

Docket No. #50-352
Attachment to Monthly
Operating Report for
February 1993

LIMERICK GENERATING STATION
UNIT 1
FEBRUARY 1 THROUGH FEBRUARY 28, 1993

I. NARRATIVE SUMMARY OF OPERATING EXPERIENCES

Limerick Unit 1 began the month of February at a nominal 100% of rated thermal power. On Sunday, February 7, at 1508 hours the "1B" Reactor Feed Pump (RFP) tripped, causing a dual Reactor Recirculation pump run-back, resulting in a power decrease to 68%. At 1010 hours on Monday, February 8, power was restored to 100% of rated thermal power. Unit 1 ended this operating period at a nominal 100% of rated thermal power.

Unit 1 occurrences during the operating period included:

On Sunday, February 7, the "1B" RFP tripped which resulted in a power decrease due to a dual Reactor Recirculation Pump run-back (due to reactor level 27.5" and "B" feedwater flow less than 20%). Power was initially at 100% and reduced to approximately 72% after the run-back. Power was further reduced to approximately 68% in order to establish adequate scram margin. Procedure GP-5 and OT-100 were implemented and the appropriate procedure steps for an unintentional drop in power and level respectively were completed. A local inspection of the "1B" feed pump and turbine was conducted and no abnormal conditions were identified. The "1A" & "1C" feed pumps responded to restore level to the normal band. The plant was placed in a stable condition and the "1B" reactor feed pump/turbine trip was reset. System Managers investigated the cause of the spurious trip. The suction pressure switch was found to be defective. The switch was repaired and the feed pump was returned to service on 2/8/93.

II. CHALLENGES TO MAIN STEAM SAFETY RELIEF VALVES

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

opritgexl

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50 - 352

UNIT LIMERICK UNIT 1

DATE MARCH 10, 1993

COMPANY PHILADELPHIA ELECTRIC COMPANY

KARL MECK
REPORTS SUPERVISOR
BUSINESS UNIT
LIMERICK GENERATING STATION

TELEPHONE (215) 327-1200 EXTENSION 3320

3931019070

MONTH FEBRUARY 1993

DAY	AVERAGE DAILY POWER LEVEL (MWE-NET)	DAY	AVERAGE DAILY POWER LEVEL (MWE-NET)
1	1044	17	1055
2	1061	18	1060
3	1052	19	1057
4	1050	20	1056
5	1054	21	1057
6	1055	22	1054
7	951	23	1059
8	1014	24	1054
9	1059	25	1073
10	1052	26	1041
11	1053	27	1057
12	1052	28	1055
13	1062		
14	1046		
15	1056		
16	1053		

OPERATING DATA REPORT

DOCKET NO. 50 - 352
 DATE MARCH 10, 1993
 COMPLETED BY PHILADELPHIA ELECTRIC COMPANY
 KARL MECK
 REPORTS SUPERVISOR
 BUSINESS UNIT
 LIMERICK GENERATING STATION
 TELEPHONE (215) 327-1200 EXTENSION 3320

3931019070

OPERATING STATUS

- UNIT NAME: LIMERICK UNIT 1
- REPORTING PERIOD: FEBRUARY, 1993
- LICENSED THERMAL POWER(MWT): 3293
- NAMEPLATE RATING (GROSS MWE): 1138
- DESIGN ELECTRICAL RATING (NET MWE): 1055
- MAXIMUM DEPENDABLE CAPACITY (GROSS MWE): 1092
- MAXIMUM DEPENDABLE CAPACITY (NET MWE): 1055

NOTES: THERE WAS ONE LOAD DROP

GREATER THAN 20% DUE TO

A REACTOR FEED PUMP

TURBINE TRIP

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	672	1,416	62,040
12. NUMBER OF HOURS REACTOR WAS CRITICAL	672.0	1,416.0	48,565.2
13. REACTOR RESERVE SHUTDOWN HOURS	0.0	0.0	0.0
14. HOURS GENERATOR ON-LINE	672.0	1,416.0	47,974.2
15. UNIT RESERVE SHUTDOWN HOURS	0.0	0.0	0.0
16. GROSS THERMAL ENERGY GENERATED (MWH)	2,201,117	4,647,994	146,381,459
17. GROSS ELECTRICAL ENERGY GENERATED (MWH)	731,590	1,542,480	47,518,620
18. NET ELECTRICAL ENERGY GENERATED (MWH)	705,384	1,487,649	45,528,166

DATE MARCH 10, 1993

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	THIS MONTH	YR-TO-DATE	CUMULATIVE
19. UNIT SERVICE FACTOR	100.0	100.0	77.3
20. UNIT AVAILABILITY FACTOR	100.0	100.0	77.3
21. UNIT CAPACITY FACTOR (USING MDC NET)	99.5	99.6	69.6
22. UNIT CAPACITY FACTOR (USING DER NET)	99.5	99.6	69.6
23. UNIT FORCED OUTAGE RATE	0.0	0.0	5.1
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 MARCH 10, 1993

REPORT MONTH FEBRUARY, 1993

COMPLETED BY PHILADELPHIA ELECTRIC COMPANY

KARL MECK

REPORTS SUPERVISOR

BUSINESS UNIT

LIMERICK GENERATING STATION

TELEPHONE (215) 927-1200 EXTENSION 9320

3931019070

NO.	DATE	TYPE (1)	DURATION (HOURS) (2)	REASON SHUTTING DOWN REACTOR (3)	METHOD OF REACTOR (3)	LICENSEE EVENT REPORT #	SYSTEM COMPONENT			CAUSE AND CORRECTIVE ACTION TO PREVENT RECURRENCE
							CODE (4)	CODE (5)	CH	
3	930207	F	000.0	A	4	N/A			PUMPXX	LOAD WAS REDUCED 32% DUE TO A 1B REACTOR FEED PUMP TRIP CAUSED BY A DEFECTIVE SUCTION PRESSURE SWITCH.

(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

Docket No. #50-353
Attachment to Monthly
Operating Report for
February 1993

LIMERICK GENERATING STATION
UNIT 2
FEBRUARY 1 THROUGH FEBRUARY 28, 1993

I. NARRATIVE SUMMARY OF OPERATING EXPERIENCES

Limerick Unit 2 began the month of February in Refuel, OPCI 5*, with refueling in progress during the unit's second refueling outage. Fuel moves were completed on February 24. Unit 2 ended this operating period in OPCI 5 with reactor reassembly in progress.

Unit 2 occurrences during the operating period included:

On Saturday, February 13 at 0318 hours an inadvertent Unit 2 Division LOCA signal was initiated. Unit 2 was in OPCI 5 with the reactor cavity flooded and fuel moves in progress.

The LOCA signal was generated during the performance of a level transmitter functional test. During the performance of the independent verification of restoration section of the surveillance test, the technician accidentally vented the reference leg for the Div 2 ECCS equipment. The resultant reference leg pressure spike generated a level 1 (-129") LOCA signal. The technician recognized the error and immediately reclosed the vent valve.

The LOCA signal caused the "B" Core Spray Pump to start and inject into the reactor vessel. The "2B" Residual Heat Removal (RHR) pump was in the shutdown cooling mode and swapped to the low pressure coolant injection mode (LPCI) with suction from the vessel. The D22 Diesel Generator started and remained running unloaded. Reactor cavity level was verified to be normal and the injection secured. The Core Spray Pump and Diesel Generator were shutdown. The RHR system was returned to the shutdown cooling mode.

II. CHALLENGES TO MAIN STEAM SAFETY RELIEF VALVES

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

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50 - 353

UNIT LIMERICK UNIT 2

DATE MARCH 10, 1993

COMPANY PHILADELPHIA ELECTRIC COMPANY

KARL MECK
REPORTS SUPERVISOR
BUSINESS UNIT
LIMERICK GENERATING STATION

TELEPHONE (215) 327-1200 EXTENSION 3320

3931019070

MONTH FEBRUARY 1993

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		
14	0		
15	0		
16	0		

OPERATING DATA REPORT

3931019070

DOCKET NO. 50 - 353
 DATE MARCH 10, 1993
 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: FEBRUARY, 1993
 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: 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	YR-TO-DATE	CUMULATIVE
11. HOURS IN REPORTING PERIOD	672	1,416	27,552
12. NUMBER OF HOURS REACTOR WAS CRITICAL	0	400.1	23,640.9
13. REACTOR RESERVE SHUTDOWN HOURS	0.0	0.0	0.0
14. HOURS GENERATOR ON-LINE	0.0	392.0	23,038.5
15. UNIT RESERVE SHUTDOWN HOURS	0.0	0.0	0.0
16. GROSS THERMAL ENERGY GENERATED (MWH)	0	816,994	72,783,144
17. GROSS ELECTRICAL ENERGY GENERATED (MWH)	0	260,100	24,013,206
18. NET ELECTRICAL ENERGY GENERATED (MWH)	* -1,079	245,686	23,108,733

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	DATE MARCH 10, 1993	
	THIS MONTH	CUMULATIVE
19. UNIT SERVICE FACTOR	0.0	83.6
20. UNIT AVAILABILITY FACTOR	0.0	83.6
21. UNIT CAPACITY FACTOR (USING MDC NET)	0.0	79.5
22. UNIT CAPACITY FACTOR (USING DER NET)	0.0	79.5
23. UNIT FORCED OUTAGE RATE	0.0	5.1
24. SHUTDOWNS SCHEDULED OVER NEXT 6 MONTHS (TYPE, DATE, AND DURATION OF EACH):		
COND REFUELING; 01/22/93; 68 DAYS		

25. IF SHUTDOWN AT END OF REPORT PERIOD, ESTIMATED DATE OF STARTUP: 03/31/93	
26. UNITS IN TEST STATUS (PRIOR TO COMMERCIAL OPERATION):	
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 MARCH 10, 1993

REPORT MONTH FEBRUARY, 1993

COMPLETED BY PHILADELPHIA ELECTRIC COMPANY

KARL MECK
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BUSINESS UNITLIMERICK GENERATING STATION
TELEPHONE (215) 327-1200 EXTENSION 3320

NO.	DATE	TYPE (1)	DURATION (HOURS) (1)	REASON (2)	METHOD OF SHUTTING DOWN REACTOR (3)	LICENSEE EVENT REPORT #	SYSTEM COMPONENT		CAUSE AND CORRECTIVE ACTION TO PREVENT RECURRENCE
							CODE (4)	CODE (5)	
3	930201	S	672.0 ----- 672.0	C	4	N/A	ZZ	ZZZZZZ	THE UNIT REMAINED IN THE SECOND REFUELING OUTAGE THE ENTIRE PERIOD

(1)

(2)

(3)

(4)

F - FORCED
S - SCHEDULEDREASON
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)

METHOD

1 - MANUAL
2 - MANUAL SCRAM
3 - AUTOMATIC SCRAM
4 - OTHER (EXPLAIN)EXHIBIT G - INSTRUCTIONS
FOR PREPARATION OF DATA
ENTRY SHEETS FOR LICENSEE
EVENT REPORT (LER)
FILE (NUREG-016)

(5)

EXHIBIT I - SAME SOURCE

3931019070