VIRGINIA ELECTRIC AND POWER COMPANY RICHMOND, VIRGINIA 23261 March 14, 2003

U. S. Nuclear Regulatory Commission Attention: Document Control Desk Washington, D.C. 20555-0001 Serial No. 03-149 SPS Lic/JSA R0 Docket Nos. 50-280 50-281 License Nos. DPR-32 DPR-37

Gentlemen:

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# 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 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



VIRGINIA ELECTRIC AND POWER COMPANY SURRY POWER STATION MONTHLY OPERATING REPORT REPORT NO. 03-02

Approved:

<u>3/14/0</u>3 n Vice President Site

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### **OPERATING DATA REPORT**

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

1.	Unit Name:	Surry Unit 1
2.	Reporting Period:	February 2003
З.	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

Maximum Dependable Capacity (Net MWe): ..... 7.

If Changes Occur in Capacity Ratings (Items Number 3 Through 7) Since Last Report, Give Reasons: 8.

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

Reasons For Restrictions, If Any: 10.

		This Month	Year-To-Date	Cumulative
11.	Hours in Reporting Period	672.0	1416.0	264624.0
12.	Hours Reactor Was Critical	672.0	1125.7	195647.3
13.	Reactor Reserve Shutdown Hours	0.0	0.0	3774.5
14.	Hours Generator On-Line	672.0	1072.3	192934.5
15.	Unit Reserve Shutdown Hours	0.0	0.0	3736.2
16.	Gross Thermal Energy Generated (MWH)	1709384.4	2643175.7	460149492.4
17.	Gross Electrical Energy Generated (MWH)	571701.0	880103.0	151385427.0
18.	Net Electrical Energy Generated (MWH)	551814.0	847843.0	144590164.0
19.	Unit Service Factor	100.0%	75.7%	72.9%
20.	Unit Availability Factor	100.0%	75.7%	74.3%
21.	Unit Capacity Factor (Using MDC Net)	101.4%	73.9%	69.8%
22.	Unit Capacity Factor (Using DER Net)	104.2%	76.0%	69.3%
23.	Unit Forced Outage Rate	0.0%	24.3%	12.3%

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

April 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]

ACHIEVED

26. Unit In Test Status (Prior to Commercial Operation):

INITIAL CRITICALITY INITIAL ELECTRICITY COMMERCIAL OPERATION		<u></u>
COMMERCIAL OPERATION	<u></u>	

FORECAST

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#### **OPERATING DATA REPORT**

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Docket No.: 50-281 Date: 03/03/03 Completed By: R. Stief Telephone: (757) 365-2486

1.	Unit Name:	Surry Unit 2	
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2.	Reporting Period:	February 2003	
З.	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	

Maximum Dependable Capacity (Net MWe): ..... 7.

If Changes Occur in Capacity Ratings (Items Number 3 Through 7) Since Last Report, Give Reasons: 8.

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

10. Reasons For Restrictions, If Any:

		This Month	Year-To-Date	Cumulative
11.	Hours in Reporting Period	672.0	1416.0	261505.0
12.	Hours Reactor Was Critical	672.0	1353.1	193236.5
13.	Reactor Reserve Shutdown Hours	0.0	0.0	328.1
14.	Hours Generator On-Line	672.0	1328.3	190912.7
15.	Unit Reserve Shutdown Hours	0.0	0.0	0.0
16.	Gross Thermal Energy Generated (MWH)	1710728.7	3368113.6	456595098.1
17.	Gross Electrical Energy Generated (MWH)	593778.0	1149421.0	<b>1</b> 50289954.0
18.	Net Electrical Energy Generated (MWH)	553854.0	1089996.0	143570713.0
19.	Unit Service Factor	100.0%	93.8%	73.0%
20.	Unit Availability Factor	100.0%	93.8%	73.0%
21.	Unit Capacity Factor (Using MDC Net)	101.1%	94.5%	69.8%
22.	Unit Capacity Factor (Using DER Net)	104.6%	97.7%	69.7%
23.	Unit Forced Outage Rate	0.0%	6.2%	9.8%

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

	<u> </u>
Type and duration of scheduled shutdowns are no longer provided.	
Type and udiation of sofieddied endlowing 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):

	FORECAST	ACHIEVED
INITIAL CRITICALITY INITIAL ELECTRICITY COMMERCIAL OPERATION		

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

**REPORT MONTH: February 2003** 

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

None during the Reporting Period

(1)

- Forced F. S٠ Scheduled
- (2)
- REASON:
- A Equipment Failure (Explain)
- в -Maintenance or Test
- С -Refueling D
  - **Regulatory Restriction** -
- **Operator Training & Licensing Examination** Ε -
- F Administrative -
- G **Operational Error (Explain)** .
- Н Other (Explain)

#### (3) METHOD:

1 -Manual

- 2 -
  - Manual Scram
- 3 -Automatic Scram 4 -
  - Other (Explain)

(5) Exhibit 1 - Same Source

(4)

Exhibit G - Instructions for Preparation of Data Entry Sheets for Licensee Event Report (LER) File (NUREG 0161)

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

**REPORT MONTH: February 2003** 

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

None during the Reporting Period

(3) (2) (1) METHOD F: Forced REASON. 1 -A - Equipment Failure (Explain) Manual S: Scheduled Manual Scram в-Maintenance or Test 2 -Automatic Scram C D -3 -Refueling Regulatory Restriction 4 -Other (Explain) -**Operator Training & Licensing Examination** Е -F -Administrative G-**Operational Error (Explain)** Other (Explain) Н (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

Completed by:	Surry Unit 1 03/03/03 R. Stief
	(757) 365-2486

MONTH: February 2003

Day	Average Daily Power Level (MWe - Net)	Day	Average Daily Power Level (MWe - Net)
1	821	17	822
2	822	18	822
3	817	19	821
4	821	20	822
5		21	822
6	821	22	822
7	822	23	822
8	812	24	822
9	822	25	821
10	823	26	821
11	822	27	822
12	822	28	821
13	822		
14	822		
15	822		
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.

#### AVERAGE DAILY UNIT POWER LEVEL

Unit Name: Si Date: 03	0-281 urry Unit 2 3/03/03 1. Stief 757) 365-2486
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### MONTH: February 2003

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Day	Average Daily Power Level (MWe - Net)	Day	Average Daily Power Level (MWe - Net)
1	824	17	824
2	825	18	825
3	823	19	825
4	823	20	825
5	823	21	824
6	823	22	825
7	825	23	825
8	825	24	825
9	824	25	825
10	823	26	825
11	823	27	826
12	824	28	825
13	824		
14	824		
15	824		
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

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#### SUMMARY OF OPERATING EXPERIENCE

#### MONTH/YEAR: February 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:

02/01/03	0000	Unit started the month at 100% / 849 MWe.
02/03/03	1909	Ramped unit to 92% / 795 MWe in accordance with 1-OP-TM-005 to realign heater drain pumps.
02/03/03	2110	Commenced ramp to 100%.
02/03/03	2220	Unit at 100% / 852 MWe.
02/08/03	1000	Commenced ramp for 1-MS-GOV-3 main steam governor moog valve replacement.
02/08/03	1048	Ramp stopped at 90% / 771 MWe.
02/08/03	1240	Repair on 1-MS-GOV-3 complete.
02/08/03	1255	Commenced ramp to 100%.
02/08/03	1425	Unit at 100% / 850 MWe.
02/28/03	2400	Unit finished the month at 100% / 852 MWe.
UNIT TWO:		
02/01/03	0000	Unit started the month at 100% / 850 MWe.
02/28/03	2400	Unit finished the month at 100% / 854 MWe.

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### FACILITY CHANGES THAT DID NOT REQUIRE NRC APPROVAL

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MONTH/YEAR: February 2003

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

MONTH/YEAR: February 2003

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## TESTS AND EXPERIMENTS THAT DID NOT REQUIRE NRC APPROVAL

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MONTH/YEAR: February 2003

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### **CHEMISTRY REPORT**

## MONTH/YEAR: February 2003

	Unit No. 1			Unit No. 2			
Primary Coolant Analysis	Max.	Mın.	Avg	Max.	Min.	Avg.	
Gross Radioactivity, μCi/ml	3.00E-1	2.10E-1	2.50E-1	3.03E-1	1.92E-1	2.32E-1	
Suspended Solids, ppm	-	-	-	-	-	-	
Gross Tritium, μCi/ml	8.61E-2	5.28E-2	6.95E-2	7.77E-1	7.02E-1	7.44E-1	
1 <sup>131</sup> , μCi/ml	2.24E-4	1.47E-4	1.91E-4	1.23E-4	6.76E-5	9.54E-5	
1131/j133	0.08	0.05	0 07	0.11	0.07	0.09	
	42.6	33.3	37.3	42	36.9	38.6	
Hydrogen, cc/kg	2.27	1.71	2.05	2.35	2 11	2.22	
Lithium, ppm	64	44	57	157	140	149	
Boron - 10, ppm*	≤ 0.005	<u>44</u> ≤ 0.005	≤ 0 005	≤ 0.005	≤ 0 005	≤ 0.005	
Oxygen, (DO), ppm	0.003	0.001	0.002	0.003	0.001	0 002	
Chloride, ppm pH @ 25 degree Celsius	7.4	6.21	7.04	6.98	5 93	6.44	

\* Boron - 10 = Total Boron x 0.196

Comments.

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None

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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-32-31	02/03/03	32	2H9	LMORNP	4.0022	N/A
114-02-01			2H5	LMORNK	4.0077	
			3V6	LMOTTS	3.9933	
			4J1	LMOUZD	4.0167	
			0J3	LM0UY9	3.8070	
			0J7	LMOUYD	3.8073	
			4J6	LMOUZJ	4.0275	
			0H4	LMORMY	3.7974	
			0H9	LM0RN3	3.8062	
			4J5	LMOUZH	4.0145	
			1J1	LMOUYH	3.8071	
			0H2	LMORMW	3.8026	
			8L0	LMOUYE	3.8043	
			4J8	LMOUZL	4.0197	
			4V4	LMOTUO	4.0012	
			2H8	LMORNN	4.0037	
			4V7	LM0TU3	3.9993	
			1J3	LMOUYK	3.8065	

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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
			4J3	LMOUZF	4.0096	
			4J4	LMOUZG	4.0142	
			3H3	LMORNT	4.0034	
			3V3	LMOTTP	4.0019	
			4V1	LMOTTX	4.0013	
			4V6	LM0TU2	3.9933	
			0H7	LM0RN1	3.7996	
			2H7	LMORNM	4.0035	
			3V4	LMOTTQ	4.0012	
			4H0	LMORPO	4 0078	
			4J2	LMOUZE	4.0169	
			3J7	LM0UZ9	4.0145	
			0J1	LM0UY7	3.8066	
Spent Fuel			3V9	LMOTTV	3.9990	
Cask TN-32-33	02/13/03	32	4H9	LM0RP9	4.0080	N/A
			4H5	LM0RP5	4.0101	
			6V0	LMOTUG	3.9911	
			1J7	LMOUYP	3.8044	

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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
			0.10		0.0070	
			2J0	LMOUYS	3.8070	
			1J5	LMOUYM	3.8046	
			6J3	LMOVOV	4 0234	
			2H2	LMORNG	3.7977	
			2H0	LMORNE	3.8002	
			5J5	LMOUZT	4.0145	
			1J9	LMOUYR	3.8070	
			5V6	LMOTUC	3.9993	
			2J3	LMOUYV	3.8070	
			2J9	LM0UZ1	3.8109	
			5V0	LMOTU6	3.9988	
			4H6	LMORP6	4.0101	
			5J9	LM0V0R	4 0142	
			5J3	LMOUZR	4.0217	
			5J2	LMOUZQ	4.0145	
			5V3	LM0TU9	3.9901	
			5H2	LMORPC	4.0064	
			1H0	LMORN4	3.7947	

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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	
			6V1	LMOTUH	3.9991		
			5V7	LMOTUD	3.9876		
			4V8	LM0TU4	4.0013		
			5H0	LMORPA	4.0104		
			1H2	LMORN6	3.8004		
			4H7	LM0RP7	4.0068		
			5V9	LMOTUF	4.0011		
			5J1	LMOUZP	4.0276		
			6J2	LMOVOU	4.0263		
			5J4	LMOUZS	4.0144		

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

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MONTH/YEAR: February 2003