

**VIRGINIA ELECTRIC AND POWER COMPANY**  
**RICHMOND, VIRGINIA 23261**

November 14, 2001

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

Serial No. 01-695  
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 October 2001 Monthly Operating Report for North Anna Power Station Units 1 and 2.

Very truly yours,



D. A. Heacock  
Site Vice President

Enclosure

Commitments made in this letter: None.

cc: U. S. Nuclear Regulatory Commission  
Region II  
Sam Nunn Atlanta Federal Center  
61 Forsyth St., SW, Suite 23T85  
Atlanta, Georgia 30303

Mr. M. J. Morgan  
NRC Senior Resident Inspector  
North Anna Power Station

IE24

**VIRGINIA ELECTRIC AND POWER COMPANY  
NORTH ANNA POWER STATION  
MONTHLY OPERATING REPORT  
OCTOBER 2001**

Approved: DAW 11-14-01  
Site Vice President Date  
RL

# **OPERATING DATA REPORT**

Docket No.: 50-338  
 Date: 11/05/01  
 Contact: D. A. Heacock  
 Telephone: (540) 894-2101

1. Unit Name:..... North Anna Unit 1
2. Reporting Period:..... October 2001
3. Licensed Thermal Power (MWt): ..... 2,893
4. Nameplate Rating (Gross MWe):..... 979.74
5. Design Electrical Rating (Net MWe): ..... 907
6. Maximum Dependable Capacity (Gross MWe):.... 971
7. Maximum Dependable Capacity (Net MWe):..... 925

8. If Changes Occur in Capacity Ratings (Items Number 3 Through 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

|   | <u>This Month</u> | <u>Year-To-Date</u> | <u>Cumulative</u> |
|---|-------------------|---------------------|-------------------|
| 11. Hours in Reporting Period               | 745.0             | 7,296.0             | 204,780.0         |
| 12. Hours Reactor Was Critical              | 539.8             | 6,564.4             | 164,831.8         |
| 13. Reactor Reserve Shutdown Hours          | 21.7              | 35.7                | 7,275.2           |
| 14. Hours Generator On-Line                 | 523.5             | 6,547.3             | 161,565.3         |
| 15. Unit Reserve Shutdown Hours             | 0.0               | 0.0                 | 0.0               |
| 16. Gross Thermal Energy Generated (MWH)    | 1,433,579.7       | 17,875,685.0        | 439,197,527.6     |
| 17. Gross Electrical Energy Generated (MWH) | 484,260.0         | 6,049,299.0         | 181,914,015.0     |
| 18. Net Electrical Energy Generated (MWH)   | 460,097.0         | 5,748,395.0         | 137,447,172.0     |
| 19. Unit Service Factor                     | 70.3%             | 89.7%               | 78.9%             |
| 20. Unit Availability Factor                | 70.3%             | 89.7%               | 78.9%             |
| 21. Unit Capacity Factor (Using MDC Net)    | 66.8%             | 85.2%               | 75.0%             |
| 22. Unit Capacity Factor (Using DER Net)    | 68.1%             | 86.9%               | 74.0%             |
| 23. Unit Forced Outage Rate                 | 0.0%              | 0.0%                | 6.9%              |

24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each): N/A  
Type and duration of scheduled shutdowns are no longer provided.  
(Reference: Letter Serial No. 00-070, dated February 11, 2000)

25. If Shut Down at End of Report Period, Estimated Date of Start-up: N/A  
Estimated start-up dates are no longer provided.  
(Reference: Letter Serial No. 00-070, dated February 11, 2000)

26. Unit In Test Status (Prior to Commercial Operation):

|                      | <u>FORECAST</u> | <u>ACHIEVED</u> |
|----------------------|-----------------|-----------------|
| INITIAL CRITICALITY  | _____           | _____           |
| INITIAL ELECTRICITY  | _____           | _____           |
| COMMERCIAL OPERATION | _____           | _____           |

## AVERAGE DAILY UNIT POWER LEVEL

Docket No.: 50-338  
Unit Name: North Anna Unit 1  
Date: 11/05/01  
Contact: D. A. Heacock  
Telephone: (540) 894-2101

MONTH: October, 2001

| Day | Average Daily Power Level<br>(MWe - Net) | Day | Average Daily Power Level<br>(MWe - Net) |
|-----|--|-----|--|
| 1   | 000                                      | 17  | 933                                      |
| 2   | 000                                      | 18  | 923                                      |
| 3   | 000                                      | 19  | 923                                      |
| 4   | 000                                      | 20  | 938                                      |
| 5   | 000                                      | 21  | 938                                      |
| 6   | 000                                      | 22  | 938                                      |
| 7   | 000                                      | 23  | 937                                      |
| 8   | 000                                      | 24  | 936                                      |
| 9   | 000                                      | 25  | 937                                      |
| 10  | 132                                      | 26  | 938                                      |
| 11  | 452                                      | 27  | 938                                      |
| 12  | 782                                      | 28  | 938                                      |
| 13  | 934                                      | 29  | 936                                      |
| 14  | 938                                      | 30  | 936                                      |
| 15  | 937                                      | 31  | 935                                      |
| 16  | 938                                      |     |  |

### 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.

Docket No.: 50-338  
Unit Name: North Anna Unit 1  
Date: 11/05/01  
Contact: D. A. Heacock  
Telephone: (540) 894-2101

**NORTH ANNA POWER STATION**

**UNIT NO.: 1**  
**MONTH: October, 2001**

**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>   |
|------------------|-------------|---|
| October 1, 2001  | 0000        | Began the month in Mode 6   |
| October 5, 2001  | 1645        | Entered Mode 5.   |
| October 8, 2001  | 1346        | Entered Mode 4.   |
| October 8, 2001  | 1820        | Entered Mode 3.   |
| October 9, 2001  | 1045        | Commenced withdrawing control banks in preparation for dilution to criticality. |
| October 9, 2001  | 1129        | Entered Mode 2.   |
| October 9, 2001  | 1314        | Unit 1 reactor is critical.   |
| October 10, 2001 | 0530        | Unit 1 is on line.  |
| October 10, 2001 | 0750        | Unit 1 is stable at 30% power, 215 MWe.   |
| October 11, 2001 | 0242        | Released by Chemistry and Engineering for power escalation.                     |
| October 11, 2001 | 1437        | Unit 1 is at 61% power.   |
| October 11, 2001 | 1830        | Holding ramp at 74% power, 705 MWe.   |
| October 12, 2001 | 0516        | Commenced ramp up.  |
| October 12, 2001 | 0950        | Unit 1 is at 87.6% power, 830 MWe.  |
| October 12, 2001 | 1451        | Raising power to 96%.   |
| October 13, 2001 | 0138        | Unit 1 is at 100% power, 981 MWe.   |
| October 31, 2001 | 2400        | Ended the month in Mode 1, 100% power, 984 MWe.                                 |

Docket No.: 50-338  
Unit Name: North Anna Unit 1  
Date: 11/05/01  
Contact: D. A. Heacock  
Telephone: (540) 894-2101

**UNIT SHUTDOWN AND POWER REDUCTION**  
(EQUAL TO OR GREATER THAN 20%)

REPORT MONTH: October, 2001

| Report No.  | Date | (1)<br>Type | Duration<br>Hours | (2)<br>Reason | (3)<br>Method<br>of<br>Shutting<br>Down<br>Reactor | LER No. | (4)<br>System<br>Code | (5)<br>Component<br>Code | Cause &<br>Corrective Action<br>to Prevent<br>Recurrence |
|-------------|------|-------------|-------------------|---------------|--|---------|-----------------------|--------------------------|--|
| N1-2001-001 |      |             | 221.5             |               |  |         |                       |                          | Continuation of<br>scheduled<br>refueling outage.        |

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(1)  
F: Forced  
S: Scheduled

(2)  
REASON:  
A - Equipment Failure (Explain)  
B - Maintenance or Test  
C - Refueling  
D - Regulatory Restriction  
E - Operator Training & Licensing 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 G - Instructions for Preparation of Data Entry Sheets  
for Licensee Event Report (LER) File (NUREG 0161)

(5)  
Exhibit H - Same Source

## OPERATING DATA REPORT

Docket No.: 50-339  
 Date: 11/05/01  
 Contact: D. A. Heacock  
 Telephone: (540) 894-2101

1. Unit Name: ..... North Anna Unit 2
2. Reporting Period: ..... October, 2001
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): ..... 963
7. Maximum Dependable Capacity (Net MWe): ..... 917

8. If Changes Occur in Capacity Ratings (Items Number 3 Through 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

|   | <u>This Month</u> | <u>Year-To-Date</u> | <u>Cumulative</u> |
|---|-------------------|---------------------|-------------------|
| 11. Hours in Reporting Period               | 745.0             | 7,296.0             | 183,048.0         |
| 12. Hours Reactor Was Critical              | 649.7             | 6,463.4             | 157,082.7         |
| 13. Reactor Reserve Shutdown Hours          | 13.1              | 83.3                | 7,421.9           |
| 14. Hours Generator On-Line                 | 649.2             | 6,429.5             | 155,767.3         |
| 15. Unit Reserve Shutdown Hours             | 0.0               | 0.0                 | 0.0               |
| 16. Gross Thermal Energy Generated (MWH)    | 1,873,573.3       | 17,861,146.9        | 429,530,110.1     |
| 17. Gross Electrical Energy Generated (MWH) | 625,715.0         | 5,961,958.0         | 140,890,226.0     |
| 18. Net Electrical Energy Generated (MWH)   | 595,112.0         | 5,664,086.0         | 134,482,157.0     |
| 19. Unit Service Factor                     | 87.1%             | 88.1%               | 85.1%             |
| 20. Unit Availability Factor                | 87.1%             | 88.1%               | 85.1%             |
| 21. Unit Capacity Factor (Using MDC Net)    | 87.1%             | 84.7%               | 81.7%             |
| 22. Unit Capacity Factor (Using DER Net)    | 88.1%             | 85.6%               | 81.0%             |
| 23. Unit Forced Outage Rate                 | 0.0%              | 0.5%                | 4.2%              |

24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each): N/A  
 Type and duration of scheduled shutdowns are no longer provided.  
 (Reference: Letter Serial No. 00-070, dated February 11, 2000)

25. If Shut Down at End of Report Period, Estimated Date of Start-up: \_\_\_\_\_  
 Estimated start-up dates are no longer provided.  
 (Reference: Letter Serial No. 00-070, dated February 11, 2000)

26. Unit In Test Status (Prior to Commercial Operation):

|                      | <u>FORECAST</u> | <u>ACHIEVED</u> |
|----------------------|-----------------|-----------------|
| INITIAL CRITICALITY  | _____           | _____           |
| INITIAL ELECTRICITY  | _____           | _____           |
| COMMERCIAL OPERATION | _____           | _____           |

## AVERAGE DAILY UNIT POWER LEVEL

Docket No.: 50-339  
Unit Name: North Anna Unit 2  
Date: 11/05/01  
Contact: D. A. Heacock  
Telephone: (540) 894-2101

MONTH: October, 2001

| Day | Average Daily Power Level<br>(MWe - Net) | Day | Average Daily Power Level<br>(MWe - Net) |
|-----|--|-----|--|
| 1   | 913                                      | 17  | 923                                      |
| 2   | 912                                      | 18  | 923                                      |
| 3   | 915                                      | 19  | 922                                      |
| 4   | 915                                      | 20  | 922                                      |
| 5   | 915                                      | 21  | 923                                      |
| 6   | 914                                      | 22  | 923                                      |
| 7   | 912                                      | 23  | 922                                      |
| 8   | 913                                      | 24  | 922                                      |
| 9   | 915                                      | 25  | 921                                      |
| 10  | 920                                      | 26  | 922                                      |
| 11  | 920                                      | 27  | 885                                      |
| 12  | 920                                      | 28  | 017                                      |
| 13  | 921                                      | 29  | 000                                      |
| 14  | 921                                      | 30  | 000                                      |
| 15  | 922                                      | 31  | 000                                      |
| 16  | 922                                      |     |  |

### 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.



Docket No.: 50-339  
Unit Name: North Anna Unit 2  
Date: 11/05/01  
Contact: D. A. Heacock  
Telephone: (540) 894-2101

**NORTH ANNA POWER STATION**

**UNIT NO.: 2**  
**MONTH: October, 2001**

**SUMMARY OF OPERATING EXPERIENCE**

Page 1 of 1

Listed below in chronological sequence is a summary of operating experiences for the month which required load reductions or resulted in significant non-load related incidents.

| <u>Date</u>      | <u>Time</u> | <u>Data</u>   |
|------------------|-------------|---|
| October 1, 2001  | 0000        | Began the month in Mode 1, 100% power, 965 MWe.   |
| October 27, 2001 | 2015        | Commenced ramp down for reactor head inspection outage.<br>Unit at 100% power, 968 MWe. |
| October 28, 2001 | 0111        | Removed main generator from service.  |
| October 28, 2001 | 0120        | Entered Mode 2.   |
| October 28, 2001 | 0140        | Entered Mode 3.   |
| October 28, 2001 | 1033        | Entered Mode 4.   |
| October 28, 2001 | 1444        | Entered Mode 5.   |
| October 31, 2001 | 2400        | Ended the month in Mode 5.  |

Docket No.: 50-339  
Unit Name: North Anna Unit 2  
Date: 11/05/01  
Contact: D. A. Heacock  
Telephone: (540) 894-2101

**UNIT SHUTDOWN AND POWER REDUCTION**  
(EQUAL TO OR GREATER THAN 20%)

REPORT MONTH: October, 2001

| Report No   | Date     | (1)<br>Type | Duration<br>Hours | (2)<br>Reason | (3)<br>Method of<br>Shutting<br>Down<br>Reactor | LER No. | (4)<br>System<br>Code | (5)<br>Component<br>Code | Cause &<br>Corrective Action<br>to Prevent<br>Recurrence |
|-------------|----------|-------------|-------------------|---------------|---|---------|-----------------------|--------------------------|--|
| N2-2001-005 | 10/28/01 | S           | 95.8              | H             | 1   |         |                       |                          | Schedule<br>shutdown to<br>inspect the<br>reactor head.  |

(1)  
F: Forced  
S: Scheduled

(2)  
REASON:  
A - Equipment Failure (Explain)  
B - Maintenance or Test  
C - Refueling  
D - Regulatory Restriction  
E - Operator Training & Licensing Examination  
F - Administrative  
G - Operational Error  
H - Other (explain)

(3)  
METHOD:  
1 - Manual  
2 - Manual Scram  
3 - Automatic Scram  
4 - Continuations  
5 - Load Reduction  
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Exhibit G - Instructions for Preparation of Data Entry Sheets  
for Licensee Event Report (LER) File (NUREG 0161)

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Exhibit H - Same Source