



PECO NUCLEAR

A UNIT OF PECO ENERGY

PECO Energy Company  
PO Box 2300  
Sanatoga, PA 19464-0920

T.S.6.9.1.6

August 13, 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 July 1996 forwarded  
pursuant to Technical Specification 6.9.1.6.

Very truly yours,

*M. P. Gallagher for M.P. GALLAGHER*

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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PDR ADOCK 05000377  
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Limerick Generating Station  
Unit 1  
July 1 through July 31, 1996

I. Narrative Summary of Operating Experiences

Unit 1 began the month of July 1996 at a nominal 100% of rated thermal power (RTP).

On July 5, 1996 at 2230 hours, power was reduced to 98% RTP for main turbine valve testing. Power was restored to 100% RTP at 2350 hours.

On July 8, 1996 at 1403 hours, power reductions were performed due to elevated turbine backpressure. Power was restored to 100% RTP on July 9, 1996 at 0010 hours.

On July 14, 1996 at 1500 hours, power reductions were performed due to elevated turbine backpressure. Power was restored to 100% RTP on July 15, 1996 at 0252 hours.

On July 15, 1996 at 0650 hours, power was reduced to 98% RTP due to elevated turbine backpressure. At 1143 hours, power was reduced to 53% RTP to swap steam jet air injector (SJAIE) trains. At 1817 hours the reactor was manually shut down and the main turbine was taken off line to repair unisolable leaks in the SJAIE room. On July 20, 1996 at 0856 hours the reactor was taken critical and on July 21, 1996 at 0908 hours the main turbine was synchronized to the grid. Power was restored to 100% RTP on July 23, at 1005 hours.

On July 23, 1996 at 2236 hours, power was reduced to 86% RTP for control rod pattern adjustments. Power was restored to 100% RTP on July 24, 1996 at 0157 hours.

On July 25, 1996 at 0229 hours, power was reduced to 90% RTP due to 3 bypass valves indicated open. At 0242 hours the main turbine was tripped due to an automatic reactor scram from high flux caused by a turbine control valve closure from an electro-hydraulic control transient. On July 27, 1996 at 1009 hours the reactor was critical and the turbine was synchronized to the grid on July 28, 1996 at 0129 hours. Power was restored to 100% RTP on July 28, at 2140 hours.

On July 29, 1996 at 0254 hours, power was reduced to 96% RTP for a rod pattern adjustment. Power was restored to 100% RTP at 0954 hours.

On July 31, 1996 at 0905 hours, power was reduced to 88% RTP for a rod pattern adjustment. Power was restored to 100% RTP at 1105 hours.

Unit 1 ended this month operating at 100% RTP.

II. Challenges to Main Steam Safety Relief Valves

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

# AVERAGE DAILY POWER LEVEL

DOCKET NO. 50 - 352  
 UNIT LIMERICK UNIT 1  
 DATE AUGUST 9, 1996  
 COMPANY PECO ENERGY COMPANY  
 DAVID R. HENRICKS  
 REPORTS ENGINEER  
 SITE ENGINEERING  
 LIMERICK GENERATING STATION  
 TELEPHONE (610) 718-3772

MONTH JULY, 1996

DAY AVERAGE DAILY POWER LEVEL  
(MWE-NET)

1	1096
2	1097
3	1101
4	1105
5	1105
6	1101
7	1096
8	1076
9	1096
10	1105
11	1109
12	1106
13	1097
14	1077
15	643
16	0

DAY AVERAGE DAILY POWER LEVEL  
(MWE-NET)

17	0
18	0
19	0
20	0
21	123
22	850
23	1038
24	1098
25	117
26	0
27	0
28	39
29	1091
30	1091
31	1087

# OPERATING DATA REPORT

DOCKET NO. 50 - 352  
 DATE AUGUST 9, 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: JULY, 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
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 TWO LOAD DROPS  
 GREATER THAN 20% THIS MONTH  
 CAUSED BY 2 REACTOR SCRAMS  
 DUE TO A Y-STRAINER STEAM  
 LEAK AND AN EHC TRANSIENT.

	THIS MONTH	YR-TO-DATE	CUMULATIVE
11. HOURS IN REPORTING PERIOD	744	5,111	92,015
12. NUMBER OF HOURS REACTOR WAS CRITICAL	577.9	4,230.7	76,454.4
13. REACTOR RESERVE SHUTDOWN HOURS	0.0	0.0	0.0
14. HOURS GENERATOR ON-LINE	538.4	4,087.1	75,087.0
15. UNIT RESERVE SHUTDOWN HOURS	0.0	0.0	0.0
16. GROSS THERMAL ENERGY GENERATED (MWH)	1,748,796	13,077,816	233,218,711
17. GROSS ELECTRICAL ENERGY GENERATED (MWH)	560,400	4,273,600	75,908,080
18. NET ELECTRICAL ENERGY GENERATED (MWH)	539,653	4,116,743	72,908,215

# OPERATING DATA REPORT (CONTINUED)

DOCKET NO. 50 - 352

DATE AUGUST 9, 1996

	THIS MONTH	YR-TO-DATE	CUMULATIVE
19. UNIT SERVICE FACTOR	72.4 %	80.0 %	81.6 %
20. UNIT AVAILABILITY FACTOR	72.4 %	80.0 %	81.6 %
21. UNIT CAPACITY FACTOR (USING MDC NET)	65.6 %	73.5 %	74.9 %
22. UNIT CAPACITY FACTOR (USING DER NET)	65.6 %	73.5 %	74.9 %
23. UNIT FORCED OUTAGE RATE	27.6 %	6.1 %	4.4 %
24. SHUTDOWNS SCHEDULED OVER THE NEXT 6 MONTHS (TYPE, DATE AND DURATION OF EACH):			
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 AUGUST 9, 1996  
 COMPLETED BY PECO ENERGY COMPANY  
 DAVID R. HENRICKS  
 REPORTS ENGINEER  
 SITE ENGINEERING  
 LIMERICK GENERATING STATION  
 TELEPHONE (610) 718-3772

REPORT MONTH JULY, 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
131	960705	S	0.0	B	4	N/A	HA	VALVEX	REACTOR POWER WAS REDUCED TO 98% DUE TO MAIN TURBINE VALVE TESTING.
132	960708	F	0.0	H	4	N/A	HF	HTEXCH	REACTOR POWER WAS REDUCED TO 99% DUE TO ELEVATED TURBINE BACKPRESSURE.
133	960714	F	0.0	H	4	N/A	HF	HTEXCH	REACTOR POWER WAS REDUCED TO 99% DUE TO ELEVATED TURBINE BACKPRESSURE.
134	960715	F	0.0	H	4	N/A	HF	HTEXCH	REACTOR POWER WAS REDUCED TO 98% DUE TO ELEVATED TURBINE BACKPRESSURE.
135	960715	F	134.9	A	2	N/A	HC	HTEXCH	REACTOR WAS SHUTDOWN TO REPAIR UNISOLABLE LEAKS IN SJAE ROOM.
136	960723	S	0.0	B	4	N/A	RB	CONROD	REACTOR POWER WAS REDUCED TO 86% DUE TO CONTROL ROD PATTERN ADJUSTMENT.
137	960725	F	70.8	A	3	1-96-015	HA	VALVEX	REACTOR WAS SHUTDOWN DUE TO A ELECTRO-HYDRAULIC CONTROL TRANSIENT OF TURBINE CONTROL VALVES.
138	960729	S	0.0	B	4	N/A	RB	CONROD	REACTOR POWER WAS REDUCED TO 96% DUE TO ROD PATTERN ADJUSTMENT.
139	960731	S	0.0	A	4	N/A	RB	CONROD	REACTOR POWER WAS REDUCED TO 88% DUE TO ROD PATTERN ADJUSTMENT.

(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

# UNIT SHUTDOWNS AND POWER REDUCTIONS

DOCKET NO. 50 - 352  
 UNIT NAME LIMERICK UNIT 1  
 DATE AUGUST 9, 1996  
 COMPLETED BY PECO ENERGY COMPANY  
 DAVID R. HENRICKS  
 REPORTS ENGINEER  
 SITE ENGINEERING  
 LIMERICK GENERATING STATION  
 TELEPHONE (610) 718-3772

REPORT MONTH JULY, 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
TOTAL HOURS			205.6						

(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  
July 1 through July 31, 1996

I. Narrative Summary of Operating Experiences

Unit 2 began the month of July 1996 at a nominal 100% of rated thermal power (RTP).

On July 6, 1996 at 0030 hours, power was reduced to 98% RTP for main turbine valve testing. Power was restored to 100% RTP at 0115 hours.

On July 10, 1996 at 0000 hours, power was reduced to 90% RTP for a rod pattern adjustment. Power was restored to 100% RTP at 0055 hours.

On July 13, 1996 at 0035 hours, power was reduced to 98% RTP for main turbine valve testing. Power was restored to 100% RTP at 0141 hours.

On July 13, 1996 at 0805 hours, power was reduced to 75% RTP for rod pattern adjustment, main steam isolation valve testing, main turbine valve testing and scram time testing. Power was restored to 100% RTP at 1730 hours.

On July 27, 1996 at 0219 hours, power was reduced to 98% RTP for main turbine valve testing. Power was restored to 100% RTP at 0316 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 July.



# AVERAGE DAILY POWER LEVEL

DOCKET NO. 50 - 353  
 UNIT LIMERICK UNIT 2  
 DATE AUGUST 9, 1996  
 COMPANY PECO ENERGY COMPANY  
 DAVID R. HENRICKS  
 REPORTS ENGINEER  
 SITE ENGINEERING  
 LIMERICK GENERATING STATION  
 TELEPHONE (610) 718-3772

MONTH JULY, 1996

DAY AVERAGE DAILY POWER LEVEL  
 (MWE-NET)

1	1113
2	1105
3	1114
4	1118
5	1114
6	1114
7	1105
8	1100
9	1096
10	1110
11	1118
12	1114
13	1038
14	1103
15	1091
16	1092

DAY AVERAGE DAILY POWER LEVEL  
 (MWE-NET)

17	1092
18	1093
19	1090
20	1103
21	1109
22	1115
23	1118
24	1106
25	1095
26	1104
27	1106
28	1110
29	1117
30	1109
31	1115

# OPERATING DATA REPORT

DOCKET NO. 50 - 353  
 DATE AUGUST 9, 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: JULY, 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 WAS ONE LOAD DROP  
 GREATER THAN 20% THIS MONTH  
 DUE TO SCRAM TIME TESTING.

	THIS MONTH	YR-TO-DATE	CUMULATIVE
11. HOURS IN REPORTING PERIOD	744	5,111	57,527
12. NUMBER OF HOURS REACTOR WAS CRITICAL	744.0	5,088.0	52,620.8
13. REACTOR RESERVE SHUTDOWN HOURS	0.0	0.0	0.0
14. HOURS GENERATOR ON-LINE	744.0	5,022.7	51,614.5
15. UNIT RESERVE SHUTDOWN HOURS	0.0	0.0	0.0
16. GROSS THERMAL ENERGY GENERATED (MWH)	2,563,042	17,244,356	165,590,088
17. GROSS ELECTRICAL ENERGY GENERATED (MWH)	853,100	5,725,500	54,803,380
18. NET ELECTRICAL ENERGY GENERATED (MWH)	821,336	5,537,498	52,841,129

# OPERATING DATA REPORT (CONTINUED)

DOCKET NO. 50 - 353

DATE AUGUST 9, 1996

	THIS MONTH	YR-TO-DATE	CUMULATIVE
19. UNIT SERVICE FACTOR	100.0 %	98.3 %	89.7 %
20. UNIT AVAILABILITY FACTOR	100.0 %	98.3 %	89.7 %
21. UNIT CAPACITY FACTOR (USING MDC NET)	99.0 %	97.2 %	85.9 %
22. UNIT CAPACITY FACTOR (USING DER NET)	99.0 %	97.2 %	85.9 %
23. UNIT FORCED OUTAGE RATE	.0 %	1.7 %	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. REFUELING OUTAGE SCHEDULED FOR 1/24/96 LASTING 22 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 AUGUST 9, 1996  
 COMPLETED BY PECO ENERGY COMPANY  
 DAVID R. HENRICKS  
 REPORTS ENGINEER  
 SITE ENGINEERING  
 LIMERICK GENERATING STATION  
 TELEPHONE (610) 718-3772

REPORT MONTH JULY, 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
124	960706	S	0.0	B	4	N/A	HA	VALVEX	REACTOR POWER WAS REDUCED TO 98% DUE TO MAIN TURBINE VALVE TESTING.
125	960710	S	0.0	B	4	N/A	RB	CONROD	REACTOR POWER WAS REDUCED TO 90% DUE TO A ROD PATTERN ADJUSTMENT.
126	960713	S	0.0	B	4	N/A	HA	VALVEX	REACTOR POWER WAS REDUCED TO 98% DUE TO MAIN TURBINE VALVE TESTING.
127	960713	S	0.0	B	4	N/A	RB	CRDRVE	REACTOR POWER WAS REDUCED TO 75% DUE TO SCRAM TIME TESTING, ROD PATTERN ADJUSTMENT, TURBINE VALVE TESTING.
128	960727	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