

VIRGINIA ELECTRIC AND POWER COMPANY  
RICHMOND, VIRGINIA 23261  
September 10, 2002

U. S. Nuclear Regulatory Commission  
Attention: Document Control Desk  
Washington, D.C. 20555-0001

Serial No. 02-574  
SPS Lic/JSA R0  
Docket Nos. 50-280  
50-281  
License Nos. DPR-32  
DPR-37

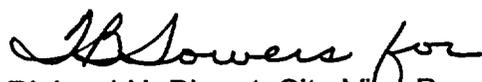
Gentlemen:

**VIRGINIA ELECTRIC AND POWER COMPANY**  
**SURRY POWER STATION UNITS 1 AND 2**  
**MONTHLY OPERATING REPORT**

The Monthly Operating Report for Surry Power Station Units 1 and 2 for the month of August 2002 is provided in the attachment.

If you have any questions or require additional information, please contact us.

Very truly yours,



Richard H. Blount, Site Vice President  
Surry Power Station

Attachment

Commitments made by this letter: None

cc: United States Nuclear Regulatory Commission  
Region II  
Sam Nunn Atlanta Federal Center  
61 Forsyth Street, SW, Suite 23 T85  
Atlanta, Georgia 30303-8931

Mr. R. A. Musser  
NRC Senior Resident Inspector  
Surry Power Station

IE24

VIRGINIA ELECTRIC AND POWER COMPANY  
SURRY POWER STATION  
MONTHLY OPERATING REPORT  
REPORT No. 02-08

Approved: Blowers for RH Blount 9/10/02  
Site Vice President Date

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OPERATING DATA REPORT

Docket No.: 50-280  
 Date: 09/03/02  
 Completed By: R. Stief  
 Telephone: (757) 365-2486

- 1. Unit Name: ..... Surry Unit 1
- 2. Reporting Period: ..... August 2002
- 3. Licensed Thermal Power (MWT): ..... 2546
- 4. Nameplate Rating (Gross MWe): ..... 847.5
- 5. Design Electrical Rating (Net MWe): ..... 788
- 6. Maximum Dependable Capacity (Gross MWe): .. 842
- 7. Maximum Dependable Capacity (Net MWe): ..... 810

8. If Changes Occur in Capacity Ratings (Items Number 3 Through 7) Since Last Report, Give Reasons:

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9. Power Level To Which Restricted, If Any (Net MWe): \_\_\_\_\_

10. Reasons For Restrictions, If Any: \_\_\_\_\_

|   | <u>This Month</u> | <u>Year-To-Date</u> | <u>Cumulative</u> |
|---|-------------------|---------------------|-------------------|
| 11. Hours in Reporting Period               | 744.0             | 5831.0              | 260279.0          |
| 12. Hours Reactor Was Critical              | 744.0             | 5831.0              | 191592.6          |
| 13. Reactor Reserve Shutdown Hours          | 0.0               | 0.0                 | 3774.5            |
| 14. Hours Generator On-Line                 | 744.0             | 5831.0              | 188933.2          |
| 15. Unit Reserve Shutdown Hours             | 0.0               | 0.0                 | 3736.2            |
| 16. Gross Thermal Energy Generated (MWH)    | 1864099.7         | 14758286.2          | 450065764.1       |
| 17. Gross Electrical Energy Generated (MWH) | 618252.0          | 4938411.0           | 148018514.0       |
| 18. Net Electrical Energy Generated (MWH)   | 595785.0          | 4749572.0           | 141342433.0       |
| 19. Unit Service Factor                     | 100.0%            | 100.0%              | 72.6%             |
| 20. Unit Availability Factor                | 100.0%            | 100.0%              | 74.0%             |
| 21. Unit Capacity Factor (Using MDC Net)    | 98.9%             | 100.6%              | 69.4%             |
| 22. Unit Capacity Factor (Using DER Net)    | 101.6%            | 103.4%              | 68.9%             |
| 23. Unit Forced Outage Rate                 | 0.0%              | 0.0%                | 12.4%             |

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

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Type and duration of scheduled shutdowns are no longer provided.  
 [Reference: Letter S/N 00-069, dated February 7, 2000]

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25. If Shut Down at End of Report Period, Estimated Date of Start-up: Estimated start-up dates are no longer provided [Reference: Letter S/N 00-069, dated February 7, 2000]

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

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

**OPERATING DATA REPORT**

Docket No.: 50-281  
 Date: 09/03/02  
 Completed By: R. Stief  
 Telephone: (757) 365-2486

- 1. Unit Name: ..... Surry Unit 2
- 2. Reporting Period: ..... August 2002
- 3. Licensed Thermal Power (MWt): ..... 2546
- 4. Nameplate Rating (Gross MWe): ..... 847.5
- 5. Design Electrical Rating (Net MWe): ..... 788
- 6. Maximum Dependable Capacity (Gross MWe): .. 847
- 7. Maximum Dependable Capacity (Net MWe): ..... 815

8. If Changes Occur in Capacity Ratings (Items Number 3 Through 7) Since Last Report, Give Reasons:

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9. Power Level To Which Restricted, If Any (Net MWe): \_\_\_\_\_

10. Reasons For Restrictions, If Any. \_\_\_\_\_

|     |   | <u>This Month</u> | <u>Year-To-Date</u> | <u>Cumulative</u> |
|-----|---|-------------------|---------------------|-------------------|
| 11. | Hours in Reporting Period               | 744.0             | 5831.0              | 257160.0          |
| 12. | Hours Reactor Was Critical              | 744.0             | 5172.8              | 188990.8          |
| 13. | Reactor Reserve Shutdown Hours          | 0.0               | 0.0                 | 328.1             |
| 14. | Hours Generator On-Line                 | 744.0             | 5134.3              | 186750.7          |
| 15. | Unit Reserve Shutdown Hours             | 0.0               | 0.0                 | 0.0               |
| 16. | Gross Thermal Energy Generated (MWH)    | 1894224.0         | 12992195.3          | 446017099.5       |
| 17. | Gross Electrical Energy Generated (MWH) | 629347.0          | 4347101.0           | 146724108.0       |
| 18. | Net Electrical Energy Generated (MWH)   | 606152.0          | 4192228.0           | 140149278.0       |
| 19. | Unit Service Factor                     | 100.0%            | 88.1%               | 72.6%             |
| 20. | Unit Availability Factor                | 100.0%            | 88.1%               | 72.6%             |
| 21. | Unit Capacity Factor (Using MDC Net)    | 100.0%            | 88.2%               | 69.4%             |
| 22. | Unit Capacity Factor (Using DER Net)    | 103.4%            | 91.2%               | 69.2%             |
| 23. | Unit Forced Outage Rate                 | 0.0%              | 0.0%                | 9.9%              |

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

---

Type and duration of scheduled shutdowns are no longer provided.  
 [Reference: Letter S/N 00-069, dated February 7, 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 S/N 00-069, dated February 7, 2000]

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

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

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

REPORT MONTH: August 2002

Docket No.: 50-280  
 Unit Name: Surry Unit 1  
 Date: 09/03/02  
 Completed by: R. Stief  
 Telephone: (757) 365-2486

| Date     | (1)<br>Type | Duration<br>Hours | (2)<br>Reason | (3)<br>Method<br>of<br>Shutting<br>Down Rx | LER No. | (4)<br>System<br>Code | (5)<br>Component<br>Code | Cause & Corrective Action to<br>Prevent Recurrence         |
|----------|-------------|-------------------|---------------|--|---------|-----------------------|--------------------------|--|
| 08/12/02 | N/A         | N/A               | A             | N/A  | N/A     | EL                    | FAN                      | Unit ramped due to failure of<br>"A" Isophase Bus Duct Fan |

(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 (Explain)  
 H - Other (Explain)

(3)  
 METHOD:  
 1 - Manual  
 2 - Manual Scram  
 3 - Automatic Scram  
 4 - Other (Explain)

(4)  
 Exhibit G - Instructions for Preparation of Data Entry Sheets  
 for Licensee Event Report (LER) File (NUREG 0161)

(5)  
 Exhibit 1 - Same Source

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

REPORT MONTH: August 2002

Docket No.: 50-281  
Unit Name: Surry Unit 2  
Date: 09/03/02  
Completed by: R. Stief  
Telephone: (757) 365-2486

None during the Reporting Period

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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 (Explain)  
H - Other (Explain)

(3)  
METHOD:  
1 - Manual  
2 - Manual Scram  
3 - Automatic Scram  
4 - Other (Explain)

(4)  
Exhibit G - Instructions for Preparation of Data Entry Sheets  
for Licensee Event Report (LER) File (NUREG 0161)

(5)  
Exhibit 1 - Same Source

**AVERAGE DAILY UNIT POWER LEVEL**

Docket No.: 50-280  
 Unit Name: Surry Unit 1  
 Date: 09/03/02  
 Completed by: R. Stief  
 Telephone: (757) 365-2486

MONTH: August 2002

| <u>Day</u> | <u>Average Daily Power Level<br/>(MWe - Net)</u> | <u>Day</u> | <u>Average Daily Power Level<br/>(MWe - Net)</u> |
|------------|--|------------|--|
| 1          | 811  | 17         | 815  |
| 2          | 810  | 18         | 813  |
| 3          | 809  | 19         | 812  |
| 4          | 810  | 20         | 813  |
| 5          | 810  | 21         | 813  |
| 6          | 811  | 22         | 814  |
| 7          | 816  | 23         | 813  |
| 8          | 815  | 24         | 813  |
| 9          | 816  | 25         | 814  |
| 10         | 817  | 26         | 815  |
| 11         | 817  | 27         | 817  |
| 12         | 573  | 28         | 818  |
| 13         | 645  | 29         | 818  |
| 14         | 816  | 30         | 818  |
| 15         | 814  | 31         | 818  |
| 16         | 813  |            |  |

**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.

**AVERAGE DAILY UNIT POWER LEVEL**

Docket No.: 50-281  
 Unit Name: Surry Unit 2  
 Date: 09/03/02  
 Completed by: R. Stief  
 Telephone: (757) 365-2486

MONTH: August 2002

| <u>Day</u> | <u>Average Daily Power Level<br/>(MWe - Net)</u> | <u>Day</u> | <u>Average Daily Power Level<br/>(MWe - Net)</u> |
|------------|--|------------|--|
| 1          | 812  | 17         | 815  |
| 2          | 812  | 18         | 814  |
| 3          | 812  | 19         | 813  |
| 4          | 810  | 20         | 812  |
| 5          | 809  | 21         | 813  |
| 6          | 811  | 22         | 814  |
| 7          | 817  | 23         | 813  |
| 8          | 816  | 24         | 813  |
| 9          | 817  | 25         | 813  |
| 10         | 817  | 26         | 815  |
| 11         | 817  | 27         | 817  |
| 12         | 816  | 28         | 818  |
| 13         | 813  | 29         | 819  |
| 14         | 814  | 30         | 820  |
| 15         | 815  | 31         | 822  |
| 16         | 816  |            |  |

**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.

**SUMMARY OF OPERATING EXPERIENCE**

**MONTH/YEAR: August 2002**

The following chronological sequence by unit is a summary of operating experiences for this month that required load reductions or resulted in significant non-load related incidents.

**UNIT ONE:**

|          |      |  |
|----------|------|--|
| 08/01/02 | 0000 | Unit started the month at 100% / 841 MWe.  |
| 08/12/02 | 0406 | Started ramp of unit due to abnormal noise on the "A" Isophase Bus Duct Cooling Fan. |
| 08/13/02 | 1211 | Tags cleared on 1-EP-F-GLA, commenced ramp to full power. Unit at 67% / 542 MWe.     |
| 08/13/02 | 1654 | Unit at 100% / 841 MWe.  |
| 08/31/02 | 2400 | Unit finished the month at 100% / 850 MWe  |

**UNIT TWO:**

|          |      |  |
|----------|------|--|
| 08/01/02 | 0000 | Unit started the month at 100% / 842 MWe.  |
| 08/31/02 | 2400 | Unit finished the month at 100% / 852 MWe. |

**FACILITY CHANGES THAT DID NOT REQUIRE NRC APPROVAL**

**MONTH/YEAR: August 2002**

None during the Reporting Period

**PROCEDURE OR METHOD OF OPERATION CHANGES  
THAT DID NOT REQUIRE NRC APPROVAL**

**MONTH/YEAR: August 2002**

1-MOP-FW-015

**Maintenance Operating Procedure  
(Regulatory Evaluation 02-008)**

08/08/02

Maintenance Operating Procedure 1-MOP-FW-015, "Main Feedwater Regulating Valve Jacking Operations", was revised to temporarily extend the 72 hour time frame in Technical Specification Interpretation TSI-014D to place a main feedwater regulating valve on its jack to permit further troubleshooting and maintenance.

**TESTS AND EXPERIMENTS THAT DID NOT REQUIRE NRC APPROVAL**

**MONTH/YEAR: August 2002**

None during the Reporting Period

CHEMISTRY REPORT

MONTH/YEAR: August 2002

| Primary Coolant Analysis               | Unit No. 1   |              |              | Unit No. 2   |              |              |
|--|--------------|--------------|--------------|--------------|--------------|--------------|
|  | Max          | Min.         | Avg.         | Max.         | Min.         | Avg.         |
| Gross Radioactivity, $\mu\text{Ci/ml}$ | 3.50E-1      | 1.81E-1      | 2.72E-1      | 3.24E-1      | 1.70E-1      | 2.43E-1      |
| Suspended Solids, ppm                  | -            | -            | -            | -            | -            | -            |
| Gross Tritium, $\mu\text{Ci/ml}$       | 1.32E+0      | 8.64E-1      | 1.11E+0      | 1.35E+0      | 1.13E+0      | 1.27E+0      |
| $I^{131}$ , $\mu\text{Ci/ml}$          | 3.27E-4      | 8.32E-5      | 1.67E-4      | 1.28E-4      | 7.58E-5      | 9.46E-5      |
| $I^{131}/I^{133}$                      | 0.14         | 0.04         | 0.07         | 0.13         | 0.08         | 0.1          |
| Hydrogen, cc/kg                        | 39.6         | 31.7         | 36.3         | 38.8         | 34           | 37.2         |
| Lithium, ppm                           | 2.34         | 2.06         | 2.2          | 2.37         | 2.14         | 2.26         |
| Boron - 10, ppm*                       | 185          | 155          | 166          | 257          | 241          | 248          |
| Oxygen, (DO), ppm                      | $\leq 0.005$ |
| Chloride, ppm                          | 0.006        | 0.004        | 0.005        | 0.004        | 0.002        | 0.003        |
| pH @ 25 degree Celsius                 | 6.78         | 6.67         | 6.72         | 6.45         | 6.34         | 6.4          |

\* Boron - 10 = Total Boron x 0.196

Comments:

None

**FUEL HANDLING  
UNITS 1 & 2**

**MONTH/YEAR: August 2002**

| <u>New Fuel<br/>Shipment or<br/>Cask No.</u> | <u>Date Stored<br/>or Received</u> | <u>Number of<br/>Assemblies<br/>per Shipment</u> | <u>Assembly<br/>Number</u> | <u>ANSI<br/>Number</u> | <u>Initial<br/>Enrichment</u> | <u>New or Spent<br/>Fuel Shipping<br/>Cask Activity</u> |
|--|------------------------------------|--|----------------------------|------------------------|-------------------------------|---|
|--|------------------------------------|--|----------------------------|------------------------|-------------------------------|---|

None during the Reporting Period

**DESCRIPTION OF PERIODIC TEST(S) WHICH WERE NOT COMPLETED  
WITHIN THE TIME LIMITS SPECIFIED IN TECHNICAL SPECIFICATIONS**

**MONTH/YEAR: August 2002**

None during the Reporting Period