

VIRGINIA ELECTRIC AND POWER COMPANY
RICHMOND, VIRGINIA 23261
January 11, 2002

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

Serial No. 02-031
SPS Lic/JSA R0
Docket Nos. 50-280
50-281
License Nos. DPR-32
DPR-37

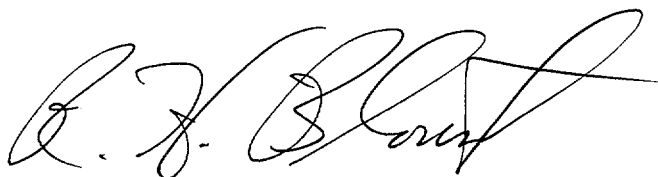
Gentlemen:

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 December 2001 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

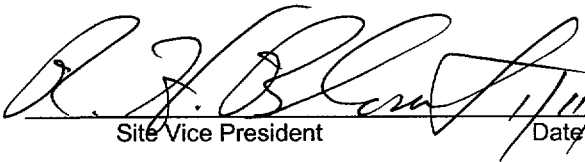
cc: United States Nuclear Regulatory Commission
Region II
Sam Nunn Atlanta Federal Center
61 Forsyth Street, SW, Suite 23 T85
Atlanta, Georgia 30303-8931

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. 01-12**

Approved:


Site Vice President

1/11/02
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	15

OPERATING DATA REPORT

Docket No.: 50-280
Date: 01/03/02
Completed By: R. Stief
Telephone: (757) 365-2486

- 1. Unit Name: Surry Unit 1
- 2. Reporting Period: December 2001
- 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: _____

	<u>This Month</u>	<u>Year-To-Date</u>	<u>Cumulative</u>
11. Hours in Reporting Period	744.0	8760.0	254448.0
12. Hours Reactor Was Critical	630.6	7457.5	185761.6
13. Reactor Reserve Shutdown Hours	0.0	0.0	3774.5
14. Hours Generator On-Line	560.0	7381.5	183102.2
15. Unit Reserve Shutdown Hours	0.0	0.0	3736.2
16. Gross Thermal Energy Generated (MWH)	1330234.1	18454730.1	435307477.9
17. Gross Electrical Energy Generated (MWH)	442253.0	6141700.0	143080103.0
18. Net Electrical Energy Generated (MWH)	426337.0	5941633.0	136592861.0
19. Unit Service Factor	75.3%	84.3%	72.0%
20. Unit Availability Factor	75.3%	84.3%	73.4%
21. Unit Capacity Factor (Using MDC Net)	70.7%	83.7%	68.7%
22. Unit Capacity Factor (Using DER Net)	72.7%	86.1%	68.1%
23. Unit Forced Outage Rate	0.0%	0.0%	12.8%

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	_____	_____

OPERATING DATA REPORT

Docket No.: 50-281
 Date: 01/03/02
 Completed By: R. Stief
 Telephone: (757) 365-2486

- 1. Unit Name: Surry Unit 2
- 2. Reporting Period: December 2001
- 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	8760.0	251329.0
12. Hours Reactor Was Critical	744.0	8229.1	183818.0
13. Reactor Reserve Shutdown Hours	0.0	0.0	328.1
14. Hours Generator On-Line	741.9	8205.3	181616.4
15. Unit Reserve Shutdown Hours	0.0	0.0	0.0
16. Gross Thermal Energy Generated (MWH)	1865668.1	20803343.3	433024904.2
17. Gross Electrical Energy Generated (MWH)	627375.0	6966875.0	142377007.0
18. Net Electrical Energy Generated (MWH)	605228.0	6720743.0	135957050.0
19. Unit Service Factor	99.7%	93.7%	72.3%
20. Unit Availability Factor	99.7%	93.7%	72.3%
21. Unit Capacity Factor (Using MDC Net)	99.8%	94.1%	68.9%
22. Unit Capacity Factor (Using DER Net)	103.2%	97.4%	68.6%
23. Unit Forced Outage Rate	0.0%	0.5%	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: December 2001

Docket No.: 50-280
 Unit Name: Surry Unit 1
 Date: 01/02/02
 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
12/01/01	S	183H 59M	C	1	N/A	N/A	N/A	Recovery from Refueling Outage/Reactor Head Repairs

(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: December 2001

Docket No.: 50-281
 Unit Name: Surry Unit 2
 Date: 01/02/02
 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
12/01/01	S	2H 4M	H	1	N/A	AB	RCT	Continued Voluntary Shutdown for Reactor Head Inspection and Repairs

(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
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 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: 01/03/02
 Completed by: R. Stief
 Telephone: (757) 365-2486

MONTH: December 2001

Day	Average Daily Power Level (MWe - Net)	Day	Average Daily Power Level (MWe - Net)
1	0	17	826
2	0	18	825
3	0	19	825
4	0	20	824
5	0	21	826
6	0	22	826
7	0	23	825
8	54	24	826
9	183	25	826
10	421	26	826
11	608	27	825
12	812	28	826
13	826	29	826
14	827	30	825
15	826	31	825
16	826		

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: 01/03/02
 Completed by: R. Stief
 Telephone: (757) 365-2486

MONTH: December 2001

Day	Average Daily Power Level (MWe - Net)	Day	Average Daily Power Level (MWe - Net)
1	367	17	830
2	821	18	831
3	825	19	832
4	825	20	832
5	824	21	828
6	826	22	829
7	829	23	828
8	829	24	828
9	831	25	828
10	831	26	827
11	831	27	827
12	830	28	828
13	829	29	827
14	829	30	827
15	831	31	827
16	831		

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: December 2001

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:

12/01/01	0000	Unit started the month at 0% / 0 MWe. Unit offline for Refueling Outage and Reactor Head Inspections and Repairs.
12/05/01	1722	Reactor Critical.
12/08/01	1559	Output breakers closed. Unit on line.
12/08/01	1709	Stopped ramp at 30% for Chemistry Hold and Flux Map.
12/09/01	2147	Recommended ramp.
12/10/01	0455	Stopped ramp for NI setpoint changes. Unit at 46.5% / 350 MWe.
12/10/01	0606	Recommended ramp.
12/12/01	1711	Unit at 100% / 854 MWe.
12/31/01	2400	Unit finished the month at 100% / 854 MWe.

UNIT TWO:

12/01/01	0000	Unit started the month at 2% / 0 MWe. Unit recovery in progress for Bare Head Inspection Outage.
12/01/01	0204	Output breakers closed. Unit on line.
12/01/01	0340	Stopped ramp at 32% / 227 MWe. Unit stopped to inspect "B" FW line monoball supports.
12/01/01	1036	Recommended unit startup. Unit at 32% / 227 MWe.
12/01/01	1157	Stopped ramp at 49% to place LP drain pumps inservice.
12/01/01	1335	Recommended ramp. Unit at 49% / 309 MWe.
12/01/01	1408	Stopped ramp for IRPI Adjustments. Unit at 62% / 491 MWe.
12/01/01	1459	Recommended ramp.
12/01/01	1518	Stopped ramp for Hi Flux setpoints. Unit at 70% / 550 MWe.
12/01/01	1815	Recommended ramp.
12/01/01	1859	Stopped ramp due to Condensate Polishing DP. Unit at 78% / 645 MWe.
12/01/01	2040	Recommended ramp.
12/02/01	0405	Unit at 100% / 854 MWe.
12/31/01	2400	Unit finished the month at 100% / 855 MWe.

FACILITY CHANGES THAT DID NOT REQUIRE NRC APPROVAL

MONTH/YEAR: December 2001

None during the Reporting Period

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

MONTH/YEAR: December 2001

None during the Reporting Period

TESTS AND EXPERIMENTS THAT DID NOT REQUIRE NRC APPROVAL

MONTH/YEAR: December 2001

None during the Reporting Period

CHEMISTRY REPORT

MONTH/YEAR: December 2001

Primary Coolant Analysis	Unit No. 1			Unit No. 2		
	Max.	Min.	Avg.	Max.	Min.	Avg.
Gross Radioactivity, $\mu\text{Ci/ml}$	2.78E-1	6.02E-3	1.76E-1	3.04E-1	1.24E-1	2.44E-1
Suspended Solids, ppm	0.15	0.01	0.05	0.01	0.01	0.01
Gross Tritium, $\mu\text{Ci/ml}$	2.75E-1	3.07E-2	1.31E-1	1.27E-1	4.19E-2	8.28E-2
^{131}I , $\mu\text{Ci/ml}$	1.97E-4	1.86E-5	8.74E-5	1.93E-4	6.51E-5	1.25E-4
$^{131}\text{I}/^{133}\text{I}$	0.09	0.04	0.07	0.14	0.05	0.08
Hydrogen, cc/kg	38.4	5.9	32.3	45.2	26.8	35.9
Lithium, ppm	3.59	0.29	2.59	2.33	1.8	2.14
Boron - 10, ppm*	485.9	266.6	340.4	160.3	56.6	72.6
Oxygen, (DO), ppm	6	≤ 0.005	0.496	≤ 0.005	≤ 0.005	≤ 0.005
Chloride, ppm	0.007	0.004	0.006	0.002	0.001	0.001
pH @ 25 degree Celsius	6.43	5.01	6	7.32	6.62	7.15

* Boron - 10 = Total Boron x 0.196

Comments:

None

**FUEL HANDLING
UNITS 1 & 2**

MONTH/YEAR: December 2001

<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: December 2001

None during the Reporting Period