QUAD-CITIES NUCLEAR POWER STATION

UNITS 1 AND 2

MONTHLY PERFORMANCE REPORT

OCTOBER 1984

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, 1572. 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.

II. SUMMARY OF OPERATING EXPERIENCE

A. Unit One

October 1-10: Unit One began the month increasing load to full power after weekly Turbine tests. On October 7, at 2350 hours, load was reduced to 700 MWe for weekly Turbine tests. At 0200 hours the unit began a normal load increase to full power. On October 10, at 0855 hours, load was reduced to 750 MWe to place the unit in Economic Generation Control (EGC).

October 11-19: On October 12, at 1130 hours, load was reduced to change the EGC load setpoint. On October 13, at 0105 hours, the unit was off EGC due to computer malfunctions. Load was reduced to 700 MWe to perform weekly Turbine tests. On October 19, at 0415 hours, load was reduced to 750 MWe to place the unit on EGC.

October 20-31: On October 20, at 1620 hours, the Load Dispatcher requested that the unit be taken off EGC. The unit began a normal load increase to full power. On October 21, at 0105 hours, the load increase was stopped at 790 MWe per a Load Dispatcher request. At 0110 hours load was reduced to 750 MWe to place the unit on EGC. On October 28, at 0100 hours, load was reduced to 700 MWe for weekly Turbine tests. At 0200 hours the unit began a normal load increase to full power.

B. Unit Two

October 1-21: Unit Two began the month increasing load to full power after weekly Turbine tests. On October 7, at 2355 hours, load was reduced to 700 MWe for weekly Turbine tests. At 0155 hours the unit began a normal load increase to full power. On October 10, at 0840 hours, load was reduced to 744 MWe to place the unit on EGC. On October 21, at 2355 hours, load was reduced to 700 MWe for weekly Turbine tests. At 0100 hours the unit began a normal load increase to full power.

October 22-31: On October 24, at 2130 hours, load was reduced 200 MWe/hour due to a fluid leak in the EHC System. On October 25, at 0326 hours, the Turbine was tripped and at 0640 hours the Reactor scrammed on high pressure. On October 27, at 0808 hours, the Reactor was critical and at 1615 hours the Generator was on line. At 2030 hours load was reduced to 350 MWe due to high Turbine vibration. On October 28, at 1400 hours, the unit began increasing load to full power. On October 31, at 0030 hours, load was reduced to perform MSIV tests. At 0055 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 scfety related maintenance performed on Unit One and Unit Two during the reporting period. This summary includes the following headings: Work Request Numbers, LER Numbers, Components, Cause of Malfunctions, Results and Effects on Safe Operation, and Action Taken to Prevent Repetition.

W.R. NUMBER	LER NUMBER	COMPONENT	CAUSE OF MALFUNCTION	RESULTS & EFFECTS ON SAFE OPERATION	ACTION TAKEN TO PREVENT REPETITION
Q35138	84-2	AO 1-8803 (leaks)	Not seating tight.	The in-line valve, AO 1-8804, would have limited the leakage to 4.9 SCFH.	Lapped seating surfaces and repacked. The leakage was reduced to an acceptable value.
Q36408		'D' RHR Service Water Vault Door (leaks)	Door latch stops were out of adjust- ment.	Reference Deviation Report 4-1-84-41. Leakage would be small enough that the sump pump could have easily handled the volume in the unlikely event of condensate pit flooding.	Adjusted door stops.
Q37279		1-261-2C Main Steam Line - Replace Mercury Switch (high flow DPIS)	Setpoint drift.	The Main Steam Line high flow Group I Isolation would have occurred as designed due to the conservative nature of the one-out-of-two-twice logic associated with the differential pressure switches. Reference Deviation Report 4-1-84-56.	Replaced the switch.
Q37752		1-1402-57 Jockey Pump - Breaker Tripped When Attempting to Restart Pump	Motor stator windings shorted to ground.	Reference Deviation Report 4-1-84-67. Discharge pipe pressure was brought with- in Technical Specification limits seven hours before the required 12 hours was up.	The Condensate Transfer system was utilized until the pump/motor was replaced like-for-like.

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UNIT TWO MAINTENANCE SUMMARY

W.R. NUMBER	LER NUMBER	COMPONENT	CAUSE OF MALFUNCTION	RESULTS & EFFECTS ON SAFE OPERATION	ACTION TAKEN TO PREVENT REPETITION
Q37592		2-2301-48 Valve (HPCI) Will Not Open Until Manually Cracked- Off Seat.	Unknown.	Flow could have been diverted to the CCST's if the need for a cooling water flow path had occurred.	Valve was opened, and the operator was rebuilt.
Q37683		MO 2-1001-18A - Came Apart From the Stem.	Operator to yoke bolts sheared off.	Minimum flow bypass is not critical or necessary for the function of RHR.	Replace with like-for- like bolts.
Q37749		590-103A Relay (replace)	Insulation melted; coil burnt out.	A trip of the 'A' channel of the RPS ensued. This is the conservative direction. The relay performed its designed safety function. Reference Deviation Report 4-2- 84-59.	Replace coil with improved high temperature Century coil.

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 Unit One for the reporting period.

UNIT TWO

Licensee Event Report Number

84-10

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Date

10-25-84

Title of Occurrence

Unit Two Scram in 'Hot Standby' due to High Pressure

V. DATA TABULATIONS

The following data tabulations are presented in this report:

A. Operating Data Report

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- B. Average Daily Unit Power Level
- C. Unit Shutdowns and Power Reductions

OPERATING DATA REPORT

DOCKET	NO.	50-254
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UNIT ONE

DATENovember 5

COMPLETED BYDAVE KIMLER

TELEPHONE309-654-2241X192

OPERATING STATUS

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0000 100184

1. Reporting period: 2400 103184 Gross hours in reporting period: 745

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	745.0	3357,9	86913.5						
ь.	Reactor reserve shutdrwn hours	0.0	0.0	3421.9						
7.	Hours generator on line	745.0	3308.2	83656.1						
8,	Unit reserve shutdown hours.	0.0	0.0	909.2						
9.	Gross thermal energy generated(MWH)	1782849	7509975	172616681						
i0.	Gross electrical energy generated(MWH)	589219	2486015	55744631						
11.	Net electrical energy generated(MWH)	564401	2358824	51964791						
12.	Reactor service factor	100.0	45.9	79.5						
13.	Reactor availability factor	100.0	45.9	82.6						
14.	Unit service factor	100.0	45.2	76.5						
15.	Unit availability factor	1.00.0	45,2	77.3						
16.	Unit capacity factor (Using MDC)	98.5	41.9	61.8						
17.	Unit capacity factor (Using Des.MWe)	96.0	40.8	60.2						
18.	Unit forced outage rate	0.0	1.3	6.1						
19.	Shutdowns scheduled over next 6 months	(Type,Date,	and Duration	of each):						
20.	If shutdown at end of report period, est	timated date	of startup	NA						
	#The MDC way 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

DATENovember 5

COMPLETED BYDAVE KIMLER

TELEPHONE309-654-2241X192

OPERATING STATUS

0000 100134

1. Reporting period: 2400 103184 Gross hours in reporting period: 745

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	Comulative
5.	Number of hours rea:tor was critical	695.9	5709.6	83627.1
6.	Reactor reserve shutdown hours	0.0	0.0	2985.8
7.	Hours generator on line	684.2	5581.0	80790,8
8.	Unit reserve shutdown hours.	0,0	0.0	702.9
9,	Gross thermal energy generated(MWH)	1606077	13137864	168519952
i0.	Gross electrical energy generated(MWH)	520137	4236979	53672759
11.	Net electrical energy generated(MWH)	498338	4041829	50375889
12.	Reactor service factor	93.4	78.0	77.1
13.	Reactor availability factor	93.4		79.9
1.4.	Unit service factor	91.8	76.2	74.5
15.	Unit availability factor	91.8	76.2	75.1
1.6.	Unit capacity factor (Using MDC)	87.0	<u>71.8</u>	60.4
17.	Unit capacity factor (Using Des.MWe)	84.8	70.0	58.9
18.	Unit forced outage rate	6.7	3.7	8.3
19,	Shutdowns scheduled over next 6 months	(Type,Date,	and Duration	of each):
20.	If shutdown at end of report period,es	timated date	of startup	NA
	DC may be lower than 769 MWe during periods of high ambient tempe thermal performance of the spray canal.	rature due		

*UNOFFICIAL COMPANY NUMBERS ARE USED IN THIS REPORT

APPENDIX B AVERAGE DAILY UNIT POWER LEVEL

	DOCKET NO 50-254	
	UNIT ONE	
	DATENovember 5	
	COMPLETED BYDAVE KIMLER	
	TELEPHONE309-654-2241X1	92
NTH October 1984		
Y AVERAGE DAILY POWER LEVEL (MWe-Net)	DAY AVERAGE DAILY POWER LE (MWe-Net)	VEL
792.5	17773.0	
	18. <u>789.i</u>	
794.0	19717.6	
781.i	20709.9	
792.8	21708.5	
792.0	22708.5	
768.6	23711.3	
790.6	24711.9	
787.0	25766.1	
746.2	26	
730.8	27784.9	
715.6	28798.7	
727.7	29,794.8	
734.0	30785.8	
715.9	31794.6	
712.8		

INSTRUCTIONS

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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
	DATENO	vember 5
	COMPLETED BYDA	VE KIMLER
	TELEPHONE 30	9-654-2241X192
October 1984		
RAGE DAILY POWER LEVEL (MWe-Net)		ILY POWER LEVEL -Net)
775.0	17	773.3
787.2	18	768.4
783.6	19	772.8
769.8	20	781.0
786.0	21	767.7
781.9	22	776.1
719.9	23	780.4
818.3	24	760.0
769.8	25	15.3
731.9	26	-11.5
707.1	27	75.5
697.4	28.	421.0
712.8	29.	630.9
686.0	30.	725.4
708.0	31.	752.2
729.5		

INSTRUCTIONS

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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

CKET NO			Unit 1		UNIT	SHUTDOWNS A	ENDIX D AND POW	QTP 300-S13 Revision 6 August 1982 COMPLETED BY D. Kimler	
TE	Novemb	er 5,	1984		REP	ORT MONTH _	OCTOBE	R 1984	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
84-25	841007	S	0.0	В	5		HA	TURBIN	Reduced load to perform weekly Turbine tests
84-26	841010	S	0.0	F	5		xx	ZZZZZZ	Reduced load to place the unit in EGC operation
84-27	841012	S	0.0	F	5		xx	ZZZZZZ	Reduced load to change EGC load limit setpoint
84-28	841013	S	0.0	В	5		НА	TURBIN	Reduced load to perform weekly Turbine tests
84-29	841019	S	0.0	F	5		xx	ZZZZZZ	Reduced load to place the unit in EGC operation
84-30	841021	S	0.0	F	5		xx	ZZZZZZ	Reduced load to place the unit in EGC operation
84-31	841028	S	0.0	В	5		HA	TURBIN	Reduced load to perform weekly Turbine tests
	Sec.								APPROVED
									AUG 1 6 1982

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D/5A DCKET NO	050-2	65			UNIT	APPE SHUTDOWNS A	NDIX D		QTP 300-S13 Revision 6 August 1982
NIT NAME			Unit 2						COMPLETED BY D. Kimler
ATE	Novem	ber 5,	1984		REP	PORT MONTH	OCTOB	ER 1984	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
84-46	841007	S	0.0	в	5		HA	TURBIN	Reduced load to perform weekly Turbine tests
84-47	841010	S	0.0	F	5		xx	ZZZZZZ	Reduced load to place the unit in EGC operation
84-48	841021	S	0.0	В	5		HA	TURBIN	Reduced load to perform weekly Turbine tests
84-49	841024	F	0.0	A	5		НВ	VALVEX	Reduced load due to leaking Servo Valve on EHC System
84-50	841025	F	49.13	Н	3		ZZ	ZZZZZZ	Reactor scram due to high Reactor pressur
84-51	841025	F	0.0	Н	5		HA	TURBIN	Reduced load due to high Turbine vibratio
84-52	841031	S	0.0	В	5		НВ	VALVEX	Reduced load to perform MSIV testing
									APPROVED
									AUG 1 6 1982

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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

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 was performed with Reactor pressure greater than 800 psig.

RESULTS OF SCRAM TIMING MEASUREMENTS

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PERFORMED ON UNIT 1 & 2 CONTROL

ROD DRIVES, FROM 1-1 TO 12-31-84

		AVERAGE TIME IN SECONDS AT % INSERTED FROM FULLY WITHDRAWN				Max. Time For 90% Insertion	DESCRIPTION		
	NUMBER	5	20	50	90		Technical Specification 3.3.C.1 &		
DATE	OF RODS	0.375	0.900	2.00	3.5	7 sec.	3.3.C.2 (Average Scram Insertion Time)		
10-27	1	0.29	0.69	1.58	2.34	2.84	Unit 2 K-13 Hot Scram Timing After Replacement		

VII. REFUELING INFORMATION

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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. QUAD-CITIES REFUELING INFORMATION REQUEST QTP 300-532 Revision 1 March 1978

1.	Unit:	QI	Reload:	7	Cycle:	8	
2.	Scheduled	date f	or next refueli	ng shutdov	י חי	11-11-85	
3.	Scheduled	date f	or restart foll	owing refu	ueling:	1-20-86	

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:

SEPTEMBER 13, 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.

а.	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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Q. C. O. S. R.

QUAD-CITIES REFUELING INFORMATION REQUEST

QTP 300-S32 Revision 1 March 1978

1.	Unit:	2	Reload:	7	_ Cycle: _	8	
2.	Scheduled	date f	or next refuelin	ig shutdow	vn:	4-2-85	
3.	Scheduled	date f	or restart follo	wing refu	ueling:	6-22-85	

4. Will refueling or resumption of operation thereafter require a technical specification change or other license amendment:

Not as yet determined.

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

January 18, 1985, if licensing action required.

 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
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b. Number of assemblies in spent fuel pool:

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
ь.	Planned increase	in licensed storage:	0

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 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

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The following abbreviations which may have been used in the Monthly Report, are defined below:

ACAD/CAM	-	Atmospheric Containment Atmospheric Dilution/Containment
ANSI		Atmospheric Monitoring American National Standards Institute
APRM	-	Average Power Range Monitor
ATWS	-	Anticipated Transient Without Scram
BWR	-	Boiling Water Reactor
CRD	1	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	-	
IRM	-	Integrated Primary Containment Leak Rate Test Intermediate Range Monitor
ISI	1	Inservice Inspection
LER	2	Licensee Event Report
LLRT	-	Local Leak Rate Test
LPCI	1	Low Pressure Coolant Injection Mode of RHRS
LPCI		Local Power Range Monitor
MAPLHGR	-	
MCPR	-	Maximum Average Planar Linear Heat Generation Rate Minimum Critical Power Ratio
MFLCPR	-	
MPC	1	Maximum Fraction Limiting Critical Power Ratio Maximum Permissible Concentration
MSIV		Main Steam Isolation Valve
NIOSH	-	
PCI	-	National Institute for Occupational Safety and Health
PCIOMR	1	Primary Containment Isolation
RBCCW		Preconditioning Interim Operating Management Recommendations
	-	Reactor Building Closed Cooling Water System Rod Block Monitor
RBM RCIC	-	
RHRS		Reactor Core Isolation Cooling System
RPS		Residual Heat Removal System
	-	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



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Commonwealth Edison Quad Cities Nuclear Power Station 22710 206 Avenue North Cordova, Illinois 61242 Telephone 309/654-2241

NJK-84-344

November 1, 1984

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 October 1984.

Very truly yours,

COMMONWEALTH EDISON COMPANY QUAD-CITIES NUCLEAR POWER STATION

No Flander

N. J. Kalivianakis Station Superintendent

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Enclosure

I.E24