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ComEd

LWP-97-034

April 9, 1997

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555

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 March, 1997.

Respectfully,

ComEd
Quad-Cities Nuclear Power Station

D.B. Cook for

L. W. Pearce
Station Manager

LWP/dak

Enclosure

cc: A. Beach, Regional Administrator
C. Miller, Senior Resident Inspector

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PDR ADOCK 05000254
R PDR

A Unicom Company



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HOT: TECH SPEC VIOLATION
IF THIS REPORT IS NOT
POSTMARKED
BY THE 10th of the MONTH

NRC REPORT ROUTING CONCURRENCE FORM

REPORT: March NRC Month Report

Kristal Moore Sides 4-10-97
ORIGINATOR DATE

Dyle B. J. for DC 4/10/97
DEPARTMENT SUPERINTENDENT OR DESIGNEE DATE

aj Chernil 4/10/97
REGULATORY ASSURANCE DATE

D. B. Cook Jr. 4-10-97
SITE VICE PRESIDENT/STATION MANAGER DATE

RETURN FORM TO REGULATORY ASSURANCE, RON BAUMER FOR FILING

QUAD-CITIES NUCLEAR POWER STATION

UNITS 1 AND 2

MONTHLY PERFORMANCE REPORT

MARCH 1997

COMMONWEALTH EDISON COMPANY

AND

MID-AMERICAN ENERGY 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 and Steam Turbine/Generators, each with a Maximum Dependable Capacity of 769 MWe Net, located in Cordova, Illinois. The Station is jointly owned by Commonwealth Edison Company and Mid-American Energy 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 Kristal Moore and Debra Kelley, telephone number 309-654-2241, extensions 3070 and 2240, respectively.

II. SUMMARY OF OPERATING EXPERIENCE

A. Unit One

Quad Cities Unit One began the month of March 1997 on-line. On March 11, 1997 at 1138 hours, Unit 1 came off-line. The reactor was manually scrammed on March 11, 1997 at 1331 hours to repair/replace a Reactor Protection System Scram Relay. The reactor went critical on March 16, 1997 at 2242 hours. Forced Outage Q1F39 was concluded on March 17, 1997 at 1516 hours, when the generator was synchronized to the grid.

A problem with the Moisture Separator Drain Tank (MSDT) necessitated a load drop on March 20, 1997. A Heater Bay entry was made to investigate the 3508B MSDT Level Control Valve. On March 21, 1997 at 1030 hours the Turbine Generator was tripped in order to repair the 3508B MSDT Level Control Valve. However, while the Turbine was being taken off-line, an Electro Hydraulic Control (EHC) aberration was experienced. On March 22, 1997 at 1104 hours, a manual scram was inserted to repair and test the EHC System. The station was able to duplicate the problem with the EHC System, with four of the ten shutoff valves malfunctioning. All ten shutoff valves were replaced. On March 27, 1997, restart was on hold pending approval of a Technical Specification Amendment required by the NRC. The reactor went critical on March 28, 1997 at 1714 hours, and Forced Outage Q1F40 was terminated on March 29, 1997 at 0508 hours when the generator was synchronized to the grid.

B. Unit Two

Quad Cities Unit Two was shutdown the entire month of March due to Refuel Outage Q2R14. Start-up is scheduled for May 15, 1997.

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

A. Amendments to Facility License or Technical Specifications

Technical Specification Amendment No. 172 was issued on February 28, 1997 to Facility Operating License DPR-29 and Amendment No. 168 to Facility Operating License DPR-30 for Quad Cities Nuclear Power Station.

The amendments would update the pressure-temperature (P-T) curves contained in the Dresden and Quad Cities Technical Specifications to 22 Effective Full Power Years (EFPYs).

Technical Specification Amendment No. 173 was issued on March 4, 1997 to Facility Operating License DPR-29 and Amendment No. 169 to Facility Operating License DPR-30 for Quad Cities Nuclear Power Station.

The amendments would change the Technical Specifications (TS) by allowing a single control rod to be moved when the plant is in the Hot Shutdown or Cold Shutdown condition provided that the one-rod-out interlock is Operable and the reactor mode switch is in the Refuel position.

Technical Specification Amendment No. 174 was issued on March 14, 1997 to Facility Operating License DPR-29 and Amendment No. 170 to Facility Operating License DPR-30 for Quad Cities Nuclear Power Station.

The amendments would revise the technical specifications to clarify and maintain consistency between the operability requirements for protective instrumentation and associated automatic bypass features.

Technical Specification Amendment No. 175 was issued on March 27, 1997 to Facility Operating License DPR-29 and Amendment No. 171 to Facility Operating License DPR-30 for Quad Cities Nuclear Power Station.

The proposed amendments provided (1) an evaluation of the Unreviewed Safety Question (USQ) involving the control room operator dose resulting from an error in the secondary containment volume, (2) a change in Technical Specification (TS) 4.7.P.2.b and 4.7.P.3 values for the allowed methyl iodide penetration for the standby gas treatment charcoal adsorbers, and (3) change of TS 5.2.C to reflect the new calculated free volume of the secondary containment. The licensee requested that these amendments be processed on an emergency basis.

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.

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 of 10CFR50.73.

UNIT 1

<u>Licensee Event Report Number</u>	<u>Date</u>	<u>Title of occurrence</u>
97-003	2/21/97	Control Room HVAC Flow Low (Downgraded to PIR 1-97-047)
97-003	3/26/97	Secondary Containment Volume Less than that Described in FSAR.
97-004	3/20/97	RHRSW Event 10/26/96--RHRSW Pumps Found in a Degraded Condition due to Inadequate Evaluation of Replacement Pump Casing Bolts.
97-005	3/19/97	HPCI Made Inoperable to Evaluate an Abandoned Cable.
97-006	3/27/97	Reactor Water Clean Up Appendix "R" Requirement.
97-007	3/31/97	U-1 Diesel Generator Auto-start.

NOTE: Sequence of LER Numbers is out of order due to reuse of numbers.

UNIT 2

<u>Licensee Event Report Number</u>	<u>Date</u>	<u>Title of occurrence</u>
97-003	3/21/97	2B Core Spray Pump Room Cooler Inoperable.

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 April 10, 1997

COMPLETED BY Kristal Moore

TELEPHONE (309) 654-2241

OPERATING STATUS

0000 030197

1. REPORTING PERIOD: 2400 033197 GROSS HOURS IN REPORTING PERIOD: 744

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	464.60	1880.60	166389.80
6. REACTOR RESERVE SHUTDOWN HOURS	0.00	0.00	3421.90
7. HOURS GENERATOR ON LINE	409.70	1825.70	161354.60
8. UNIT RESERVE SHUTDOWN HOURS	0.00	0.00	909.20
9. GROSS THERMAL ENERGY GENERATED (MWH)	843134.40	4218976.80	351391859.30
10. GROSS ELECTRICAL ENERGY GENERATED (MWH)	268959.00	1367570.00	113789000.00
11. NET ELECTRICAL ENERGY GENERATED (MWH)	256110.00	1306679.00	107461648.00
12. REACTOR SERVICE FACTOR	62.45	87.06	76.02
13. REACTOR AVAILABILITY FACTOR	62.45	87.06	77.58
14. UNIT SERVICE FACTOR	55.07	84.52	73.72
15. UNIT AVAILABILITY FACTOR	55.07	84.52	74.13
16. UNIT CAPACITY FACTOR (Using MDC)	44.76	78.67	63.84
17. UNIT CAPACITY FACTOR (Using Design MWe)	43.63	76.67	62.23
18. UNIT FORCED OUTAGE RATE	44.93	15.48	7.58

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

20. IF SHUTDOWN AT END OF REPORT PERIOD < ESTIMATED DATE OF STARTUP: N/A

21. UNITS IN TEST STATUS (PRIOR TO COMMERCIAL OPERATION): N/A

	FORECAST	ACHIEVED	
INITIAL CRITICALITY			
INITIAL ELECTRICITY			
COMMERCIAL OPERATION			

APPENDIX C

OPERATING DATA REPORT

DOCKET NO. 50-265

UNIT Two

DATE April 10, 1997

COMPLETED BY Kristal Moore

TELEPHONE (309) 654-2241

OPERATING STATUS

0000 030197

1. REPORTING PERIOD: 2400 033197 GROSS HOURS IN REPORTING PERIOD: 744

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	0.00	1408.30	161994.85
6. REACTOR RESERVE SHUTDOWN HOURS	0.00	0.00	2985.80
7. HOURS GENERATOR ON LINE	0.00	1407.70	157657.05
8. UNIT RESERVE SHUTDOWN HOURS	0.00	0.00	702.90
9. GROSS THERMAL ENERGY GENERATED (MWH)	0.00	3477281.20	343149370.02
10. GROSS ELECTRICAL ENERGY GENERATED (MWH)	0.00	1118808.00	110135945.00
11. NET ELECTRICAL ENERGY GENERATED (MWH)	0.00	1076518.00	104396239.00
12. REACTOR SERVICE FACTOR	0.00	65.20	74.54
13. REACTOR AVAILABILITY FACTOR	0.00	65.20	75.92
14. UNIT SERVICE FACTOR	0.00	65.17	72.55
15. UNIT AVAILABILITY FACTOR	0.00	65.17	72.87
16. UNIT CAPACITY FACTOR (Using MDC)	0.00	64.81	62.47
17. UNIT CAPACITY FACTOR (Using Design MWe)	0.00	63.17	60.89
18. UNIT FORCED OUTAGE RATE	0.00	0.00	11.08

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

20. IF SHUTDOWN AT END OF REPORT PERIOD < ESTIMATED DATE OF STARTUP: 5/15/97

21. UNITS IN TEST STATUS (PRIOR TO COMMERCIAL OPERATION): N/A

	FORECAST	ACHIEVED	
INITIAL CRITICALITY			
INITIAL ELECTRICITY			
COMMERCIAL OPERATION			

APPENDIX B
AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO 50-254
UNIT One
DATE April 10, 1997
COMPLETED BY Kristal Moore
TELEPHONE (309) 654-2241

MONTH March, 1997

DAY AVERAGE DAILY POWER LEVEL
(MWe-Net)

1.	<u>783</u>
2.	<u>728</u>
3.	<u>784</u>
4.	<u>784</u>
5.	<u>784</u>
6.	<u>783</u>
7.	<u>785</u>
8.	<u>784</u>
9.	<u>783</u>
10.	<u>784</u>
11.	<u>179</u>
12.	<u>-7</u>
13.	<u>-6</u>
14.	<u>-7</u>
15.	<u>-7</u>
16.	<u>-7</u>

DAY AVERAGE DAILY POWER LEVEL
(MWe-Net)

17.	<u>29</u>
18.	<u>375</u>
19.	<u>603</u>
20.	<u>306</u>
21.	<u>81</u>
22.	<u>-8</u>
23.	<u>-6</u>
24.	<u>-6</u>
25.	<u>-6</u>
26.	<u>-6</u>
27.	<u>-6</u>
28.	<u>-6</u>
29.	<u>76</u>
30.	<u>544</u>
31.	<u>772</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 April 10, 1997
COMPLETED BY Kristal Moore
TELEPHONE (309) 654-2241

MONTH March, 1997

DAY AVERAGE DAILY POWER LEVEL
(MWe-Net)

1.	<u>-8</u>
2.	<u>-8</u>
3.	<u>-8</u>
4.	<u>-8</u>
5.	<u>-8</u>
6.	<u>-8</u>
7.	<u>-8</u>
8.	<u>-8</u>
9.	<u>-8</u>
10.	<u>-8</u>
11.	<u>-8</u>
12.	<u>-6</u>
13.	<u>-6</u>
14.	<u>-7</u>
15.	<u>-7</u>
16.	<u>-6</u>

DAY AVERAGE DAILY POWER LEVEL
(MWe-Net)

17.	<u>-8</u>
18.	<u>-8</u>
19.	<u>-8</u>
20.	<u>-8</u>
21.	<u>-8</u>
22.	<u>-7</u>
23.	<u>-5</u>
24.	<u>-6</u>
25.	<u>-6</u>
26.	<u>-6</u>
27.	<u>-6</u>
28.	<u>-6</u>
29.	<u>-8</u>
30.	<u>-8</u>
31.	<u>-8</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 D

UNIT SHUTDOWNS AND POWER REDUCTIONS

DOCKET NO. 50-254UNIT NAME One

COMPLETED BY Kristal Moore

DATE April 10, 1997

REPORT MONTH March, 1997

TELEPHONE 309-654-2241

[illegible]

APPENDIX D

UNIT SHUTDOWNS AND POWER REDUCTIONS

DOCKET NO. 50-265UNIT NAME Two

COMPLETED BY Kristal Moore

DATE April 10, 1997 REPORT MONTH March 1997

TELEPHONE 309-654-2241

[illegible]

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

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 One and Two Control Rod Drive Scram timing for the reporting period. All scram timing as performed with reactor pressure greater than 800 PSIG.

RESULTS OF SCRAM TIMING MEASUREMENTS
PERFORMED ON UNIT 1 & 2 CONTROL
ROD DRIVES, FROM 01/01/97 TO 03/31/97

DATE	NUMBER OF RODS	AVERAGE TIME IN SECONDS AT % INSERTED FROM FULLY WITHDRAWN				MAX. TIME FOR 90% INSERTION	DESCRIPTION
		5	20	50	90		
		0.375	0.900	2.00	3.5	7 sec.	Technical Specification 3.3.C.1 & 3.3.C.2 (Average Scram Insertion Time)
2/17/97	14	0.314	0.712	1.528	2.671	3.010 (J-14)	STT for Viton Issue U-1 (Core Wid Ave. Times)
3/29-31/97	21	0.316	0.708	1.513	2.645	3.010 (J-14)	STT for Tech Spec (19) (Core Wide Ave. Times) PMTV (2)

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.

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
PCOMR	- 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

QUAD CITIES REFUELING
INFORMATION REQUEST

QTP 300-S32
Revision 2
October 1989

1. Unit: Q1 Reload: 14 Cycle: 15
2. Scheduled date for next refueling shutdown: 3/28/98
3. Scheduled date for restart following refueling: 5/29/98
4. Will refueling or resumption of operation thereafter require a Technical Specification change or other license amendment:

No

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

5/9/98

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:

Approx. 216 SPC 9X9IX Fuel Bundles Q1R15 will be loaded.

7. The number of fuel assemblies.

- a. Number of assemblies in core: 724
- b. Number of assemblies in spent fuel pool: 1933

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: 2002

APPROVED

OCT 30 1989

Q.C.O.S.R.

(final)

-1-

QUAD CITIES REFUELING
INFORMATION REQUEST

QTP 300-S32
Revision 2
October 1989

1. Unit: Q2 Reload: 13 Cycle: 14
2. Scheduled date for next refueling shutdown: 3/1/97
3. Scheduled date for restart following refueling: 5/15/97
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:

Submittals began August 1996; ongoing process.
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:

216 Siemens 9X9IX Power Corporation Fuel Bundles will be loaded during Q2R14.
7. The number of fuel assemblies.
 - a. Number of assemblies in core: 0
 - b. Number of assemblies in spent fuel pool: 3667
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: 2002