

VIRGINIA ELECTRIC AND POWER COMPANY  
RICHMOND, VIRGINIA 23261

April 12, 1990

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

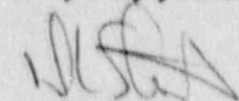
Serial No. 90-173  
NO/JMJ:jmj  
Docket Nos. 50-338  
50-339  
License Nos. NPF-4  
NPF-7

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 March 1990.

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

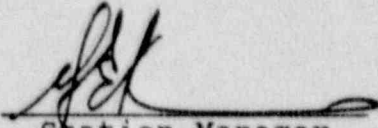
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VIRGINIA POWER COMPANY  
NORTH ANNA POWER STATION  
MONTHLY OPERATING REPORT

MONTH: March YEAR: 1990

Approved:

  
Station Manager  
JLH

# OPERATING DATA REPORT

Docket No: 50-338  
 Date: 04-03-90  
 Completed By: R. Tillack  
 Phone: (703)894-2631

## Operating Status

1. Unit Name:..... North Anna 1
2. Reporting Period:..... March 1990
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 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   | 103,212.0   |
| 12. Number Hours Rx was Critical   | 744.0      | 2,148.4   | 73,390.9    |
| 13. Rx Reserve Shutdown Hours      | 0.0        | 0.0       | 6,603.6     |
| 14. Hours Generator on Line        | 744.0      | 2,126.0   | 70,620.0    |
| 15. Unit Reserve Shutdown Hours    | 0.0        | 0.0       | 0.0         |
| 16. Gross Therm. Energy Gen. (MWH) | 2,151,520  | 6,115,182 | 188,005,960 |
| 17. Gross Elect. Energy Gen. (MWH) | 716,640    | 2,035,651 | 61,742,473  |
| 18. Net Elect. Energy Gen. (MWH)   | 682,019    | 1,938,360 | 58,433,573  |
| 19. Unit Service Factor            | 100.0      | 98.4      | 68.4        |
| 20. Unit Availability Factor       | 100.0      | 98.4      | 68.4        |
| 21. Unit Capacity Factor (MDC Net) | 100.2      | 98.1      | 63.4        |
| 22. Unit Capity Factor (DER Net)   | 101.1      | 98.9      | 62.4        |
| 23. Forced Outage Rate             | 0.0        | 1.6       | 14.0        |

24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each): N/A
25. If Shutdown at end of Report Period, estimate 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 2, 90  
 Completed by: R. Tillack  
 Phone: (703) 894-5151 x2631

MONTH: March 1990

DAY AVERAGE DAILY POWER  
LEVEL (MWe-Net)

|    |            |
|----|------------|
| 1  | <u>916</u> |
| 2  | <u>917</u> |
| 3  | <u>917</u> |
| 4  | <u>917</u> |
| 5  | <u>917</u> |
| 6  | <u>917</u> |
| 7  | <u>917</u> |
| 8  | <u>916</u> |
| 9  | <u>917</u> |
| 10 | <u>916</u> |
| 11 | <u>918</u> |
| 12 | <u>916</u> |
| 13 | <u>916</u> |
| 14 | <u>916</u> |
| 15 | <u>916</u> |
| 16 | <u>916</u> |

DAY AVERAGE DAILY LEVEL  
LEVEL (MWe-Net)

|    |            |
|----|------------|
| 17 | <u>917</u> |
| 18 | <u>918</u> |
| 19 | <u>917</u> |
| 20 | <u>917</u> |
| 21 | <u>918</u> |
| 22 | <u>918</u> |
| 23 | <u>918</u> |
| 24 | <u>918</u> |
| 25 | <u>918</u> |
| 26 | <u>918</u> |
| 27 | <u>918</u> |
| 28 | <u>917</u> |
| 29 | <u>917</u> |
| 30 | <u>904</u> |
| 31 | <u>918</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 1990

DOCKET NO.: 50-338  
UNIT NAME: NA-1  
DATE: April 3, 90  
COMPLETED BY: R. Tillack  
PHONE: (703)894-5151 x2631

| No. | Date | Type <sup>1</sup> | Duration<br>(hrs) | Reason <sup>2</sup> | Method of<br>Shutting<br>Down Reactor <sup>3</sup> | Licensee<br>Event<br>Report # | System<br>Code <sup>4</sup> | Component<br>Code <sup>5</sup> | Cause & Corrective<br>Action to<br>Prevent Recurrence |
|-----|------|-------------------|-------------------|---------------------|--|-------------------------------|-----------------------------|--------------------------------|---|
|-----|------|-------------------|-------------------|---------------------|--|-------------------------------|-----------------------------|--------------------------------|---|

\*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.: 50-338

Report Month March Unit Name: NA-1

Year: 1990 Date: April 2, 90

Completed by: Robert Tillack

\*No entry this month

# 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 01, 1990 | 0000        | Began month with Unit at 100%, 965MW.                                       |
| March 30, 1990 | 0822        | Commenced ramp down to 90% power for 1-PT-34.3, Turbine Valve Freedom Test. |
|                | 0918        | Unit stabilized at 875 MW for Turbine Valve Freedom Test.                   |
|                | 1003        | Completed Turbine Valve Freedom Test satisfactorily.                        |
|                | 1020        | Commenced ramp-up to 97% power.   |
|                | 1050        | Unit stabilized at 97% power until work on 1-SD-P-2A and 2B complete.       |
|                | 1649        | Commenced ramp-up to 100% power.  |
|                | 1800        | Unit stabilized at 100% power, 965MW.                                       |
| March 31, 1990 | 2400        | Ended month with Unit at 100%, 965MW.                                       |

# OPERATING DATA REPORT

Docket No: 50-339  
 Date: 04-03-90  
 Completed By: R. Tillack  
 Phone: (703) 894-2631

## Operating Status

1. Unit Name:..... North Anna 2
2. Reporting Period:..... March 1990
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 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   | 81,480.0    |
| 12. Number Hours Rx was Critical   | 744.0      | 2,160.0   | 66,282.1    |
| 13. Rx Reserve Shutdown Hours      | 0.0        | 0.0       | 5,854.9     |
| 14. Hours Generator on Line        | 744.0      | 2,160.0   | 65,411.9    |
| 15. Unit Reserve Shutdown Hours    | 0.0        | 0.0       | 0.0         |
| 16. Gross Therm. Energy Gen. (MWH) | 2,152,024  | 6,245,411 | 174,391,758 |
| 17. Gross Elect. Energy Gen. (MWH) | 711,205    | 2,065,004 | 57,070,521  |
| 18. Net Elect. Energy Gen. (MWH)   | 676,629    | 1,966,153 | 54,804,985  |
| 19. Unit Service Factor            | 100.0      | 100.0     | 80.3        |
| 20. Unit Availability Factor       | 100.0      | 100.0     | 80.3        |
| 21. Unit Capacity Factor (MDC Net) | 99.4       | 99.5      | 74.9        |
| 22. Unit Capity Factor (DER Net)   | 100.3      | 100.4     | 74.2        |
| 23. Forced Outage Rate             | 0.0        | 0.0       | 6.9         |

24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each): Refueling/10 year ISI, 09/07/90, 75 days.
25. If Shutdown at end of Report Period, estimate 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 2, 90  
 Completed by: R. Tillack  
 Phone: (703) 894-5151 x2631

MONTH: March 1990

DAY AVERAGE DAILY POWER  
LEVEL (MWe-Net)

|    |            |
|----|------------|
| 1  | <u>911</u> |
| 2  | <u>911</u> |
| 3  | <u>910</u> |
| 4  | <u>910</u> |
| 5  | <u>911</u> |
| 6  | <u>911</u> |
| 7  | <u>910</u> |
| 8  | <u>911</u> |
| 9  | <u>911</u> |
| 10 | <u>911</u> |
| 11 | <u>911</u> |
| 12 | <u>911</u> |
| 13 | <u>909</u> |
| 14 | <u>910</u> |
| 15 | <u>909</u> |
| 16 | <u>908</u> |

DAY AVERAGE DAILY LEVEL  
LEVEL (MWe-Net)

|    |            |
|----|------------|
| 17 | <u>910</u> |
| 18 | <u>910</u> |
| 19 | <u>909</u> |
| 20 | <u>909</u> |
| 21 | <u>910</u> |
| 22 | <u>909</u> |
| 23 | <u>906</u> |
| 24 | <u>909</u> |
| 25 | <u>908</u> |
| 26 | <u>908</u> |
| 27 | <u>908</u> |
| 28 | <u>909</u> |
| 29 | <u>908</u> |
| 30 | <u>908</u> |
| 31 | <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 1990

DOCKET NO.: 50-339  
UNIT NAME: NA-2  
DATE: April 3, 90  
COMPLETED BY: R. Tiliack  
PHONE: (703) 894-5151 x2631

| No. | Date | Type <sup>1</sup> | Duration<br>(hrs) | Reason <sup>2</sup> | Method of<br>Shutting<br>Down Reactor <sup>3</sup> | Licensee<br>Event<br>Report # | System<br>Code <sup>4</sup> | Component<br>Code <sup>5</sup> | Cause & Corrective<br>Action to<br>Prevent Recurrence |
|-----|------|-------------------|-------------------|---------------------|--|-------------------------------|-----------------------------|--------------------------------|---|
|-----|------|-------------------|-------------------|---------------------|--|-------------------------------|-----------------------------|--------------------------------|---|

\*No entry this month

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.: 50-339

Report Month March Unit Name: NA-2

Year: 1990 Date: April 2, 90

Completed by: Robert Tillack

\*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 01, 1990 | 0000        | Began month with Unit at 100%, 953MW.                                       |
| March 23, 1990 | 0839        | Commenced ramp down to 90% power for 2-PT-34.3, Turbine Valve Freedom Test. |
|                | 0925        | Unit stabilized at 875 MW for Turbine Valve Freedom Test.                   |
|                | 0945        | Completed Turbine Valve Freedom Test satisfactorily.                        |
|                | 0950        | Commenced ramp-up to 100% power.  |
|                | 1103        | Unit stabilized at 100% power, 955MW.                                       |
| March 31, 1990 | 2400        | Ended month with Unit at 100%, 965MW.                                       |