



PECO NUCLEAR

A UNIT OF PECO ENERGY

PECO Energy Company  
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Sanatoga, PA 19464-0920

T.S.6.9.1.6

April 11, 1996

Docket Nos. 50-352  
50-353  
License Nos. NPF-39  
NPF-85

U. S. Nuclear Regulatory Commission  
Attn: Document Control Desk  
Washington, DC 20555

Subject: Limerick Generating Station Monthly Operating  
Report For Units 1 and 2

Enclosed are the monthly operating reports for Limerick  
Units 1 and 2 for the month of March 1996 forwarded  
pursuant to Technical Specification 6.9.1.6.

Very truly yours,

Michael P. Gallagher  
Director - Site Engineering

drh

Enclosures

cc: T. T. Martin, Administrator, Region I, USNRC  
N. S. Perry, USNRC Senior Resident Inspector LGS  
W. G. MacFarland, Vice President, LGS

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Limerick Generating Station  
Unit 1  
March 1 through March 31, 1996

I. Narrative Summary of Operating Experiences

Unit 1 began the month of March in operational condition 1 with startup in progress following 1R06 and reactor pressure at 960 psig.

On March 1, 1996 at 1335 hours the Main Turbine was synchronized to the grid with reactor power at 21% RTP. Modifications were performed during 1R06 to re-rate the Unit by increasing power five percent; from 3293 MWth to 3458 MWth. Power ascension continued with re-rate testing in progress. Reactor power was restored to 100% RTP on March 4, 1996 at 0430 hours.

On March 4, 1996 at 2201 hours, power was reduced to 70% RTP for a control rod pattern adjustment. Power was restored to 100% RTP on March 5, 1996 at 0728 hours.

On March 9, 1996 at 0117 hours, power was reduced to 98% RTP for main turbine valve testing. Power was restored to 100% RTP at 0223 hours.

On March 16, 1996 at 0500 hours, power was reduced to 98% RTP for main turbine valve testing. Power was restored to 100% RTP shortly thereafter.

On March 17, 1996 at 0207 hours, power was reduced to 92% RTP for main turbine valve and RPS testing. Power was restored to 100% RTP at 0650 hours.

On March 24, 1996 at 0359 hours, power reduction commenced in preparation to shutdown for a planned maintenance outage, 1E07. Power was reduced to 24% RTP and the main turbine was removed from service at 0901 hours. The unit was manually scrammed at 1000 hours.

On March 24, 1996 at 2015 hours, the unit entered operational condition 4, Cold Shutdown when reactor coolant temperature was less than 200 degrees F and shutdown cooling in service.

On March 29, the reactor mode switch was placed in Startup, control rod withdrawal commenced, and the reactor was critical at 0241 hours on March 30, 1996. On March 30, 1996, the Unit was synchronized to the grid at 23:20 hours and power ascension continued to 89% power.

On March 31, 1996 at 1932 hours, seven bypass valves opened and closed. Power was reduced immediately and further reduced to 24% power by 2230 hours. Main turbine electro-hydraulic control troubleshooting commenced.

Unit 1 ended this month operating at 24% RTP.

II. Challenges to Main Steam Safety Relief Valves

There were no challenges to the Main Steam Safety Relief Valves during the month of March.

# AVERAGE DAILY POWER LEVEL

DOCKET NO. 50 - 352  
 UNIT LIMERICK UNIT 1  
 DATE APRIL 11, 1996  
 COMPANY PECO ENERGY COMPANY  
 DAVID R. HENRICKS  
 REPORTS ENGINEER  
 SITE ENGINEERING  
 LIMERICK GENERATING STATION  
 TELEPHONE (610) 718-3772

MONTH MARCH, 1996

DAY AVERAGE DAILY POWER LEVEL  
(MWE-NET)

1	74
2	471
3	899
4	1086
5	1040
6	1124
7	1116
8	1128
9	1128
10	1128
11	1123
12	1119
13	1128
14	1120
15	1116
16	1119

DAY AVERAGE DAILY POWER LEVEL  
(MWE-NET)

17	1120
18	1119
19	1119
20	1123
21	1124
22	1129
23	1116
24	286
25	0
26	0
27	0
28	0
29	0
30	0
31	471

# OPERATING DATA REPORT

DOCKET NO. 50 - 352  
 DATE APRIL 11, 1996  
 COMPLETED BY PECO ENERGY COMPANY  
 DAVID R. HENRICKS  
 REPORTS ENGINEER  
 SITE ENGINEERING  
 LIMERICK GENERATING STATION  
 TELEPHONE (610) 718-3772

## OPERATING STATUS

1. UNIT NAME: LIMERICK UNIT 1  
 2. REPORTING PERIOD: MARCH, 1996  
 3. LICENSED THERMAL POWER(MWT): 3458  
 4. NAMEPLATE RATING (GROSS MWE): 1160  
 5. DESIGN ELECTRICAL RATING (NET MWE): 1105  
 6. MAXIMUM DEPENDABLE CAPACITY (GROSS MWE): 1145  
 7. MAXIMUM DEPENDABLE CAPACITY (NET MWE): 1105

NOTES: THERE WERE THREE LOAD DROPS  
 GREATER THAN 20% THIS MONTH  
 ASSOCIATED WITH A ROD PATTERN  
 ADJ., A PLANNED MAINT. OUTAGE  
 AND MAIN TURBINE CONTROL  
 TROUBLESHOOTING.

8. IF CHANGES OCCUR IN CAPACITY RATINGS (ITEMS 3 THROUGH 7 ) SINCE LAST REPORT, GIVE REASONS:  
 UNIT 1 WAS RERATED TO THESE NEW CAPACITY RATINGS.

9. POWER LEVEL TO WHICH RESTRICTED, IF ANY (NET MWE):

10. REASONS FOR RESTRICTIONS, IF ANY:

	THIS MONTH	YR-TO-DATE	CUMULATIVE
11. HOURS IN REPORTING PERIOD	744	2,184	89,088
12. NUMBER OF HOURS REACTOR WAS CRITICAL	607.3	1,504.5	73,728.1
13. REACTOR RESERVE SHUTDOWN HOURS	0.0	0.0	0.0
14. HOURS GENERATOR ON-LINE	572.1	1,426.7	72,426.6
15. UNIT RESERVE SHUTDOWN HOURS	0.0	0.0	0.0
16. GROSS THERMAL ENERGY GENERATED (MWH)	1,867,426	4,269,374	224,410,269
17. GROSS ELECTRICAL ENERGY GENERATED (MWH)	607,800	1,388,300	73,022,780
18. NET ELECTRICAL ENERGY GENERATED (MWH)	587,161	1,333,302	70,124,774

# OPERATING DATA REPORT (CONTINUED)

DOCKET NO. 50 - 352

DATE APRIL 11, 1996

	THIS MONTH	YR-TO-DATE	CUMULATIVE
19. UNIT SERVICE FACTOR	76.9 %	65.3 %	81.3 %
20. UNIT AVAILABILITY FACTOR	76.9 %	65.3 %	81.3 %
21. UNIT CAPACITY FACTOR (USING MDC NET)	71.4 %	56.7 %	74.6 %
22. UNIT CAPACITY FACTOR (USING DER NET)	71.4 %	56.7 %	74.6 %
23. UNIT FORCED OUTAGE RATE	.0 %	.0 %	4.2 %
24. SHUTDOWNS SCHEDULED OVER THE NEXT 6 MONTHS (TYPE, DATE AND DURATION OF EACH): CONTINGENCY OUTAGE TO REPAIR TIP MACHINE IS SCHEDULED FOR MAY 6, 1996 LASTING 4 DAYS.			
25. IF SHUTDOWN AT THE END OF REPORT PERIOD, ESTIMATED DATE OF STARTUP:			
26. UNITS IN TEST STATUS (PRIOR TO COMMERCIAL OPERATIONS):	FORECAST	ACHIEVED	
INITIAL CRITICALITY	12/19/84	12/22/84	
INITIAL ELECTRICITY	MID APRIL 85	04/13/85	
COMMERCIAL OPERATION	1ST QTR 86	02/01/86	

# UNIT SHUTDOWNS AND POWER REDUCTIONS

DOCKET NO. 50 - 352  
UNIT NAME LIMERICK UNIT 1  
DATE APRIL 11, 1996  
COMPLETED BY PECO ENERGY COMPANY  
DAVID R. HENRICKS  
REPORTS ENGINEER  
SITE ENGINEERING  
LIMERICK GENERATING STATION  
TELEPHONE (610) 718-3772

REPORT MONTH MARCH, 1996

NO.	DATE	TYPE (1)	DURATION (HOURS)	REASON (2)	METHOD OF SHUTTING DOWN REACTOR (3)	LICENSEE EVENT REPORT #	SYSTEM CODE (4)	COMPONENT CODE (5)	CAUSE AND CORRECTIVE ACTION TO PREVENT RECURRENCE
98	960301	S	13.6	C	4	N/A	RC	FUELXX	REACTOR WAS SHUTDOWN FROM PREVIOUS REPORTING PERIOD DUE TO A REFUELING OUTAGE.
99	960304	S	0.0	B	4	N/A	RB	CONROD	REACTOR POWER WAS REDUCED TO 70% DUE TO CONTROL ROD PATTERN ADJUSTMENT.
100	960309	S	0.0	B	4	N/A	HA	VALVEX	REACTOR POWER WAS REDUCED TO 98% DUE TO MAIN TURBINE VALVE TESTING.
101	960316	S	0.0	B	4	N/A	HA	VALVEX	REACTOR POWER WAS REDUCED TO 98% DUE TO MAIN TURBINE VALVE TESTING.
102	960317	S	0.0	B	4	N/A	HA	VALVEX	REACTOR POWER WAS REDUCED TO 92% DUE TO MAIN TURBINE VALVE AND RPS TESTING.
103	960324	S	158.3	B	2	N/A	CC	VALVEX	REACTOR WAS SHUTDOWN DUE TO SRV AND TIP MACHINE MAINTENANCE.
104	960331	F	0.0	A	4	N/A	HE	VALVEX	REACTOR POWER WAS REDUCED TO 24% DUE TO TURBINE VALVE/EHC CONTROL PROBLEM.
TOTAL HOURS			171.9						

(1)  
F - FORCED  
S - SCHEDULED

(2)  
REASON  
A - EQUIPMENT FAILURE (EXPLAIN)  
B - MAINTENANCE OR TEST  
C - REFUELING  
D - REGULATORY RESTRICTION  
E - OPERATOR TRAINING + LICENSE EXAMINATION  
F - ADMINISTRATIVE  
G - OPERATIONAL ERROR (EXPLAIN)  
H - OTHER (EXPLAIN)

(3)  
METHOD  
1 - MANUAL  
2 - MANUAL SCRAM  
3 - AUTOMATIC SCRAM  
4 - OTHER (EXPLAIN)

(4)  
EXHIBIT G - INSTRUCTIONS  
FOR PREPARATION OF DATA  
ENTRY SHEETS FOR LICENSEE  
EVENT REPORT (LER)  
FILE (NUREG-0161)

(5)  
EXHIBIT I - SAME SOURCE

Limerick Generating Station  
Unit 2  
March 1 through March 31, 1996

I. Narrative Summary of Operating Experiences

Unit 2 began the month of March at a nominal 100% of rated thermal power (RTP).

On March 2, 1996 at 0253 hours, power was reduced to 98% RTP for main turbine valve testing. Power was restored to 100% RTP at 0425 hours.

On March 9, 1996 at 0155 hours, power was reduced to 98% RTP for main turbine valve testing. Power was restored to 100% RTP at 0235 hours.

On March 10, 1996 at 0100 hours, power was reduced to 88% RTP for main turbine valve and RPS testing. Power was restored to 100% RTP at 0210 hours.

On March 30, 1996 at 0200 hours, power was reduced to 98% RTP for main turbine valve testing. Power was restored to 100% RTP at 0300 hours.

Unit 2 ended this operating period at 100% of RTP.

II. Challenges to Main Steam Safety Relief Valves

There were no challenges to the Main Steam Safety Relief Valves during the month of March.

# AVERAGE DAILY POWER LEVEL

DOCKET NO. 50 - 353  
 UNIT LIMERICK UNIT 2  
 DATE APRIL 11, 1996  
 COMPANY PECO ENERGY COMPANY  
 DAVID R. HENRICKS  
 REPORTS ENGINEER  
 SITE ENGINEERING  
 LIMERICK GENERATING STATION  
 TELEPHONE (610) 718-3772

MONTH MARCH, 1996

DAY AVERAGE DAILY POWER LEVEL  
 (MWE-NET)

1	1126
2	1135
3	1139
4	1148
5	1119
6	1134
7	1132
8	1135
9	1135
10	1131
11	1138
12	1134
13	1134
14	1130
15	1122
16	1130

DAY AVERAGE DAILY POWER LEVEL  
 (MWE-NET)

17	1138
18	1126
19	1126
20	1135
21	1130
22	1139
23	1123
24	1140
25	1123
26	1123
27	1131
28	1135
29	1126
30	1125
31	1126



# OPERATING DATA REPORT

DOCKET NO. 50 - 353  
 DATE APRIL 11, 1996  
 COMPLETED BY PECO ENERGY COMPANY  
 DAVID R. HENRICKS  
 REPORTS ENGINEER  
 SITE ENGINEERING  
 LIMERICK GENERATING STATION  
 TELEPHONE (610) 718-3772

## OPERATING STATUS

1. UNIT NAME: LIMERICK UNIT 2
2. REPORTING PERIOD: MARCH, 1996
3. LICENSED THERMAL POWER(MWT): 3458
4. NAMEPLATE RATING (GROSS MWE): 1163
5. DESIGN ELECTRICAL RATING (NET MWE): 1115
6. MAXIMUM DEPENDABLE CAPACITY (GROSS MWE): 1155
7. MAXIMUM DEPENDABLE CAPACITY (NET MWE): 1115
8. IF CHANGES OCCUR IN CAPACITY RATINGS (ITEMS 3 THROUGH 7 ) SINCE LAST REPORT, GIVE REASONS:
9. POWER LEVEL TO WHICH RESTRICTED, IF ANY (NET MWE):
10. REASONS FOR RESTRICTIONS, IF ANY:

NOTES: THERE WERE NO LOAD DROP  
 GREATER THAN 20% THIS MONTH.

	THIS MONTH	YR-TO-DATE	CUMULATIVE
11. HOURS IN REPORTING PERIOD	744	2,184	54,600
12. NUMBER OF HOURS REACTOR WAS CRITICAL	744.0	2,184.0	49,716.8
13. REACTOR RESERVE SHUTDOWN HOURS	0.0	0.0	0.0
14. HOURS GENERATOR ON-LINE	744.0	2,184.0	48,775.8
15. UNIT RESERVE SHUTDOWN HOURS	0.0	0.0	0.0
16. GROSS THERMAL ENERGY GENERATED (MWH)	2,569,747	7,489,510	155,815,243
17. GROSS ELECTRICAL ENERGY GENERATED (MWH)	869,500	2,529,100	51,606,980
18. NET ELECTRICAL ENERGY GENERATED (MWH)	841,587	2,449,465	49,753,096

# OPERATING DATA REPORT (CONTINUED)

DOCKET NO. 50 - 353

DATE APRIL 11, 1996

	THIS MONTH	YR-TO-DATE	CUMULATIVE
19. UNIT SERVICE FACTOR	100.0 %	100.0 %	89.3 %
20. UNIT AVAILABILITY FACTOR	100.0 %	100.0 %	89.3 %
21. UNIT CAPACITY FACTOR (USING MDC NET)	101.4 %	100.6 %	85.4 %
22. UNIT CAPACITY FACTOR (USING DER NET)	101.4 %	100.6 %	85.4 %
23. UNIT FORCED OUTAGE RATE	0 %	0 %	3.2 %
24. SHUTDOWNS SCHEDULED OVER THE NEXT 6 MONTHS (TYPE, DATE AND DURATION OF EACH): EQUIPMENT RELIABILITY OUTAGE FOR SRV WORK SCHEDULED FOR 9/15/96 LASTING 5 DAYS.			
25. IF SHUTDOWN AT THE END OF REPORT PERIOD, ESTIMATED DATE OF STARTUP:			
26. UNITS IN TEST STATUS (PRIOR TO COMMERCIAL OPERATIONS):	FORECAST	ACHIEVED	
INITIAL CRITICALITY	08/12/89	08/12/89	
INITIAL ELECTRICITY	09/01/89	09/01/89	
COMMERCIAL OPERATION	02/01/90	01/08/90	

## UNIT SHUTDOWNS AND POWER REDUCTIONS

DOCKET NO. 50 - 353  
 UNIT NAME LIMERICK UNIT 2  
 DATE APRIL 11, 1996  
 COMPLETED BY PECO ENERGY COMPANY  
 DAVID R. HENRICKS  
 REPORTS ENGINEER  
 SITE ENGINEERING  
 LIMERICK GENERATING STATION  
 TELEPHONE (610) 718-3772

REPORT MONTH MARCH, 1996

NO.	DATE	TYPE (1)	DURATION (HOURS)	REASON (2)	METHOD OF SHUTTING DOWN REACTOR (3)	LICENSEE EVENT REPORT #	SYSTEM CODE (4)	COMPONENT CODE (5)	CAUSE AND CORRECTIVE ACTION TO PREVENT RECURRENCE
97	960302	S	0.0	B	4	N/A	HA	VALVEX	REACTOR POWER WAS REDUCED TO 98% DUE TO MAIN TURBINE VALVE TESTING.
98	960309	S	0.0	B	4	N/A	HA	VALVEX	REACTOR POWER WAS REDUCED TO 98% DUE TO MAIN TURBINE VALVE TESTING.
99	960310	S	0.0	B	4	N/A	HA	VALVEX	REACTOR POWER WAS REDUCED TO 88% DUE TO MAIN TURBINE VALVE AND RPS TESTING.
100	960330	S	0.0	B	4	N/A	HA	VALVEX	REACTOR POWER WAS REDUCED TO 98% DUE TO MAIN TURBINE VALVE TESTING.
TOTAL HOURS			0.0						

(1)  
 F - FORCED  
 S - SCHEDULED

(2)  
 REASON  
 A - EQUIPMENT FAILURE (EXPLAIN)  
 B - MAINTENANCE OR TEST  
 C - REFUELING  
 D - REGULATORY RESTRICTION  
 E - OPERATOR TRAINING + LICENSE EXAMINATION  
 F - ADMINISTRATIVE  
 G - OPERATIONAL ERROR (EXPLAIN)  
 H - OTHER (EXPLAIN)

(3)  
 METHOD  
 1 - MANUAL  
 2 - MANUAL SCRAM  
 3 - AUTOMATIC SCRAM  
 4 - OTHER (EXPLAIN)

(4)  
 EXHIBIT G - INSTRUCTIONS  
 FOR PREPARATION OF DATA  
 ENTRY SHEETS FOR LICENSEE  
 EVENT REPORT (LER)  
 FILE (NUREG-0161)

(5)  
 EXHIBIT I - SAME SOURCE