



PECO ENERGY

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

T.S.6.9.1.6

November 14, 1994

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 October 1994 forwarded pursuant to  
Technical Specification 6.9.1.6.

Very truly yours,

James A. Muntz  
Director - Site Engineering

sjk

Enclosures

cc: T. T. Martin, Administrator, Region I, USNRC (w/enclosures)  
N. S. Perry, USNRC Senior Resident Inspector LGS  
(w/enclosures)  
D. R. Helwig, Vice President, Limerick Generating Station

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Limerick Generating Station  
Unit 1  
October 1 through October 31, 1994

I. Narrative Summary of Operating Experiences

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

On October 7, 1994, at 1901 hours, a power reduction was started for planned maintenance work on the Steam Jet Air Ejector after condenser cooler. The main turbine was removed from service, due to high vibration at the number 3 bearing, at 0432 hours on October 8, 1994. At 0455 hours power was reduced to 8% RTP. Maintenance work was successfully completed and at 1631 hours on October 8, 1994, the output breaker was closed and power ascension began.

On October 8, 1994, at 2300 hours, a generator stator water coolant runback occurred from 50.7% RTP. Power was stabilized at 39% RTP. The cause of this event was insufficient cooling flow to the stator water coolant system. This condition was corrected and power increase commenced shortly thereafter.

On October 10, 1994, at 1230 hours power was reduced to 85.2% RTP for a control rod pattern adjustment. Power was returned to 100% RTP at 2112 hours.

On October 23, 1994, at 0040 hours, power was reduced to 58.4% RTP in order to perform flux tilt testing. This testing continued until October 25, 1994, at 1330 hours. Power ascension began at 1600 hours on October 25, 1994. Power was restored to 100% RTP on October 27, 1994.

Unit 1 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 October.

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50 - 352

UNIT LIMERICK UNIT 1

DATE NOVEMBER 14, 1994

COMPANY PECO ENERGY COMPANY

STEVEN J. KELLEY  
REPORTS ENGINEER  
SITE ENGINEERING  
LIMERICK GENERATING STATION

TELEPHONE (610) 718-3763

MONTH OCTOBER 1994

DAY	AVERAGE DAILY POWER LEVEL (MWE-NET)	DAY	AVERAGE DAILY POWER LEVEL (MWE-NET)
1	1053	17	1059
2	1055	18	1057
3	1058	19	1053
4	1058	20	1038
5	1060	21	1044
6	1057	22	1053
7	958	23	624
8	103	24	578
9	918	25	663
10	1014	26	930
11	1060	27	1029
12	1062	28	1057
13	1058	29	1044
14	1055	30	1106
15	1059	31	1044
16	1058		

# OPERATING DATA REPORT

DOCKET NO. 50 - 352

DATE NOVEMBER 14, 1994

COMPLETED BY PECO ENERGY COMPANY

STEVEN J. KELLEY  
REPORTS ENGINEER  
SITE ENGINEERING  
LIMERICK GENERATING STATION  
TELEPHONE (610) 718-3763

## OPERATING STATUS

1. UNIT NAME: LIMERICK UNIT 1  
2. REPORTING PERIOD: OCTOBER, 1994  
3. LICENSED THERMAL POWER(MWT): 3293  
4. NAMEPLATE RATING (GROSS MWE): 1138  
5. DESIGN ELECTRICAL RATING (NET MWE): 1055  
6. MAXIMUM DEPENDABLE CAPACITY (GROSS MWE): 1092  
7. MAXIMUM DEPENDABLE CAPACITY (NET MWE): 1055

NOTES: THERE WERE THREE LOAD DROPS  
GREATER THAN 20% THIS MONTH  
DUE TO HIGH TURBINE VIBRATION,  
A STATOR WATER COOLING PROBLEM  
AND FOR FLUX TILT TESTING.

8. IF CHANGES OCCUR IN CAPACITY RATINGS (ITEMS NUMBER 3 THROUGH 7) SINCE LAST REPORT, GIVE REASONS:

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	745	7,296	76,680
12. NUMBER OF HOURS REACTOR WAS CRITICAL	745.0	6,445.2	62,644.3
13. REACTOR RESERVE SHUTDOWN HOURS	0.0	0.0	0.0
14. HOURS GENERATOR ON-LINE	733.0	6,376.7	61,561.5
15. UNIT RESERVE SHUTDOWN HOURS	0.0	0.0	0.0
16. GROSS THERMAL ENERGY GENERATED (MWH)	2,265,583	20,059,409	189,510,168
17. GROSS ELECTRICAL ENERGY GENERATED (MWH)	747,580	6,552,130	61,594,170
18. NET ELECTRICAL ENERGY GENERATED (MWH)	721,517	6,321,544	59,107,534

DATE NOVEMBER 14, 1994

	THIS MONTH	YR-TO-DATE	CUMULATIVE
19. UNIT SERVICE FACTOR	98.4	87.4	80.3
20. UNIT AVAILABILITY FACTOR	98.4	87.4	80.3
21. UNIT CAPACITY FACTOR (USING MDC NET)	91.8	82.1	73.1
22. UNIT CAPACITY FACTOR (USING DER NET)	91.8	82.1	73.1
23. UNIT FORCED OUTAGE RATE	1.6	1.1	4.4
24. SHUTDOWNS SCHEDULED OVER NEXT 6 MONTHS (TYPE, DATE, AND DURATION OF EACH):			

25. IF SHUTDOWN AT END OF REPORT PERIOD, ESTIMATED DATE OF STARTUP:

26. UNITS IN TEST STATUS (PRIOR TO COMMERCIAL OPERATION):	FORECAST	ACHIEVED
INITIAL CRITICALITY	12/19/84	12/22/84
INITIAL ELECTRICITY	MID APRIL 85	4/13/85
COMMERCIAL OPERATION	1ST QTR 86	2/01/86

## UNIT SHUTDOWNS AND POWER REDUCTIONS

DOCKET NO. 50 - 352

UNIT NAME LIMERICK UNIT 1

DATE NOVEMBER 14, 1994

REPORT MONTH OCTOBER, 1994

COMPLETED BY PECO ENERGY COMPANY

STEVEN J. KELLEY  
 REPORTS ENGINEER  
 SITE ENGINEERING  
 LIMERICK GENERATING STATION  
 TELEPHONE (610) 718-3763

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
33	941008	F	000.0	A	4	N/A	HA	TURBIN	REACTOR POWER WAS REDUCED TO 8% DUE TO HIGH TURBINE VIBRATION.
34	941008	F	000.0	A	4	N/A	AD	GENERA	REACTOR POWER WAS REDUCED TO 39% DUE TO STATOR WATER COOLING.
35	941010	S	000.0	B	4	N/A	RB	CONROD	REACTOR POWER WAS REDUCED TO 85.2% FOR A CONTROL ROD PATTERN ADJUSTMENT.
36	941019	S	000.0	B	4	N/A	RB	VESSEL	REACTOR POWER WAS REDUCED TO 58.4% FOR FLUX TILT TESTING.

(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  
October 1 through October 31, 1994

I. Narrative Summary of Operating Experiences

Unit 2 began the month of October at a nominal 100% of Rated Thermal Power (RTP). Power reduction occurred throughout the month due to end-of-cycle coastdown.

On October 9, 1994, at 1828 hours, power was reduced to 95% RTP due to a 'B' feedwater heater string isolation. Power was restored to 99.8% RTP by 2300 hours.

On October 14, 1994, at 1355 hours the '5C' feedwater heater was removed from service resulting in a power increase from 92.8% RTP to 95.3% RTP.

On October 16, 1994, at 0825 hours, power was reduced to 91.8% RTP for main turbine valve testing. Power was restored to 94% RTP at 0925 hours.

On October 19, 1994, at 1218 hours, a full reactor Scram signal was received due to low reactor water level. The cause of this event was a relay coil failure combined with an inappropriate action by a reactor operator during the performance of the 'D24' monthly diesel generator surveillance test. The unit remained in Operation condition 3, Hot Shutdown, until October 20, 1994, at 0402 hours, when the mode switch was taken to Operational Condition 2, Startup. At 0455 hours power increase commenced and at 0356 hours, on October 21, 1994, the reactor was critical. The main generator was synchronized to the grid at 1501 hours. Power was increased to 92% RTP by 2235 hours on October 23, 1994.

Unit 2 ended this operating period at 88.8% of RTP in end-of-cycle coastdown.

II. Challenges to Main Steam Safety Relief Valves

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

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50 - 353

UNIT LIMERICK UNIT 2

DATE NOVEMBER 14, 1994

COMPANY PECO ENERGY COMPANY

STEVEN J. KELLEY  
REPORTS ENGINEER  
SITE ENGINEERING  
LIMERICK GENERATING STATION

TELEPHONE (610) 718-3763

MONTH OCTOBER 1994

DAY	AVERAGE DAILY POWER LEVEL (MWE-NET)	DAY	AVERAGE DAILY POWER LEVEL (MWE-NET)
1	1034	17	948
2	1037	18	940
3	1025	19	475
4	1023	20	0
5	1021	21	48
6	1013	22	415
7	1008	23	573
8	983	24	925
9	987	25	929
10	955	26	932
11	968	27	932
12	961	28	928
13	954	29	909
14	956	30	957
15	964	31	896
16	952		

# OPERATING DATA REPORT

DOCKET NO. 50 - 353

DATE NOVEMBER 14, 1994

COMPLETED BY PECO ENERGY COMPANY

STEVEN J. KELLEY  
REPORTS ENGINEER  
SITE ENGINEERING  
LIMERICK GENERATING STATION  
TELEPHONE (610) 718-3763

## OPERATING STATUS

1. UNIT NAME: LIMERICK UNIT 2  
2. REPORTING PERIOD: OCTOBER, 1994  
3. LICENSED THERMAL POWER(MWT): 3293  
4. NAMEPLATE RATING (GROSS MWE): 1138  
5. DESIGN ELECTRICAL RATING (NET MWE): 1055  
6. MAXIMUM DEPENDABLE CAPACITY (GROSS MWE): 1092  
7. MAXIMUM DEPENDABLE CAPACITY (NET MWE): 1055

NOTES: THERE WAS ONE LOAD DROP  
GREATER THAN 20% THIS  
MONTH DUE A SCRAM CAUSED BY  
A RELAY COIL FAILURE COMBINED  
WITH AN INAPPROPRIATE ACTION  
BY AN OPERATOR DURING A TEST  
ON A DIESEL GENERATOR.

8. IF CHANGES OCCUR IN CAPACITY RATINGS (ITEMS NUMBER 3 THROUGH 7) SINCE LAST REPORT, GIVE REASONS:

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	745	7,296	42,192
12. NUMBER OF HOURS REACTOR WAS CRITICAL	705.4	7,256.4	37,899.0
13. REACTOR RESERVE SHUTDOWN HOURS	0.0	0.0	0.0
14. HOURS GENERATOR ON-LINE	694.3	7,194.2	37,140.9
15. UNIT RESERVE SHUTDOWN HOURS	0.0	0.0	0.0
16. GROSS THERMAL ENERGY GENERATED (MWH)	2,069,256	23,320,868	118,625,949
17. GROSS ELECTRICAL ENERGY GENERATED (MWH)	665,020	7,747,580	39,240,106
18. NET ELECTRICAL ENERGY GENERATED (MWH)	639,343	7,477,802	37,808,494

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 DATE NOVEMBER 14, 1994  
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	THIS MONTH	YR-TO-DATE	CUMULATIVE
19. UNIT SERVICE FACTOR	93.2	98.6	88.0
20. UNIT AVAILABILITY FACTOR	93.2	98.6	88.0
21. UNIT CAPACITY FACTOR (USING MDC NET)	81.3	97.1	84.9
22. UNIT CAPACITY FACTOR (USING DER NET)	81.3	97.1	84.9
23. UNIT FORCED OUTAGE RATE	6.8	1.4	3.6

24. SHUTDOWNS SCHEDULED OVER NEXT 6 MONTHS (TYPE, DATE, AND DURATION OF EACH):  
 REFUELING OUTAGE IS SCHEDULED FOR 1/28/95; DURATION OF 32 DAYS

25. IF SHUTDOWN AT END OF REPORT PERIOD, ESTIMATED DATE OF STARTUP:

26. UNITS IN TEST STATUS (PRIOR TO COMMERCIAL OPERATION):	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 NOVEMBER 14, 1994

REPORT MONTH OCTOBER, 1994

COMPLETED BY PECO ENERGY COMPANY

STEVEN J. KELLEY  
 REPORTS ENGINEER  
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 LIMERICK GENERATING STATION  
 TELEPHONE (610) 718-3763

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
23	941009	S	000.0	H	4	N/A	CH	INSTRU	REACTOR POWER WAS REDUCED TO 95% FOR END OF CYCLE COASTDOWN.
24	941016	S	000.0	B	4	N/A	HA	INSTRU	REACTOR POWER WAS REDUCED TO 91.8% FOR MAIN TURBINE VALVE TESTING.
25	941019	F	039.6	A	3	2-94-10	CH	INSTRU	REACTOR SCRAM ASSOCIATED WITH A RELAY COIL FAILURE COMBINED WITH AN IN- APPROPRIATE ACTION TAKEN BY AN OPERATOR DURING TESTING OF AN EMERGENCY DIESEL GENERATOR.
			39.6						

(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