

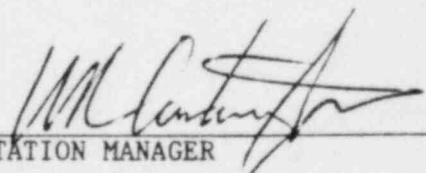
VIRGINIA ELECTRIC AND POWER COMPANY

NORTH ANNA POWER STATION

MONTHLY OPERATING REPORT

MONTH OCTOBER YEAR 1981

APPROVED:

  
STATION MANAGER

8111190711 811113  
PDR ADOCK 05000338  
R PDR

# OPERATING DATA REPORT

DOCKET NO. 50-338  
 DATE 11-05-81  
 COMPLETED BY L.L. Rogers  
 TELEPHONE (703) 894-5151 X2510

## OPERATING STATUS

Notes

1. Unit Name: North Anna 1
2. Reporting Period: October 1981
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): 918
7. Maximum Dependable Capacity (Net MWe): 865
8. If Changes Occur in Capacity Ratings (Items No. 3 thru 7) Since Last Report, Give Reasons:

Corrects Reevaluation of auxiliary load consumption dated May 1981

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	29,857
12. Number of Hours Reactor Was Critical	147.4	4,391.2	22,364.3
13. Reactor Reserve Shutdown Hours	0	13.8	226.9
14. Hours Generator On-Line	147	4,271.8	21,919.9
15. Unit Reserve Shutdown Hours	0	0	0
16. Gross Thermal Energy Generated (MWH)	396,326	11,293,550	56,462,253
17. Gross Electrical Energy Generated (MWH)	128,305	3,669,025	18,003,937
18. Net Electrical Energy Generated (MWH)	121,407	3,462,638	16,947,641
19. Unit Service Factor	19.7	58.5	73.4
20. Unit Availability Factor	19.7	58.5	73.4
21. Unit Capacity Factor (Using MDC Net)	18.8	54.9	65.6
22. Unit Capacity Factor (Using DER Net)	18.0	52.3	62.6
23. Unit Forced Outage Rate	0	1.2	5.1
24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each):			

None

25. If Shut Down At End Of Report Period, Estimated Date of Startup: November 1, 1981
26. Units In Test Status (Prior to Commercial Operation):

Forecast

Achieved

INITIAL CRITICALITY  
 INITIAL ELECTRICITY  
 COMMERCIAL OPERATION

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 \_\_\_\_\_  
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# AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-338

UNIT NA-1

DATE 11-05-81

COMPLETED BY L.L. Rogers

TELEPHONE 703-894-5151X2510

MONTH October

DAY AVERAGE DAILY POWER LEVEL  
(MWe-Net)

1	<u>852</u>
2	<u>852</u>
3	<u>836</u>
4	<u>838</u>
5	<u>838</u>
6	<u>817</u>
7	<u>25</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>0</u>
23	<u>0</u>
24	<u>0</u>
25	<u>0</u>
26	<u>0</u>
27	<u>0</u>
28	<u>0</u>
29	<u>0</u>
30	<u>0</u>
31	<u>0</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 SHUTDOWNS AND POWER REDUCTIONS

DOCKET NO.	50-338
UNIT NAME	North Anna 1
DATE	11-05-81
COMPLETED BY	L. L. ROGERS
TELEPHONE	(703) 894-5151 X2510

REPORT MONTH OCTOBER

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
81-16	811007	S	598	B	1	N/A	N/A	N/A	Ramped unit off line for fall maintenance outage.

<sup>1</sup>

F: Forced  
S: Scheduled

<sup>2</sup>

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)

<sup>3</sup>

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

<sup>4</sup>

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

<sup>5</sup>

Exhibit H - Same Source

UNIT SHUTDOWN AND POWER REDUCTIONS

EXPLANATION SHEET DOCKET NO. 50-338

REPORT MONTH OCTOBER UNIT NAME NA-1

YEAR 1981 DATE 11-05-81

COMPLETED BY L. L. ROGERS

- 81-16 (B) 1) Unit 1 was ramped off the line to begin the fall maintenance outage at 0259, October 7, 1981. Major items scheduled include: "A" feedwater heater repair, No.4 governor valve replacement, overhaul of "3A" feedwater pump motor, replacement of "C" reactor coolant pump seal, repair and inspection of steam drain pump "1B", generator voltage regulator adjustment, inspection and repair of pressurizer level transmitter, and ultrasonic test of loop flow splitters. Work was also done on various design changes.

# OPERATING DATA REPORT

DOCKET NO. 50-339  
DATE 11-05-81  
COMPLETED BY L.L. Rogers  
TELEPHONE (703) 894-5151 X2510

## OPERATING STATUS

Notes

1. Unit Name: North Anna 2
2. Reporting Period: October 1981
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:

Corrects re-evaluation of auxiliary load consumption dated May 1981.

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	7,728
12. Number of Hours Reactor Was Critical	733.2	5,524.3	5,953.2
13. Reactor Reserve Shutdown Hours	17.1	1,358.5	1,638.5
14. Hours Generator On-Line	727.9	5,376.9	5,789.6
15. Unit Reserve Shutdown Hours	0	0	0
16. Gross Thermal Energy Generated (MWH)	1,898,994	13,802,996	14,889,993
17. Gross Electrical Energy Generated (MWH)	643,948	4,653,876	5,022,307
18. Net Electrical Energy Generated (MWH)	611,338	4,402,998	4,752,642
19. Unit Service Factor	97.6	73.7	74.9
20. Unit Availability Factor	97.6	73.7	74.9
21. Unit Capacity Factor (Using MDC Net)	92.2	67.8	69.1
22. Unit Capacity Factor (Using DER Net)	90.5	66.5	67.8
23. Unit Forced Outage Rate	2.3	23.1	22.0
24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each):			

Refueling Outage - 03-05-82 thru 05-14-82

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

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

# AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-339

UNIT NA-2

DATE 11-05-81

COMPLETED BY L.L. Rogers

TELEPHONE 703-894-5151X2510

MONTH October

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	<u>860</u>	17	<u>862</u>
2	<u>883</u>	18	<u>863</u>
3	<u>440</u>	19	<u>863</u>
4	<u>52</u>	20	<u>864</u>
5	<u>836</u>	21	<u>863</u>
6	<u>847</u>	22	<u>863</u>
7	<u>854</u>	23	<u>865</u>
8	<u>804</u>	24	<u>854</u>
9	<u>861</u>	25	<u>864</u>
10	<u>871</u>	26	<u>866</u>
11	<u>862</u>	27	<u>862</u>
12	<u>864</u>	28	<u>870</u>
13	<u>864</u>	29	<u>862</u>
14	<u>867</u>	30	<u>862</u>
15	<u>867</u>	31	<u>857</u>
16	<u>862</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 SHUTDOWNS AND POWER REDUCTIONS

DOCKET NO.	50-339
UNIT NAME	North Anna 2
DATE	11-05-81
COMPLETED BY	L. L. ROGERS
TELEPHONE	(703) 894-5151 X2510

REPORT MONTH OCTOBER

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
81-37	811001	F	N/A	F	5	N/A	N/A	N/A	Reduced load to 90% due to "B" Transformer hi alarm and No. 4 governor valve cycling.
81-38	811003	F	12.1	A	3	N/A	N/A	N/A	Reactor trip due to EHC line rupture on No. 4 governor. Closed No. 4 governor valve and installed new supports
81-39	811004	F	5.0	A	3	N/A	N/A	N/A	Reactor Trip due to generator leads differential.
81-40	811005	F	N/A	F	5	N/A	N/A	N/A	Reduced load to 91% due to "B" Transformer hi temperature alarm.
81-41	811006	F	N/A	F	5	N/A	N/A	N/A	Reduced load to 90% due to "B" Transformer hi temperature alarm.

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



## UNIT SHUTDOWNS AND POWER REDUCTIONS

DOCKET NO.	50-339
UNIT NAME	North Anna 2
DATE	11-05-81
COMPLETED BY	L. L. ROGERS
TELEPHONE	(703) 894-5151 X2510

REPORT MONTH OCTOBER

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
81-42	811008	F	N/A	A	5	LER-81-78	SF	ACCUMU	Ramped unit down to 38% power due to "C" accumulator out of specification
81-43	811016	S	N/A	B	5	N/A	N/A	N/A	Reduced load to perform Turbine Valve Freedom Test
81-44	811024	S	N/A	B	5	N/A	N/A	N/A	Reduced load to perform Turbine Valve Freedom Test

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-0151)

5

Exhibit H - Same Source

UNIT SHUTDOWN AND POWER REDUCTIONS

EXPLANATION SHEET      DOCKET NO. 50-339

REPORT MONTH OCTOBER      UNIT NAME NA-2

YEAR 1981      DATE 11-05-81

COMPLETED BY L. L. ROGERS

- 81-38    (A)    (3)    Reactor trip due to EHC line rupture on No. 4 governor. No. 4 governor valve was closed and new supports were installed.
- 81-39    (A)    (3)    Reactor trip due to generator leads differential caused by under excitation and/or protection device inaccuracies. Investigation is continuing.