

VIRGINIA ELECTRIC AND POWER COMPANY  
RICHMOND, VIRGINIA 23261

September 9, 1996

United States Nuclear Regulatory Commission  
Attention: Document Control Desk  
Washington, D. C. 20555


Serial No. 96-470  
NAPS/JHL  
Docket Nos. 50-338  
50-339  
License Nos. NPF-4  
NPF-7

Gentlemen:

VIRGINIA ELECTRIC AND POWER COMPANY  
NORTH ANNA POWER STATION UNIT NOS. 1 AND 2  
MONTHLY OPERATING REPORT

Enclosed is the August 1996 Monthly Operating Report for North Anna Power Station Unit 1 and 2.

Very truly yours,



W. R. Matthews  
Station Manager

Enclosure

cc: U. S. Nuclear Regulatory Commission  
Region II  
101 Marietta Street, N. W.  
Suite 2900  
Atlanta, Georgia 30323

Mr. R. D. McWhorter  
NRC Senior Resident Inspector  
North Anna Power Station

9609170276 960831  
PDR ADOCK 05000338  
R PDR

IF2471

VIRGINIA POWER COMPANY  
NORTH ANNA POWER STATION  
MONTHLY OPERATING REPORT

MONTH: August YEAR: 1996

Approved:

  
Station Manager

JRH

# OPERATING DATA REPORT

DOCKET NO.: 50-338  
 DATE: September 5, 1996  
 CONTACT: W. R. Matthews  
 PHONE: (540) 894-2101

## OPERATING STATUS

1. Unit Name:..... North Anna 1  
 2. Reporting Period:..... August 1996  
 3. Licensed Thermal Power (Mwt):..... 2,893  
 4. Nameplate Rating (Gross MWe):..... 994  
 5. Design Electrical Rating (Net MWe):..... 907  
 6. Maximum Dependable Capacity (Gross MWe):..... 940  
 7. Maximum Dependable Capacity (Net MWe):..... 893

8. If changes occur to Capacity Ratings (Items 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	5,855.0	159,491.0
12. Number of Hours Reactor was Critical.....	711.9	5,122.4	122,308.8
13. Reactor Reserve Shutdown Hours.....	31.4	74.4	7,025.8
14. Hours Generator On-Line.....	703.3	5,086.0	119,273.5
15. Unit Reserve Shutdown Hours.....	0.0	0.0	0.0
16. Gross Thermal Energy Generated (MWh).....	1,997,685.9	13,903,884.0	319,217,621.1
17. Gross Electrical Energy Generated (MWh).....	653,297.0	4,565,268.0	141,895,881.0
18. Net Electrical Energy Generated (MWh).....	620,125.0	4,333,076.0	99,374,230.0
19. Unit Service Factor.....	94.5%	86.9%	74.8%
20. Unit Availability Factor.....	94.5%	86.9%	74.8%
21. Unit Capacity Factor (using MDC Net).....	93.3%	82.9%	69.7%
22. Unit Capacity Factor (using DER Net).....	91.9%	81.6%	68.7%
23. Forced Outage Rate.....	5.5%	0.8%	9.0%

24. Shutdowns Scheduled Over Next 6 Months (Type, Date, Duration of Each):

N/A

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: September 5, 1996  
Contact: W. R. Matthews  
Phone: (540) 894-2101

MONTH: August 1996

DAY AVERAGE DAILY POWER  
LEVEL (MWe-Net)

1	899
2	900
3	901
4	901
5	900
6	900
7	900
8	900
9	896
10	899
11	899
12	900
13	901
14	901
15	901
16	901

DAY AVERAGE DAILY POWER  
LEVEL (MWe-Net)

17	902
18	902
19	901
20	902
21	902
22	900
23	899
24	900
25	901
26	901
27	378
28	0
29	262
30	891
31	899

## 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.

# NORTH ANNA POWER STATION

UNIT NO.: 1  
MONTH: August

## SUMMARY OF OPERATING EXPERIENCE

Page 1 of 2

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>
August 01, 1996	0000	Began month with unit at 100% power, 947 MWe.
August 09, 1996	0757	Commenced ramp down from 100% power, 947 MWe for Turbine Valve Freedom Test (TVFT).
	0843	Unit stable at 92% power, 880 MWe.
	0912	Commenced ramp from 92% power to 100% power after completion of TVFT.
	1005	Unit stable at 100% power, 947 MWe.
August 27, 1996	1004	Unit 1 reactor trip due to failed input/output isolation amp card in the logic cabinet for "B" bank control rods.
August 28, 1996	1646	Commenced unit reactor startup.
	1726	Entered Mode 2.
	1808	Reactor critical.
	1850	Unit stabilized at 4% power for shift turnover.
	2151	Entered Mode 1.
	2220	Stabilized reactor power at 7% due to main turbine valve position limiter problem.
August 29, 1996	0205	Main turbine valve position limiter repaired.
	0243	Unit placed on line.
	0400	Stabilized unit at 30% power, 190 MWe for chemistry hold.
	1515	Cleared chemistry hold.
	1552	Commenced ramp from 30% power, 216 MWe.
	2130	Holding ramp at 71% power, 665 MWe for calorimetric.

NORTH ANNA POWER STATION

UNIT NO.: 1

MONTH: August

SUMMARY OF OPERATING EXPERIENCE

Page 2 of 2

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>
August 29, 1996	2202	Commenced ramp after calorimetric.
	2355	Holding ramp at 90% power, 838 Mwe for 1-PT-24.1.
August 30, 1996	0026	Commenced ramp after 1-PT-24.1.
	0415	Unit stable at 100% power, 944 MWe.
August 31, 1996	2400	Ended month with unit stable at 100% power, 947 MWe.

UNIT SHUTDOWN AND POWER REDUCTIONS  
Explanation Sheet

Docket No.: 50-338

Report Month August Unit Name: NA-1

Year: 1996 Date: September 5, 1996

Contact: W. R. Matthews

96-02

August 27, 1996

Automatic reactor trip due to failed card in logic cabinet for "B" bank control rods.

August 28, 1996

Corrective maintenance complete and unit entered Mode 2 at 1726 hours. Unit entered Mode 1 at 2151 hours.

August 29, 1996

Main generator placed on line at 0243 hours.

August 30, 1996

Unit stable at 100% power, 944 MWe.

# UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH: August 1996

DOCKET NO.: 50-338

UNIT NAME: NA-1

DATE: September 5, 1996

CONTACT: W. R. Matthews

PHONE: (540) 894-2101

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
96-0	960827	F	40.7	A	3	96-005-00	AA	AMP	Automatic reactor trip due to failed card for "B" bank control rods.

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



# OPERATING DATA REPORT

DOCKET NO.: 50-339  
 DATE: September 5, 1996  
 CONTACT: W. R. Matthews  
 PHONE: (540) 894-2101

## OPERATING STATUS

1. Unit Name:..... North Anna 2  
 2. Reporting Period:..... August 1996  
 3. Licensed Thermal Power (Mwt):..... 2,893  
 4. Nameplate Rating (Gross MWe):..... 979  
 5. Design Electrical Rating (Net MWe):..... 907  
 6. Maximum Dependable Capacity (Gross MWe):..... 944  
 7. Maximum Dependable Capacity (Net MWe):..... 897

8. If changes occur to Capacity Ratings (Items 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	5,855.0	137,759.0
12. Number of Hours Reactor was Critical.....	744.0	5,855.0	115,912.6
13. Reactor Reserve Shutdown Hours.....	0.0	0.0	6,535.0
14. Hours Generator On-Line.....	744.0	5,855.0	114,778.1
15. Unit Reserve Shutdown Hours.....	0.0	0.0	0.0
16. Gross Thermal Energy Generated (MWH).....	2,080,833.5	16,863,272.4	312,840,511.1
17. Gross Electrical Energy Generated (MWH).....	681,063.0	5,539,203.0	102,370,621.0
18. Net Electrical Energy Generated (MWH).....	646,025.0	5,269,632.0	97,841,271.0
19. Unit Service Factor.....	100.0%	100.0%	83.3%
20. Unit Availability Factor.....	100.0%	100.0%	83.3%
21. Unit Capacity Factor (using MDC Net).....	96.8%	100.3%	79.0%
22. Unit Capacity Factor (using DER Net).....	95.7%	99.2%	78.3%
23. Forced Outage Rate.....	0.0%	0.0%	4.6%

24. Shutdowns Scheduled Over Next 6 Months (Type, Date, Duration of Each):  
 September 7, 1996, duration = 30 days.

Scheduled Refueling Outage

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: September 5, 1996  
Contact: W. R. Matthews  
Phone: (540) 894-2101

MONTH: August 1996

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	897	17	884
2	898	18	880
3	898	19	867
4	898	20	853
5	899	21	851
6	898	22	849
7	898	23	846
8	898	24	842
9	898	25	830
10	898	26	822
11	899	27	818
12	899	28	813
13	899	29	813
14	899	30	802
15	897	31	793
16	881		

## 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.

# NORTH ANNA POWER STATION

UNIT NO.: 2  
MONTH: August

## SUMMARY OF OPERATING EXPERIENCE

Page 1 of 1

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>
August 01, 1996	0000	Began month with unit stable at 100% power, 945 MWe.
August 14, 1996	1525	Commenced unit coastdown in preparation for September 1996 Refueling Outage.
August 16, 1996	0846	Commenced unit rampdown From 99.4% power, 936 MWe for Turbine Valve Freedom Test (TVFT).
	0920	Unit stable at 91%, 860 MWe.
	0945	TVFT complete.
	1112	Commenced unit ramp to full power after TVFT.
	1136	Unit stable at 97.7% power, 920 MWe.
August 31, 1996	2400	Ended month with unit stable at 88% power, 838 MWe. Several small unit ramp-downs (<5% power each) have occurred during the month to match Tave and Tref during end-of-cycle coastdown and are not individually recorded in this report.

UNIT SHUTDOWN AND POWER REDUCTIONS  
Explanation Sheet

Docket No.: 50-339

Report Month August Unit Name: NA-2

Year: 1996 Date: September 5, 1996

Contact: W. R. Matthews

\* No entries this month.

# UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH: August 1996

DOCKET NO.: 50-339

UNIT NAME: NA-2

DATE: September 5, 1996

CONTACT: W. R. Matthews

PHONE: (540) 894-2101

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
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____

\* No Entries 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 (IER) 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