T.S.6.9.1.6

PHILADELPHIA ELECTRIC COMPANY

LIMERICK GENERATING STATION

P. O. BOX 2300

SANATOGA, PA 19464-2300

(215) 327-1200, EXT. 3000

DAVID R. HELWIG
VICE PRESIDENT
LIMERICK GENERATING STATION

May 10, 1993

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 April, 1993 forwarded pursuant to Technical Specification 6.9.1.6.

Very truly yours,

DRHelwig

KWM/dtc

Enclosures

cc: T. T. Martin, Administrator, Region I, USNRC (w/enclosures)
N. S. Perry, USNRC Senior Resident Inspector LGS (w/enclosures)

IE24 1/1

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

LIMERICK GENERATING STATION
UNIT 1
APRIL 1 THROUGH APRIL 30, 1993

I. NARRATIVE SUMMARY OF OPERATING EXPERIENCES

Limerick Unit 1 began the month of April at a nominal 100% of rated thermal power (RTP). On April 10, 1993 power was briefly reduced to 90% RTP for Main Turbine Control Valve testing. On April 17, power was reduced to 35% RTP to change out the "1A" and "1B" Recirculation Pump Motor Generator Set Brushes. The Brushes were replaced and RTP was restored to 100% the same day. Unit 1 ended the month at a nominal 100% of rated thermal power.

Unit 1 occurrences during the operating period included:

On Monday, April 5, during the performance of an Instrument and Control Surveillance Test the technician inadvertently manipulated an incorrect radiation channel. This resulted in a Group VIC isolation.

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 - 352
UNIT LIMERICK UNIT 1
DATE MAY 10,1993
COMPANY PHILADELPHIA ELECTRIC COMPANY

KARL MECK
REPORTS SUPERVISOR
BUSINESS UNIT
LIMERICK GENERATING STATION

TELEPHONE (215) 327-1200 EXTENSION 3320

MONTH APRIL 1993

DAY	AVERAGE DAILY POWER LEVEL (MWE-NET)	DAY	AVERAGE DAILY POWER LEVEL (MWE-NET)
1	1058	17	828
2	1051	18	1052
3	1055	19	1053
4	1058	20	1044
5	1056	21	1041
6	1056	22	1074
7	1053	23	1037
8	1056	24	1053
9	1046	25	1043
10	1032	26	1044
11	1053	27	1052
12	1054	28	1052
13	1053	29	1047
14	1046	30	1050
15	1047		
16	1041		

OPERATING DATA REPORT

DOCKET NO. 50 - 352
DATE MAY 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 1
2. REPORTING PERIOD: APRIL, 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 WAS ONE LOAD DROP GREATER THAN 20% TO REPLACE THE A & B REACTOR RECIRC. PUMP MOTOR GENERATOR SET BRUSHES.

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	719	2,879	63,503
12. NUMBER OF HOURS REACTOR WAS CRITICAL	719.0	2,879.0	50,428.2
13. REACTOR RESERVE SHUTDOWN HOURS	0.0	0.0	0.0
14. HOURS GENERATOR ON-LINE	719.0	2,879.0	49,437.2
15. UNIT RESERVE SHUTDOWN HOURS	0.0	0.0	0.0
16. GROSS THERMAL ENERGY GENERATED (MWH)	2,352,996	9,443,513	151,176,978
17. GROSS ELECTRICAL ENERGY GENERATED (MWH)	775,590	3,127,800	49,103,940
18. NET ELECTRICAL ENERGY GENERATED (MWH)	749,795	3,018,980	47,059,497

DATE MAY 10,1993

	THIS MONTH	YR-TO-DATE	CUMULATIVE
19. UNIT SERVICE FACTOR	100.0	100.0	77.9
20. UNIT AVAILABILITY FACTOR	100.0	100.0	77.9
21. UNIT CAPACITY FACTOR (USING MDC NET)	98.8	99.4	70.2
22. UNIT CAPACITY FACTOR (USING DER NET)	98.8	99.4	70.2
23. UNIT FORCED OUTAGE RATE	0.0	0.0	5.0

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 MAY 10,1993
COMPLETED BY PHILADELPHIA ELECTRIC COMPANY

REPORT MONTH APRIL, 1993

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

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
6	930410	S	000.0	B	4	N/A	HB	VALVEX	REACTOR POWER WAS REDUCED TO 90% TO PERFORM MAIN TURBINE CONTROL VALVE TESTING
7	930417	F	000.0	B	4	N/A	CB	MOTORX	REACTOR POWER WAS REDUCED TO 35% TO REPLACE THE A & B REACTOR RECIRCULATION PUMP MOTOR GENERATOR SET BRUSHES.

(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
April 1993

LIMERICK GENERATING STATION
UNIT 2
APRIL 1 THROUGH APRIL 30, 1993

I. NARRATIVE SUMMARY OF OPERATING EXPERIENCES

Limerick Unit 2 began this operating period at 100% of rated thermal power (RTP). On April 4, power was briefly reduced to 98.5% RTP for Control Rod exercise testing. On April 7, a spurious signal in the Feedwater (FW) logic resulted in a FW Setpoint setdown and a 28% Reactor Recirculation pump runback. Power stabilized at 58% RTP. Power was further reduced to 39.6% RTP. The cause of this event was a downward spike to 10 inches reactor level on the "A" narrow range level subsystem for approximately 200 milliseconds. No cause for the level signal spike could be found. The level signal was swapped to the "B" subsystem and power was subsequently increased. Power was restored to 100% RTP the same day. On April 10, power was briefly reduced to 91% RTP for Main Turbine Control Valve testing. On April 12, power was briefly reduced to 95% for a control rod pattern adjustment. On April 18, power was briefly reduced to 95% RTP for control rod exercise testing. On April 19, the "Reactor Hi Level Turbine/ RFPT (reactor feed pump turbine) Trip" and the "Reactor Hi/Lo Level" alarms were received. Reactor level had increased to 48 inches. The "2C" Reactor Feedpump Tripped per design and the 62% flow Reactor Recirculation pump Motor-Generator Set Runback occurred. RTP stabilized at 71% following the event. The cause of this event was spiking in the output signal of the Feedwater (FW) Master Level Controller. This caused the FW Level Control System to act erroneously. No cause for this event could be identified. A Temporary Circuit Alteration was performed to monitor a FW Level Control System power supply. This power supply is the only common equipment between this event and the April 7 event. Power was increased at 1359 hours and at 1655 hours power was restored to 100% RTP. On April 23, power was briefly reduced to 99% RTP for Main Turbine Stop Valve testing. On April 25, power was briefly reduced to 98% RTP for control rod exercise testing. Unit 2 ended this operating period at 100% of rated thermal power.

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 MAY 10,1993
COMPANY PHILADELPHIA ELECTRIC COMPANY

KARL MECK
REPORTS SUPERVISOR
BUSINESS UNIT
LIMERICK GENERATING STATION

TELEPHONE (215) 327-1200 EXTENSION 3320

MONTH APRIL 1993

DAY	AVERAGE DAILY POWER LEVEL (MWE-NET)	DAY	AVERAGE DAILY POWER LEVEL (MWE-NET)
1	1076	17	1059
2	1070	18	1062
3	1072	19	1001
4	1075	20	1059
5	1073	21	1057
6	1073	22	1085
7	806	23	1051
8	1076	24	1069
9	1060	25	1059
10	1061	26	1059
11	1068	27	1064
12	1069	28	1110
13	1068	29	1022
14	1061	30	1066
15	1065		
16	1057		

OPERATING DATA REPORT

DOCKET NO. 50 - 353
DATE MAY 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: APRIL, 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 TWO LOAD DROPS GREATER THAN 20% DUE TO A REACT. RECIRC. PUMP RUNBACK CAUSED BY A FALSE REACT. LOW LEVEL SIGNAL FROM THE FW LOGIC AND RFPT TRIP/REACT. RECIRC. PUMP RUNBACK CAUSED BY AN OUTP

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	719	2,879	29,015
12. NUMBER OF HOURS REACTOR WAS CRITICAL	719.0	1,520.8	24,761.6
13. REACTOR RESERVE SHUTDOWN HOURS	0.0	0.0	0.0
14. HOURS GENERATOR ON-LINE	719.0	1,416.9	24,073.4
15. UNIT RESERVE SHUTDOWN HOURS	0.0	0.0	0.0
16. GROSS THERMAL ENERGY GENERATED (MWH)	2,345,232	4,114,328	76,080,478
17. GROSS ELECTRICAL ENERGY GENERATED (MWH)	784,600	1,348,270	25,101,376
18. NET ELECTRICAL ENERGY GENERATED (MWH)	758,589	1,294,634	24,157,681

DATE MAY 10,1993

	THIS MONTH	YR-TO-DATE	CUMULATIVE
19. UNIT SERVICE FACTOR	100.0	49.2	83.0
20. UNIT AVAILABILITY FACTOR	100.0	49.2	83.0
21. UNIT CAPACITY FACTOR (USING MDC NET)	100.0	42.6	78.9
22. UNIT CAPACITY FACTOR (USING DER NET)	100.0	42.6	78.9
23. UNIT FORCED OUTAGE RATE	0.0	11.0	5.0

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	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 MAY 10,1993
COMPLETED BY PHILADELPHIA ELECTRIC COMPANY
KARL MECK
REPORTS SUPERVISOR
BUSINESS UNIT
LIMERICK GENERATING STATION
TELEPHONE (215) 327-1200 EXTENSION 3320

REPORT MONTH APRIL, 1993

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
10	930404	S	000.0	B	4	N/A	RB	CRDRVE	REACTOR POWER WAS REDUCED TO 98.5% FOR CONTROL ROD EXERCISE TESTING.
11	930407	F	000.0	B	4	N/A	CB	INSTRU	THERE WAS A DOUBLE REACTOR RECIRCULATION PUMP RUNBACK TO 39.6% POWER DUE TO A FALSE REACTOR LOW LEVEL SIGNAL FROM THE FEEDWATER LOGIC TO THE RECIRC. PUMPS. NO CAUSE WAS IDENTIFIED
12	930410	S	000.0	B	4	N/A	HB	VALVEX	REACTOR POWER WAS REDUCED TO 91% TO PERFORM MAIN TURBINE CONTROL VALVE TESTING
13	930412	S	000.0	B	4	N/A	RB	CONROD	REACTOR POWER WAS REDUCED TO 95% FOR A CONTROL ROD PATTERN ADJUSTMENT
14	930418	S	000.0	B	4	N/A	RB	CRDRVE	REACTOR POWER WAS REDUCED TO 95% FOR CONTROL ROD EXERCISE 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

UNIT SHUTDOWNS AND POWER REDUCTIONS

DOCKET NO. 50 - 353
UNIT NAME LIMERICK UNIT 2
DATE MAY 10,1993
COMPLETED BY PHILADELPHIA ELECTRIC COMPANY
KARL MECK
REPORTS SUPERVISOR
BUSINESS UNIT
LIMERICK GENERATING STATION
TELEPHONE (215) 327-1200 EXTENSION 3320

REPORT MONTH APRIL, 1993

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
15	930419	F	000.0	B	4	N/A	CH	INSTRU	A SPIKE IN THE OUTPUT SIGNAL OF THE FEEDWATER MASTER CONTROLLER CAUSED A "2C" RFPT TRIP AND A REACTOR RECIRC. PUMP RUNBACK. POWER STABILIZED AT 71%. NO CAUSE WAS IDENTIFIED THE POWER SUPPLY TO THE FW LEVEL CONTROLLER IS BEING INVESTIGATED
16	930423	S	000.0	B	4	N/A	HB	VALVEX	REACTOR POWER WAS REDUCED TO 99% FOR MAIN TURBINE STOP VALVE TESTING
17	930425	S	000.0	B	4	N/A	RB	CRDRVE	REACTOR POWER WAS REDUCED TO 98% FOR CONTROL ROD EXERCISE 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