

VIRGINIA ELECTRIC AND POWER COMPANY  
· RICHMOND, VIRGINIA 23261

January 12, 2000

United States Nuclear Regulatory Commission  
Attention: Document Control Desk  
Washington, D. C. 20555

Serial No. 00-004  
NAPS/JHL  
Docket Nos. 50-338  
50-339  
License Nos. NPF-4  
NPF-7

Gentlemen:

**VIRGINIA ELECTRIC AND POWER COMPANY**  
**NORTH ANNA POWER STATION UNIT NOS. 1 AND 2**  
**MONTHLY OPERATING REPORT**

Enclosed is the December 1999 Monthly Operating Report for North Anna Power Station Units 1 and 2.

Very truly yours,



W. R. Matthews  
Site Vice President

Enclosure

Commitments made in this letter: None.

cc: U. S. Nuclear Regulatory Commission  
Region II  
Atlanta Federal Center  
61 Forsyth St., SW, Suite 23T85  
Atlanta, Georgia 30303

Mr. M. J. Morgan  
NRC Senior Resident Inspector  
North Anna Power Station

IE24

**VIRGINIA ELECTRIC AND POWER COMPANY  
NORTH ANNA POWER STATION  
MONTHLY OPERATING REPORT  
DECEMBER 1999**

Approved: *a W. R. W. Atcham* *1/12/00*  
Site Vice President Date

## OPERATING DATA REPORT

Docket No.: 50-338  
 Date: 01/05/00  
 Contact: W. R. Matthews  
 Telephone: (540) 894-2101

1. Unit Name:..... North Anna Unit 1
2. Reporting Period:..... December, 1999
3. Licensed Thermal Power (MWt):..... 2,893
4. Nameplate Rating (Gross MWe): ..... 979.74
5. Design Electrical Rating (Net MWe):..... 907
6. Maximum Dependable Capacity (Gross MWe): ... 940
7. Maximum Dependable Capacity (Net MWe): ..... 893
  
8. If Changes Occur in Capacity Ratings (Items Number 3 Through 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

	<u>This Month</u>	<u>Year-To-Date</u>	<u>Cumulative</u>
11. Hours in Reporting Period	744.0	8,760.0	188,700.0
12. Hours Reactor Was Critical	744.0	8,760.0	150,185.2
13. Reactor Reserve Shutdown Hours	0.0	0.0	7,134.2
14. Hours Generator On-Line	744.0	8,760.0	147,019.8
15. Unit Reserve Shutdown Hours	0.0	0.0	0.0
16. Gross Thermal Energy Generated (MWH)	2,150,329.4	25,261,909.2	398,956,938.1
17. Gross Electrical Energy Generated (MWH)	730,174.0	8,528,273.0	168,286,143.0
18. Net Electrical Energy Generated (MWH)	696,586.0	8,124,462.0	124,485,700.0
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)	104.8%	103.8%	73.8%
22. Unit Capacity Factor (Using DER Net)	103.2%	102.3%	72.7%
23. Unit Forced Outage Rate	0.0%	0.0%	7.4%

24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each):  
30 day refueling outage scheduled in March 2000

25. If Shut Down at End of Report Period, Estimated Date of Start-up: \_\_\_\_\_

26. Unit In Test Status (Prior to Commercial Operation):

	<u>FORECAST</u>	<u>ACHIEVED</u>
INITIAL CRITICALITY		
INITIAL ELECTRICITY		
COMMERCIAL OPERATION		

## AVERAGE DAILY UNIT POWER LEVEL

Docket No.: 50-338  
Unit Name: North Anna Unit 1  
Date: 01/05/00  
Contact: W. R. Matthews  
Telephone: (540) 894-2101

MONTH: December, 1999

<u>Day</u>	<u>Average Daily Power Level (MWe - Net)</u>	<u>Day</u>	<u>Average Daily Power Level (MWe - Net)</u>
1	937	17	937
2	937	18	937
3	938	19	937
4	937	20	937
5	936	21	937
6	938	22	936
7	934	23	936
8	940	24	937
9	937	25	937
10	935	26	937
11	924	27	936
12	936	28	936
13	936	29	937
14	937	30	936
15	936	31	936
16	937		

### 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.

Docket No.: 50-338  
Unit Name: North Anna Unit 1  
Date: 01/05/00  
Contact: W. R. Matthews  
Telephone: (540) 894-2101

**NORTH ANNA POWER STATION**

**UNIT NO.: 1**  
**MONTH: December, 1999**

**SUMMARY OF OPERATING EXPERIENCE**

Page 1 of 1

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>
December 1, 1999	0000	Began the month in Mode 1, 100% power, 983 MWe.
December 11, 1999	0023	Ramped Unit 1 down to 89.5% power, 875 MWe for Turbine Valve Freedom Testing.
	0506	Ramped Unit 1 to 100% power, 981 MWe following completion of Turbine Valve Freedom Testing.
December 31, 1999	2400	Ended the month in Mode 1, 100% power, 980 MWe.

Docket No.: 50-338  
 Unit Name: North Anna Unit 1  
 Date: 01/05/00  
 Contact: W. R. Matthews  
 Telephone: (540) 894-2101

**UNIT SHUTDOWN AND POWER REDUCTION**  
 (EQUAL TO OR GREATER THAN 20%)

REPORT MONTH: December, 1999

Date	(1) Type	Duration Hours	(2) Reason	(3) Method of Shutting Down Reactor	LER No.	(4) System Code	(5) Component Code	Cause & Corrective Action to Prevent Recurrence

None during the reporting period.

(1)  
 F: Forced  
 S: Scheduled

(2)  
 REASON:  
 A - Equipment Failure (Explain)  
 B - Maintenance or Test  
 C - Refueling  
 D - Regulatory Restriction  
 E - Operator Training & Licensing Examination  
 F - Administrative  
 G - Operational Error (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 1 - Same Source

## OPERATING DATA REPORT

Docket No.: 50-339  
 Date: 01/05/00  
 Contact: W. R. Matthews  
 Telephone: (540) 894-2101

1. Unit Name:..... North Anna Unit 2
  2. Reporting Period:..... December, 1999
  3. Licensed Thermal Power (MWt): ..... 2,893
  4. Nameplate Rating (Gross MWe): ..... 979
  5. Design Electrical Rating (Net MWe): ..... 907
  6. Maximum Dependable Capacity (Gross MWe): ... 944
  7. Maximum Dependable Capacity (Net MWe): ..... 897
8. If Changes Occur in Capacity Ratings (Items Number 3 Through 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	Year-To-Date	Cumulative
11. Hours in Reporting Period	744.0	8,760.0	166,968.0
12. Hours Reactor Was Critical	725.0	8,080.0	141,868.2
13. Reactor Reserve Shutdown Hours	18.6	66.1	7,307.6
14. Hours Generator On-Line	716.4	8,035.1	140,608.4
15. Unit Reserve Shutdown Hours	0.0	0.0	0.0
16. Gross Thermal Energy Generated (MWH)	2,031,516.7	22,794,557.9	386,521,253.6
17. Gross Electrical Energy Generated (MWH)	683,727.0	7,553,262.0	126,510,178.0
18. Net Electrical Energy Generated (MWH)	651,777.0	7,185,145.0	120,799,218.0
19. Unit Service Factor	96.3%	91.7%	84.2%
20. Unit Availability Factor	96.3%	91.7%	84.2%
21. Unit Capacity Factor (Using MDC Net)	97.7%	91.4%	80.5%
22. Unit Capacity Factor (Using DER Net)	96.6%	90.4%	79.8%
23. Unit Forced Outage Rate	2.5%	0.4%	4.5%

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

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25. If Shut Down at End of Report Period, Estimated Date of Start-up: \_\_\_\_\_

26. Unit 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 Name: North Anna Unit 2  
Date: 01/05/00  
Contact: W. R. Matthews  
Telephone: (540) 894-2101

MONTH: December, 1999

<u>Day</u>	<u>Average Daily Power Level (MWe - Net)</u>	<u>Day</u>	<u>Average Daily Power Level (MWe - Net)</u>
1	929	17	929
2	649	18	929
3	025	19	929
4	724	20	929
5	846	21	929
6	842	22	928
7	860	23	928
8	931	24	928
9	928	25	929
10	928	26	928
11	928	27	928
12	929	28	928
13	936	29	927
14	929	30	928
15	929	31	927
16	929		

### 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.

Docket No.: 50-339  
Unit Name: North Anna Unit 2  
Date: 01/05/00  
Contact: W. R. Matthews  
Telephone: (540) 894-2101

**NORTH ANNA POWER STATION**

**UNIT NO.: 2**  
**MONTH: December, 1999**

**SUMMARY OF OPERATING EXPERIENCE**

Page 1 of 1

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

<b><u>Date</u></b>	<b><u>Time</u></b>	<b><u>Data</u></b>
December 1, 1999	0000	Began the month in Mode 1, 100% power, 970 MWe.
December 2, 1999	1647	Manually tripped the reactor due to the tripping of 2 of 3 feedwater pumps on low suction pressure.
December 3, 1999	1022	Commenced reactor startup.
	2026	Placed Unit 2 on-line.
	2128	Holding power at 30%, 243 MWe for chemistry hold.
December 4, 1999	0137	Recommenced ramp up.
December 7, 1999	2340	Unit 2 is at 100% power, 972 MWe.
December 31, 1999	2400	Ended the month in Mode 1, 100% power, 973 MWe.

Docket No.: 50-339  
 Unit Name: North Anna Unit 2  
 Date: 01/05/00  
 Contact: W. R. Matthews  
 Telephone: (540) 894-2101

**UNIT SHUTDOWN AND POWER REDUCTION**  
 (EQUAL TO OR GREATER THAN 20%)

REPORT MONTH: December, 1999

Date	(1) Type	Duration Hours	(2) Reason	(3) Method of Shutting Down Rx	LER No.	(4) System Code	(5) Component Code	Cause & Corrective Action to Prevent Recurrence
12-2-99	F	19.0	A	2	99-004	NA	NA	Manual reactor trip due to the tripping of 2 of 3 feedwater pumps on low suction pressure.

(1)  
 F: Forced  
 S: Scheduled

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

(3)  
 METHOD:  
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