

**VIRGINIA ELECTRIC AND POWER COMPANY**  
**RICHMOND, VIRGINIA 23261**  
September 12, 2003

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

Serial No. 03-472  
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 2003 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. G. J. McCoy  
NRC Senior Resident Inspector  
Surry Power Station

JE24

**VIRGINIA ELECTRIC AND POWER COMPANY  
SURRY POWER STATION  
MONTHLY OPERATING REPORT  
REPORT No. 03-08**

Approved:

  
Site Vice President

9/12/03  
Date

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OPERATING DATA REPORT

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

1. Unit Name: ..... Surry Unit 1
2. Reporting Period:..... August 2003
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	269039.0
12. Hours Reactor Was Critical	744.0	4213.5	198735.1
13. Reactor Reserve Shutdown Hours	0.0	0.0	3774.5
14. Hours Generator On-Line	744.0	4091.2	195953.4
15. Unit Reserve Shutdown Hours	0.0	0.0	3736.2
16. Gross Thermal Energy Generated (MWH)	1888969.1	10247894.4	467754211.1
17. Gross Electrical Energy Generated (MWH)	627185.0	3414276.0	153919600.0
18. Net Electrical Energy Generated (MWH)	604769.0	3291111.0	147033432.0
19. Unit Service Factor	100.0%	70.2%	72.8%
20. Unit Availability Factor	100.0%	70.2%	74.2%
21. Unit Capacity Factor (Using MDC Net)	100.4%	69.7%	69.8%
22. Unit Capacity Factor (Using DER Net)	103.2%	71.6%	69.4%
23. Unit Forced Outage Rate	0.0%	7.7%	12.2%

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]

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: 09/02/03

Completed By: R. Stief

Telephone: (757) 365-2486

1. Unit Name: ..... Surry Unit 2
2. Reporting Period:..... August 2003
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:

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

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	265920.0
12. Hours Reactor Was Critical	744.0	5768.1	197651.5
13. Reactor Reserve Shutdown Hours	0.0	0.0	328.1
14. Hours Generator On-Line	744.0	5743.3	195327.7
15. Unit Reserve Shutdown Hours	0.0	0.0	0.0
16. Gross Thermal Energy Generated (MWH)	1894162.9	14606931.6	467833916.1
17. Gross Electrical Energy Generated (MWH)	629556.0	4907528.0	154048061.0
18. Net Electrical Energy Generated (MWH)	606458.0	4715812.0	147196529.0
19. Unit Service Factor	100.0%	98.5%	73.5%
20. Unit Availability Factor	100.0%	98.5%	73.5%
21. Unit Capacity Factor (Using MDC Net)	100.0%	99.2%	70.4%
22. Unit Capacity Factor (Using DER Net)	103.4%	102.6%	70.2%
23. Unit Forced Outage Rate	0.0%	1.5%	9.6%

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

September 2003

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 2003**

**Docket No.: 50-280**

**Unit Name: Surry Unit 1**

**Date: 09/02/03**

**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: August 2003**

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

MONTH: August 2003

Day	Average Daily Power Level (MWe - Net)	Day	Average Daily Power Level (MWe - Net)
1	816	17	811
2	815	18	811
3	815	19	813
4	815	20	813
5	814	21	812
6	813	22	812
7	814	23	813
8	815	24	814
9	815	25	815
10	815	26	813
11	813	27	812
12	812	28	812
13	812	29	811
14	810	30	811
15	808	31	813
16	810		

**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: 09/02/03

Completed by: R. Stief

Telephone: (757) 365-2486

MONTH: August 2003

Day	Average Daily Power Level (MWe - Net)	Day	Average Daily Power Level (MWe - Net)
1	817	17	816
2	816	18	817
3	815	19	816
4	817	20	815
5	817	21	814
6	816	22	813
7	816	23	814
8	817	24	815
9	816	25	816
10	816	26	815
11	816	27	814
12	815	28	814
13	814	29	815
14	810	30	814
15	814	31	815
16	815		

**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 2003

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:

08/01/03	0000	Unit started the month at 100% / 846 MWe.
08/14/03	1617	Transient occurred on Unit 1. Unit 1 rods stepped from 229 to 228, governor valve #2 at 100% closed to 78%, #4 at 18% closed to 4%, megawatts decreased from 838 to 810. System Operator reported transient on the grid (due to Northeast Power Outage).
08/14/03	1619	Unit returned to pre-transient status.
08/31/03	2400	Unit finished the month at 100% / 844 MWe.

### UNIT TWO:

08/01/03	0000	Unit started the month at 100% / 848 MWe.
08/14/03	1617	Transient occurred on Unit 2. Unit 2 #4 governor valve closed from 17% to 10%. System Operator reported transient on the grid (due to Northeast Power Outage).
08/14/03	1619	Unit returned to pre-transient status.
08/31/03	2400	Unit finished the month at 100% / 846 MWe.

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

**MONTH/YEAR: August 2003**

**None during the Reporting Period**

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

**MONTH/YEAR: August 2003**

None during the Reporting Period

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

**MONTH/YEAR: August 2003**

**None during the Reporting Period**

**CHEMISTRY REPORT**

**MONTH/YEAR: August 2003**

Primary Coolant Analysis	Unit No. 1			Unit No. 2		
	Max.	Min.	Avg.	Max.	Min.	Avg.
Gross Radioactivity, $\mu\text{Ci/ml}$	3.48E-1	1.38E-1	2.41E-1	1.928E-1	6.63E-2	1.37E-1
Suspended Solids, ppm	-	-	-	-	-	-
Gross Tritium, $\mu\text{Ci/ml}$	6.91E-1	4.73E-1	5.91E-1	3.84E-1	2.79E-1	3.36E-1
$I^{131}$ , $\mu\text{Ci/ml}$	1.85E-4	6.66E-5	1.20E-4	1.17E-4	7.13E-5	9.38E-5
$I^{131}/I^{133}$	0.11	0.04	0.07	0.1	0.06	0.08
Hydrogen, cc/kg	34.9	29.4	32.1	35.5	30.7	33.6
Lithium, ppm	2.64	2.08	2.3	1.44	1	1.25
Boron - 10, ppm*	251	239	246	37.4	16.9	27.1
Oxygen, (DO), ppm	$\leq 0.005$	$\leq 0.005$	$\leq 0.005$	$\leq 0.005$	$\leq 0.005$	$\leq 0.005$
Chloride, ppm	0.008	0.004	0.005	0.001	0.001	0.001
pH @ 25 degree Celsius	6.54	6.25	6.4	7.51	7.25	7.39

\* Boron - 10 = Total Boron x 0.196

Comments: No quarterly suspended solids analysis were required for either unit for August.

None

**FUEL HANDLING  
UNITS 1 & 2**

**MONTH/YEAR: August 2003**

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

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 2003**

**None during the Reporting Period**