

**VIRGINIA ELECTRIC AND POWER COMPANY  
RICHMOND, VIRGINIA 23261**

June 5, 2003

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

Serial No. 03-363  
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 May 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

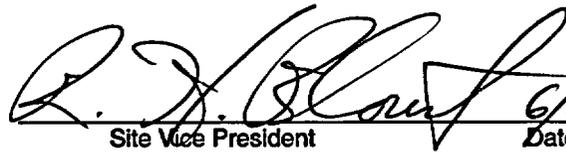
cc: United States Nuclear Regulatory Commission  
Region II  
Sam Nunn Atlanta Federal Center  
61 Forsyth Street, SW, Suite 23 T85  
Atlanta, Georgia 30303-8931

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

IE24

**VIRGINIA ELECTRIC AND POWER COMPANY  
SURRY POWER STATION  
MONTHLY OPERATING REPORT  
REPORT No. 03-05**

Approved:

  
Site Vice President

6/05/03  
Date

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**OPERATING DATA REPORT**

Docket No.: 50-280  
 Date: 06/01/03  
 Completed By: R. Stief  
 Telephone: (757) 365-2486

- 1. Unit Name: ..... Surry Unit 1
- 2. Reporting Period: ..... May 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: \_\_\_\_\_

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	<u>This Month</u>	<u>Year-To-Date</u>	<u>Cumulative</u>
11. Hours in Reporting Period	744.0	3623.0	266831.0
12. Hours Reactor Was Critical	0.0	2325.5	196847.1
13. Reactor Reserve Shutdown Hours	0.0	0.0	3774.5
14. Hours Generator On-Line	0.0	2271.5	194133.7
15. Unit Reserve Shutdown Hours	0.0	0.0	3736.2
16. Gross Thermal Energy Generated (MWH)	0.0	5688741.6	463195058.3
17. Gross Electrical Energy Generated (MWH)	0.0	1899476.0	152404800.0
18. Net Electrical Energy Generated (MWH)	0.0	1831193.0	145573514.0
19. Unit Service Factor	0.0%	62.7%	72.8%
20. Unit Availability Factor	0.0%	62.7%	74.2%
21. Unit Capacity Factor (Using MDC Net)	0.0%	62.4%	69.7%
22. Unit Capacity Factor (Using DER Net)	0.0%	64.1%	69.2%
23. Unit Forced Outage Rate	0.0%	13.1%	12.3%

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: 06/01/03  
 Completed By: R. Stief  
 Telephone: (757) 365-2486

- 1. Unit Name: ..... Surry Unit 2
- 2. Reporting Period: ..... May 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:

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

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

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	<u>This Month</u>	<u>Year-To-Date</u>	<u>Cumulative</u>
11. Hours in Reporting Period	744.0	3623.0	263712.0
12. Hours Reactor Was Critical	744.0	3560.1	195443.5
13. Reactor Reserve Shutdown Hours	0.0	0.0	328.1
14. Hours Generator On-Line	744.0	3535.3	193119.7
15. Unit Reserve Shutdown Hours	0.0	0.0	0.0
16. Gross Thermal Energy Generated (MWH)	1894162.9	8985852.4	462212836.9
17. Gross Electrical Energy Generated (MWH)	635030.0	3034860.0	152175393.0
18. Net Electrical Energy Generated (MWH)	613882.0	2911044.0	145391761.0
19. Unit Service Factor	100.0%	97.6%	73.2%
20. Unit Availability Factor	100.0%	97.6%	73.2%
21. Unit Capacity Factor (Using MDC Net)	101.2%	98.6%	70.1%
22. Unit Capacity Factor (Using DER Net)	104.7%	102.0%	70.0%
23. Unit Forced Outage Rate	0.0%	2.4%	9.7%

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

September 2003

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*Type and duration of scheduled shutdowns are no longer provided.*

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[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: May 2003

Docket No.: 50-280  
 Unit Name: Surry Unit 1  
 Date: 06/01/03  
 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
05/01/03	S	744.00	C	1	N/A	N/A	N/A	Unit offline for Refueling Outage/Reactor Vessel Head Replacement

(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: May 2003**

**Docket No.: 50-281  
Unit Name: Surry Unit 2  
Date: 06/01/03  
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

**AVERAGE DAILY UNIT POWER LEVEL**

Docket No.: 50-280  
 Unit Name: Surry Unit 1  
 Date: 06/01/03  
 Completed by: R. Stief  
 Telephone: (757) 365-2486

MONTH: May 2003

<u>Day</u>	<u>Average Daily Power Level (MWe - Net)</u>	<u>Day</u>	<u>Average Daily Power Level (MWe - Net)</u>
1	0	17	0
2	0	18	0
3	0	19	0
4	0	20	0
5	0	21	0
6	0	22	0
7	0	23	0
8	0	24	0
9	0	25	0
10	0	26	0
11	0	27	0
12	0	28	0
13	0	29	0
14	0	30	0
15	0	31	0
16	0		

**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: 06/01/03  
 Completed by: R. Stief  
 Telephone: (757) 365-2486

MONTH: May 2003

<u>Day</u>	<u>Average Daily Power Level (MWe - Net)</u>	<u>Day</u>	<u>Average Daily Power Level (MWe - Net)</u>
1	826	17	826
2	822	18	827
3	822	19	825
4	824	20	824
5	824	21	824
6	823	22	825
7	822	23	826
8	820	24	826
9	826	25	827
10	827	26	827
11	826	27	827
12	825	28	828
13	826	29	828
14	825	30	826
15	825	31	826
16	825		

**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: May 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:**

05/01/03    0000    Unit started the month at 0% / 0 MWe.  
05/31/03    2400    Unit finished the month at 0% / 0 MWe.

**UNIT Two:**

05/01/03    0000    Unit started the month at 100% / 855 MWe.  
05/31/03    2400    Unit finished the month at 100% / 854 MWe.

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

**MONTH/YEAR: May 2003**

**None during the Reporting Period**

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

**MONTH/YEAR: May 2003**

**FS 02-034**

**UFSAR Change Request  
(Regulatory Evaluation 03-003)**

**05/01/03**

UFSAR Change Request FS 02-034 changes the reference to the design limit criterion Westinghouse has adopted for limiting the corrosion of zirconium-based fuel assembly structural components. The revised limit is more consistent with ASME Code Section III requirements after accounting for thinning due to corrosion than the previous requirement of limiting hydrides. This updated criterion ensures that corrosion of the fuel assembly structural components is sufficiently restricted to preclude fuel damage, conforms to NUREG-0800 and industry guidelines, and has been reviewed and approved by the NRC. The new criterion is being applied to the analysis of fuel for Surry Units 1 and 2 starting with the Surry 1 Cycle 19 reload evaluation.

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

**MONTH/YEAR: May 2003**

**None during the Reporting Period**

**CHEMISTRY REPORT**

MONTH/YEAR: May 2003

Primary Coolant Analysis	Unit No. 1			Unit No. 2		
	Max.	Min.	Avg.	Max.	Min.	Avg.
Gross Radioactivity, $\mu\text{Ci/ml}$	-	-	-	2.99E-1	1.25E-1	2.12E-1
Suspended Solids, ppm	-	-	-	-	-	-
Gross Tritium, $\mu\text{Ci/ml}$	-	-	-	7.11E-1	6.40E-1	6.73E-1
$I^{131}$ , $\mu\text{Ci/ml}$	-	-	-	2.65E-4	5.53E-5	1.18E-4
$I^{131}/I^{133}$	-	-	-	0.23	0.05	0.1
Hydrogen, cc/kg	-	-	-	37.5	34.8	36
Lithium, ppm	-	-	-	2.35	2.06	2.19
Boron - 10, ppm*	487	478	483	100	80	91
Oxygen, (DO), ppm	-	-	-	$\leq 0.005$	$\leq 0.005$	$\leq 0.005$
Chloride, ppm	0.009	0.001	0.003	0.003	0.001	0.001
pH @ 25 degree Celsius	5.08	4.96	5.01	7.09	6.9	7.01

\* Boron - 10 = Total Boron x 0.196

Comments:

None

**FUEL HANDLING  
UNITS 1 & 2**

**MONTH/YEAR: May 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>
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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: May 2003**

**None during the Reporting Period**