

VIRGINIA ELECTRIC AND POWER COMPANY  
RICHMOND, VIRGINIA 23261  
October 8, 2001

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

Serial No. 01-619  
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 September 2001 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

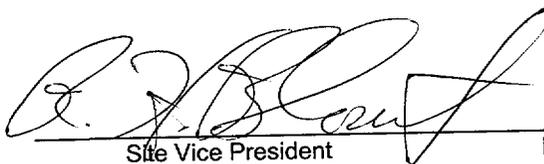
cc: United States Nuclear Regulatory Commission  
Region II  
Sam Nunn Atlanta Federal Center  
61 Forsyth Street, SW, Suite 23 T85  
Atlanta, Georgia 30303-8931

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. 01- 09**

Approved:

  
Site Vice President

  
Date

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**OPERATING DATA REPORT**

Docket No.: 50-280  
 Date: 10/02/01  
 Completed By: R. Stief  
 Telephone: (757) 365-2486

- 1. Unit Name: ..... Surry Unit 1
- 2. Reporting Period: ..... September 2001
- 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               | 720.0             | 6551.0              | 252239.0          |
| 12. Hours Reactor Was Critical              | 720.0             | 6513.9              | 184818.0          |
| 13. Reactor Reserve Shutdown Hours          | 0.0               | 0.0                 | 3774.5            |
| 14. Hours Generator On-Line                 | 720.0             | 6508.9              | 182229.6          |
| 15. Unit Reserve Shutdown Hours             | 0.0               | 0.0                 | 3736.2            |
| 16. Gross Thermal Energy Generated (MWH)    | 1759306.4         | 16462660.2          | 433315408.0       |
| 17. Gross Electrical Energy Generated (MWH) | 587747.0          | 5476967.0           | 142415370.0       |
| 18. Net Electrical Energy Generated (MWH)   | 565577.0          | 5301740.0           | 135952968.0       |
| 19. Unit Service Factor                     | 100.0%            | 99.4%               | 72.2%             |
| 20. Unit Availability Factor                | 100.0%            | 99.4%               | 73.7%             |
| 21. Unit Capacity Factor (Using MDC Net)    | 97.0%             | 99.9%               | 69.0%             |
| 22. Unit Capacity Factor (Using DER Net)    | 99.7%             | 102.7%              | 68.4%             |
| 23. Unit Forced Outage Rate                 | 0.0%              | 0.0%                | 12.8%             |

24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each):  
 October 2001

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 | _____           | _____           |

**OPERATING DATA REPORT**

Docket No.: 50-281  
 Date: 10/02/01  
 Completed By: R. Stief  
 Telephone: (757) 365-2486

- 1. Unit Name: ..... Surry Unit 2
- 2. Reporting Period: ..... September 2001
- 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               | 720.0             | 6551.0              | 249120.0          |
| 12. | Hours Reactor Was Critical              | 720.0             | 6278.5              | 181867.4          |
| 13. | Reactor Reserve Shutdown Hours          | 0.0               | 0.0                 | 328.1             |
| 14. | Hours Generator On-Line                 | 720.0             | 6262.1              | 179673.2          |
| 15. | Unit Reserve Shutdown Hours             | 0.0               | 0.0                 | 0.0               |
| 16. | Gross Thermal Energy Generated (MWH)    | 1831409.1         | 15887977.0          | 428109537.9       |
| 17. | Gross Electrical Energy Generated (MWH) | 611070.0          | 5316035.0           | 140726167.0       |
| 18. | Net Electrical Energy Generated (MWH)   | 588453.0          | 5128416.0           | 134364723.0       |
| 19. | Unit Service Factor                     | 100.0%            | 95.6%               | 72.1%             |
| 20. | Unit Availability Factor                | 100.0%            | 95.6%               | 72.1%             |
| 21. | Unit Capacity Factor (Using MDC Net)    | 100.3%            | 96.1%               | 68.7%             |
| 22. | Unit Capacity Factor (Using DER Net)    | 103.7%            | 99.3%               | 68.4%             |
| 23. | Unit Forced Outage Rate                 | 0.0%              | 0.7%                | 10.2%             |

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]

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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 | _____           | _____           |

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

**REPORT MONTH:** September 2001

Docket No.: 50-280  
Unit Name: Surry Unit 1  
Date: 10/01/01  
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

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

**REPORT MONTH:** September 2001

Docket No.: 50-281  
Unit Name: Surry Unit 2  
Date: 10/01/01  
Completed by: R. Stief  
Telephone: (757) 365-2486

None during the Reporting Period

---

(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: 10/02/01  
 Completed by: R. Stief  
 Telephone: (757) 365-2486

MONTH: September 2001

| Day | Average Daily Power Level<br>(MWe - Net) | Day | Average Daily Power Level<br>(MWe - Net) |
|-----|--|-----|--|
| 1   | 813                                      | 17  | 794                                      |
| 2   | 814                                      | 18  | 785                                      |
| 3   | 817                                      | 19  | 782                                      |
| 4   | 817                                      | 20  | 775                                      |
| 5   | 817                                      | 21  | 763                                      |
| 6   | 817                                      | 22  | 760                                      |
| 7   | 816                                      | 23  | 754                                      |
| 8   | 816                                      | 24  | 749                                      |
| 9   | 816                                      | 25  | 746                                      |
| 10  | 814                                      | 26  | 744                                      |
| 11  | 815                                      | 27  | 739                                      |
| 12  | 808                                      | 28  | 732                                      |
| 13  | 805                                      | 29  | 730                                      |
| 14  | 803                                      | 30  | 727                                      |
| 15  | 801                                      |     |  |
| 16  | 798                                      |     |  |

**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: 10/02/01  
 Completed by: R. Stief  
 Telephone: (757) 365-2486

MONTH: September 2001

| Day | Average Daily Power Level<br>(MWe - Net) | Day | Average Daily Power Level<br>(MWe - Net) |
|-----|--|-----|--|
| 1   | 816                                      | 17  | 818                                      |
| 2   | 817                                      | 18  | 817                                      |
| 3   | 816                                      | 19  | 819                                      |
| 4   | 815                                      | 20  | 820                                      |
| 5   | 816                                      | 21  | 800                                      |
| 6   | 817                                      | 22  | 816                                      |
| 7   | 817                                      | 23  | 818                                      |
| 8   | 816                                      | 24  | 818                                      |
| 9   | 815                                      | 25  | 817                                      |
| 10  | 815                                      | 26  | 819                                      |
| 11  | 817                                      | 27  | 819                                      |
| 12  | 817                                      | 28  | 821                                      |
| 13  | 817                                      | 29  | 823                                      |
| 14  | 819                                      | 30  | 822                                      |
| 15  | 821                                      |     |  |
| 16  | 822                                      |     |  |

**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: September 2001

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:

|          |      |  |
|----------|------|--|
| 09/01/01 | 0000 | Unit started the month at 100% / 844 MWe.                                  |
| 09/12/01 | 0536 | Commenced end of cycle coastdown IAW 1-OP-TM-005. Unit at 99.6% / 844 MWe. |
| 09/30/01 | 2400 | Unit finished the month at 87% / 753 MWe.                                  |

### UNIT TWO:

|          |      |  |
|----------|------|--|
| 09/01/01 | 0000 | Unit started the month at 100% / 845 MWe.                                    |
| 09/21/01 | 0809 | Commenced unit ramp for performance of 2-OSP-TM-001. Unit at 100% / 849 MWe. |
| 09/21/01 | 1015 | Unit stable for governor valve testing. Unit at 85% / 731 MWe.               |
| 09/21/01 | 1140 | 2-OSP-TM-001 complete.   |
| 09/21/01 | 1201 | Commenced unit ramp to full power.   |
| 09/21/01 | 1425 | Unit at 100% power.  |
| 09/30/01 | 2400 | Unit finished the month at 100% / 850 MWe.                                   |

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

**MONTH/YEAR:** September 2001

None during the Reporting Period

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

**MONTH/YEAR:** September 2001

0-ST-VS-001

**Special Test Procedure**  
(Safety Review 01-048)

09/18/01

Special Test Procedure 0-ST-VS-001, "58 Fan Flow Verification", was written to determine the maximum suction pressure during operation of the Auxiliary Building Ventilation Exhaust Fans (58A and 58B) and verify both fans will start and operate when both fans are set at 36,000 cfm.

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

**MONTH/YEAR:** September 2001

None during the Reporting Period

**CHEMISTRY REPORT**

MONTH/YEAR: September 2001

| Primary Coolant Analysis               | Unit No. 1   |              |              | Unit No. 2   |              |              |
|--|--------------|--------------|--------------|--------------|--------------|--------------|
|  | Max.         | Min.         | Avg.         | Max.         | Min.         | Avg.         |
| Gross Radioactivity, $\mu\text{Ci/ml}$ | 2.49E-1      | 1.09E-1      | 1.54E-1      | 1.98E-1      | 9.59E-2      | 1.51E-1      |
| Suspended Solids, ppm                  | 0.01         | 0.01         | 0.01         | 0.01         | 0.01         | 0.01         |
| Gross Tritium, $\mu\text{Ci/ml}$       | 3.61E-1      | 2.61E-1      | 3.18E-1      | 7.98E-1      | 7.46E-1      | 7.68E-1      |
| $^{131}\text{I}$ , $\mu\text{Ci/ml}$   | 5.09E-4      | 2.18E-4      | 3.12E-4      | 1.68E-4      | 1.01E-4      | 1.24E-4      |
| $^{131}\text{I}/^{133}\text{I}$        | 0.12         | 0.06         | 0.08         | 0.11         | 0.07         | 0.08         |
| Hydrogen, cc/kg                        | 38.9         | 35           | 36.6         | 42.6         | 37.3         | 39.3         |
| Lithium, ppm                           | 1.88         | 1.37         | 1.59         | 2.3          | 2.11         | 2.19         |
| Boron - 10, ppm*                       | 7.45         | 0.2          | 1.83         | 131.5        | 112.9        | 122.4        |
| Oxygen, (DO), ppm                      | $\leq 0.005$ |
| Chloride, ppm                          | 0.002        | 0.001        | 0.001        | 0.004        | 0.001        | 0.002        |
| pH @ 25 degree Celsius                 | 9.68         | 7.78         | 8.83         | 7.14         | 6.82         | 6.89         |

\* Boron - 10 = Total Boron x 0.196

Comments:

None

**FUEL HANDLING  
UNITS 1 & 2**

MONTH/YEAR: September 2001

| <u>New Fuel<br/>Shipment or<br/>Cask No.</u> | <u>Date Stored or<br/>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:** September 2001

None during the Reporting Period