

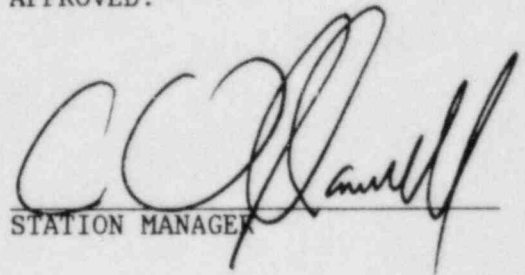
VIRGINIA ELECTRIC AND POWER COMPANY

NORTH ANNA POWER STATION

MONTHLY OPERATING REPORT

MONTH May YEAR 1984

APPROVED:


STATION MANAGER

8407020133 840531
PDR ADOCK 05000338
R FDR

IE24
1/1

OPERATING DATA REPORT

DOCKET NO. 50-338
 DATE 06-03-84
 COMPLETED BY Joan N. Lee
 TELEPHONE (703) 894-5151 X2527

OPERATING STATUS

1. Unit Name: North Anna 1
2. Reporting Period: May, 1984
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): 937
7. Maximum Dependable Capacity (Net MWe): 890
8. If Changes Occur in Capacity Ratings (Items No. 3 thru 7) Since Last Report, Give Reasons

MDC changes in gross and net to reflect Station Service loads

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	744	3,674	52,088
12. Number of Hours Reactor Was Critical	270.7	2,442.3	36,028.8
13. Reactor Reserve Shutdown Hours	0	7.1	3,028.6
14. Hours Generator On-Line	269.2	2,420	35,081.6
15. Unit Reserve Shutdown Hours	0	0	0
16. Gross Thermal Energy Generated (MWH)	713414	6,596,736	91,648,509
17. Gross Electrical Energy Generated (MWH)	243,546	2,238,267	29,622,454
18. Net Electrical Energy Generated (MWH)	231,268	2,126,605	27,957,779
19. Unit Service Factor	36.1	66.3	67.3
20. Unit Availability Factor	36.1	66.3	67.3
21. Unit Capacity Factor (Using MDC Net)	35.0	65.6	60.3
22. Unit Capacity Factor (Using DER Net)	34.2	64.2	59.1
23. Unit Forced Outage Rate	0	23.7	12.0
24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each):			

Unit 1 Scheduled Fall Maintenance 11-23-84

25. If Shut Down At End Of Report Period, Estimated Date of Startup: July 18, 1984
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 06-03-84

COMPLETED BY Joan N. Lee

TELEPHONE 703-894-5151X2527

MONTH May, 1984

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	<u>667</u>	17	<u>0</u>
2	<u>831</u>	18	<u>0</u>
3	<u>901</u>	19	<u>0</u>
4	<u>901</u>	20	<u>0</u>
5	<u>887</u>	21	<u>0</u>
6	<u>891</u>	22	<u>0</u>
7	<u>898</u>	23	<u>0</u>
8	<u>897</u>	24	<u>0</u>
9	<u>899</u>	25	<u>0</u>
10	<u>898</u>	26	<u>0</u>
11	<u>881</u>	27	<u>0</u>
12	<u>83</u>	28	<u>0</u>
13	<u>0</u>	29	<u>0</u>
14	<u>0</u>	30	<u>0</u>
15	<u>0</u>	31	<u>0</u>
16	<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 SHUTDOWN AND POWER REDUCTIONS

EXPLANATION SHEET DOCKET NO. 50-338

REPORT MONTH May UNIT NAME NA-1

YEAR 1984 DATE 06-03-84

COMPLETED BY Joan Lee

84-14 S (1) On May 11, 1984 at 2113 Unit 1 commenced ramping down for Scheduled Refueling Outage. On May 12, 1984 at 0611 Unit 1 was offline. Expected date for unit to return on line is July 18, 1984. Ended this month with unit in Mode 5.

UNIT SHUTDOWNS AND POWER REDUCTIONS

DOCKET NO. 50-338
UNIT NAME North Anna 1
DATE 06-03-84
COMPLETED BY Joan Lee
TELEPHONE (703) 894-5151 X2527

REPORT MONTH May, 1984

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
84-13	840501	S	NA	B	NA	NA	NA	NA	Unit 1 ramped down because 'A' Shutdown Bank rods misaligned - Repaired. Unit returned to 100% power.
84-14	840511	S	474.8	C	1	NA	NA	NA	Unit 1 ramped down for Scheduled Spring Refueling. Ended this month with Unit in Mode 5. Expected date to return on-line is July 18, 1984.

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. 1

MONTH May

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>
May 1, 1984	0000	Began this month with Unit at 100% power.
	0955	Commenced rampdown at 300 MW per hour. Shut-down Bank 'A' rods misaligned.
	1120	Stabilized at 46% power. Realigned rods.
	1701	Commenced power increase to 100% at 3% per hour.
May 2, 1984	0045	Stabilizing power at 73% 700 MW for leak rate.
	0224	Re-commenced rampup to 100% at 3% per hour.
	0800	Stabilized power at 90% 850 MW for calorimetric.
	0830	Calorimetric complete. Re-commenced power increase.
	1145	Unit at 100% power.
May 11, 1984	2113	Commenced rampdown of Unit to begin Scheduled Refueling Outage.
May 12, 1984	0611	Generator off line.
	0704	Unit 1 Reactor shutdown.
May 31, 1984	2400	Ended this month with Unit 1 in Mode 5 for Scheduled Refueling Outage. Expected date for Unit 1 to return on line is July 19, 1984.

OPERATING DATA REPORT

DOCKET NO. 50-339
DATE 06-03-84
COMPLETED BY Joan N. Lee
TELEPHONE (703) 894-5151 X2527

OPERATING STATUS

Notes:

1. Unit Name: North Anna 2
2. Reporting Period: May, 1984
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	744	3,647	30,359
12. Number of Hours Reactor Was Critical	702.6	3,522.6	23,151.5
13. Reactor Reserve Shutdown Hours	5.3	20.4	3,794.6
14. Hours Generator On-Line	673.3	3,230.3	22,737.4
15. Unit Reserve Shutdown Hours	0	0	0
16. Gross Thermal Energy Generated (MWH)	1,829,098	8,396,386	58,812,427
17. Gross Electrical Energy Generated (MWH)	609,091	2,762,005	19,453,753
18. Net Electrical Energy Generated (MWH)	577,798	2,618,653	18,470,735
19. Unit Service Factor	90.4	88.6	75.0
20. Unit Availability Factor	90.4	88.6	75.0
21. Unit Capacity Factor (Using MDC Net)	87.2	80.7	68.3
22. Unit Capacity Factor (Using DER Net)	85.6	79.2	67.0
23. Unit Forced Outage Rate	0	3.6	14.0
24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each):			

Unit 2 Refueling Outage Scheduled 08-17-84

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 06-03-84
COMPLETED BY Joan N. Lee
TELEPHONE 703-894-5151X2527

MONTH May

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	<u>854</u>
2	<u>828</u>
3	<u>862</u>
4	<u>837</u>
5	<u>10</u>
6	<u>0</u>
7	<u>0</u>
8	<u>711</u>
9	<u>799</u>
10	<u>764</u>
11	<u>871</u>
12	<u>875</u>
13	<u>866</u>
14	<u>874</u>
15	<u>877</u>
16	<u>881</u>

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
17	<u>880</u>
18	<u>874</u>
19	<u>879</u>
20	<u>867</u>
21	<u>875</u>
22	<u>878</u>
23	<u>878</u>
24	<u>879</u>
25	<u>879</u>
26	<u>879</u>
27	<u>879</u>
28	<u>880</u>
29	<u>878</u>
30	<u>880</u>
31	<u>880</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. 50-339

REPORT MONTH May UNIT NAME NA-2

YEAR 1984 DATE 06-03-84

COMPLETED BY Joan Lee

84-26 S (1) On May 5, 1984 at 0121 - Unit 2 was taken off line for testing and performing maintenance on the Reactor trip breakers. The maintenance was preventative and involved detailed inspections and lubrication. Testing and maintenance was completed and Unit 2 was back on line at 0055 on May 8, 1984. Ended this month with Unit 2 at 100% power.

UNIT SHUTDOWNS AND POWER REDUCTIONS

DOCKET NO. 50-339

UNIT NAME North Anna 2

DATE 06-03-84

COMPLETED BY Joan Lee

TELEPHONE (703) 894-5151 X2527

REPORT MONTH May

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
84-24	840501	S		H	5	NA	NA	NA	Unit 2 ramped down for load following per System operator. Unit returned to 100% power.
84-25	840502	S		H	5	NA	NA	NA	Unit 2 ramped down for load following per System operator. Unit returned to full power.
84-26	840505	S	70.7	B	1	84-003	NA	NA	Unit 2 ramped down for testing of the Reactor trip Breakers. Testing completed and Unit returned to full power.
84-27	840509	S		H	5	NA	NA	NA	Unit 2 ramped down for load following. Unit returned to 100% power.
84-28	840510	S		H	5	NA	NA	NA	Unit 2 ramped down 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

UNIT SHUTDOWNS AND POWER REDUCTIONS

DOCKET NO. 50-339

UNIT NAME North Anna 2

DATE 06-03-84

COMPLETED BY Joan Lee

TELEPHONE (703) 894-5151 X2527

REPORT MONTH May

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
84-29	840511	S		H	5	NA	NA	NA	Unit 2 ramped down for load following. Unit returned to full power.
84-30	840513	S		B	NA	NA	NA	NA	Unit 2 ramped down for Turbine Valve Freedom test. Unit 2 returned to 100% 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 May

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>
May 1, 1984	0000	Began this month with Unit at 100% power.
	0235	Commenced rampdown for load following per System Operator.
	0349	Stabilized at 750 MW - 79% power per System Operator.
	0505	Commenced rampup to 100% power.
	0714	Unit at 100% power.
May 2, 1984	0047	Commenced rampdown for load following per System Operator.
	0322	Stabilized power at 637 MW - 92% power.
	0443	Commenced rampup to 100% power.
	0620	Unit stabilized at 90% power for calorimetric.
	0640	Calorimetric complete. Re-commenced rampup to 100%.
	0713	Unit at 100% power.
May 3, 1984	2345	Commenced rampdown for load following per System Operator of 100 MW.
	0052	Stabilized unit at 860 MW 92% power.
	0430	Commenced rampup to 100% power.
	0500	Stabilized power at 96% for calorimetric.

May 3, 1984	0535	Calorimetric complete - re-commenced rampup to 100%.
	0545	Unit at 100% power.
May 4, 1984	2041	Commenced rampdown of Unit 2 at 150 MW per hour for testing of the Reactor trip Breakers.
May 5, 1984	0121	Unit 2 off line.
	0126	Unit 2 Reactor trip - Mode 3.
May 6, 1984	0617	Testing complete - Commenced Reactor startup.
May 8, 1984	0055	Unit 2 on line.
	0223	Holding power at 45% per System Operator.
	0441	Re-commenced rampup to 100% .
	0729	Unit 2 stabilized at 90% power for calorimetric.
	0808	Re-commenced rampup to 100% power.
	0905	Unit at 100% power.
May 9, 1984	0000	Commenced rampup of 200 MW for load following per System Operator.
	0005	Instructed by System Operator to rampdown another 100 MW.
	0142	Stabilized power at 625 MW - 66% power.
	0528	Commenced rampup to 100% power.
	0635	Stabilized power at 90% for calorimetric.
	0650	Calorimetric complete. Re-commenced rampup to 100% power.
	0900	Unit at 100% power.
	2259	Commenced rampdown for load following of 400 MW per System Operator. Notified SRO on call. Ramped down at 3% per hour.
	2304	System Operator called. Requested another 100 MW load reduction - a total of 500 MW rampdown.
May 10, 1984	0143	Stabilized power at 450 MW 49% power per System Operator.

May 10, 1984	0452	Commenced rampup to 100% per System Operator.
	0900	Unit at 100% power.
May 11, 1984	0300	Commenced rampdown for load following.
	0323	Stabilized at 880 MW - 94% power.
	0512	Commenced rampup to 100% power.
	0545	Stabilized power at 98% for calorimetric.
	0605	Calorimetric complete. Unit at 100% power.
May 13, 1984	0010	Commenced rampdown for Turbine Valve Freedom Test.
	0036	Stabilized power at 860 MW.
	0237	Commenced rampup to 100% power.
	0315	Stabilized power at 98% power for calorimetric.
	0345	Re-commenced rampup to 100% power.
	0355	Unit at 100% power.
	May 31, 1984	2400

VIRGINIA ELECTRIC AND POWER COMPANY
RICHMOND, VIRGINIA 23261

W. L. STEWART
VICE PRESIDENT
NUCLEAR OPERATIONS

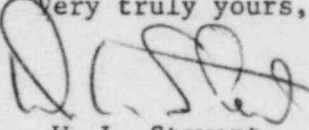
June 15, 1984

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

Serial No. 348
NO/JHL:acm
Docket Nos. 50-338
50-339
License Nos. NPF-4
NPF-7

Dear Mr. Haller:

Enclosed is the Monthly Operating Report for North Anna Power Station Unit Nos. 1 and 2 for the month of May, 1984.

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

TE24
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