

VIRGINIA ELECTRIC AND POWER COMPANY
RICHMOND, VIRGINIA 23261
April 15, 2002

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

Serial No. 02-236
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 March 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

IE 24

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

Approved:



Site Vice President

4/15/02
Date

TABLE OF CONTENTS

Section	Page
Operating Data Report - Unit No. 1	3
Operating Data Report - Unit No. 2.....	4
Unit Shutdowns and Power Reductions - Unit No. 1	5
Unit Shutdowns and Power Reductions - Unit No. 2.....	6
Average Daily Unit Power Level - Unit No. 1.....	7
Average Daily Unit Power Level - Unit No. 2.....	8
Summary of Operating Experience - Unit Nos. 1 and 2	9
Facility Changes That Did Not Require NRC Approval	10
Procedure or Method of Operation Changes That Did Not Require NRC Approval.....	11
Tests and Experiments That Did Not Require NRC Approval	12
Chemistry Report	13
Fuel Handling - Unit Nos. 1 and 2.....	14
Description of Periodic Test(s) Which Were Not Completed Within the Time Limits Specified in Technical Specifications	16

OPERATING DATA REPORT

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

1. Unit Name: Surry Unit 1
2. Reporting Period: March 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:

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	744.0	2160.0	256608.0
12. Hours Reactor Was Critical	744.0	2160.0	187921.6
13. Reactor Reserve Shutdown Hours	0.0	0.0	3774.5
14. Hours Generator On-Line	744.0	2160.0	185262.2
15. Unit Reserve Shutdown Hours	0.0	0.0	3736.2
16. Gross Thermal Energy Generated (MWH)	1865627.3	5470030.1	440777508.0
17. Gross Electrical Energy Generated (MWH)	625663.0	1834370.0	144914473.0
18. Net Electrical Energy Generated (MWH)	602555.0	1769527.0	138362388.0
19. Unit Service Factor	100.0%	100.0%	72.2%
20. Unit Availability Factor	100.0%	100.0%	73.7%
21. Unit Capacity Factor (Using MDC Net)	100.0%	101.1%	69.0%
22. Unit Capacity Factor (Using DER Net)	102.8%	104.0%	68.4%
23. Unit Forced Outage Rate	0.0%	0.0%	12.6%

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):

	FORECAST	ACHIEVED
INITIAL CRITICALITY	_____	_____
INITIAL ELECTRICITY	_____	_____
COMMERCIAL OPERATION	_____	_____

OPERATING DATA REPORT

Docket No.: 50-281
Date: 04/02/02
Completed By: R. Stief
Telephone: (757) 365-2486

1. Unit Name: Surry Unit 2
2. Reporting Period: March 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:

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	2160.0	253489.0
12. Hours Reactor Was Critical	552.8	1968.8	185786.8
13. Reactor Reserve Shutdown Hours	0.0	0.0	328.1
14. Hours Generator On-Line	552.4	1968.4	183584.8
15. Unit Reserve Shutdown Hours	0.0	0.0	0.0
16. Gross Thermal Energy Generated (MWH)	1398016.7	5002602.8	438027507.0
17. Gross Electrical Energy Generated (MWH)	470570.0	1683765.0	144060772.0
18. Net Electrical Energy Generated (MWH)	454404.0	1626399.0	137583449.0
19. Unit Service Factor	74.2%	91.1%	72.4%
20. Unit Availability Factor	74.2%	91.1%	72.4%
21. Unit Capacity Factor (Using MDC Net)	74.9%	92.4%	69.1%
22. Unit Capacity Factor (Using DER Net)	77.5%	95.6%	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: March 2002

Docket No.: 50-280
Unit Name: Surry Unit 1
Date: 04/01/02
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
03/01/01	S	34H 6M	B	4	N/A	BA	MO	Ramped Unit to 60% for 1-FW-P-1B and 1-SD-P-2A Maintenance

(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: March2002

Docket No.: 50-281
Unit Name: Surry Unit 2
Date: 04/01/02
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
03/24/01	S	191H 36M	C	1	N/A	N/A	N/A	Refueling Outage

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

MONTH: March 2002

<u>Day</u>	<u>Average Daily Power Level (MWe - Net)</u>	<u>Day</u>	<u>Average Daily Power Level (MWe - Net)</u>
1	812	17	824
2	531	18	824
3	732	19	824
4	824	20	825
5	824	21	825
6	824	22	824
7	825	23	825
8	825	24	802
9	824	25	812
10	824	26	822
11	824	27	822
12	825	28	822
13	824	29	822
14	824	30	821
15	824	31	822
16	824		

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: 04/02/02

Completed by: R. Stief

Telephone: (757) 365-2486

MONTH: March 2002

Day	Average Daily Power Level (MWe - Net)	Day	Average Daily Power Level (MWe - Net)
1	828	17	828
2	828	18	828
3	828	19	828
4	828	20	828
5	828	21	828
6	828	22	828
7	827	23	723
8	829	24	0
9	829	25	0
10	828	26	0
11	826	27	0
12	826	28	0
13	827	29	0
14	827	30	0
15	829	31	0
16	828		

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: March 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:

03/01/02	0000	Unit started the month at 100% / 854 MWe.
03/01/02	2102	Commenced rampdown for 1-FW-P-1B and 1-SD-P-2A maintenance.
03/01/02	2222	Stopped ramp at 86% / 737 MWe to perform 1-OSP-TM-001.
03/02/02	0123	Recommenced ramp to 60-65% for removal of 1-FW-P-1B and 1-SD-P-2A.
03/03/02	0343	Secured ramp at 60% / 505 MWe.
03/03/02	0708	1-FW-P-1B returned to service. Commenced ramp to 100%.
03/03/02	1000	Unit at 100% / 849 MWe.
03/04/02	0037	1-SD-P-2A returned to service.
03/31/02	2400	Unit finished the month at 100% / 854 MWe.

UNIT TWO:

03/01/02	0000	Unit started the month at 100% / 855 MWe.
03/23/02	1634	Commenced ramp for Refueling Outage. Unit at 100% / 855 MWe.
03/24/02	0024	Opened output breakers. Unit offline.
03/24/02	0051	Manually tripped Unit 2 Reactor.
03/31/02	2400	Unit finished the month at 0% / 0 MWe.

FACILITY CHANGES THAT DID NOT REQUIRE NRC APPROVAL

MONTH/YEAR: March 2002

None during the Reporting Period

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

MONTH/YEAR: March 2002

None during the Reporting Period

TESTS AND EXPERIMENTS THAT DID NOT REQUIRE NRC APPROVAL

MONTH/YEAR: March 2002

None during the Reporting Period

CHEMISTRY REPORT

MONTH/YEAR: March 2002

Primary Coolant Analysis	Unit No. 1			Unit No. 2		
	Max.	Min.	Avg.	Max.	Min.	Avg.
Gross Radioactivity, $\mu\text{Ci/ml}$	3.41E-1	2.48E-1	2.97E-1	3.38E-1	1.26E-3	1.54E-1
Suspended Solids, ppm	0.01	0.01	0.01	0.5	0.01	0.06
Gross Tritium, $\mu\text{Ci/ml}$	9.42E-1	7.97E-1	8.69E-1	1.00E-1	5.10E-2	7.63E-2
I^{131} , $\mu\text{Ci/ml}$	2.61E-4	8.33E-5	1.25E-4	7.80E-4	8.77E-5	1.80E-4
I^{131}/I^{133}	0.08	0.05	0.07	0.1	0.05	0.08
Hydrogen, cc/kg	40.3	34	38.4	40.4	1.4	19.8
Lithium, ppm	2.34	2.08	2.25	1.1	0.14	0.75
Boron - 10, ppm*	264	236	246	484	3.14	274
Oxygen, (DO), ppm	≤ 0.005	≤ 0.005	≤ 0.005	6	≤ 0.005	2.6
Chloride, ppm	0.013	0.006	0.008	0.008	0.001	0.002
pH @ 25 degree Celsius	6.51	6.28	6.43	8.21	4.92	6.29

* Boron - 10 = Total Boron x 0.196

Comments:

None

**FUEL HANDLING
 UNITS 1 & 2**

MONTH/YEAR: March 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-32-28	03/13/02	32	1U0	LM0NBE	3.7837	N/A
			0P8	LM05XF	3.6070	
			2P4	LM05XN	3.6070	
			0V1	LM0TSR	3.8116	
			2V6	LM0TTG	3.8039	
			2V7	LM0TTH	3.8041	
			1V0	LM0TT0	3.8076	
			4C1	LM08M1	3.3990	
			2P6	LM05XX	3.6070	
			4C2	LM08NA	3.3990	
			1V4	LM0TT4	3.8156	
			0U9	LM0NBB	3.7887	
			1V1	LM0TT1	3.8090	
			4C4	LM08MM	3.3990	
			1P8	LM05X6	3.6070	
			4P3	LM05YB	3.6070	
			0C5	LM08NR	3.3990	
			2U9	LM0NCF	3.9827	

**FUEL HANDLING
 UNITS 1 & 2**

MONTH/YEAR: March 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
			4U9	LM0NC1	4.0062	
			W47	LM041U	3.2030	
			2P1	LM05XB	3.6070	
			1U1	LM0NBN	3.7935	
			4P6	LM05YL	3.6070	
			1U4	LM0NBM	3.7846	
			1U8	LM0NBT	3.7954	
			1U9	LM0NBF	3.7919	
			0U8	LM0NBC	3.7931	
			2P2	LM05X4	3.6070	
			5U3	LM0Q71	3.8004	
			4C5	LM08MD	3.3990	
			0V6	LM0TSW	3.8072	
			2C8	LM08MA	3.3990	

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

MONTH/YEAR: March 2002

None during the Reporting Period