

ACCELERATED DISTRIBUTION DEMONSTRATION SYSTEM

REGULATOR INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR: 8807250441 DOC. DATE: 88/06/30 ^{2/14} NOTARIZED: NO DOCKET #
 FACIL: 50-387 Susquehanna Steam Electric Station, Unit 1, Pennsylvania 05000387
 50-338 North Anna Power Station, Unit 1, Virginia Electric & 05000338
 AUTH. NAME AUTHOR AFFILIATION
 HIRT, J.A. Pennsylvania Power & Light Co.
 KEISER, H.W. Pennsylvania Power & Light Co.
 RECIP. NAME RECIPIENT AFFILIATION

SUBJECT: Monthly operating repts for June 1988 for Susquehanna Steam Electric Station. W/880714 ltr.

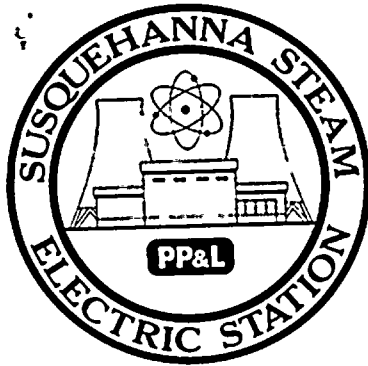
DISTRIBUTION CODE: IE24D COPIES RECEIVED: LTR 1 ENCL 1 SIZE: 13
 TITLE: Monthly Operating Report (per Tech Specs)

NOTES: LPDR 2 cys Transcripts. 05000387
 LPDR 2cys. 05000338/

	RECIPIENT		COPIES		
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	THADANI, M	1	0		
INTERNAL:	ACRS	10	10		
	AEOD/DSP/TPAB	1	1		
	NRR/DLPQ/PEB 11	1	1		
	NRR/DREP/RPB 10	1	1		
	REG-ELLE 01	1	1		
	RGN2	1	1		
EXTERNAL:	EG&G WILLIAMS, S	1	1	LPDR	4 4
	NRC PDR	1	1	NSIC	1 1

NOTES: 2 2

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AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-387
 UNIT One
 DATE 07/07/88
 COMPLETED BY J.A. Hirt
 TELEPHONE (717) 542-3917

MONTH June, 1988

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	<u>707</u>	17	<u>1,032</u>
2	<u>0</u>	18	<u>1,033</u>
3	<u>0</u>	19	<u>1,026</u>
4	<u>0</u>	20	<u>1,022</u>
5	<u>0</u>	21	<u>1,025</u>
6	<u>0</u>	22	<u>1,023</u>
7	<u>0</u>	23	<u>1,034</u>
8	<u>0</u>	24	<u>1,026</u>
9	<u>0</u>	25	<u>820</u>
10	<u>0</u>	26	<u>1,038</u>
11	<u>0</u>	27	<u>1,044</u>
12	<u>116</u>	28	<u>1,044</u>
13	<u>713</u>	29	<u>1,044</u>
14	<u>880</u>	30	<u>1,048</u>
15	<u>1,025</u>	31	<u></u>
16	<u>1,029</u>		

INSTRUCTIONS

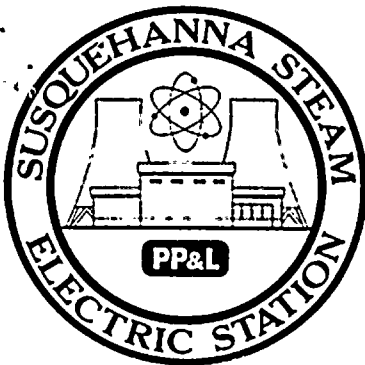
On this format, list the average daily unit power level in MWe-Net for each day in the reporting month. Compute to the nearest whole megawatt.

(9/77)

8807250441 880630
 PDR ADDCK 05000387
 R PNU

IE24
 11





OPERATING DATA REPORT

DOCKET NO. 50-387
 DATE 07/07/88
 COMPLETED BY J.A. Hirt
 TELEPHONE (717) 542-3917

OPERATING STATUS

Unit One

1. Unit Name: Susquehanna Steam Electric Station
2. Reporting Period: June, 1988
3. Licensed Thermal Power (MWt): 3293
4. Nameplate Rating (Gross MWe): 1152
5. Design Electrical Rating (Net MWe): 1065
6. Maximum Dependable Capacity (Gross MWe): 1068
7. Maximum Dependable Capacity (Net MWe): 1032
8. If Changes Occur in Capacity Ratings (Items Number 3 Through 7) Since Last Report, Give Reasons:
None

Notes

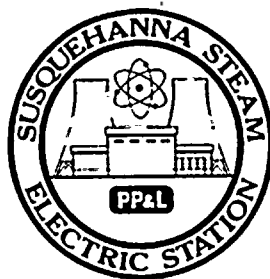
9. Power Level To Which Restricted, If Any (Net MWe): None
10. Reasons For Restrictions, If Any: N/A

	This Month	Yr.-to-Date	Cumulative
11. Hours In Reporting Period	720	4,367	44,400
12. Number Of Hours Reactor Was Critical	500.7	3,872.7	32,524.8
13. Reactor Reserve Shutdown Hours	219.3	219.3	1,032
14. Hours Generator On-Line	461.8	3,790.2	31,737.2
15. Unit Reserve Shutdown Hours	0	0	0
16. Gross Thermal Energy Generated (MWH)	1,436,093	12,137,533	98,191,010
17. Gross Electrical Energy Generated (MWH)	466,596	3,994,598	32,005,197
18. Net Electrical Energy Generated (MWH)	445,581	3,851,600	30,692,828
19. Unit Service Factor	64.1	86.8	71.5
20. Unit Availability Factor	64.1	86.8	71.5
21. Unit Capacity Factor (Using MDC Net)	60.0	85.5	67.0
22. Unit Capacity Factor (Using DER Net)	58.1	82.8	64.9
23. Unit Forced Outage Rate	35.9	9.7	10.7

24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each):
Unit One is not scheduled to be shutdown within the next six months.

25. If Shut Down At End Of Report Period, Estimated Date of Startup: N/A
26. Units In Test Status (Prior to Commercial Operation):

	Forecast	Achieved
INITIAL CRITICALITY	_____	_____
INITIAL ELECTRICITY	_____	_____
COMMERCIAL OPERATION	_____	_____



UNIT SHUTDOWNS AND POWER REDUCTIONS

DOCKET NO. 50-387
 UNIT NAME SSES - Unit One
 DATE 07/07/88
 COMPLETED BY J.A. Hirt
 TELEPHONE (717) 542-3917

REPORT MONTH June, 1988

No.	Date	Type ¹	Duration (Hours)	Reason ²	Method of Shutting Down Reactor ³	Licensee Event Report #	System Code ⁴	Component Code ⁵	Cause & Corrective Action to Prevent Recurrence
5	880601	F	258.2	A	3	88-010-00	FJ	64	<p>At 1621 on June 1, 1988, an Unplanned Engineered Safety Feature (ESF) actuation occurred on Unit 1. A ground fault which occurred on a distant 500 KV transmission line resulted in apparent ground fault relay misoperation. A Generator Load Unbalance (Load Reject) occurred and resulted in a Turbine Control Valve Fast Closure, Turbine Trip, and Reactor Scram. All systems responded properly to the transient. No off-site release occurred. The Unit was placed in a stable condition.</p> <p>The cause of the relay misoperation could not be determined. Extensive followup testing could not duplicate the failure. As a result, the trip</p>

¹
 F: Forced
 S: Scheduled

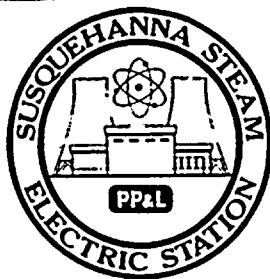
²
 Reason:
 A-Equipment Failure (Explain)
 B-Maintenance or Test
 C-Refueling
 D-Regulatory Restriction
 E-Operator Training & License Examination
 F-Administrative
 G-Operational Error (Explain)
 H-Other (Explain)

³
 Method:
 1-Manual
 2-Manual Scram.
 3-Automatic Scram.
 4-Continuation
 from previous month
 5-Reduction
 9-Other

⁴
 Exhibit G - Instructions
 for Preparation of Data
 Entry Sheets for Licensee
 Event Report (LER) File (NUREG-
 0161)

⁵
 Exhibit I - Same Source

(9/77)



UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH June, 1988 (Continued)

DOCKET NO. 50-387
 UNIT NAME SSES - Unit One
 DATE 07/07/88
 COMPLETED BY J A Hirt
 TELEPHONE (717) 342-3917

No.	Date	Type ¹	Duration (Hours)	Reason ²	Method of Shutting Down Reactor ³	Licensee Event Report #	System Code ⁴	Component Code ⁵	Cause & Corrective Action to Prevent Recurrence
5	880601	F	258.2	A	3	88-010-00	FJ	64	<p>function of the relay was blocked from service. Monitoring equipment was installed and relay response will be recorded. Redundant fault detection will provide fault protection in the interim.</p> <p>Operations ¹⁰ personnel restarted the unit on June, 1988, and synchronized the generator to the grid at 1036 hours on June 12, 1988.</p>

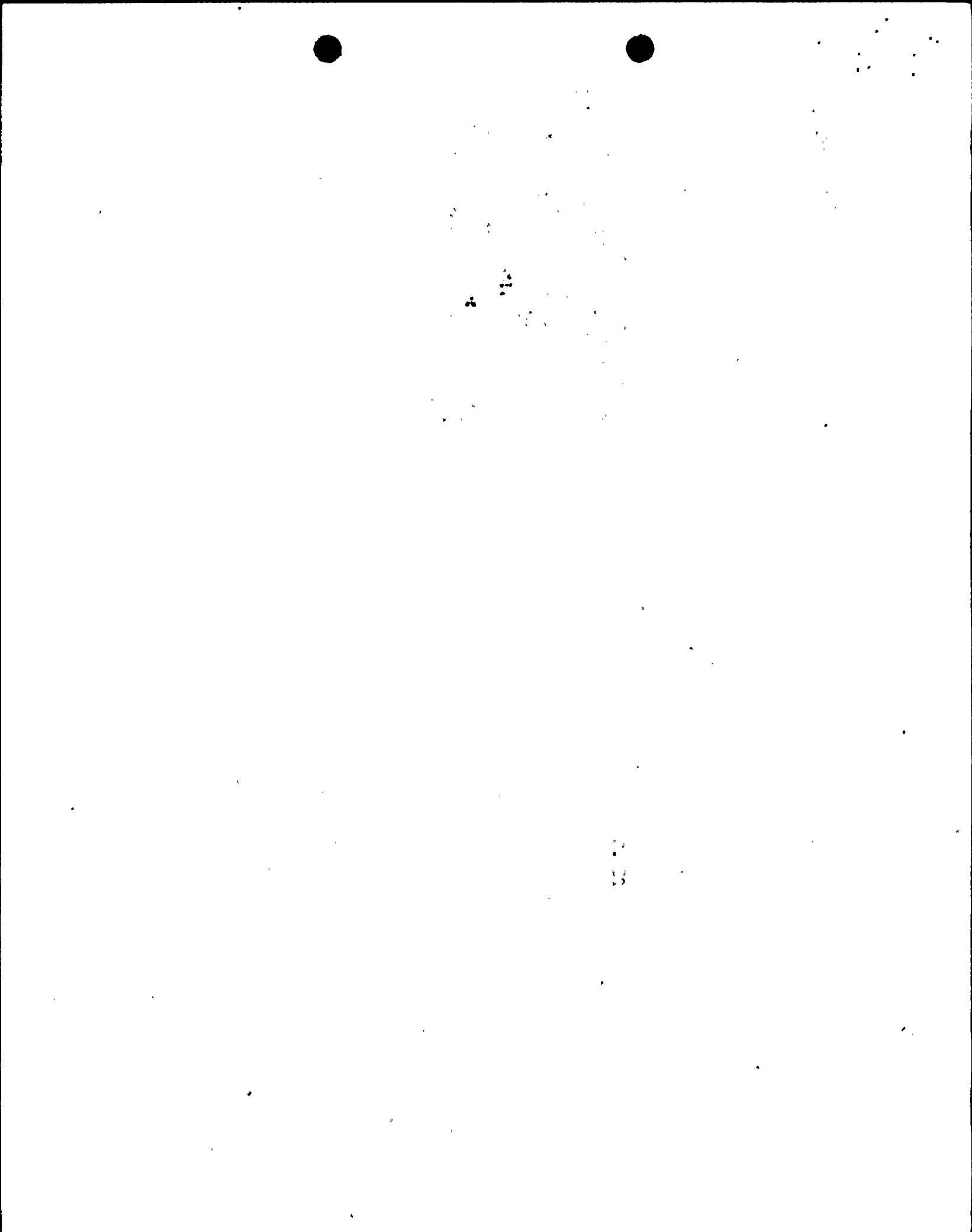
¹
 F: Forced
 S: Scheduled

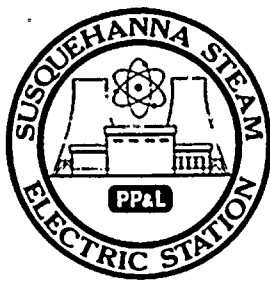
²
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 C-Refueling
 D-Regulatory Restriction
 E-Operator Training & License Examination
 F-Administrative
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 H-Other (Explain)

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 from previous month
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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

REPORT MONTH June, 1988

DOCKET NO. 50-387
 UNIT NAME SSES - Unit One
 DATE 07/07/88
 COMPLETED BY J.A. Hirt
 TELEPHONE (717) 542-3917

No.	Date	Type ¹	Duration (Hours)	Reason ²	Method of Shutting Down Reactor ³	Licensee Event Report #	System Code ⁴	Component Code ⁵	Cause & Corrective Action to Prevent Recurrence
6	880624	S	0	H	5	NA	SJ	LT	On June 24, 1988, Operations personnel reduced reactor power to approximately 60% in order to replace the level transmitter for the 2A Feedwater Heater Emergency Dump Valve. The transmitter had been outputting a false hi-level signal causing the valve to open. After I&C personnel replaced the transmitter, Operations personnel increased reactor power to 100% capacity.

¹
 F: Forced
 S: Scheduled

²
 Reason:
 A-Equipment Failure (Explain)
 B-Maintenance of 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-Continuation
 from previous month
 5-Reduction
 9-Other

⁴
 Exhibit G - Instructions for Preparation of Data Entry Sheets for Licensee Event Report (LER) File (NUREG-0161)

⁵
 Exhibit I - Same Source

(9/77)

SUSQUEHANNA STEAM ELECTRIC STATION

Docket Number 50-387 Date 07/07/88

Completed by J. A. Hirt Telephone (717)542-3917

Challenges to Main Steam Safety Relief Valves

On June 1, 1988, Unit One experienced a generator load reject/reactor scram. As a result of the scram two safety relief valves (SRVs) opened and reseated satisfactorily. Listed below are the length of time the SRVs were open, and the pressures when they opened and closed.

<u>SRV</u>	<u>Length of Time Opened (sec)</u>	<u>Pressure Opened (psig)</u>	<u>Pressure Closed (psig)</u>
B	11.5	1076.1	973.2
E	8.0	1073.9	995.8

Changes to the Offsite Dose Calculation Manual

None

Major Changes to Radioactive Waste Treatment Systems

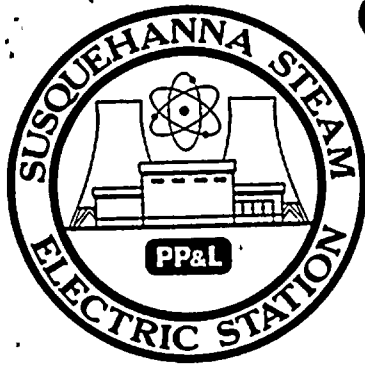
None

THE UNIVERSITY OF CHICAGO
DEPARTMENT OF CHEMISTRY

REPORT OF THE
COMMISSIONERS OF THE
SCHOOL OF DISTANCE EDUCATION
FOR THE YEAR 1967-68

CHICAGO, ILLINOIS
1968

THE UNIVERSITY OF CHICAGO
SCHOOL OF DISTANCE EDUCATION
5408 SOUTH UNIVERSITY AVENUE
CHICAGO, ILLINOIS 60637



AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-388

UNIT Two

DATE 07/07/88

COMPLETED BY J.A. Hirt

TELEPHONE (717) 542-3917

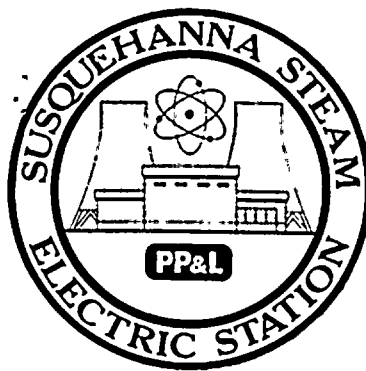
MONTH June, 1988

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	<u>0</u>
2	<u>0</u>
3	<u>0</u>
4	<u>0</u>
5	<u>0</u>
6	<u>0</u>
7	<u>0</u>
8	<u>0</u>
9	<u>0</u>
10	<u>0</u>
11	<u>0</u>
12	<u>0</u>
13	<u>0</u>
14	<u>0</u>
15	<u>0</u>
16	<u>0</u>

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
17	<u>0</u>
18	<u>0</u>
19	<u>0</u>
20	<u>0</u>
21	<u>0</u>
22	<u>110</u>
23	<u>0</u>
24	<u>0</u>
25	<u>101</u>
26	<u>316</u>
27	<u>472</u>
28	<u>558</u>
29	<u>644</u>
30	<u>689</u>
31	<u></u>

INSTRUCTIONS

On this format, list the average daily unit power level in MWe-Net for each day in the reporting month. Compute to the nearest whole megawatt.



OPERATING DATA REPORT

DOCKET NO. 50-388
 DATE 07/07/88
 COMPLETED BY J.A. Hirt
 TELEPHONE (717) 542-3917

OPERATING STATUS

Unit Two

1. Unit Name: Susquehanna Steam Electric Station
2. Reporting Period: June, 1988
3. Licensed Thermal Power (MWt): 3293
4. Nameplate Rating (Gross MWe): 1152
5. Design Electrical Rating (Net MWe): 1065
6. Maximum Dependable Capacity (Gross MWe): 1068
7. Maximum Dependable Capacity (Net MWe): 1032
8. If Changes Occur in Capacity Ratings (Items Number 3 Through 7) Since Last Report; Give Reasons:
None

Notes

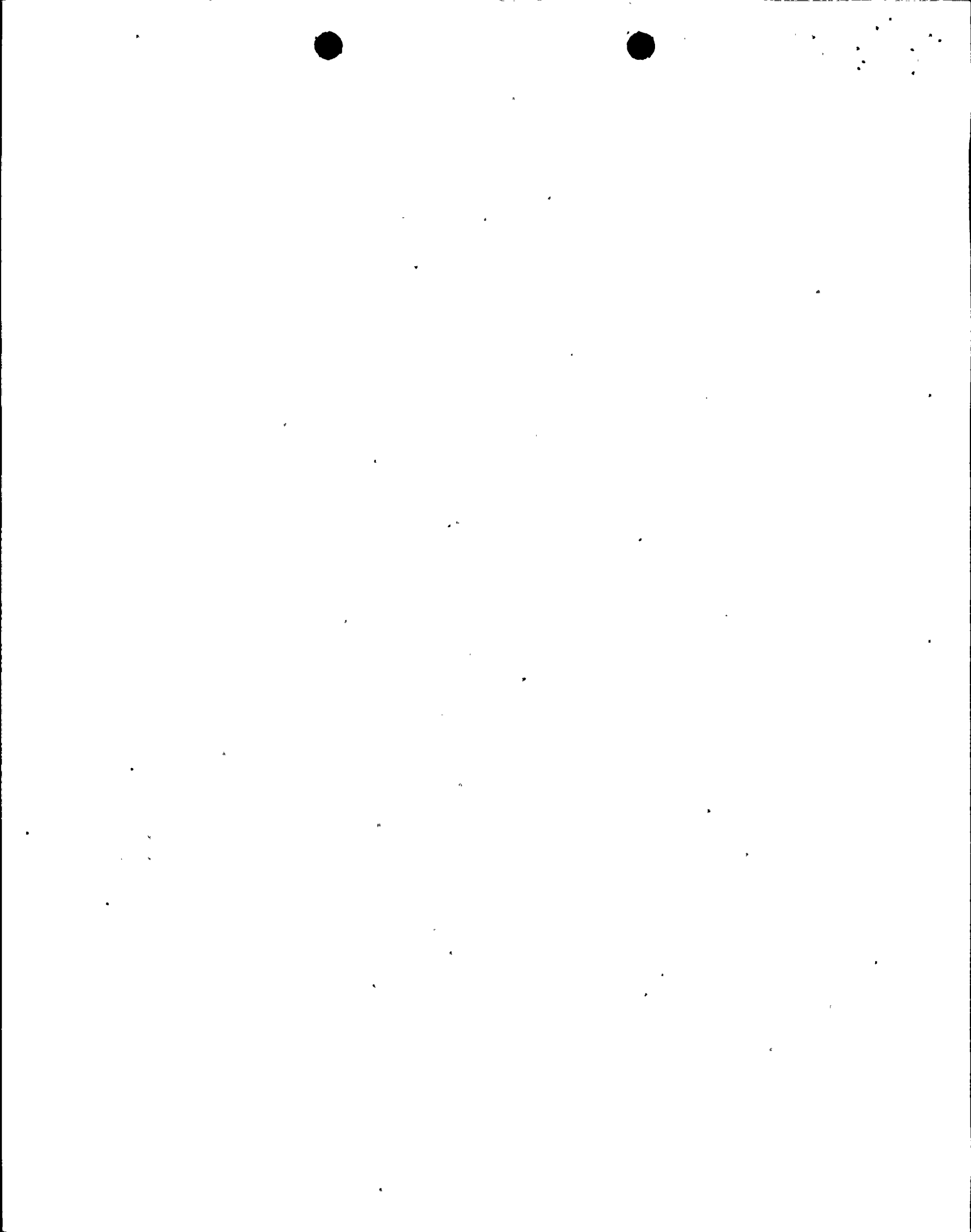
9. Power Level To Which Restricted, If Any (Net MWe): None
10. Reasons For Restrictions, If Any: N/A

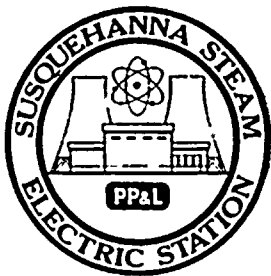
	This Month	Yr.-to-Date	Cumulative
11. Hours In Reporting Period	720	4,367	29,639
12. Number Of Hours Reactor Was Critical	244.7	1,804.7	23,396.7
13. Reactor Reserve Shutdown Hours	0	0	717.9
14. Hours Generator On-Line	137.0	1,673.5	22,834.4
15. Unit Reserve Shutdown Hours	0	0	0
16. Gross Thermal Energy Generated (MWH)	236,195	5,035,175	71,660,888
17. Gross Electrical Energy Generated (MWH)	70,358	1,643,020	23,449,782
18. Net Electrical Energy Generated (MWH)	57,428	1,558,403	22,556,078
19. Unit Service Factor	19.0	38.3	77.0
20. Unit Availability Factor	19.0	38.3	77.0
21. Unit Capacity Factor (Using MDC Net)	7.7	34.6	73.7
22. Unit Capacity Factor (Using DER Net)	7.5	33.5	71.5
23. Unit Forced Outage Rate	4.3	0.4	8.6

24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each):
Unit Two is not scheduled to shutdown within the next six months.

25. If Shut Down At End Of Report Period, Estimated Date of Startup: N/A

26. Units In Test Status (Prior to Commercial Operation):	Forecast	Achieved
INITIAL CRITICALITY	_____	_____
INITIAL ELECTRICITY	_____	_____
COMMERCIAL OPERATION	_____	_____





UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH June, 1988

DOCKET NO. 50-388
 UNIT NAME SSES-Unit Two
 DATE 07/07/88
 COMPLETED BY J.A. Hirt
 TELEPHONE (717) 542-3917

No.	Date	Type ¹	Duration (Hours)	Reason ²	Method of Shutting Down Reactor ³	Licensee Event Report #	System Code ⁴	Component Code ⁵	Cause & Corrective Action to Prevent Recurrence
1	880305	S	575.9	C	4	N/A	ZZZZ	ZZZZZZ	On June 24, 1988, at 2356 hours, Operations personnel synchronized Unit Two to the grid, ending the Unit's Second Refueling Outage. The unit had been shutdown since March 5, 1988.
2	880625	F	6.1	H	9	N/A	IV,TA	TRB	Following the generator synchronization the turbine experienced high vibration. Operations personnel tripped the turbine and placed it on its turning gear. They realigned the turbine a few hours later and then re-synchronized the generator to the grid at 0635 on June 25, 1988.
3	880625	S	1.0	B	9	N/A	TA	TRB	On June 25, 1988, at 1125 hours Operations personnel manually tripped the turbine as part of a required overspeed test. Following the successful completion of the test,

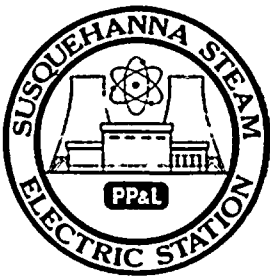
¹
 F: Forced
 S: Scheduled

²
 Reason:
 A-Equipment Failure (Explain)
 B-Maintenance of 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-Continuation
 from previous month
 5-Reduction
 9-Other

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

REPORT MONTH June, 1988 (Continued)

DOCKET NO. 50-388
 UNIT NAME SSES-Unit Two
 DATE 01/07/88
 COMPLETED BY J.A. Hirt
 TELEPHONE (717) 542-3917

No.	Date	Type ¹	Duration (Hours)	Reason ²	Method of Shutting Down Reactor ³	Licensee Event Report #	System Code ⁴	Component Code ⁵	Cause & Corrective Action to Prevent Recurrence
3	880625	S	1.0	B	9	N/A	TA	TRB	Operators realigned the turbine. They synchronized the generator to the grid at 1221 hours on June 25, 1988.

¹
 F: Forced
 S: Scheduled

²
 Reason:
 A-Equipment Failure (Explain)
 B-Maintenance of Test
 C-Refueling
 D-Regulatory Restriction
 E-Operator Training & License Examination
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 Exhibit I - Same Source



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SUSQUEHANNA STEAM ELECTRIC STATION

Docket Number 50-388 Date 07/07/88

Completed by J.A. Hirt Telephone (717) 542-3917

Challenges to Main Steam Safety Relief Valves

None

Changes to the Offsite Dose Calculation Manual

None

Major Changes to Radioactive Waste Treatment Systems

None

THE UNIVERSITY OF CHICAGO
DIVISION OF THE PHYSICAL SCIENCES
DEPARTMENT OF CHEMISTRY

REPORT OF THE RESEARCH GROUP ON
THE CHEMISTRY OF THE SOLID STATE

BY
J. H. SCHUBERT
AND
R. W. WOODWARD

RESEARCH REPORT NO. 1
1954

REFUELING INFORMATION

DATE: 7-5-88

1. Name of facility. Susquehanna SES - Unit 2
2. Scheduled date for next refueling shutdown. 9-9-89
3. Scheduled date for restart following refueling. 11-10-89
4. Will refueling or resumption of operation thereafter require a technical specification change or other license amendment?
If answer is yes, what, in general, will these be?
If answer is no, has the reload fuel design and core configuration been reviewed by your Plant Safety Review Committee to determine whether any unreviewed safety questions are associated with the core reload (Ref. 10 CFR Section 50.59)?
Yes, MCPR Spec., MAPLHGR Spec., split batch of slightly modified fuel bundle enrichments and Gadolinia Designs. PP&L's first licensing use of in-house design and analysis methods.
5. Scheduled date(s) for submitting proposed licensing action and supporting information. 3-26-89 (6 mos. before SER required)
6. Important licensing considerations associated with refueling, e.g., new or different fuel design or supplier, unreviewed design or performance analysis methods, significant changes in fuel design, new operating procedures.
Will be third reload of Advanced Nuclear Fuels (ANF) 9x9 fuel in Unit 2. PP&L will have to demonstrate core stability with a full core of ANF 9x9 fuel. PP&L's submittal will be based on PP&L methods and analyses.
7. The number of fuel assemblies (a) in the core and (b) in the spent fuel storage pool. a) 764 b) 560
8. The present licensed spent fuel pool storage capacity and the size of any increase in licensed storage capacity that has been requested or is planned, in number of fuel assemblies.
present 2840 increase size by 0
9. The projected date of the last refueling that can be discharged to the spent fuel pool assuming the present licensed capacity.

DATE: March 2000*

- *based on:
- 1) both pools (Units 1 & 2) are available for both units and capable of being shared.
 - 2) must be able to offload one full core between both pools - i.e. $2840 - (1/2 \times 764) = 2458$ available capacity per-pool.
 - 3) assumes use of high burnup fuel design in 18 month-cycles.



Pennsylvania Power & Light Company

Two North Ninth Street • Allentown, PA 18101 • 215/770-5151

JUL 14 1988

Submitted pursuant to
Technical Specifications
Section 6.9.1.6

Harold W. Keiser
Senior Vice President-Nuclear
215/770-4194

Mr. William G. McDonald
Director, Office of Administration
and Resources Management
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

SUSQUEHANNA STEAM ELECTRIC STATION
MONTHLY OPERATING REPORTS
PLA- 3058 FILE R41-2A

Docket Nos. 50-387/NPF-14
50-388/NPF-22

Dear Mr. McDonald:

The June 1988 monthly operating reports for Susquehanna SES Units 1 and 2 are attached. Updated Refueling Information is also provided for Unit 2.

Very truly yours,

H. W. Keiser

Attachment

cc: Document Control Desk (Original)
NRC Region I
Mr. F. I. Young - NRC Sr. Resident Inspector
Mr. M. C. Thadani - NRC Project Manager

IE24
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