VIRGINIA ELECTRIC AND POWER COMPANY
RICHMOND, VIRGINIA 23261

June 14, 1989

U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, D.C. 20555

Serial No. 89-425
NO/JMJ:jmj
Docket Nos. 50-338
50-339
License Nos. NPF-4
NPF-7

Gentlemen:

VIRGINIA ELECTRIC AND POWER COMPANY
NORTH ANNA POWER STATION UNITS 1 AND 2
MONTHLY OPERATING REPORT

Enclosed is the Monthly Operating Report for North Anna Power Station Units 1 and 2 for the month of May 1989.

Very truly yours,

W. L. Stewart
Senior Vice President - Power

Enclosures

cc: U.S. Nuclear Regulatory Commission
101 Marietta Street, NW
Suite 2900
Atlanta, GA 30323

Mr. J. L. Caldwell
NRC Senior Resident Inspector
North Anna Power Station

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PDR ADOCK 05000338
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1/1

VIRGINIA POWER COMPANY

NORTH ANNA POWER STATION

MONTHLY OPERATING REPORT

MONTH MAY YEAR 1989

APPROVED:

JAS STATION MANAGER

OPERATING DATA REPORT

DOCKET NO. 50-338
DATE 06-01-89
COMPLETED BY Bob Tillack
TELEPHONE (703) 894-5151 X2632

OPERATING STATUS

1. Unit Name: North Anna 1
2. Reporting Period: May 1989
3. Licensed Thermal Power (MWt): 2893
4. Nameplate Rating (Gross MWe): 947
5. Design Electrical Rating (Net MWe): 907
6. Maximum Dependable Capacity (Gross MWe): 963
7. Maximum Dependable Capacity (Net MWe): 915
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	3,623	95,915
12. Number of Hours Reactor Was Critical	0	1,334.1	67,553.5
13. Reactor Reserve Shutdown Hours	0	39	6,496.3
14. Hours Generator On-Line	0	1,334.1	64,848.6
15. Unit Reserve Shutdown Hours	0	0	0
16. Gross Thermal Energy Generated (MWH)	0	3,454,653	171,614,646
17. Gross Electrical Energy Generated (MWH)	0	1,144,658	56,319,007
18. Net Electrical Energy Generated (MWH)	0	1,084,413	53,276,305
19. Unit Service Factor	0	36.8	67.6
20. Unit Availability Factor	0	36.8	67.6
21. Unit Capacity Factor (Using MDC Net)	0	32.7	62.3
22. Unit Capacity Factor (Using DER Net)	0	33.0	61.2
23. Unit Forced Outage Rate	0	10.3	14.5

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: 15 July 1989
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 06-01-89

COMPLETED BY Bob Tillack

TELEPHONE 703-894-5151X2632

MONTH MAY 1989

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	0	17	0
2	0	18	0
3	0	19	0
4	0	20	0
5	0	21	0
6	0	22	0
7	0	23	0
8	0	24	0
9	0	25	0
10	0	26	0
11	0	27	0
12	0	28	0
13	0	29	0
14	0	30	0
15	0	31	0
16	0		

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

REPORT MONTH May

DOCKET NO.	50-338
UNIT NAME	North Anna 1
DATE	06-01-89
COMPLETED BY	Bob Tillack
TELEPHONE	(703) 894-5151 X2632

No.	Date	Type[1]	Duration (Hours)	Reason[2]	Method of Shutting Down Reactor[3]	Licensee Event Report #	System Code[4]	Component Code[5]	Cause and Corrective Action to Prevent Recurrence
89-03	890501	S	744	C	4	N/A	N/A	N/A	Continuation of refueling outage.

* - Unit entered Refueling outage early

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 SHUTDOWN AND POWER REDUCTIONS

EXPLANATION SHEET DOCKET NO. 50-338

REPORT MONTH MAY UNIT NAME NA-1

YEAR 1989 DATE 06-01-89

COMPLETED BY Bob Tillack

No Entries

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.

DATE	TIME	DATA
May 1, 1989	0000	Began Month with Unit Shutdown in Mode 6.
May 31, 1989	2400	Ended month with Unit shutdown in Mode 6.

OPERATING DATA REPORT

DOCKET NO. 50-339
DATE 06-01-89
COMPLETED BY Bob Tillack
TELEPHONE (703) 894-5151 X2632

OPERATING STATUS

1. Unit Name: North Anna 2
2. Reporting Period: May 1989
3. Licensed Thermal Power (MWt): 2893
4. Nameplate Rating (Gross MWe): 947
5. Design Electrical Rating (Net MWe): 907
6. Maximum Dependable Capacity (Gross MWe): 963
7. Maximum Dependable Capacity (Net MWe): 915
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	3,623	74,183
12. Number of Hours Reactor Was Critical	577.4	1,781.9	58,985.1
13. Reactor Reserve Shutdown Hours	79.7	152.8	5,854.9
14. Hours Generator On-Line	547.3	1,750.7	58,114.9
15. Unit Reserve Shutdown Hours	0	0	0
16. Gross Thermal Energy Generated (MWH)	1,379,441.7	3,948,443.7	153,289,442.7
17. Gross Electrical Energy Generated (MWH)	452,455	1,304,125	50,095,754
18. Net Electrical Energy Generated (MWH)	427,960	1,227,768	48,170,091
19. Unit Service Factor	73.6	48.3	78.3
20. Unit Availability Factor	73.6	48.3	78.3
21. Unit Capacity Factor (Using MDC Net)	62.9	37.0	72.4
22. Unit Capacity Factor (Using DER Net)	63.4	37.4	71.6
23. Unit Forced Outage Rate	0	0	7.7

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 06-01-89

COMPLETED BY Bob Tillack

TELEPHONE 703-894-5151X2632

MONTH MAY 1989

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	0	17	906
2	0	18	903
3	0	19	909
4	0	20	915
5	0	21	915
6	0	22	916
7	0	23	916
8	0	24	914
9	159	25	915
10	192	26	907
11	227	27	915
12	503	28	916
13	736	29	916
14	741	30	916
15	743	31	914
16	838		

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

REPORT MONTH MAY 1989

DOCKET NO. 50-339
UNIT NAME North Anna 2
DATE 0--01-89
COMPLETED BY Bob Tillack
TELEPHONE (703) 894-5151 X2632

No.	Date	Type[1]	Duration (Hours)	Reason[2]	Method of Shutting Down Reactor[3]	Licensee Event Report #	System Code[4]	Component Code[5]	Cause and Corrective Action to Prevent Recurrence
89-02	890501	S	196.7	C	4	N/A	N/A	N/A	Continuation on refueling Outage

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 SHUTDOWN AND POWER REDUCTIONS

EXPLANATION SHEET DOCKET NO. 50-339

REPORT MONTH MAY UNIT NAME NA-2

YEAR 1989 DATE 06-01-89

COMPLETED BY Bob Tillack

No Entries

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.

DATE	TIME	DATA
May, 1989	0000	Began month with Unit Shutdown in Mode 5.
May 4, 1989	1152	Entered Mode 4.
May 6, 1989	0704	Entered Mode 3.
	1700	Commenced Rx startup.
May 7, 1989	1935	Entered Mode 2.
	2234	Rx critical.
May 9, 1989	0315	Entered Mode 1.
	0441	Unit on line commencing ramp to 30%, 274 MW.
	0540	Unit at 30%, 274 MW power holding for secondary chemistry.
May 11, 1989	1600	Cleared chemistry hold commencing power increase.
	2031	Holding power at 44.5% to start 2-FW-P-1B and open Powdex bypass. Second motor in B feedpump will not start, investigating.
	2306	Engineering Department commencing incore flux maps to verify Quadrant Power Tilt Ratio.
May 12, 1989	0155	Commencing ramp to 49%, 448 MW power.
	0515	Unit stable at 49.5% power, 452 MW.

	0520	Unit cleared to 90% (hot channel factors) commenced ramp-up.
	0930	Chemistry out of specification on B and C S/G's holding power at 59%, 540 MW.
	1215	Cleared chemistry hold, commenced ramp-up.
	1545	Feedwater chemistry out of specification holding power at 70%, 640 MW.
	1630	High vibrations on No. 1 an No.2 bearings on main turbine. Ramped down to 68.5%, 627 MW in order to fully shut NO. 1 GV and stabilize vibration.
	1855	Cleared chemistry hold commence ramp-up.
	1935	Chemistry hold at 72.3%, 661 MW S/G cations high out of specification.
	1956	Ramped down to 67.5%, 617 MW to stabilize turbine vibrations by fully shuting No. 1 governor valve while holding for chemistry.
	2041	Commence ramp-up to 90%, 823 MW.
May 13, 1989	0138	Excessive turbine vibration, secured ramp at 83% power, 759 MW, investigating.
	1551	Commenced ramp to 90%, 823 MW.
	1630	Secured ramp due to excessive turbine vibration 84% power, 768 MW.
May 15, 1989	1650	Commenced ramp-down to shut No. 1 governor valve.
	1809	Secured ramp at 68% power, 622MW No. 1 governor valve shut.
	1837	Commenced ramp-up.
	2143	Rx stable at 90% power, 823 MW holding for flux maps.
May 16, 1989	1130	Flux map sat.
	1429	Commenced ramp-up to 100% power 915 MW.
	1955	Rx stable at 100% power, 915 MW.

May 17, 1989	1550	Experienced turbine runback of ~1.5% power due to A and B loop ΔT fluctuations caused by A S/G FRV oscillations. Instrument Department investigating.
May 18, 1989	0620	Instrument Department completed investigation and troubleshooting, ramped unit to 100% power, 915 MW.
May 31, 1989	2400	Ended month with Unit at 100% power, 915 MW.