

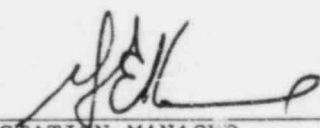
VIRGINIA ELECTRIC AND POWER COMPANY

NORTH ANNA POWER STATION

MONTHLY OPERATING REPORT

MONTH November YEAR 1983

APPROVED:

  
\_\_\_\_\_  
STATION MANAGER

*for*

8401120253 831130  
PDR ADOCK 05000338  
R PDR

# OPERATING DATA REPORT

DOCKET NO. 50-338  
DATE 11-04-83  
COMPLETED BY Joan N. Lee  
TELEPHONE (703) 894-5151 X2527

## OPERATING STATUS

Notes: \*Revised due to administrative errors on line 13, and line 22.

1. Unit Name: North Anna 1
2. Reporting Period: October 1983
3. Licensed Thermal Power (MWt): 2775
4. Nameplate Rating (Gross MWe): 947
5. Design Electrical Rating (Net MWe): 907
6. Maximum Dependable Capacity (Gross MWe): 930
7. Maximum Dependable Capacity (Net MWe): 877
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	Yr.-to-Date	Cumulative
11. Hours In Reporting Period	745	7,296	46,977
12. Number of Hours Reactor Was Critical	215.9	5,006.1	32,129.1
*13. Reactor Reserve Shutdown Hours	0	1,760.8	3,014.9
14. Hours Generator On-Line	212.3	4,832.3	31,214.5
15. Unit Reserve Shutdown Hours	0	0	0
16. Gross Thermal Energy Generated (MWH)	458,553.0	12,922,810	81,123,164
17. Gross Electrical Energy Generated (MWH)	153,724	4,279,100	26,063,632
18. Net Electrical Energy Generated (MWH)	144,349	4,055,518	24,576,251
19. Unit Service Factor	28.5	66.2	66.4
20. Unit Availability Factor	28.5	66.2	66.4
21. Unit Capacity Factor (Using MDC Net)	22.1	63.4	59.7
*22. Unit Capacity Factor (Using DER Net)	21.4	61.3	57.7
23. Unit Forced Outage Rate	0	29.4	11.4
24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each):			

Refueling Outage 05-25-84

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

Forecast

Achieved

INITIAL CRITICALITY  
INITIAL ELECTRICITY  
COMMERCIAL OPERATION

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

# OPERATING DATA REPORT

DOCKET NO. 50-338  
DATE 12-04-83  
COMPLETED BY Joan N. Lee  
TELEPHONE (703) 894-5151 X2527

## OPERATING STATUS

Notes:

1. Unit Name: North Anna 1
2. Reporting Period: November 1983
3. Licensed Thermal Power (MWt): 2775
4. Nameplate Rating (Gross MWe): 947
5. Design Electrical Rating (Net MWe): 907
6. Maximum Dependable Capacity (Gross MWe): 930
7. Maximum Dependable Capacity (Net MWe): 877
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	Yr.-to-Date	Cumulative
11. Hours In Reporting Period	720	8,016	47,697
12. Number of Hours Reactor Was Critical	713.4	5,719.5	32,842.5
13. Reactor Reserve Shutdown Hours	6.6	1,767.4	3,021.5
14. Hours Generator On-Line	703.1	5,535.4	31,917.6
15. Unit Reserve Shutdown Hours	0	0	0
16. Gross Thermal Energy Generated (MWH)	1,869,061	14,791,871	82,992,225
17. Gross Electrical Energy Generated (MWH)	625,200	4,904,300	26,688,832
18. Net Electrical Energy Generated (MWH)	593,649	4,649,167	25,169,900
19. Unit Service Factor	98.0	69.1	66.9
20. Unit Availability Factor	98.0	69.1	66.9
21. Unit Capacity Factor (Using MDC Net)	94.0	66.1	60.2
22. Unit Capacity Factor (Using DER Net)	90.9	63.9	58.2
23. Unit Forced Outage Rate	2.3	26.0	11.1
24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each):			

Scheduled Refueling Outage 05-25-84

25. If Shut Down At End Of Report Period, Estimated Date 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. 50-338

UNIT NA-1

DATE 12-04-83

COMPLETED BY Joan N. Lee

TELEPHONE 703-894-5151X2527

MONTH November

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	<u>333</u>	17	<u>891</u>
2	<u>818</u>	18	<u>293</u>
3	<u>866</u>	19	<u>442</u>
4	<u>866</u>	20	<u>879</u>
5	<u>859</u>	21	<u>890</u>
6	<u>866</u>	22	<u>891</u>
7	<u>848</u>	23	<u>891</u>
8	<u>859</u>	24	<u>892</u>
9	<u>851</u>	25	<u>892</u>
10	<u>838</u>	26	<u>887</u>
11	<u>882</u>	27	<u>882</u>
12	<u>888</u>	28	<u>891</u>
13	<u>884</u>	29	<u>891</u>
14	<u>891</u>	30	<u>891</u>
15	<u>887</u>	31	<u></u>
16	<u>892</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.

## UNIT SHUTDOWN AND POWER REDUCTIONS

EXPLANATION SHEET      DOCKET NO. 50-338REPORT MONTH November      UNIT NAME NA-1YEAR 1983      DATE 12-04-83COMPLETED BY Joan Lee

83-10      F      (1)      At 0645 on November 18, 1983, a rampdown of Unit 1 was commenced. The rampdown was due to a malfunction of the cooling fans on "C" Main Transformer. At 0815 on November 18, 1983 a manual reactor trip was initiated. The repairs were made and reactor start-up commenced at 1334 and by 1451 on November 18, 1983, the reactor was critical. On November 19, 1983 at 0112, Unit 1 was on line, and at 0425, November 20, 1983, Unit 1 was at 100% power. Ended this month with power at 100%.

## UNIT SHUTDOWNS AND POWER REDUCTIONS

DOCKET NO. 50-338

UNIT NAME North Anna 1

DATE 12-04-83

COMPLETED BY Joan Lee

TELEPHONE (703) 894-5151 X2527

REPORT MONTH November

No.	Date	Type <sup>1</sup>	Duration (Hours)	Reason <sup>2</sup>	Method of Shutting Down Reactor <sup>3</sup>	Licensee Event Report #	System Code <sup>4</sup>	Component Code <sup>5</sup>	Cause & Corrective Action to Prevent Recurrence
83-10	831118	F	16.9	A	1	NA	NA	NA	Unit 1 was ramped down manually and tripped due to loss of cooling fans on "C" Main Transformer. Repairs were made and Unit was returned to 100% power.

1	2	3
F: Forced	Reason:	Method:
S: Scheduled	A-Equipment Failure (Explain)	1-Manual
	B-Maintenance or Test	2-Manual Scram.
	C-Refueling	3-Automatic Scram
	D-Regulatory Restriction	4-Continuations
	E-Operator Training & License Examination	5-Load Reduction
	F-Administrative	9-Other
	G-Operational Error (Explain)	
	H-Other (Explain)	

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

5  
Exhibit H - Same Source



VIRGINIA ELECTRIC AND POWER COMPANY  
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 1, 1983	0000	Started this month with Unit at 30% power with chemistry hold.
	0620	Commenced ramping up to 100% power at 3% per hour.
November 2, 1983	0944	Stabilizing power at 100%.
November 4, 1983	2301	Started rampdown to 850 MW for Turbine Valve Freedom Test.
November 5, 1983	0115	Commencing Turbine Valve Freedom Test. Unit at 97% power - 850 MW.
	0157	Turbine Valve Freedom Test complete.
	0205	Commenced rampup to 100% at 3% per hour.
	0700	Unit at 100% power.
November 7, 1983	0900	Commenced ramping down at 3% per hour due to feed train problems.
	1040	Holding at 95% power.
	1330	Increasing power at 3% per hour until limited by FW pump suction pressure.
	1415	Holding power at 98% suction pressure 315 psig.
	2153	Commenced ramping up at 3% hour.
November 8, 1983	1030	Unit at 100% power.
November 9, 1983	0847	Commenced ramping down at 3% per hr to 95% to raise feed pump suction pressure.

November 9, 1983	0950	Stabilizing power at 96%, 880 MW. Feed pump suction is 320 - 325 psig.
November 10, 1983	2247	Commenced rampup at 3% per hour.
	0640	Unit at 100% power.
November 12, 1983	2132	Commenced rampdown to perform Turbine Valve Freedom Test at 3% per hour.
November 13, 1983	0120	Completed Turbine Valve Freedom Test. Commenced power increase to 100%.
	0400	Unit at 100%.
November 18, 1983	0645	Commenced rampdown due to loss of "C" main transformer cooling fans.
	0815	Manually tripped reactor due to malfunction of "C" main transformer cooling fans.
	0951	Reclosed reactor trip breakers.
	1334	Commenced reactor start-up.
	1451	Reactor critical.
November 19, 1983	0112	Unit 1 on line.
	0245	Holding at 250 MW approximately 30% power for chemistry.
	0528	Commenced rampup to 100% at 3% per hour.
November 20, 1983	0425	Unit at 100% power.
November 26, 1983	2102	Commenced rampdown at 3% per hour for Turbine Valve Freedom Test.
	2345	Stabilizing at approximately 855 MW.
November 27, 1983	0045	Turbine Valve Freedom Test complete.
	0055	Commenced rampup to 100% at 3% per hour.
	0459	Unit at 100% power.
November 30, 1983	2400	Ended this month with Unit at 100% power.



# OPERATING DATA REPORT

DOCKET NO. 50-339  
DATE 12-04-83  
COMPLETED BY Joan Lee  
TELEPHONE (703) 894-5151 X2527

## OPERATING STATUS

Notes

1. Unit Name: North Anna 2
2. Reporting Period: November 1983
3. Licensed Thermal Power (MWt): 2775
4. Nameplate Rating (Gross MWe): 947
5. Design Electrical Rating (Net MWe): 907
6. Maximum Dependable Capacity (Gross MWe): 939
7. Maximum Dependable Capacity (Net MWe): 890
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	Yr.-to-Date	Cumulative
11. Hours In Reporting Period	720	8,016	25,968
12. Number of Hours Reactor Was Critical	720	6,481.2	18,924.3
13. Reactor Reserve Shutdown Hours	0	1,753.4	3,752
14. Hours Generator On-Line	720	6,338.4	18,791.1
15. Unit Reserve Shutdown Hours	0	0	0
16. Gross Thermal Energy Generated (MWH)	1,992,940	16,782,838	48,508,858
17. Gross Electrical Energy Generated (MWH)	658,720	5,505,019	16,094,332
18. Net Electrical Energy Generated (MWH)	626,592	5,214,455	15,264,073
19. Unit Service Factor	100	79.1	72.4
20. Unit Availability Factor	100	79.1	72.4
21. Unit Capacity Factor (Using MDC Net)	97.8	73.9	66.5
22. Unit Capacity Factor (Using DER Net)	96.0	71.7	64.8
23. Unit Forced Outage Rate	0	5.3	16.4
24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each):			

Scheduled Maintenance Outage 03-17-84

25. If Shut Down At End Of Report Period, Estimated Date 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 12-04-83

COMPLETED BY J. N. Lee

TELEPHONE 703-894-5151X2527

MONTH November

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	<u>872</u>	17	<u>872</u>
2	<u>872</u>	18	<u>870</u>
3	<u>874</u>	19	<u>871</u>
4	<u>872</u>	20	<u>869</u>
5	<u>872</u>	21	<u>870</u>
6	<u>868</u>	22	<u>870</u>
7	<u>873</u>	23	<u>872</u>
8	<u>873</u>	24	<u>875</u>
9	<u>872</u>	25	<u>838</u>
10	<u>873</u>	26	<u>874</u>
11	<u>873</u>	27	<u>864</u>
12	<u>871</u>	28	<u>873</u>
13	<u>868</u>	29	<u>874</u>
14	<u>870</u>	30	<u>875</u>
15	<u>867</u>	31	<u></u>
16	<u>872</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.

Page 1 of 1

UNIT SHUTDOWN AND POWER REDUCTIONS

EXPLANATION SHEET      DOCKET NO. 50-339

REPORT MONTH November      UNIT NAME NA-2

YEAR 1983      DATE 12-04-83

COMPLETED BY Joan Lee

No entries this month

## UNIT SHUTDOWNS AND POWER REDUCTIONS

DOCKET NO. 50-339

UNIT NAME North Anna 2

DATE 12-04-83

COMPLETED BY Joan N. Lee

TELEPHONE (703) 894-5151 X2527

REPORT MONTH November

No.	Date	Type <sup>1</sup>	Duration (Hours)	Reason <sup>2</sup>	Method of Shutting Down Reactor <sup>3</sup>	Licensee Event Report #	System Code <sup>4</sup>	Component Code <sup>5</sup>	Cause & Corrective Action to Prevent Recurrence
83-25	831124		0	H	S	NA	NA	NA	Rampdown for load following. Unit returned to full power.

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-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

VIRGINIA ELECTRIC AND POWER COMPANY  
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 1, 1983	0000	Started this month with Unit at 100% power.
November 6, 1983	0005	Commenced rampdown to 860 MW for Turbine Valve Freedom Test.
	0152	Completed Turbine Valve Freedom Test, increasing power to 100%.
	0230	Unit at 100% power.
November 12, 1983	2335	Commenced rampdown for Turbine Valve Freedom Test.
	2352	Holding at 872 MW.
November 13, 1983	0055	Completed Turbine Valve Freedom Test.
	0100	Commenced rampup to 100%.
	0117	Unit at 100% power.
November 20, 1983	0019	Commenced unit rampdown for Turbine Valve Freedom Test.
	0038	Holding power at approximately 865 MW for Turbine Valve Freedom Test.
	0015	Turbine Valve Freedom Test complete sat. Commenced rampup to 100% power.
	0150	Unit at 100% power.
November 24, 1983	2353	Commenced rampdown for load follow.

November 25, 1983	0057	Holding power at 81% approximately 780 MW per System Operator.
	0648	Completed load following commenced power increase to 100%.
	0655	Unit at 100% power.
November 27, 1983	0004	Commenced rampdown for Turbine Valve Freedom Test.
	0028	Holding at approximately 860 MW.
	0048	Commenced Turbine Valve Freedom Test.
	0343	Turbine Valve Freedom Test complete, commenced rampup per System Operator.
	0419	Unit at 100% power.
November 30, 1983	2400	Ended this month with Unit at 100% power.



VIRGINIA ELECTRIC AND POWER COMPANY  
RICHMOND, VIRGINIA 23261

W. L. STEWART  
VICE PRESIDENT  
NUCLEAR OPERATIONS

December 14, 1983

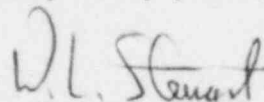
Mr. N. M. Haller, Director  
Office of Management and Program Analysis  
U. S. Nuclear Regulatory Commission 20555  
Washington, D. C. 20555

Serial N . 709  
NO/JHL:acm  
Docket Nos. 50-338  
50-339  
License Nos. NPF-4  
NPF-7

Dear Mr. Haller:

Enclosed is the Monthly Operating Report of North Anna Power Station Unit Nos. 1 and 2 for the month of November, 1983.

Very truly yours,

  
W. L. Stewart

Enclosure (3 copies)

cc: Mr. R. C. DeYoung, Director (12 copies)  
Office of Inspection and Enforcement

Mr. James P. O'Reilly (1 copy)  
Regional Administrator  
Region II

Mr. M. W. Branch  
NRC Resident Inspector  
North Anna Power Station

IE24  
1/1