

VIRGINIA POWER COMPANY
NORTH ANNA POWER STATION
MONTHLY OPERATING REPORT

MONTH: November YEAR: 1990

Approved:



Station Manager

9012200149 931214
PDR ADCK 05000338
R PDR

AVERAGE DAILY UNIT POWER LEVEL

Docket No.: 50-338
 Unit: NA-1
 Date: December 4, '90
 Completed by: C. Mladen
 Phone: (703) 894-2537

MONTH: November 1990

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)	DAY	AVERAGE DAILY LEVEL LEVEL (MWe-Net)
1	<u>667</u>	16	<u>592</u>
2	<u>666</u>	17	<u>587</u>
3	<u>666</u>	18	<u>552</u>
4	<u>664</u>	19	<u>553</u>
5	<u>661</u>	20	<u>552</u>
6	<u>645</u>	21	<u>549</u>
7	<u>634</u>	22	<u>547</u>
8	<u>630</u>	23	<u>525</u>
9	<u>629</u>	24	<u>526</u>
10	<u>626</u>	25	<u>524</u>
11	<u>607</u>	26	<u>522</u>
12	<u>602</u>	27	<u>521</u>
13	<u>599</u>	28	<u>498</u>
14	<u>597</u>	29	<u>506</u>
15	<u>595</u>	30	<u>497</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.

NORTH ANNA POWER STATION

UNIT NO.: 1
MONTH: November

SUMMARY OF OPERATING EXPERIENCE

Listed below in chronological sequence is a summary of operating experiences for this month which required load reductions or resulted in significant non-load related incidents.

<u>Date</u>	<u>Time</u>	<u>Data</u>
November 01, 1990	0000	Began month with Unit at 76%, 733MW, in coastdown for refueling outage.
November 07, 1990	1238	Removed 2B, 3B, and 4B feedwater heaters from service due to tube leaks in 3B feedwater.
November 09, 1990	0853	Completed 1-PT-34.3, TVFT.
November 30, 1990	2400	Ended month with unit at 59%, 540MW.

UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH: November 1990

DOCKET NO.: 50-338
 UNIT NAME: NA-1
 DATE: December 4, 1990
 COMPLETED BY: C. Mladen
 PHONE: (703) 894-2537

No.	Date	Type ¹	Duration (hrs)	Reason ²	Method of Shutting Down Reactor ³	Licensee Event Report #	System Code ⁴	Component Code ⁵	Cause & Corrective Action to Prevent Recurrence
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*No entry this month

1: Type
 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
 H=Other (explain)

3: Method
 1=Manual
 2=Manual Scram
 3=Automatic Scram
 4=Continuations
 5=Load Reduction
 9=Other

4:
 Exhibit F - Instructions
 for preparation of Data
 Entry Sheets for Licensee
 Event Report (LER) File
 (NUREG-0161)

5:
 Exhibit H - Same Source

UNIT SHUTDOWN AND POWER REDUCTIONS
Explanation Sheet

Deskset No.: 50-338

Report Month November Unit Name: NA-1

Year: 1990 Date: December 4, '90

Completed by: Cathie Mladen

*No entry this month

OPERATING DATA REPORT

DOCKET NO.: 50-339
 DATE: December 4, 90
 COMPLETED BY: C. Mladen
 PHONE: (703) 894-2537

OPERATING STATUS

- 1. Unit Name:.....North Anna 2
- 2. Reporting Period:.....November 1990
- 3. Licensed Thermal Power (MWT):..... 2893
- 4. Nameplate Rating (Gross MWe):..... 947
- 5. Design Electrical Rating (Net MWe):..... 907
- 6. Maximum Dependable Capacity (Gross MWe):.. 957
- 7. Maximum Dependable Capacity (Net MWe):.... 909

8. If changes occur in Capacity Ratings (Items No. 3 thru 7) since last report, give reasons: _____
 _____ N/A _____

9. Power level to which restricted, if any (Net MWe): _____ N/A _____
 10. Reasons for restrictions, if any: _____ N/A _____

	This Month	Y-t-D	Cumulative
11. Hours in Reporting Period.....	720.0	8,016.0	87,336.0
12. Number of Hours Reactor was Critical.....	697.9	6,268.2	70,390.3
13. Reactor Reserve Shutdown Hours.....	14.8	94.7	5,949.6
14. Hours Generator On-Line.....	668.2	6,238.4	69,490.3
15. Unit Reserve Shutdown Hours.....	0.0	0.0	0.0
16. Gross Thermal Energy Generated (MWH).....	1,687,593.3	16,954,710.7	185,101,057.7
17. Gross Electrical Energy Generated (MWH).....	555,150.0	5,582,674.0	60,588,191.0
18. Net Electrical Energy Generated (MWH).....	526,142.0	5,295,850.0	58,134,682.0
19. Unit Service Factor.....	92.8%	77.8%	79.6%
20. Unit Availability Factor.....	92.3%	77.8%	79.6%
21. Unit Capacity Factor (using MDC Net).....	80.4%	72.6%	74.1%
22. Unit Capacity Factor (using DER Net).....	80.6%	72.8%	73.4%
23. Forced Outage Rate.....	0.9%	0.5%	6.4%

24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each): _____

25. If Shutdown at end of Report Period, estimated time of Startup: _____

26. Units in Test Status (Prior to Commercial Operation):

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

AVERAGE DAILY UNIT POWER LEVEL

Docket No.: 50-339
 Unit: NA-2
 Date: December 4, '90
 Completed by: C. Mladen
 Phone: (703) 894-2537

MONTH: December 1990

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)	DAY	AVERAGE DAILY LEVEL LEVEL (MWe-Net)
1	<u>0</u>	16	<u>916</u>
2	<u>1</u>	17	<u>917</u>
3	<u>150</u>	18	<u>916</u>
4	<u>190</u>	19	<u>916</u>
5	<u>197</u>	20	<u>916</u>
6	<u>246</u>	21	<u>916</u>
7	<u>358</u>	22	<u>916</u>
8	<u>723</u>	23	<u>916</u>
9	<u>871</u>	24	<u>916</u>
10	<u>881</u>	25	<u>916</u>
11	<u>896</u>	26	<u>916</u>
12	<u>918</u>	27	<u>916</u>
13	<u>916</u>	28	<u>917</u>
14	<u>917</u>	29	<u>916</u>
15	<u>917</u>	30	<u>916</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.

NORTH ANNA POWER STATION

UNIT NO.: 2
 MONTH: November

SUMMARY OF OPERATING EXPERIENCE

Listed below in chronological sequence is a summary of operating experiences for this month which required load reductions or resulted in significant non-load related incidents.

<u>Date</u>	<u>Time</u>	<u>Data</u>
November 01, 1990	0000 1735	Began month with Unit in mode 3, 0%. Entered mode 2.
November 02, 1990	1545 1733 1734 1741 2211 2356	Entered mode 1. Generator on-line. Turbine Trip on "B" S/G Hi-Hi level. Reactor Trip on "A" S/G Lo-Lo level. Re-entered mode 2. Re-entered mode 1.
November 03, 1990	0053 1030 1102 1118 1404	Generator on-line, commenced ramp-up to 28% power. Commenced ramp-down for Main Turbine Overspeed test. Generator off-line for test. Turbine Overspeed test completed. Generator on-line, commenced ramp-up to 30% power Chemistry hold.
November 07, 1990	0859	Clear Chemistry hold, commenced ramp up to full power.
November 11, 1990	1423	Unit at 100%, 955MWe.
November 30, 1990	2400	Ended month with Unit at 100%, 957MWe.

UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH: November 1990

DOCKET NO.: 50-339
 UNIT NAME: NA-2
 DATE: December 4, 1990
 COMPLETED BY: C. Mladen
 PHONE: (703) 894-2537

No.	Date	Type ¹	Duration (hrs)	Reason ²	Method of Shutting Down Reactor ³	Licensee Event Report #	System Code ⁴	Component Code ⁵	Cause & Corrective Action to Prevent Recurrence
90-2	900821	S	41.3	C	4	N/A	MS	RM	S/G Maintenance planned
90-3	901101	F	7.4	G	3	N2-90-010	FW	FCV	"A" S/G Lo-Lo level
90-4	901103	S	3.1	B	N/A	N/A	MS	TURBINE	Turbine Overspeed Test

1: Type
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 S=Scheduled

2: Reason
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 B=Maintenance or Test
 C=Refueling
 D=Regulatory Restriction
 E=Operator Training & License Examination
 F=Administrative
 G=Operational Error
 H=Other (explain)

3: Method
 1=Manual
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4:
 Exhibit F - Instructions for preparation of Data Entry Sheets for Licensee Event Report (LER) File (NUREG-0161)

5:
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UNIT SHUTDOWN AND POWER REDUCTIONS
Explanation Sheet

Docket No.: 50-339

Report Month November Unit Name: NA-2

Year: 1990 Date: December 4, 90

Completed by: Cathie Mladen

#90-2 November 1, 1990
Unit in continuation of 1990 scheduled refueling outage.
Entered mode 2 at 1735 hours.

November 2, 1990
Unit entered mode 1 at 1545 hours.
Unit on-line at 1733 hours.

#90-3 November 2, 1990
Turbine Trip at 1734 hours on "B" S/G Hi-Hi level.
Reactor Trip at 1741 hours on "A" S/G Lo-Lo level.
Unit returned to mode 2 at 2211 hours.
Unit returned to mode 1 at 2356 hours.

November 3, 1990
Unit on-line at 0053 hours.

#90-4 November 3, 1990
Generator taken off-line at 1102 hours for scheduled
Main Turbine Overspeed Test.

Generator back on-line at 1404 hours.