine exhaust steam line.
5. Scheduled date(s) for submitting proposed licensing action and supporting information:
 1. 06/30/92
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: 159*
*In process of core unload.
 - b. Number of assemblies in spent fuel pool: 1970
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: 2009

QUAD CITIES REFUELING
INFORMATION REQUEST

1. Unit: 02 Reload: 11 Cycle: 12
2. Scheduled date for next refueling shutdown: 03/06/93
3. Scheduled date for restart following refueling: 06/05/93
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:
NOT AS YET DETERMINED.
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: 2439
3. 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: 2009

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