

3917084470

T.S.6.9.1.6

PHILADELPHIA ELECTRIC COMPANY

LIMERICK GENERATING STATION

P. O. BOX A

SANATCGA, PENNSYLVANIA 19464

(215) 327-1200, EXT. 3000

GRAHAM H. BITCH  
VICE PRESIDENT  
LIMERICK GENERATING STATION

June 7, 1991

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 May, 1991 forwarded pursuant to Technical  
Specification 6.9.1.6.

Very truly yours,



KWM/dms

Enclosure

cc: T. T. Martin, Administrator, Region I, USNRC  
T. J. Kenny, USNRC Senior Resident Inspector

9106140180 910531  
PDR ADOCK 05000352  
R PDR

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DATE 06/06/91 13:59

NRMS DOCUMENT CONTROL FORM

SEQUENCE # 3917084470

NRC MONTHLY OPERATING REPORT  
STATION LGS

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*****
*MGR LIMERICK          LGS/A5-1      01 I**COPRESP RELEASE PT  LGS/340      01 I*
*SR. VP NUC            CB/52C-7      01 I**DEPT ENVIR RES - PA  OUTGOING      01 I*
*VP. LIMERICK          LGS-200       01 I**DIR. LICENSING SECT  CB/52A-5      01 I*
*VP. NUC ENG/SERVICES  CB/63C-1      01 I**INPO                OUTGOING      01 I*
*VP. PBAPS             PB/SMO-1      01 I**LGS ENGR. TECHNICAL  LGS/C4-1      01 I*
*MGR. INSURANCE DIV.   MO/S15-3      01 I**HARTFIELD, R.        OUTGOING      01 I*
*MGR. NUC ADMIN DIV    CB-51A-13     01 I**MGR. PUBLIC INFO    MO/S13-1      01 I*
*MGR. QA PERF ASSESS   CB/53A-1      01 I**REGULATORY ENGR-LGS  LGS/SB3-4     01 I*
*MGR. RATE DIV         MO/S21-1      01 I**REPORTING SUPVR.-LGS LGS/338       01 I*
*NRC RES OFFICE        LGS/A2-5      01 I**SHERMAN, D.          OUTGOING      01 I*
*SUPT. ISEG - LGS      LGS/336      01 I**MGR. FUEL MGMT       CB/52A-3      01 I*
*ASST. OPER. ENGR.     LGS/A5-1      01 I**YOST, F.             OUTGOING      01 I*
*BHATTACHARYYA, A.     LGS/335      01 I**-----
*BUSINESS UNIT         CB/52B-7      01 I**-----
*BUTROVICH, R. M.      LGS-17        01 I**-----
*COLTER, S.            OUTGOING      01 I**-----
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REQUESTS FOR CHANGES TO THIS DISTRIBUTION LIST MUST BE ADDRESSED TO THE ORGANIZATION RESPONSIBLE FOR ORIGINATING THE ATTACHED DOCUMENT (SEE NUCLEAR RELATED DOCUMENT REGISTER (NRDR) FOR RESP. ORG.). THE RESP. ORG. WILL AUTHORIZE THE LOCAL DAC SUPERVISOR TO MAKE THE NECESSARY CHANGES.

ATTACHED IS A COPY OF:

DOCTYPE NRC MONTHLY OPERATING REPORT

DATE 05/01/91

MAKE TWO ADDITIONAL COPIES: 1 - T.T. MARTIN, 1 - NRMS

*yes*  
*6/6/91*

Docket No. #50-352  
Attachment to Monthly  
Operating Report for  
May 1991

LIMERICK GENERATING STATION  
UNIT 1  
MAY 1 THROUGH MAY 31, 1991

I. NARRATIVE SUMMARY OF OPERATING EXPERIENCES

Limerick Unit 1 began the month of May at a nominal 100% of rated thermal power. On May 5, there was a brief power reduction to approximately 90% to perform Main Turbine Combined Intermediate Valve (CIV) testing. On May 12, reactor power was reduced to 56%, due to partial failure of a cooling tower section and subsequent manual trip of two circulating water pumps. On the morning of May 13, reactor power was raised to 70%. On the afternoon of May 13, reactor power was reduced to 60% to facilitate cooling tower repairs. Upon completion of repairs, Unit 1 reactor attained 100% of rated thermal power on May 15. On May 17, there was a brief power reduction to 85% to perform a Control Rod pattern adjustment. On May 30 and 31, there were power reductions to approximately 90% due to high Main Turbine "back pressure". Unit 1 ended the month of May at 100% of rated thermal power.

Operational events that occurred during the month of May included:

On May 8, during performance of Standby Gas Treatment System (STGS) and Reactor Enclosure Recirculation System (RERS) flow verification testing, Unit 1 Reactor Enclosure HVAC was secured. The '1C' Reactor Enclosure Supply Fan, however, failed to trip causing the Reactor Enclosure to pressurize. As a result, a blowout panel on the south wall of the Reactor Enclosure activated. Although STGS was in service for the test, differential pressure could not be maintained. Maintenance reinstalled the blowout panel and secondary containment was restored. A four hour report required by 10CFR50.72(b)(2)(iii)(c) and (d) was made.

Later during the same surveillance test the 'A' RERS shut down and the manual secondary containment isolation signal cleared without any Control Room Operator action. The Control Room Operators attempted to manually initiate a 'B' side secondary containment isolation, but were unsuccessful. Normal Reactor Enclosure HVAC was then placed in service and Technical Specification (T.S.) Action 3.0.3 was entered due to inoperable trains of STGS. Investigation revealed that the slide gate damper between the Unit 1 Reactor Enclosure and STGS had been closed under a "blocking permit" due to a personnel error. This damper bypasses the isolation signals when in the closed position. The slide gate damper was opened and the T.S. Action statement was exited. A four hour notification to the NRC was made in accordance with 10CFR50.72(b)(2)(iii)(c) and (d).

II. CHALLENGES TO MAIN STEAM SAFETY RELIEF VALVES

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

# AVERAGE DAILY UNIT POWER LEVEL

3917084470

DOCKET NO. 50 - 352

UNIT LIMERICK UNIT 1

DATE JUNE 4, 1991

COMPANY PHILADELPHIA ELECTRIC COMPANY

KARL MECK  
REPORTS SUPERVISOR  
BUSINESS UNIT  
LIMERICK GENERATING STATION

TELEPHONE (715) 327-1200 EXTENSION 3320

MONTH MAY 1991

DAY	AVERAGE DAILY POWER LEVEL (MWE-NET)	DAY	AVERAGE DAILY POWER LEVEL (MWE-NET)
1	1027	17	954
2	1032	18	1028
3	1037	19	1030
4	1037	20	1031
5	1063	21	1022
6	979	22	1015
7	1034	23	1014
8	1032	24	1016
9	1033	25	1009
10	1027	26	1009
11	1029	27	1004
12	848	28	1005
13	583	29	1012
14	765	30	1007
15	991	31	998
16	1012		

DOCKET NO. 50 - 352  
 DATE JUNE 4, 1991  
 COMPLETED BY PHILADELPHIA ELECTRIC COMPANY  
 KARL MECK  
 REPORTS SUPERVISOR  
 BUSINESS UNIT  
 LIMERICK GENERATING STATION  
 TELEPHONE (215) 327-1200 EXTENSION 3320

OPERATING STATUS

1. UNIT NAME: LIMERICK UNIT 1
2. REPORTING PERIOD: MAY, 1991
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

OF 44% DUE TO COOLING  
 TOWER REPAIRS.

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	744	3,823	46,703
12. NUMBER OF HOURS REACTOR WAS CRITICAL	744.0	3,519.3	36,650.9
13. REACTOR RESERVE SHUTDOWN HOURS	0.0	0.0	0.0
14. HOURS GENERATOR ON-LINE	744.0	3,490.6	35,887.6
15. UNIT RESERVE SHUTDOWN HOURS	0.0	0.0	0.0
16. GROSS THERMAL ENERGY GENERATED (MWH)	2,378.736	11,166.904	107,249.036
17. GROSS ELECTRICAL ENERGY GENERATED (MWH)	766.060	3,645.660	34,691.543
18. NET ELECTRICAL ENERGY GENERATED (MWH)	736.349	3,506.596	33,184.203

	THIS MONTH	VR-TO-DATE	CUMULATIVE
19. UNIT SERVICE FACTOR	100.0	96.3	76.8
20. UNIT AVAILABILITY FACTOR	100.0	96.3	76.8
21. UNIT CAPACITY FACTOR (USING MDC NET)	93.8	91.7	67.3
22. UNIT CAPACITY FACTOR (USING DER NET)	93.8	91.7	67.3
23. UNIT FORCED OUTAGE RATE	0.0	3.7	3.5

24. SHUTDOWNS SCHEDULED OVER NEXT 6 MONTHS (TYPE, DATE, AND DURATION OF EACH):  
MID-CYCLE OUTAGE: SEPTEMBER 07, 1991: 21 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	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

3917084470

UNIT NAME LIMERICK UNIT 7

DATE JUNE 4, 1991

REPORT MONTH MAY, 1991

COMPLETED BY PHILADELPHIA ELECTRIC COMPANY

KARL MECK  
REPORTS SUPERVISOR  
BUSINESS UNIT  
LIMERICK GENERATING STATION  
TELEPHONE (215) 327-1200 EXTENSION 3320

NO.	DATE	TYPE (1)	DURATION (HOURS) (2)	REASON (3)	METHOD OF SHUTTING DOWN REACTOR (4)	LICENSEE EVENT REPORT # (5)	SYSTEM CODE (6)	COMPONENT CODE (7)	CAUSE AND CORRECTIVE ACTION TO PREVENT RECURRENCE (8)
21	910505	S	000.0	B	4	N/A	CC	VALVE	LOAD WAS REDUCED 10% TO PERFORM MAIN TURBINE STOP AND CONTROL VALVE TESTS.
22	910512	F	000.0	A	4	N/A	HJ	XXXXXX	LOAD WAS REDUCED 44% DUE TO PARTIAL FAILURE OF A COOLING TOWER SECTION AND SUBSEQUENT MANUAL TRIP OF CIRCULATING WATER PUMP(S).
23	910517	S	000.0	F	4	N/A	RB	CONROD	LOAD WAS REDUCED 15% TO PERFORM A CONTROL ROD PATTERN ADJUSTMENT.
24	910530	F	000.0	F	4	N/A	HA	TURBIN	LOAD WAS REDUCED 10% DUE TO HIGH TURBINE BACK PRESSURE.
25	910531	F	000.0	F	4	N/A	HA	TURBIN	LOAD WAS REDUCED 10% DUE TO HIGH TURBINE BACK PRESSURE.

(1)

F - FORCED  
S - SCHEDULED

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)

(2)

METHOD

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

(3)

(4)

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

(5)

EXHIBIT I - SAME SOURCE



Docket No. #50-353  
Attachment to Monthly  
Operating Report for  
May 1991

LIMERICK GENERATING STATION  
UNIT 2  
MAY 1 THROUGH MAY 31, 1991

I. NARRATIVE SUMMARY OF OPERATING EXPERIENCES

Limerick Unit 2 began the month of May in OPCON 5\* . Refuel mode, with core alterations permitted, in day 40 of its first refueling outage with core reload in progress. Core reload was completed on Wednesday, May 1. The reactor vessel head studs were fully tensioned and OPCON 4, Cold Shutdown, was entered on May 8. The reactor vessel operational hydrostatic test was conducted on May 17 and 18. Unit 2 ended the month of May in OPCON 4, Cold Shutdown, with startup preparations in progress.

II. CHALLENGES TO MAIN STEAM SAFETY RELIEF VALVES

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



3917084470

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50 - 353  
 UNIT LIMERICK UNIT 2  
 DATE JUNE 4, 1991  
 COMPANY PHILADELPHIA ELECTRIC COMPANY  
 KARL MECK  
 REPORTS SUPERVISOR  
 BUSINESS UNIT  
 LIMERICK GENERATING STATION  
 TELEPHONE (215) 327-1200 EXTENSION 3320

MONTH	MAY 1991			
DAY	AVERAGE DAILY POWER LEVEL (MWE-NET)	DAY	AVERAGE DAILY POWER LEVEL (MWE-NET)	
1	0	17	0	
2	0	18	0	
3	0	19	0	
4	0	20	0	
5	0	21	0	
6	0	22	0	
7	0	23	0	
8	0	24	0	
9	0	25	0	
10	0	26	0	
11	0	27	0	
12	0	28	0	
13	0	29	0	
14	0	30	0	
15	0	31	0	
16	0			

# OPERATING DATA REPORT

3917084470

DOCKET NO. 50 - 353

DATE JUNE 4, 1991

COMPLETED BY PHILADELPHIA ELECTRIC COMPANY

KARL MECK  
REPORTS SUPERVISOR  
BUSINESS UNIT  
LIMERICK GENERATING STATION  
TELEPHONE (215) 327-1200 EXTENSION 3320

## OPERATING STATUS

1. UNIT NAME: LIMERICK UNIT 2  
2. REPORTING PERIOD: MAY, 1991  
3. LICENSED THERMAL POWER (MW): 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: THE UNIT WAS IN A REFUEL  
OUTAGE THE ENTIRE PERIOD.

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	VR-TO-DATE	CUMULATIVE
11. HOURS IN REPORTING PERIOD	744	3,623	12,215
12. NUMBER OF HOURS REACTOR WAS CRITICAL	0	1,932.3	9,491.6
13. REACTOR RESERVE SHUTDOWN HOURS	0.0	0.0	0.0
14. HOURS GENERATOR ON-LINE	0.0	1,895.2	9,072.8
15. UNIT RESERVE SHUTDOWN HOURS	0.0	0.0	0.0
16. GROSS THERMAL ENERGY GENERATED (MWH)	0	6,164,354	29,022,144
17. GROSS ELECTRICAL ENERGY GENERATED (MWH)	0	2,032,420	9,555,436
18. NET ELECTRICAL ENERGY GENERATED (MWH)	-4,639	1,959,746	9,192,342

	DATE JUNE 4, 1991		
	THIS MONTH	VR-TO-DATE	CUMULATIVE
19. UNIT SERVICE FACTOR	0.0	52.3	74.3
20. UNIT AVAILABILITY FACTOR	0.0	52.3	74.3
21. UNIT CAPACITY FACTOR (USING MDC NET)	0.0	51.3	71.3
22. UNIT CAPACITY FACTOR (USING DER NET)	0.0	51.3	71.3
23. UNIT FORCED OUTAGE RATE	0.0	1.9	8.8
24. SHUTDOWNS SCHEDULED OVER NEXT 6 MONTHS (TYPE, DATE, AND DURATION OF EACH): REFUELING OUTAGE: MARCH 22, 1991: 75 DAYS			

25. IF SHUTDOWN AT END OF REPORT PERIOD, ESTIMATED DATE OF STARTUP: 06/05/91

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

3917084470

UNIT NAME LIMERICK UNIT 2

DATE JUNE 4, 1991

REPORT MONTH MAY, 1991

COMPLETED BY PHILADELPHIA ELECTRIC COMPANY

KARL MECK  
 REPORTS SUPERVISOR  
 BUSINESS UNIT  
 LIMERICK GENERATING STATION  
 TELEPHONE (215) 327-1200 EXTENSION 3320

NO.	DATE	TYPE (1)	DURATION (HOURS) (2)	REASON (3)	METHOD OF SHUTTING DOWN REACTOR (4)	LICENSEE EVENT REPORT #	SYSTEM CODE (5)	COMPONENT CODE (6)	CAUSE AND CORRECTIVE ACTION TO PREVENT RECURRENCE
1B	910501	S	744.0	C	2	N/A	ZZ	ZZZZZZ	THE UNIT REMAINED IN THE FIRST REFUELING OUTAGE THE ENTIRE PERIOD.
			744.0						

(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