

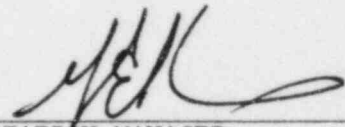
VIRGINIA ELECTRIC AND POWER COMPANY

NORTH ANNA POWER STATION

MONTHLY OPERATING REPORT

MONTH December YEAR 1984

APPROVED:



STATION MANAGER

for

8502200112 850115
PDR ADOCK 05000338
R PDR

OPERATING DATA REPORT

DOCKET NO. 50-338
 DATE 01-04-85
 COMPLETED BY Joan N. Lee
 TELEPHONE (703) 894-5151 X2527

OPERATING STATUS

1. Unit Name: North Anna 1
2. Reporting Period: December, 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:

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	8,784	57,225
12. Number of Hours Reactor Was Critical	734.3	4,784.9	38,371.7
13. Reactor Reserve Shutdown Hours	0	55.6	3,084.2
14. Hours Generator On-Line	727.1	4,424.2	37,112.8
15. Unit Reserve Shutdown Hours	0	0	0
16. Gross Thermal Energy Generated (MWH)	2,008,086	11,807,889	96,859,662
17. Gross Electrical Energy Generated (MWH)	678,104	3,987,995	31,372,185
18. Net Electrical Energy Generated (MWH)	644,277	3,784,804	29,435,978
19. Unit Service Factor	97.7	50.4	64.9
20. Unit Availability Factor	97.7	50.4	64.9
21. Unit Capacity Factor (Using MDC Net)	97.3	48.4	57.8
22. Unit Capacity Factor (Using DER Net)	95.5	47.5	56.7
23. Unit Forced Outage Rate	2.3	18.7	13.0
24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each):			

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 01-04-85

COMPLETED BY Joan N. Lee

TELEPHONE 703-894-5151X2527

MONTH December, 1984

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	<u>893</u>	17	<u>887</u>
2	<u>895</u>	18	<u>889</u>
3	<u>893</u>	19	<u>888</u>
4	<u>894</u>	20	<u>887</u>
5	<u>895</u>	21	<u>889</u>
6	<u>892</u>	22	<u>888</u>
7	<u>887</u>	23	<u>888</u>
8	<u>888</u>	24	<u>889</u>
9	<u>887</u>	25	<u>887</u>
10	<u>883</u>	26	<u>886</u>
11	<u>885</u>	27	<u>887</u>
12	<u>883</u>	28	<u>887</u>
13	<u>884</u>	29	<u>819</u>
14	<u>889</u>	30	<u>894</u>
15	<u>886</u>	31	<u>263</u>
16	<u>885</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 December UNIT NAME NA-1

YEAR 1984 DATE 01-04-85

COMPLETED BY Joan Lee

84-21 (1) (A) Reactor tripped on December 31, 1984 at 0704. The trip was caused by failure of a firing card in rod control power cabinet (IBD) causing Multiple Rod drops. Ended this month with Unit 1 at 4% power.

UNIT SHUTDOWNS AND POWER REDUCTIONS

DOCKET NO. 50-338
 UNIT NAME North Anna 1
 DATE 01-04-85
 COMPLETED BY Joan Lee
 TELEPHONE (703) 894-5151 X2527

REPORT MONTH December, 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
84-20	122884	S	0	B	NA	NA	NA	NA	Ramped down for Turbine Valve Freedom test. Unit returned to full power.
84-21	123184	F	16.9	A	3	84-026	NA	NA	Unit 1 Reactor trip caused by failure of a firing card in rod control power cabinet IBD causing Multiple Rod drops.

<p>¹ F: Forced S: Scheduled</p>	<p>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)</p>	<p>³ Method: 1-Manual 2-Manual Scram. 3-Automatic Scram 4-Continuations 5-Load Reduction 9-Other</p>	<p>⁴ Exhibit F - Instructions for Preparation of Data Entry Sheets for Licensee Event Report (LER) File (NUREG-0161)</p> <p>⁵ Exhibit H - Same Source</p>
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VIRGINIA ELECTRIC AND POWER COMPANY
NORTH ANNA POWER STATION

UNIT NO. 1

MONTH December

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>
December 1, 1984	0000	Began this month with Unit 1 at 100% power.
December 28, 1984	0655	Commenced ramp down approximately 150 MW/hr for Turbine Valve Freedom test.
	2316	Stabilized at 89% - 850 MW.
	2320	Commenced Turbine Valve Freedom test.
December 29, 1984	0021	Continuing Turbine Valve Freedom test.
	0451	Turbine Valve Freedom test complete power at 86% - 813 MW.
	1518	Commenced ramp up to 100% power. Power at 86% - 813 MW.
	1613	Unit at 100% power.
December 31, 1984	0704	Unit 1 Reactor trip - caused by failure of a firing card in rod control power cabinet (IBD) causing Multiple Rod drops.
	0710	Plant stabilized.
	1617	Repair made. Commenced Reactor Startup
	1646	Unit 1 Reactor critical.
	2400	Ended this month with Unit 1 at 4% power.

OPERATING DATA REPORT

DOCKET NO. 50-339
 DATE 01-04-85
 COMPLETED BY Joan N. Lee
 TELEPHONE (703) 894-5151 X2527

OPERATING STATUS

Notes:

1. Unit Name: North Anna 2
2. Reporting Period: December, 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	8,784	35,496
12. Number of Hours Reactor Was Critical	634.4	6,102.7	25,790.4
13. Reactor Reserve Shutdown Hours	178.6	205.8	3,985.8
14. Hours Generator On-Line	565.4	5,898.0	25,405.1
15. Unit Reserve Shutdown Hours	0	0	0
16. Gross Thermal Energy Generated (MWH)	1,469,035	15,083,200	65,500,241
17. Gross Electrical Energy Generated (MWH)	493,663	4,982,898	21,697,265
18. Net Electrical Energy Generated (MWH)	468,656	4,717,180	20,569,262
19. Unit Service Factor	76.0	67.1	71.6
20. Unit Availability Factor	76.0	67.1	71.6
21. Unit Capacity Factor (Using MDC Net)	70.8	60.3	65.2
22. Unit Capacity Factor (Using DER Net)	69.5	59.2	63.9
23. Unit Forced Outage Rate	24.0	5.6	13.2
24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each):			

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 01-04-85

COMPLETED BY Joan N. Lee

TELEPHONE 703-894-5151X2527

MONTH December

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	<u>884</u>	17	<u>229</u>
2	<u>891</u>	18	<u>387</u>
3	<u>891</u>	19	<u>834</u>
4	<u>890</u>	20	<u>900</u>
5	<u>886</u>	21	<u>899</u>
6	<u>890</u>	22	<u>854</u>
7	<u>898</u>	23	<u>900</u>
8	<u>899</u>	24	<u>900</u>
9	<u>399</u>	25	<u>817</u>
10	<u>0</u>	26	<u>900</u>
11	<u>0</u>	27	<u>899</u>
12	<u>0</u>	28	<u>895</u>
13	<u>0</u>	29	<u>893</u>
14	<u>0</u>	30	<u>811</u>
15	<u>0</u>	31	<u>881</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. 50-339

REPORT MONTH December UNIT NAME NA-2

YEAR 1984 DATE 01-04-85

COMPLETED BY Joan Lee

84-36 (1) (F) On December 9, 1984 at 0830 commenced ramping Unit 2 off line as per Tech. Spec. 3.8.1.1 (Paragraph D) because of no operable Emergency Diesel. Repairs were made and Unit 2 returned to 100% power.

UNIT SHUTDOWNS AND POWER REDUCTIONS

DOCKET NO. 50-339
 UNIT NAME North Anna 2
 DATE 01-04-85
 COMPLETED BY Joan Lee
 TELEPHONE (703) 894-5151 X2527

REPORT MONTH December

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
84-36	120984	F	178.6	A	1	84-013	NA	NA	Unit 2 ramped down per Tech. Spec. 3.8.1.1 (Para D) no operable Emergency Diesel. Repairs made and Unit 2 returned to full power.
84-37	122284	S	0	B	NA	NA	NA	NA	Ramped down for load following. Unit returned to full power.
84-38	122584	S	NA	B	NA	NA	NA	NA	Ramped down for load following. Unit returned to full power.
84-39	122984	S	NA	B	NA	NA	NA	NA	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

VIRGINIA ELECTRIC AND POWER COMPANY
NORTH ANNA POWER STATION

UNIT NO. 2

MONTH December

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>
December 1, 1984	0000	Began this month with Unit at 100% power.
December 9, 1984	0830	Commenced ramp down of Unit 2 as per Tech. Spec. 3.8.1.1 (Paragraph D) - no operable Emergency Diesel.
	1324	Unit 2 off line.
December 14, 1984	0255	Repairs made and commenced Reactor Start-up.
	0301	Reactor critical.
December 16, 1984	2355	Unit 2 on line.
December 17, 1984	0145	Unit 2 at 30% power - 270 MW for Chemistry Hold.
December 18, 1984	1710	Commenced ramp up to 75% power.
	1840	Stabilized at 75% power for PT-23 (Power Tilt).
	2159	PT-23 complete (Power Tilt).
	2201	Commenced ramp up to 100%.
December 19, 1984	0052	Stabilized power at 80% - 70 MW. Requested by System Operator to ramp down 100 MW.
	0057	Commenced rampdown to 670 MW.
	0133	Unit at 670 MW.
	0446	Notified by System Operator to commence ramp up to 100% at 150 MW/hour.

VIRGINIA ELECTRIC AND POWER COMPANY
NORTH ANNA POWER STATION

UNIT NO. 2

MONTH December

SUMMARY OF OPERATING EXPERIENCE

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<u>DATE</u>	<u>TIME</u>	<u>DATA</u>
December 19, 1984	0544	Unit at 90% - 865 MW for calorimetric.
	0745	Calorimetric complete and Unit at 100% power.
December 22, 1984	0136	Commenced rampdown for load following. Reduced power by 100 MW.
	0158	Requested by System Operator to ramp down another 100 MW.
	0238	Power at 77% - 757 MW.
	0252	Requested by System Operator to ramp down another 100 MW.
	0320	Stabilized power at 67% - 650 MW.
	0503	Commenced ramping to 100%.
	0655	Stabilized power at 90% for calorimetric.
	0750	Calorimetric complete and Unit at 100% power.
December 25, 1984	0045	Commenced rampdown for load following.
	0125	Decreased by 100 MW and continuing to decrease power.
	0300	Stabilized power at 55% - 500 MW.
	0520	Commenced ramping up to 100%.
	0707	Stabilized power at 90% for calorimetric.
	0803	Calorimetric complete and Unit at 100%.

VIRGINIA ELECTRIC AND POWER COMPANY
NORTH ANNA POWER STATION

UNIT NO. 2

MONTH December

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>
December 29, 1984	2349	Requested by System Operator to rampdown for load following.
December 30, 1984	0220	Stabilized power at 56% - 550 MW.
	0420	Commenced ramp up per System Operator.
	0754	Unit at 100% power.
December 31, 1984	0128	Commenced rampdown for load following per System Operator.
	0200	Stabilized power at 89% - 845 MW.
	0410	Commenced ramp up to 100% per System Operator.
	0450	Unit at 100% power.
December 31, 1984	2400	Ended this month with Unit at 100% power.