

VIRGINIA ELECTRIC AND POWER COMPANY  
RICHMOND, VIRGINIA 23261  
October 9, 2002

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

Serial No. 02-622  
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 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

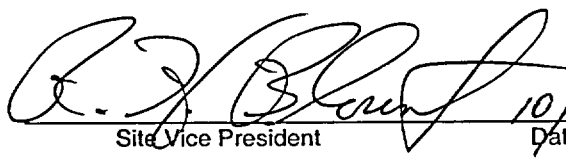
cc: United States Nuclear Regulatory Commission  
Region II  
Sam Nunn Atlanta Federal Center  
61 Forsyth Street, SW, Suite 23 T85  
Atlanta, Georgia 30303-8931

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

JE24

**VIRGINIA ELECTRIC AND POWER COMPANY  
SURRY POWER STATION  
MONTHLY OPERATING REPORT  
REPORT No. 02-09**

Approved:

  
Site Vice President

10/9/02  
Date

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**OPERATING DATA REPORT**

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

- 1. Unit Name: ..... Surry Unit 1
- 2. Reporting Period. .... September 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	720.0	6551.0	260999.0
12. Hours Reactor Was Critical	720.0	6551.0	192312.6
13. Reactor Reserve Shutdown Hours	0.0	0.0	3774.5
14. Hours Generator On-Line	720.0	6551.0	189653.2
15. Unit Reserve Shutdown Hours	0.0	0.0	3736.2
16. Gross Thermal Energy Generated (MWH)	1817844.0	16576130.2	451883608.1
17. Gross Electrical Energy Generated (MWH)	605185.0	5543596.0	148623699.0
18. Net Electrical Energy Generated (MWH)	584124.0	5333696.0	141926557.0
19. Unit Service Factor	100.0%	100.0%	72.7%
20. Unit Availability Factor	100.0%	100.0%	74.1%
21. Unit Capacity Factor (Using MDC Net)	100.2%	100.5%	69.5%
22. Unit Capacity Factor (Using DER Net)	103.0%	103.3%	69.0%
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: 10/01/02  
 Completed By: R. Stief  
 Telephone: (757) 365-2486

- 1. Unit Name: ..... Surry Unit 2
- 2. Reporting Period: ..... September 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	720.0	6551.0	257880.0
12. Hours Reactor Was Critical	720.0	5892.8	189710.8
13. Reactor Reserve Shutdown Hours	0.0	0.0	328.1
14. Hours Generator On-Line	720.0	5854.3	187470.7
15. Unit Reserve Shutdown Hours	0.0	0.0	0.0
16. Gross Thermal Energy Generated (MWH)	1832264.5	14824459.8	447849364.0
17. Gross Electrical Energy Generated (MWH)	611866.0	4958967.0	147335974.0
18. Net Electrical Energy Generated (MWH)	589486.0	4781714.0	140738764.0
19. Unit Service Factor	100.0%	89.4%	72.7%
20. Unit Availability Factor	100.0%	89.4%	72.7%
21. Unit Capacity Factor (Using MDC Net)	100.5%	89.6%	69.5%
22. Unit Capacity Factor (Using DER Net)	103.9%	92.6%	69.3%
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: September 2002

Docket No.: 50-280  
 Unit Name: Surry Unit 1  
 Date: 10/01/02  
 Completed by: R. Stief  
 Telephone: (757) 365-2486

Date	(1) Type	Duration Hours	(2) Reason	(3) Method of Shutting Down Rx	LER No.	(4) System Code	(5) Component Code	Cause & Corrective Action to Prevent Recurrence
09/07/02	S	N/A	B	N/A	N/A	N/A	N/A	Unit ramped to perform 1-OSP-TM-001, Turbine Inlet Valve Freedom Test
09/07/02	S	N/A	A	N/A	N/A	SL	PCV	Unit ramped to repair 1-FW-P-1B (pressure regulating valve)

(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 2002

Docket No.: 50-281  
 Unit Name: Surry Unit 2  
 Date: 10/01/02  
 Completed by: R. Stief  
 Telephone: (757) 365-2486

Date	(1) Type	Duration Hours	(2) Reason	(3) Method of Shutting Down Rx	LER No.	(4) System Code	(5) Component Code	Cause & Corrective Action to Prevent Recurrence
09/14/02	S	N/A	B	N/A	N/A	N/A	N/A	Unit ramped to perform 2-OSP- TM-001, Turbine Inlet Valve Freedom Test

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

MONTH: September 2002

<u>Day</u>	<u>Average Daily Power Level (MWe - Net)</u>	<u>Day</u>	<u>Average Daily Power Level (MWe - Net)</u>
1	819	17	819
2	820	18	818
3	819	19	818
4	818	20	817
5	817	21	819
6	818	22	818
7	598	23	819
8	818	24	820
9	818	25	820
10	818	26	820
11	818	27	818
12	819	28	818
13	819	29	819
14	818	30	819
15	819		
16	819		

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

MONTH: September 2002

Day	Average Daily Power Level (MWe - Net)	Day	Average Daily Power Level (MWe - Net)
1	821	17	817
2	823	18	813
3	822	19	819
4	820	20	818
5	819	21	817
6	819	22	818
7	819	23	818
8	819	24	819
9	818	25	819
10	817	26	821
11	818	27	821
12	819	28	823
13	818	29	823
14	808	30	823
15	818		
16	818		

**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 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:

09/01/02	0000	Unit started the month at 100% / 850 MWe.
09/07/02	0112	Commenced ramp to perform 1-OSP-TM-001 and repair of 1-FW-P-1B. Unit at 100% / 848 MWe.
09/07/02	0152	Stopped ramp at 90% / 770 MWe for 1-OSP-TM-001.
09/07/02	0247	1-OSP-TM-001 completed SAT. Commenced ramping down for 1-FW-P-1B.
09/07/02	0540	Secured ramp at 59% / 468 MWe.
09/07/02	1430	1-FW-P-1B returned to service.
09/07/02	1505	Commenced ramp to 100%.
09/07/02	2104	Unit at 100% / 843 MWe.
09/30/02	2400	Unit finished the month at 100% / 850 MWe.

### UNIT TWO:

09/01/02	0000	Unit started the month at 100% / 852 MWe
09/14/02	0135	Commenced ramping unit to 85% power in accordance with 2-OSP-TM-001. Unit at 100% / 849 MWe.
09/14/02	0251	Stopped ramp at 85% / 730 MWe.
09/14/02	0335	2-OSP-TM-001 completed SAT. Commenced ramp to 100%.
09/14/02	0438	Unit at 100% / 846 MWe.
09/30/02	2400	Unit finished the month at 100% / 853 MWe.

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

**MONTH/YEAR: September 2002**

None during the Reporting Period

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

**MONTH/YEAR: September 2002**

None during the Reporting Period

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

MONTH/YEAR: September 2002

None during the Reporting Period

**CHEMISTRY REPORT**

MONTH/YEAR: September 2002

Primary Coolant Analysis	Unit No. 1			Unit No. 2		
	Max.	Min.	Avg.	Max.	Min.	Avg.
Gross Radioactivity, $\mu\text{Ci/ml}$	3.75E-1	2.26E-1	3.04E-1	3.69E-1	1.65E-1	2.69E-1
Suspended Solids, ppm	0.01	0.01	0.01	0.01	0.01	0.01
Gross Tritium, $\mu\text{Ci/ml}$	9.99E-1	8.14E-1	8.69E-1	1.42E+0	1.33E+0	1.37E+0
$^{131}\text{I}$ , $\mu\text{Ci/ml}$	2.47E-4	1.23E-4	1.85E-4	6.06E-4	6.57E-5	1.20E-4
$^{131}\text{I}/^{133}\text{I}$	0.12	0.05	0.08	0.11	0.07	0.08
Hydrogen, cc/kg	38.7	34.4	36.2	38.9	36.1	37.5
Lithium, ppm	2.32	2.05	2.17	2.34	2.05	2.19
Boron - 10, ppm*	160	136	147	241	226	234
Oxygen, (DO), ppm	$\leq 0.005$	$\leq 0.005$	$\leq 0.005$	$\leq 0.005$	$\leq 0.005$	$\leq 0.005$
Chloride, ppm	0.007	0.004	0.004	0.008	0.002	0.003
pH @ 25 degree Celsius	6.88	6.66	6.76	6.52	6.33	6.43

\* Boron - 10 = Total Boron x 0.196

Comments:

None

**FUEL HANDLING  
UNITS 1 & 2**

MONTH/YEAR: September 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>
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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 2002**

None during the Reporting Period