

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50 - 352

UNIT LIMERICK UNIT 1

DATE OCTOBER 15, 1987

COMPANY PHILADELPHIA ELECTRIC COMPANY

R. W. GROPP  
TECHNICAL ASSISTANT  
LICENSING SECTION  
NUCLEAR SUPPORT DEPARTMENT

TELEPHONE (215) 841-5058

MONTH SEPTEMBER 1987

DAY	AVERAGE DAILY POWER LEVEL (MWE-NET)	DAY	AVERAGE DAILY POWER LEVEL (MWE-NET)
1	131	17	984
2	199	18	1013
3	345	19	375
4	375	20	0
5	687	21	453
6	767	22	889
7	426	23	976
8	0	24	1033
9	3	25	507
10	377	26	346
11	618	27	0
12	891	28	433
13	826	29	892
14	1016	30	843
15	1030		
16	1014		

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OPERATING DATA REPORT

DOCKET NO. 50 - 352

DATE OCTOBER 15, 1987

COMPLETED BY PHILADELPHIA ELECTRIC COMPANY

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OPERATING STATUS

- |  |  |                                 |
|--|--|---------------------------------|
| 1. UNIT NAME: LIMERICK      UNIT 1               |  | NOTES: THE UNIT EXPERIENCED TWO |
| 2. REPORTING PERIOD: SEPTEMBER, 1987             |  | FORCED SHUTDOWNS, THREE FORCED  |
| 3. LICENSED THERMAL POWER(MWT):      3293        |  | LOAD REDUCTIONS AND TWO         |
| 4. NAMEPLATE RATING (GROSS MWE):      1138       |  | SCHEDULED LOAD REDUCTIONS.      |
| 5. DESIGN ELECTRICAL RATING (NET MWE):      1055 |  |                                 |
| 6. MAXIMUM DEPENDABLE CAPACITY (GROSS MWE): 1092 |  |                                 |
| 7. MAXIMUM DEPENDABLE CAPACITY (NET MWE): 1055   |  |                                 |
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	720	6,551	14,567
12. NUMBER OF HOURS REACTOR WAS CRITICAL	668.8	3,918.0	10,635.0
13. REACTOR RESERVE SHUTDOWN HOURS	0.0	0.0	0.0
14. HOURS GENERATOR ON-LINE	587.9	3,717.7	10,353.7
15. UNIT RESERVE SHUTDOWN HOURS	0.0	0.0	0.0
16. GROSS THERMAL ENERGY GENERATED (MMH)	1,447,553	10,841,340	32,439,502
17. GROSS ELECTRICAL ENERGY GENERATED (MMH)	440,410	3,462,840	10,589,720
18. NET ELECTRICAL ENERGY GENERATED (MMH)	417,352	3,286,835	10,135,685

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 DATE OCTOBER 15, 1987  
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	THIS MONTH	YR-TO-DATE	CUMULATIVE
19. UNIT SERVICE FACTOR	81.7	56.8	71.1
20. UNIT AVAILABILITY FACTOR	81.7	56.8	71.1
21. UNIT CAPACITY FACTOR (USING MDC NET)	54.9	47.6	66.0
22. UNIT CAPACITY FACTOR (USING DER NET)	54.9	47.6	66.0
23. UNIT FORCED OUTAGE RATE	18.3	6.4	4.5

24. SHUTDOWNS SCHEDULED OVER NEXT 6 MONTHS (TYPE, DATE, AND DURATION OF EACH):  
 REFUELING OUTAGE

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 OCTOBER 15, 1987

REPORT MONTH SEPTEMBER, 1987

COMPLETED BY PHILADELPHIA ELECTRIC COMPANY

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NO.	DATE	(1)	DURATION (HOURS)	(2)	METHOD OF SHUTTING DOWN REACTOR (3)	LICENSEE EVENT REPORT #	SYSTEM CODE (4)	COMPONENT CODE (5)	CAUSE AND CORRECTIVE ACTION TO PREVENT RECURRENCE
8	870907	F	054.2	H	3	87-46	PA	ZZZZZZ	REACTOR SCRAM FOLLOWING A TURBINE TRIP ON HIGH MOISTURE SEPARATOR WATER LEVEL.
9	870913	F	000.0	A	4	N/A	RB	INSTRU	REACTOR POWER REDUCED TO REPLACE FAULTY ELECTRONIC CARD IN REDUNDANT REACTIVITY CONTROL SYSTEM.
10	870919	F	038.3	A	3	87-48	HA	PIPEXX	REACTOR SCRAM FOLLOWING A TURBINE TRIP RESULTING FROM A LOSS OF EHC PRESSURE DUE TO FAILED PIPING WELD.
11	870922	S	000.0	F	4	N/A	ZZ	ZZZZZZ	REACTOR POWER REDUCED TO ACCOMMODATE CONTROL ROD PATTERN ADJUSTMENTS.
12	870925	F	008.3	A	4	N/A	HA	VALVEX	REACTOR POWER REDUCED AND MAINTAINED WITH TURBINE MANUALLY TRIPPED TO REPAIR LEAKING EHC CONTROL VALVE SERVO.
13	870926	F	031.2	H	4	N/A	ZZ	ZZZZZZ	REACTOR POWER REDUCED AND MAINTAINED WITH TURBINE MANUALLY TRIPPED TO REPLACE EHC OIL SOAKED INSULATION AROUND TURBINE CONTROL VALVE

(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-0161)

(5)

EXHIBIT I - SAME SOURCE

UNIT SHUTDOWNS AND POWER REDUCTIONS

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DATE OCTOBER 15, 1987

REPORT MONTH SEPTEMBER, 1987

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NO.	DATE	(1)	(HOURS)	(2)	REACTOR (3)	METHOD OF SHUTTING DOWN	LICENSEE EVENT REPORT #	(4)	(5)	CAUSE AND CORRECTIVE ACTION TO PREVENT RECURRENCE
14	870929	S	000.0	F	4		N/A	ZZ	ZZZZZZ	REACTOR POWER REDUCED TO ACCOMMODATE CONTROL ROD PATTERN ADJUSTMENTS.
			-----							
			132.0							

(1)

(2)

(3)

(4)

F - FORCED  
 S - SCHEDULED

REASON  
 A - EQUIPMENT FAILURE (EXPLAIN)  
 B - MAINTENANCE OR TEST  
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METHOD  
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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 1  
September 1, through September 30, 1987

I. Narrative Summary of Operating Experience

The unit began the report period operating at 23% power following startup from the first refueling outage.

Power ascension continued until September 7, 1987 at 1321 hours, when the Reactor Protection System initiated a full reactor scram from 83% power. The scram resulted from the main turbine stop valves closing following a turbine trip on high water level in the 'C2' moisture separator drain tank. The cause was attributed to a moisture separator level control supply air problem. An Unusual Event was declared as a result of the unplanned shutdown. The scram was reset and the Unusual Event terminated at 1345 hours and unit start-up operations commenced.

On September 8, 1987 at 1330 hours, the unit achieved criticality. The unit returned to power operation at 1930 hours on September 9, 1987.

On September 19, 1987 with the unit operating at 90% power a full reactor scram occurred when the main turbine tripped due to low EHC fluid pressure. Vibration had caused a weld failure on the EHC piping and resulted in the low EHC fluid pressure condition. The weld was repaired, the EHC system was returned to service and startup commenced.

On September 20, 1987 the unit achieved criticality and was returned to power operation at 2330 hours on September 21, 1987.

On September 25, 1987, reactor power was reduced to 21% and the turbine was manually tripped at 1353 hours to investigate an EHC system leak. An O-ring on the #2 Main Turbine Control valve servo was replaced and the unit returned to service at 2215 hours.

On September 26, 1987, with the unit operating at 63% power, insulation around the #2 Turbine Control valve was discovered smoldering. The insulation had been oil soaked as a result of the EHC system leak. Reactor power was reduced to 20% and the turbine was manually tripped at 1833 hours. The insulation was replaced and the unit returned to service September 28 at 0148 hours.

Power ascension continued until excessive vibrations were discovered on EHC piping at the main turbine control valves. Reactor power was reduced to 83% power and piping vibrations subsided. The unit continued to operate at this level for

the remainder of the report period while the investigation into the EHC piping vibration continues.

II. Challenges to Relief Valves

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

PHILADELPHIA ELECTRIC COMPANY

2301 MARKET STREET  
P.O. BOX 8599  
PHILADELPHIA, PA. 19101  
(215) 841-4000

October 19, 1987

Docket No. 50-352

Director  
Office of Resource Management  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555

Attention: Document Control Desk

SUBJECT: Limerick Generating Station  
Monthly Operating Report

Gentlemen:

Enclosed is the monthly operating report for Limerick Unit 1 for the month of September 1987, forwarded pursuant to Technical Specification 6.9.1.6. We regret the late submittal of this report and any inconvenience the delay may have caused.

Very truly yours,



W. M. Alden  
Engineer-In-Charge  
Licensing Section  
Nuclear Support Department

Attachment

cc: Director, Office of Inspection & Enforcement, USNRC (12 copies)  
William T. Russell, Administrator, Region I, USNRC  
E. M. Kelly, Senior Resident Site Inspector  
Mr. David E. Ney, PA Dept. of Envir. Resources  
Mr. P. A. Ross, NRC (2 copies)  
INPO Records Center

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