

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

LIMERICK GENERATING STATION
UNIT 1
JANUARY 1 THROUGH JANUARY 31, 1993

I. NARRATIVE SUMMARY OF OPERATING EXPERIENCES

Limerick Unit 1 began the month of January at a nominal 100% of rated thermal power. On Friday, January 1, reactor power was reduced to 90% due to excess generating capacity, power was restored the same day. On Friday, January 8, reactor power was reduced to 95% for main turbine control valve exercise surveillance testing, reactor power was restored to 100% the same day. Unit 1 ended this operating period at a nominal 100% of rated thermal power.

Unit 1 occurrences during the operating period included:

On Saturday, January 9, at 0905 hours, "1A" reactor protection system (RPS) uninterruptable power supply was lost during restoration from 18-month RPS electrical breaker shunt trip operability surveillance testing (ST-8-036-320-1) and 6-month RPS overvoltage/undervoltage/underfrequency electrical power monitoring surveillance testing (ST-2-036-621-1). The loss of power resulted in various engineered safety feature (ESF) actuations. The RPS power monitoring system undervoltage relay was reset and RPS power subsequently was restored. By 0940 hours, all primary containment isolation system isolations were reset. The event was reported to the NRC pursuant to 10CFR50.72(b)(2)(ii).

II. CHALLENGES TO MAIN STEAM SAFETY RELIEF VALVES

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

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AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50 - 352

UNIT LIMERICK UNIT 1

DATE FEBRUARY 10, 1993

COMPANY PHILADELPHIA ELECTRIC COMPANY

KARL MECK
REPORTS SUPERVISOR
BUSINESS UNIT
LIMERICK GENERATING STATION

TELEPHONE (215) 327-1200 EXTENSION 3320

MONTH JANUARY 1993

DAY	AVERAGE DAILY POWER LEVEL (MWE-NET)	DAY	AVERAGE DAILY POWER LEVEL (MWE-NET)
1	1039	17	1057
2	1057	18	1061
3	1053	19	1058
4	1038	20	1051
5	1035	21	1054
6	1045	22	1040
7	1041	23	1066
8	1054	24	1036
9	1058	25	1053
10	1058	26	1059
11	1053	27	1087
12	1059	28	1018
13	1055	29	1053
14	1032	30	1072
15	1057	31	1038
16	1057		

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OPERATING DATA REPORT

DOCKET NO. 50 - 352

DATE FEBRUARY 10, 1993

COMPLETED BY PHILADELPHIA ELECTRIC COMPANY

KARL MECK

REPORTS SUPERVISOR

BUSINESS UNIT

LIMERICK GENERATING STATION

TELEPHONE (215) 327-1200 EXTENSION 3320

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OPERATING STATUS

1. UNIT NAME: LIMERICK UNIT 1
 2. REPORTING PERIOD: JANUARY, 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: THERE WERE NO LOAD DROPS
 GREATER THAN 20%.

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	744	61,368
12. NUMBER OF HOURS REACTOR WAS CRITICAL	744.0	744.0	48,293.2
13. REACTOR RESERVE SHUTDOWN HOURS	0.0	0.0	0.0
14. HOURS GENERATOR ON-LINE	744.0	744.0	47,302.2
15. UNIT RESERVE SHUTDOWN HOURS	0.0	0.0	0.0
16. GROSS THERMAL ENERGY GENERATED (MWH)	2,446,877	2,446,877	144,180,342
17. GROSS ELECTRICAL ENERGY GENERATED (MWH)	810,890	810,890	46,786,030
18. NET ELECTRICAL ENERGY GENERATED (MWH)	782,265	782,265	44,822,782

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	DATE FEBRUARY 10, 1993		
	THIS MONTH	VR-TO-DATE	CUMULATIVE
19. UNIT SERVICE FACTOR	100.0	100.0	77.1
20. UNIT AVAILABILITY FACTOR	100.0	100.0	77.1
21. UNIT CAPACITY FACTOR (USING MDC NET)	99.7	99.7	69.2
22. UNIT CAPACITY FACTOR (USING DER NET)	99.7	99.7	69.2
23. UNIT FORCED OUTAGE RATE	0.0	0.0	5.2
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 FEBRUARY 10, 1993

REPORT MONTH JANUARY, 1993

COMPLETED BY PHILADELPHIA ELECTRIC COMPANY

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

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NO.	DATE	TYPE (1)	DURATION (HOURS)	REASON (2)	METHOD OF SHUTTING DOWN REACTION OR (3)	LICENSEE EVENT REPORT #	SYSTEM CODE (4)	COMPONENT CODE (5)	CAUSE AND CORRECTIVE ACTION TO PREVENT RECURRENCE
1	930101	S	000.0	H	4	N/A	ZZ	ZZZZZZ	LOAD WAS REDUCED 10% DUE TO EXCESS GENERATING CAPACITY
2	930108	S	000.0	B	4	N/A	HB	VALVEX	REACTOR POWER WAS REDUCED 5% TO PERFORM MAIN TURBINE CONTROL VALVE EXERCISE SURVEILLANCE TESTING

(1)

(2)

(3)

(4)

F - FORCE
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-0161)

(5)

EXHIBIT I - SAME SOURCE

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

LIMERICK GENERATING STATION
UNIT 2
JANUARY 1 THROUGH JANUARY 31, 1993

I. NARRATIVE SUMMARY OF OPERATING EXPERIENCES

Limerick Unit 2 began the month of January in end-of-cycle coastdown at a nominal 69% of rated thermal power with core flow maximized. On Sunday, January 3, the reactor automatically scrammed on reactor high pressure due to a main turbine electro hydraulic control (EHC) malfunction. Unit 2 remained in OPCON 3 until Wednesday, January 6, when criticality was achieved at 2307 hours. On Thursday, January 7, Unit 2 peak end-of-cycle reactor power was attained at a nominal 69% rated. On Thursday, January 21, Unit 2 was manually scrammed from 20% power to commence the second refueling outage. On Wednesday, January 27, Unit 2 entered OPCON 5 to support ongoing second refueling outage activities. Unit 2 ended this operating period in OPCON 5.

Unit 2 occurrences during the operating period included:

On Sunday, January 3, at 1612 hours, the reactor automatically scrammed due to high reactor pressure. The high reactor pressure was caused by main turbine control valve closure due to an undetermined EHC malfunction. Trip procedure T-101 was entered and executed. Reactor water level reached -37.9". Proper primary containment isolation system isolations and reactor core isolation cooling (RCIC) initiation were appropriately received. Reactor level was immediately restored. Trip procedure T-99 was entered and executed. Normal shutdown per general procedure GP-3 was commenced.

II. CHALLENGES TO MAIN STEAM SAFETY RELIEF VALVES

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

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AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50 - 353

UNIT LIMERICK UNIT 2

DATE FEBRUARY 10, 1993

COMPANY PHILADELPHIA ELECTRIC COMPANY

KARL MECK
REPORTS SUPERVISOR
BUSINESS UNIT
LIMERICK GENERATING STATION

TELEPHONE (215) 327-1200 EXTENSION 3320

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MONTH JANUARY 1993

DAY	AVERAGE DAILY POWER LEVEL (MWE-NET)	DAY	AVERAGE DAILY POWER LEVEL (MWE-NET)
1	701	17	655
2	703	18	647
3	469	19	644
4	0	20	636
5	0	21	69
6	0	22	0
7	0	23	0
8	395	24	0
9	699	25	0
10	690	26	0
11	680	27	0
12	679	28	0
13	674	29	0
14	661	30	0
15	667	31	0
16	663		

OPERATING DATA REPORT

DOCKET NO. 50 - 353

DATE FEBRUARY 10, 1993

COMPLETED BY PHILADELPHIA ELECTRIC COMPANY

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

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OPERATING STATUS

- | | |
|---|---|
| <p>1. UNIT NAME: LIMERICK UNIT 2</p> <p>2. REPORTING PERIOD: JANUARY, 1993</p> <p>3. LICENSED THERMAL POWER(MWT): 3293</p> <p>4. NAMEPLATE RATING (GROSS MWE): 1138</p> <p>5. DESIGN ELECTRICAL RATING (NET MWE): 1055</p> <p>6. MAXIMUM DEPENDABLE CAPACITY (GROSS MWE): 1092</p> <p>7. MAXIMUM DEPENDABLE CAPACITY (NET MWE): 1055</p> <p>8. IF CHANGES OCCUR IN CAPACITY RATINGS (ITEMS NUMBER 3 THROUGH 7) SINCE LAST REPORT, GIVE REASONS:</p> <p>9. POWER LEVEL TO WHICH RESTRICTED, IF ANY (NET MWE):</p> <p>10. REASONS FOR RESTRICTIONS, IF ANY:</p> | <p>NOTES: REACTOR AUTO SCRAMMED ON
ON HIGH REACTOR PRESSURE
DUE TO AN UNDETERMINED MAIN
TURBINE EHC MALFUNCTION.
REACTOR WAS MANUALLY SCRAMMED
FROM 20% POWER TO BEGIN THE
SECOND REFUELING OUTAGE.</p> |
|---|---|

	THIS MONTH	VR-TO-DATE	CUMULATIVE
11. HOURS IN REPORTING PERIOD	744	744	26,880
12. NUMBER OF HOURS REACTOR WAS CRITICAL	400.1	400.1	23,640.9
13. REACTOR RESERVE SHUTDOWN HOURS	0.0	0.0	0.0
14. HOURS GENERATOR ON-LINE	382.0	382.0	23,038.5
15. UNIT RESERVE SHUTDOWN HOURS	0.0	0.0	0.0
16. GROSS THERMAL ENERGY GENERATED (MWH)	816,994	816,994	72,783,144
17. GROSS ELECTRICAL ENERGY GENERATED (MWH)	260,100	260,100	24,013,206
18. NET ELECTRICAL ENERGY GENERATED (MWH)	246,765	246,765	23,109,812

DATE FEBRUARY 10, 1993

	THIS MONTH	YR-TO-DATE	CUMULATIVE
19. UNIT SERVICE FACTOR	51.3	51.3	85.7
20. UNIT AVAILABILITY FACTOR	51.3	51.3	85.7
21. UNIT CAPACITY FACTOR (USING MDC NET)	31.4	31.4	81.5
22. UNIT CAPACITY FACTOR (USING DER NET)	31.4	31.4	81.5
23. UNIT FORCED OUTAGE RATE	25.0	25.0	5.1
24. SHUTDOWNS SCHEDULED OVER NEXT 6 MONTHS (TYPE, DATE, AND DURATION OF EACH): SECOND 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):	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

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UNIT SHUTDOWNS AND POWER REDUCTIONS

DOCKET NO. 50 - 353

UNIT NAME LIMERICK UNIT 2

DATE FEBRUARY 12, 1993

REPORT MONTH JANUARY, 1993

COMPLETED BY PHILADELPHIA ELECTRIC COMPANY

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

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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
1	930103	F	103.3	A	3	2-93-001	CC	INSTRU	REACTOR AUTOMATICALLY SCRAMMED ON HIGH REACTOR PRESSURE CAUSED BY MAIN TURBINE CONTROL VALVE CLOSURE DUE TO AN UNDETERMINED EHC MALFUNCTION.
2	930121	F	024.0	H	2	N/A	ZZ	ZZZZZZ	REACTOR WAS MANUALLY SCRAMMED FROM 20% POWER ONE DAY PRIOR TO THE SECOND REFUEL OUTAGE TO BEGIN DECON ACTIVITIES
3	930122	S	234.7 362.0	C	4	N/A	ZZ	ZZZZZZ	UNIT 2 SECOND REFUELING OUTAGE BEGINS

(1)

(2)

(3)

(4)

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)

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-D161)

(5)

EXHIBIT I - SAME SOURCE