

VIRGINIA ELECTRIC AND POWER COMPANY  
RICHMOND, VIRGINIA 23261

January 14, 1992

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

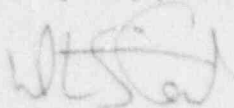
Serial No. 92-032  
NL&P/JMJ:jmj  
Docket Nos. 50-338  
50-339  
License Nos. NPF-4  
NPF-7

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 December 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: December YEAR: 1991

Approved:

  
Station Manager

# AVERAGE DAILY UNIT POWER LEVEL

Docket No.: 50-338  
 Unit: NA-1  
 Date: January 2, 1992  
 Completed by: C. Mladen  
 Phone: (703) 894-2774

MONTH: December 1991

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)	DAY	AVERAGE DAILY LEVEL LEVEL (MWe-Net)
1	<u>911</u>	17	<u>911</u>
2	<u>911</u>	18	<u>907</u>
3	<u>911</u>	19	<u>907</u>
4	<u>911</u>	20	<u>910</u>
5	<u>912</u>	21	<u>909</u>
6	<u>911</u>	22	<u>910</u>
7	<u>911</u>	23	<u>705</u>
8	<u>911</u>	24	<u>0</u>
9	<u>911</u>	25	<u>0</u>
10	<u>910</u>	26	<u>0</u>
11	<u>911</u>	27	<u>0</u>
12	<u>911</u>	28	<u>0</u>
13	<u>902</u>	29	<u>0</u>
14	<u>910</u>	30	<u>0</u>
15	<u>910</u>	31	<u>0</u>
16	<u>910</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.

# OPERATING DATA REPORT

DOCKET NO.: 50-338  
 DATE: January 2, 1991  
 COMPLETED BY: C. Mladen

## OPERATING STATUS

1. Unit Name:.....North Anna 1
2. Reporting Period:.....December 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	8,760.0	118,572.0
12. Number of Hours Reactor was Critical.....	549.8	6,697.6	86,688.5
13. Reactor Reserve Shutdown Hours.....	9.5	118.1	6,721.7
14. Hours Generator On-Line.....	549.0	6,551.5	83,771.5
15. Unit Reserve Shutdown Hours.....	0.0	0.0	0.0
16. Gross Thermal Energy Generated (MWH).....	1,580,202.8	17,966,536.4	222,952,772.4
17. Gross Electrical Energy Generated (MWH).....	521,079.0	5,916,509.0	73,257,847.0
18. Net Electrical Energy Generated (MWH).....	497,338.0	5,625,865.0	69,354,617.0
19. Unit Service Factor.....	73.8%	74.8%	70.7%
20. Unit Availability Factor.....	73.8%	74.8%	70.7%
21. Unit Capacity Factor (using MDC Net).....	73.4%	70.5%	65.3%
22. Unit Capacity Factor (using DEK Net).....	73.7%	70.8%	64.5%
23. Forced Outage Rate.....	26.2%	11.6%	12.5%

24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each) \_\_\_\_\_ Steam Generator Inspection \_\_\_\_\_  
 Outage commenced 12/23/91 to last approximately 60 day \_\_\_\_\_  
 \_\_\_\_\_

25. If Shutdown at end of Report Period, estimated time of Startup: \_\_\_\_\_ 03/01/92 \_\_\_\_\_

26. Units in Test Status (Prior to Commercial Operation):

	Forecast	Achieved
INITIAL CRITICALITY	_____	_____
INITIAL ELECTRICITY	_____	_____
COMMERCIAL OPERATION	_____	_____

## UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH: December 1991

DOCKET NO.: 50-338  
 UNIT NAME: NA-1  
 DATE: January 2, 1992  
 COMPLETED BY: C. Mladen  
 PHONE: (703) 894-2774

No.	Date	1 Type	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
91-10	911223	F	195.0	A	1	91-022	SB	SG	Unit shutdown required by T.S. 3.0.3 due to declaring all three steam generators inoperable (refer to LER).

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
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UNIT SHUTDOWN AND POWER REDUCTIONS  
Explanation Sheet

Docket No.: 50-338

Report Month December Unit Name: NA-1

Year: 1991 Date: January 2, 1992

Completed by: Cathie Mladen

#91-10

December 23, 1991

Entered T.S. 3.0.3 as a result of declaring all three steam generators inoperable per T.S. 3.4.5 at 1600 hours. Commenced unit ramp-down and initiated "Notification of Unusual Event" at 1632 hours. Main Generator taken off-line at 2059 hours. Main Turbine manually tripped at 2106 hours. Unit entered Mode 3 at 2149 hours.

December 24, 1991

Unit entered Mode 4 at 0230 hours. Unit entered Mode 5 at 0718 hours. Terminated "Notification of Unusual Event" at 0730 hours.



# 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 01, 1991	0000	Began month with unit at 100% power, 955MWe.
December 13, 1991	0852	Commenced unit ramp-down to 880MWe for TVFT.
	0943	Unit stable at 880MWe.
	1030	TVFT completed satisfactorily.
	1112	Commenced unit ramp-up to 100% power.
	1157	Unit stable at 100% power, 948MWe.
December 23, 1991	1600	Entered T.S. 3.0.3 as a result of declaring all three steam generators inoperable per T.S. 3.4.5.
	1632	Commenced unit ramp-down. Initiated "Notification of Unusual Event."
	2059	Main Generator taken off-line.
	2106	Main Turbine manually tripped.
	2149	Entered Mode 3.
December 24, 1991	0230	Entered Mode 4.
	0718	Entered Mode 5.
	0730	Terminated "Notification of Unusual Event."
December 31, 1991	2400	Ended month with unit in Mode 5.

# AVERAGE DAILY UNIT POWER LEVEL

Docket No.: 50-339  
 Unit: NA-2  
 Date: January 2, 1992  
 Completed by: C. Mladen  
 Phone: (703) 894-2774

MONTH: December 1991

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)	DAY	AVERAGE DAILY LEVEL LEVEL (MWe-Net)
1	<u>906</u>	17	<u>902</u>
2	<u>905</u>	18	<u>902</u>
3	<u>904</u>	19	<u>901</u>
4	<u>905</u>	20	<u>902</u>
5	<u>905</u>	21	<u>901</u>
6	<u>894</u>	22	<u>902</u>
7	<u>902</u>	23	<u>902</u>
8	<u>906</u>	24	<u>901</u>
9	<u>906</u>	25	<u>901</u>
10	<u>904</u>	26	<u>900</u>
11	<u>904</u>	27	<u>900</u>
12	<u>905</u>	28	<u>900</u>
13	<u>904</u>	29	<u>901</u>
14	<u>904</u>	30	<u>902</u>
15	<u>903</u>	31	<u>903</u>
16	<u>902</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.



# OPERATING DATA REPORT

DOCKET NO.: 50-339  
 DATE: January 2, 1992  
 COMPLETED BY: C. Mladen  
 PHONE: (703) 894-2774

## OPERATING STATUS

1. Unit Name:.....North Anna 2
2. Reporting Period:.....December 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: \_\_\_\_\_  
 \_\_\_\_\_ 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	8,760.0	96,840.0
12. Number of Hours Reactor was Critical.....	744.0	8,601.6	79,735.7
13. Reactor Reserve Shutdown Hours.....	0.0	107.8	6,057.4
14. Hours Generator On-Line.....	744.0	8,540.1	78,774.4
15. Unit Reserve Shutdown Hours.....	0.0	0.0	0.0
16. Gross Thermal Energy Generated (MWH).....	2,151,544.8	24,568,019.7	211,817,133.1
17. Gross Electrical Energy Generated (MWH).....	704,931.0	8,077,540.0	69,380,126.0
18. Net Electrical Energy Generated (MWH).....	671,477.0	7,684,253.0	66,499,733.0
19. Unit Service Factor.....	100.0%	97.5%	81.3%
20. Unit Availability Factor.....	100.0%	97.5%	81.3%
21. Unit Capacity Factor (using MDC Net).....	99.3%	96.5%	76.3%
22. Unit Capacity Factor (using DER Net).....	99.5%	96.7%	75.7%
23. Forced Outage Rate.....	0.0%	2.5%	6.0%

24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each): \_\_Refueling/Maintenance Outage\_\_  
 \_\_Scheduled from 02/01/92 to 04/01/92\_\_

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	_____	_____

DOCKET NO.: 50-339  
UNIT NAME: NA-2  
DATE: January 2, 1992  
COMPLETED BY: C. Mladen  
PHONE: (703) 894-2774

REPORT MONTH: December 1991

No.	Date	1 Type	2 Duration (hrs)	Reason	3 Method of Shutting Down Reactor	Licensee Event Report #	4 System Code	5 Component Code	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 December Unit Name: NA-2

Year: 1991 Date: January 2, 1992

Completed by: Cathie Mladen

\*No entry this month.

# 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 01, 1991	0000	Began month with unit at 100% power, 951MWe.
December 06, 1991	0858	Commenced unit ramp-down to 880MWe for TVFT.
	0940	Unit stable at 880MWe.
	1156	TVFT completed satisfactorily and commenced unit ramp-up to 100% power.
	1330	Unit stable at 100% power, 944MWe.
December 31, 1991	2400	Ended month with unit at 100% power, 953MWe.