

VIRGINIA ELECTRIC AND POWER COMPANY  
RICHMOND, VIRGINIA 23261

March 11, 2002

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

Serial No. 02-141  
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 February 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. 02-02**

Approved:  3/11/02  
Site Vice President Date

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**OPERATING DATA REPORT**

Docket No.: 50-280  
 Date: 03/04/02  
 Completed By: R. Stief  
 Telephone: (757) 365-2486

- 1. Unit Name: ..... Surry Unit 1
- 2. Reporting Period: ..... February 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	672.0	1416.0	255864.0
12. Hours Reactor Was Critical	672.0	1416.0	187177.6
13. Reactor Reserve Shutdown Hours	0.0	0.0	3774.5
14. Hours Generator On-Line	672.0	1416.0	184518.2
15. Unit Reserve Shutdown Hours	0.0	0.0	3736.2
16. Gross Thermal Energy Generated (MWH)	1710850.9	3604402.8	438911880.7
17. Gross Electrical Energy Generated (MWH)	573616.0	1208707.0	144288810.0
18. Net Electrical Energy Generated (MWH)	553573.0	1166972.0	137759833.0
19. Unit Service Factor	100.0%	100.0%	72.1%
20. Unit Availability Factor	100.0%	100.0%	73.6%
21. Unit Capacity Factor (Using MDC Net)	101.7%	101.7%	68.9%
22. Unit Capacity Factor (Using DER Net)	104.5%	104.6%	68.3%
23. Unit Forced Outage Rate	0.0%	0.0%	12.7%

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: 03/04/02  
 Completed By: R. Stief  
 Telephone: (757) 365-2486

- 1. Unit Name: ..... Surry Unit 2
- 2. Reporting Period: ..... February 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	672.0	1416.0	252745.0
12. Hours Reactor Was Critical	672.0	1416.0	185234.0
13. Reactor Reserve Shutdown Hours	0.0	0.0	328.1
14. Hours Generator On-Line	672.0	1416.0	183032.4
15. Unit Reserve Shutdown Hours	0.0	0.0	0.0
16. Gross Thermal Energy Generated (MWH)	1710545.4	3604586.1	436629490.3
17. Gross Electrical Energy Generated (MWH)	576020.0	1213195.0	143590202.0
18. Net Electrical Energy Generated (MWH)	556673.0	1171995.0	137129045.0
19. Unit Service Factor	100.0%	100.0%	72.4%
20. Unit Availability Factor	100.0%	100.0%	72.4%
21. Unit Capacity Factor (Using MDC Net)	101.6%	101.6%	69.1%
22. Unit Capacity Factor (Using DER Net)	105.1%	105.0%	68.9%
23. Unit Forced Outage Rate	0.0%	0.0%	10.1%

24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each):  
 April 2002

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: February 2002

Docket No.: 50-280  
Unit Name: Surry Unit 1  
Date: 03/01/02  
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

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

**REPORT MONTH:** February 2002

Docket No.: 50-281  
Unit Name: Surry Unit 2  
Date: 03/01/02  
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: 03/04/02  
 Completed by: R. Stief  
 Telephone: (757) 365-2486

MONTH: February 2002

Day	Average Daily Power Level (MWe - Net)	Day	Average Daily Power Level (MWe - Net)
1	824	17	823
2	824	18	823
3	824	19	823
4	825	20	823
5	824	21	824
6	824	22	823
7	824	23	823
8	824	24	823
9	825	25	823
10	824	26	823
11	825	27	824
12	825	28	823
13	824		
14	823		
15	824		
16	823		

**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: 03/04/02  
 Completed by: R. Stief  
 Telephone: (757) 365-2486

MONTH: February 2002

Day	Average Daily Power Level (MWe - Net)	Day	Average Daily Power Level (MWe - Net)
1	829	17	828
2	830	18	828
3	830	19	828
4	827	20	828
5	827	21	829
6	829	22	828
7	829	23	828
8	829	24	827
9	829	25	827
10	829	26	827
11	829	27	828
12	828	28	828
13	829		
14	830		
15	830		
16	829		

**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:** February 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:**

02/01/02	0000	Unit started the month at 100% / 854 MWe.
02/28/02	2400	Unit finished the month at 100% / 854 MWe.

**UNIT TWO:**

02/01/02	0000	Unit started the month at 100% / 855 MWe.
02/28/02	2400	Unit finished the month at 100% / 855 MWe.

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

**MONTH/YEAR:** February 2002

None during the Reporting Period

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

**MONTH/YEAR: February 2002**

None during the Reporting Period

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

**MONTH/YEAR:** February 2002

None during the Reporting Period

**CHEMISTRY REPORT**

MONTH/YEAR: February 2002

Primary Coolant Analysis	Unit No. 1			Unit No. 2		
	Max.	Min.	Avg.	Max.	Min.	Avg.
Gross Radioactivity, $\mu\text{Ci/ml}$	3.45E-1	1.73E-1	2.82E-1	3.27E-1	1.58E-1	2.73E-1
Suspended Solids, ppm	-	-	-	-	-	-
Gross Tritium, $\mu\text{Ci/ml}$	8.18E-1	6.70E-1	7.42E-1	1.52E-1	1.19E-1	1.40E-1
$I^{131}$ , $\mu\text{Ci/ml}$	6.26E-4	6.94E-5	1.50E-4	2.18E-4	8.27E-5	1.25E-4
$I^{131}/I^{133}$	0.1	0.05	0.07	0.14	0.05	0.08
Hydrogen, cc/kg	40.4	35.6	37.4	43.2	36.6	38.7
Lithium, ppm	2.43	2.17	2.29	1.51	1.11	1.33
Boron - 10, ppm*	259	245	253	36.7	19.2	28.1
Oxygen, (DO), ppm	$\leq 0.005$					
Chloride, ppm	0.008	0.007	0.007	0.007	0.001	0.001
pH @ 25 degree Celsius	6.55	6.33	6.41	7.53	7.3	7.39

\* Boron - 10 = Total Boron x 0.196

Comments:

None

**FUEL HANDLING  
 UNITS 1 & 2**

MONTH/YEAR: February 2002

New Fuel Shipment or Cask No.	Date Stored or Received	Number of Assemblies per Shipment	Assembly Number	ANSI Number	Initial Enrichment	New or Spent Fuel Shipping Cask Activity
Spent Fuel Cask TN-32-27	02/20/02	32	OF4	LM0JGN	3.6106	N/A
			0R6	LM0C1K	3.5948	
			0R8	LM0C1R	3.5947	
			0S8	LM0ESV	3.5955	
			0T7	LM0K83	3.5866	
			1P2	LM05XG	3.6070	
			1S4	LM0ESK	3.5980	
			1S9	LM0ES3	3.5961	
			2E0	LM0DF6	3.5984	
			2N8	LM06G4	3.4060	
			2R5	LM0C2L	3.5926	
			2R7	LM0C29	3.5992	
			2S9	LM0ESW	3.5996	
			3F8	LM0JHG	3.7956	
			3P1	LM05XP	3.6070	
			3P4	LM05YC	3.6070	
			4D2	LM0AMD	3.6006	
			4D6	LM0AM8	3.6052	

**FUEL HANDLING  
UNITS 1 & 2**

**MONTH/YEAR: February 2002**

<u>New Fuel Shipment or Cask No.</u>	<u>Date Stored or Received</u>	<u>Number of Assemblies per Shipment</u>	<u>Assembly Number</u>	<u>ANSI Number</u>	<u>Initial Enrichment</u>	<u>New or Spent Fuel Shipping Cask Activity</u>
			4D7	LM0AM6	3.6097	
			4P2	LM05YT	3.6070	
			4R3	LM0C2X	3.5908	
			4S6	LM0ERX	3.5976	
			5C4	LM08NE	3.3990	
			5P3	LM05XU	3.6070	
			5R2	LM0C2D	3.5971	
			5R6	LM0C1Z	3.5901	
			5R9	LM0C2B	3.5885	
			5S1	LM0ESJ	3.5994	
			5S5	LM0ESZ	3.6020	
			5S6	LM0ESD	3.5965	
			6R1	LM0C27	3.6007	
			C11	NOANSI	3.1170	

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

**MONTH/YEAR:** February 2002

None during the Reporting Period