

VIRGINIA ELECTRIC AND POWER COMPANY
RICHMOND, VIRGINIA 23261

April 15, 1991

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

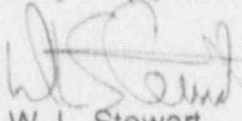
Serial No. 91-214
NL&P/JMJ:jmj
Docket Nos. 50-338
50-339
License Nos. NPF-4
NPF-7

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 March 1991.

Very truly yours,



W. L. Stewart
Senior Vice President - Nuclear

Enclosures

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

Mr. M. S. Lesser
NRC Senior Resident Inspector
North Anna Power Station

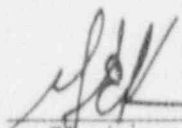
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VIRGINIA POWER COMPANY
NORTH ANNA POWER STATION
MONTHLY OPERATING REPORT

MONTH: March YEAR: 1991

Approved:

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Station Manager

OPERATING DATA REPORT

DOCKET NO.: 50-338
 DATE: April 1, 1991
 COMPLETED BY: C. Mladen
 PHONE: (703) 894-2537

OPERATING STATUS

1. Unit Name:.....North Anna 1
2. Reporting Period:.....March 1991
3. Licensed Thermal Power (Mwt):..... 2,893
4. Nameplate Rating (Gross MWe):..... 947
5. Design Electrical Rating (Net MWe):..... 907
6. Maximum Dependable Capacity (Gross MWe):.. 959
7. Maximum Dependable Capacity (Net MWe):.... 911

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	Y-t-D	Cumulative
11. Hours in Reporting Period.....	744.0	2,160.0	111,972.0
12. Number of Hours Reactor was Critical.....	577.7	842.6	80,833.5
13. Reactor Reserve Shutdown Hours.....	17.1	21.6	6,625.2
14. Hours Generator On-Line.....	547.0	811.9	78,031.9
15. Unit Reserve Shutdown Hours.....	0.0	0.0	0.0
16. Gross Thermal Energy Generated (MWH).....	1,395,520.6	1,725,616.3	206,711,852.3
17. Gross Electrical Energy Generated (MWH).....	461,610.0	567,784.0	67,909,122.0
18. Net Electrical Energy Generated (MWH).....	437,541.0	533,915.0	64,262,667.0
19. Unit Service Factor.....	73.5%	37.6%	69.7%
20. Unit Availability Factor.....	73.5%	37.6%	69.7%
21. Unit Capacity Factor (using MDC Net).....	64.6%	27.1%	64.1%
22. Unit Capacity Factor (using DER Net).....	64.8%	27.3%	63.3%
23. Forced Outage Rate.....	0.0	0.0%	12.4%

24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each): None

25. If Shutdown at end of Report Period, estimated time 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.: 50-338
 Unit: NA-1
 Date: April 1, 1991
 Completed by: C. Mladen
 Phone: (703) 894-2537

MONTH: March 1991

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)	DAY	AVERAGE DAILY LEVEL LEVEL (MWe-Net)
1	<u>0</u>	17	<u>909</u>
2	<u>0</u>	18	<u>907</u>
3	<u>0</u>	19	<u>908</u>
4	<u>0</u>	20	<u>908</u>
5	<u>0</u>	21	<u>908</u>
6	<u>0</u>	22	<u>909</u>
7	<u>0</u>	23	<u>911</u>
8	<u>0</u>	24	<u>910</u>
9	<u>118</u>	25	<u>912</u>
10	<u>184</u>	26	<u>913</u>
11	<u>282</u>	27	<u>909</u>
12	<u>531</u>	28	<u>911</u>
13	<u>798</u>	29	<u>912</u>
14	<u>860</u>	30	<u>910</u>
15	<u>902</u>	31	<u>911</u>
16	<u>908</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

REPORT MONTH: March 1991

DOCKET NO.: 50-338
UNIT NAME: NA-1
DATE: April 1, 1991
COMPLETED BY: C. Mladen
PHONE: (703) 894-2537

No.	Date	¹ Type	² Duration (hrs)	² Reason	³ Method of Shutting Down Reactor	Licensee Event Report #	⁴ System Code	⁵ Component Code	Cause & Corrective Action to Prevent Recurrence
91-01	910112	S	216	C	4	N/A	N/A	N/A	S/G Maintenance planned

1: Type
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
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 March Unit Name: NA-1

Year: 1991 Date: April 1, 1991

Completed by: Cathie Mladen

#91-1

January 12, 1991

Main Generator taken off-line at 0050 hours. Unit entered Mode 3 at 0123 hours. Unit entered Mode 4 at 1210 hours.

January 13, 1991

Unit entered Mode 5 at 0550 hours for Refueling Outage.

January 21, 1991

Unit entered Mode 6 at 0435 hours.

February 14, 1991

Unit entered Mode 5 at 1200 hours.

March 5, 1991

Unit entered Mode 4 at 1610 hours.

March 7, 1991

Unit entered Mode 3 at 0113 hours. Unit entered Mode 2 at 2217 hours.

March 9, 1991

Unit entered Mode 1 at 0440 hours. Main Generator placed on-line at 0500 hours and commenced unit ramp-up. Unit stable at 30% power at 0609 hours. Unit ramp-down commenced to decrease steam leakage from high pressure pump packing gland at 1235 hours. Unit stable at 50 MWe at 1453 hours. High pressure pump packing gland repacked and commenced unit ramp-up at 1603 hours. Unit stable at 30% power at 1702 hours.

March 15, 1991

Unit stable at 99% power with turbine governor valve #4 full open at 0343 hours.

NORTH ANNA POWER STATION

UNIT NO.: 1

MONTH: March

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>
March 1, 1991	0000	Began month with unit in Mode 5.
March 5, 1991	1610	Entered Mode 4.
March 7, 1991	0113	Entered Mode 3.
	2217	Entered Mode 2.
March 9, 1991	0440	Entered Mode 1.
	0500	Generator on-line, commenced unit ramp-up to 30% power.
	0609	Unit stable at 30% power.
	1235	Commenced unit ramp-down to decrease steam leakage from high pressure pump packing gland.
	1322	Unit stable at 125 MWe.
	1331	Commenced unit ramp-down to 50 MWe to allow repack of high pressure pump packing gland.
	1453	Unit stable at 50 MWe.
	1603	High pressure pump packing gland repacked, commenced unit ramp-up to 30% power.
	1702	Unit stable at 30% power, Chemistry hold.
March 11, 1991	0615	Cleared Chemistry hold, commenced unit ramp-up to full power.
March 15, 1991	0343	Unit stable at 99% power with turbine governor valve #4 full open.
March 31, 1991	2400	Ended month with unit at 99.4%, 959 MWe.

OPERATING DATA REPORT

DOCKET NO.: 50-339
 DATE: April 1, 1991
 COMPLETED BY: C. Mladen
 PHONE: (703) 894-2537

OPERATING STATUS

1. Unit Name:.....North Anna 2
2. Reporting Period:.....March 1991
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):...957
7. Maximum Dependable Capacity (Net MWe):....909

8. If changes occur in Capacity Ratings (Items No. 3 thru 7) since last report, give reasons: _____

9. Power level to which restricted, if any (Net MWe): _____ N/A _____
 10. Reasons for restrictions, if any: _____ N/A _____

	This Month	Y-t-D	Cumulative
11. Hours in Reporting Period.....	744.0	2,160.0	90,240.0
12. Number of Hours Reactor was Critical.....	744.0	2,160.0	3,294.3
13. Reactor Reserve Shutdown Hours.....	0.0	0.0	5,949.6
14. Hours Generator On-Line.....	744.0	2,160.0	72,394.3
15. Unit Reserve Shutdown Hours.....	0.0	0.0	0.0
16. Gross Thermal Energy Generated (MWH).....	2,151,635.3	6,247,408.2	193,496,521.6
17. Gross Electrical Energy Generated (MWH).....	715,200.0	2,076,305.0	63,378,891.0
18. Net Electrical Energy Generated (MWH).....	681,777.0	1,977,798.0	60,793,278.0
19. Unit Service Factor.....	100.0%	100.0%	80.2%
20. Unit Availability Factor.....	100.0%	100.0%	80.2%
21. Unit Capacity Factor (using MDC Net).....	100.8%	100.7%	74.9%
22. Unit Capacity Factor (using DER Net).....	101.0%	101.0%	74.3%
23. Forced Outage Rate.....	0.0%	0.0%	6.2%

24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each): _____ NONE _____

25. If Shutdown at end of Report Period, estimated time 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: April 1, 1991
 Completed by: C. Mladen
 Phone: (703) 894-2537

MONTH: March 1991

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)	DAY	AVERAGE DAILY LEVEL LEVEL (MWe-Net)
1	<u>917</u>	17	<u>916</u>
2	<u>917</u>	18	<u>917</u>
3	<u>919</u>	19	<u>917</u>
4	<u>917</u>	20	<u>917</u>
5	<u>917</u>	21	<u>916</u>
6	<u>915</u>	22	<u>918</u>
7	<u>915</u>	23	<u>918</u>
8	<u>915</u>	24	<u>917</u>
9	<u>918</u>	25	<u>918</u>
10	<u>917</u>	26	<u>919</u>
11	<u>917</u>	27	<u>916</u>
12	<u>917</u>	28	<u>917</u>
13	<u>904</u>	29	<u>917</u>
14	<u>917</u>	30	<u>918</u>
15	<u>917</u>	31	<u>914</u>
16	<u>916</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

REPORT MONTH: March 1991

DOCKET NO.: 50-339
 UNIT NAME: NA-2
 DATE: April 1, 1991
 COMPLETED BY: C. Mladen
 PHONE: (703) 894-2537

No.	Date	1 Type	2 Duration (hrs)	3 Reason	4 Method of Shutting Down Reactor	5 Licensee Event Report #	6 System Code	7 Component Code	8 Cause & Corrective Action to Prevent Recurrence
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*No entry this month

1: Type	2: Reason	3: Method	4:
F=Forced	A=Equipment Failure (explain)	1=Manual	Exhibit F - Instructions
S=Scheduled	B=Maintenance or Test	2=Manual Scram	for preparation of Data
	C=Refueling	3=Automatic Scram	Entry Sheets for Licensee
	D=Regulatory Restriction	4=Continuations	Event Report (LER) File
	E=Operator Training & License Examination	5=Load Reduction	(NUREG-0161)
	F=Administrative	9=Other	
	G=Operational Error		5:
	H=Other (explain)		Exhibit H - Same Source

UNIT SHUTDOWN AND POWER REDUCTIONS
Explanation Sheet

Docket No.: 50-339

Report Month March Unit Name: NA-2

Year: 1991 Date: April 1, 1991

Completed by: Cathie Mladen

*No entry this month

NORTH ANNA POWER STATION

UNIT NO.: 2
MONTH: March

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>
March 1, 1991	0000	Began month with unit at 100%, 963 MWe.
March 13, 1991	0905	Commenced unit ramp down for TVFT.
	0940	Unit stable at 863 MWe.
	1145	TVFT completed satisfactorily.
	1155	Commenced unit ramp up to 100%.
	1337	Unit stable at 100%.
March 31, 1991	2400	Ended month with unit at 100%, 963MWe.