

VIRGINIA ELECTRIC AND POWER COMPANY
RICHMOND, VIRGINIA 23261

January 11, 2004

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

Serial No. 04-015
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 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
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Mr. G. J. McCoy
NRC Senior Resident Inspector
Surry Power Station

JE24

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MOR File - SPS

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Ms. Barbara Lewis - McGraw-Hill, Inc./Utility Data Institute
(barbara_lewis@platts.com) – Provide only required electronic excerpts from MOR: 1) Operating Data Reports for Units 1 and 2 and 2) Unit Shutdown and Power Reduction (Equal To or Greater Than 20%) for Units 1 and 2.

CONCURRENCE:

Richard H. Blount /SPS See MOR cover sheet for approval

Verification of Accuracy:


1. Operations Unit Shutdown and Power Reduction Report dated 01/05/04.
2. Operating Data Report – Surry Power Station dated 01/05/04.
3. December 2003 Summary of Operating Experience provided by Operations.
4. December 2003 Surry Power Station Chemistry Report provided by Chemistry.

Action Plan: - None.

Changes to the UFSAR or Topical Report: - None.

**VIRGINIA ELECTRIC AND POWER COMPANY
SURRY POWER STATION
MONTHLY OPERATING REPORT
REPORT No. 03-12**

Approved:


Site Vice President

1/11/04
Date

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OPERATING DATA REPORT

Docket No.: 50-280
 Date: 01/05/04
 Completed By: R. Stief
 Telephone: (757) 365-2486

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

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	744.00	8760.00	271968.00
12. Hours Reactor Was Critical	744.00	6881.88	201403.48
13. Reactor Reserve Shutdown Hours	0.00	0.00	3774.50
14. Hours Generator On-Line	744.00	6742.57	198604.77
15. Unit Reserve Shutdown Hours	0.00	0.00	3736.20
16. Gross Thermal Energy Generated (MWH)	1893619.10	16885606.90	474391923.60
17. Gross Electrical Energy Generated (MWH)	635998.00	5633941.00	156139265.00
18. Net Electrical Energy Generated (MWH)	613785.00	5419779.00	149162100.00
19. Unit Service Factor	100.00%	76.97%	73.03%
20. Unit Availability Factor	100.00%	76.97%	74.40%
21. Unit Capacity Factor (Using MDC Net)	101.85%	76.38%	70.01%
22. Unit Capacity Factor (Using DER Net)	104.69%	78.51%	69.60%
23. Unit Forced Outage Rate	0.00%	5.78%	12.05%

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: 01/05/04
 Completed By: R. Stief
 Telephone: (757) 365-2486

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

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	744.00	8760.00	268849.00
12.	Hours Reactor Was Critical	733.27	7078.90	198962.30
13.	Reactor Reserve Shutdown Hours	0.00	0.00	328.10
14.	Hours Generator On-Line	693.22	6862.02	196446.42
15.	Unit Reserve Shutdown Hours	0.00	0.00	0.00
16.	Gross Thermal Energy Generated (MWH)	1714150.50	17419359.30	470646343.80
17.	Gross Electrical Energy Generated (MWH)	569559.00	5837781.00	154978314.00
18.	Net Electrical Energy Generated (MWH)	548798.00	5612119.00	148092836.00
19.	Unit Service Factor	93.17%	78.33%	73.07%
20.	Unit Availability Factor	93.17%	78.33%	73.07%
21.	Unit Capacity Factor (Using MDC Net)	90.51%	78.61%	70.00%
22.	Unit Capacity Factor (Using DER Net)	93.61%	81.30%	69.90%
23.	Unit Forced Outage Rate	0.00%	2.04%	9.55%

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: December 2003

Docket No.: 50-280
Unit Name: Surry Unit 1
Date: 01/05/04
Completed by: R. Stief
Telephone: (757) 365-2486

None during the Reporting Period

(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 2003

Docket No.: 50-281
 Unit Name: Surry Unit 2
 Date: 01/05/04
 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
12/01/03	S	50H 47M	C	1	N/A	N/A	N/A	Unit 2 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

AVERAGE DAILY UNIT POWER LEVEL

Docket No.: 50-280
 Unit Name: Surry Unit 1
 Date: 01/05/04
 Completed by: R. Stief
 Telephone: (757) 365-2486

MONTH: December 2003

Day	Average Daily Power Level (MWe - Net)	Day	Average Daily Power Level (MWe - Net)
1	802	17	827
2	823	18	827
3	817	19	827
4	826	20	827
5	826	21	827
6	828	22	827
7	827	23	827
8	825	24	826
9	824	25	826
10	825	26	826
11	826	27	826
12	826	28	826
13	826	29	825
14	827	30	825
15	826	31	826
16	827		

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: 01/05/04

Completed by: R. Stief

Telephone: (757) 365-2486

MONTH: December 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	820
2	0	18	820
3	168	19	820
4	548	20	820
5	808	21	821
6	821	22	820
7	821	23	821
8	821	24	821
9	821	25	821
10	821	26	821
11	821	27	821
12	821	28	821
13	821	29	821
14	821	30	821
15	820	31	821
16	820		

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 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:

12/01/03	0000	Unit started the month at 100% / 856 MWe.
12/03/03	1428	Commenced ramp to 90% to start HP Heater Drain Pump 1-SD-P-1B and secure 1-SD-P1A.
12/03/03	1505	Stopped ramp at 90% / 768 MWe.
12/03/03	1627	Commenced ramp to 100%. Unit at 89% / 765 MWe.
12/03/03	1900	Unit at 100% / 851 MWe.
12/31/03	2400	Unit finished the month at 100% / 855 MWe.

UNIT TWO:

12/01/03	0000	Unit started the month at 0% / 0 MWe. Unit offline for refueling/reactor vessel head replacement.
12/01/03	1044	Reactor Critical.
12/03/03	0247	Unit online. Commenced ramp to 30%.
12/03/03	0319	Stopped ramp at 30% for flux map/voltage regulator testing.
12/03/03	1559	Commenced ramp to 40%. Unit at 29% / 185 MWe.
12/03/03	1644	Stopped ramp at 40% / 270 Mwe for voltage regulator testing.
12/03/03	2236	Commenced ramp to 70%.
12/04/03	0632	Stopped ramp at 68% for flux map.
12/04/03	1402	Commenced ramp from 69% / 551 MWe.
12/04/03	2224	Stopped ramp at 90% for NI adjustment.
12/04/03	2315	Commenced ramp to 96%.
12/05/03	0218	Stopped ramp at 96% / 815 MWe for power verifications.
12/05/03	0704	Commenced ramp to 100%.
12/05/03	0850	Unit at 100% / 848 Mwe.
12/31/03	2400	Unit finished the month at 100% / 851 MWe.

FACILITY CHANGES THAT DID NOT REQUIRE NRC APPROVAL

MONTH/YEAR: December 2003

None during the Reporting Period

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

MONTH/YEAR: December 2003

None during the Reporting Period

TESTS AND EXPERIMENTS THAT DID NOT REQUIRE NRC APPROVAL

MONTH/YEAR: December 2003

None during the Reporting Period

CHEMISTRY REPORT

MONTH/YEAR: December 2003

Primary Coolant Analysis	Unit No. 1			Unit No. 2		
	Max.	Min.	Avg.	Max.	Min.	Avg.
Gross Radioactivity, $\mu\text{Ci/ml}$	3.73E-1	1.55E-1	2.71E-1	3.27E-1	3.43E-4	1.98E-1
Suspended Solids, ppm	0.01	0.01	0.01	0.01	0.01	0.01
Gross Tritium, $\mu\text{Ci/ml}$	7.64E-1	6.51E-1	7.10E-1	3.33E-1	3.48E-2	1.74E-1
^{131}I , $\mu\text{Ci/ml}$	2.57E-4	9.23E-5	1.44E-4	1.04E-4	2.12E-5	7.11E-5
$^{131}\text{I}/^{133}\text{I}$	0.13	0.05	0.08	0.35	0.25	0.30
Hydrogen, cc/kg	34.8	33	34	38	31.7	35.8
Lithium, ppm	2.28	2.1	2.2	3.72	2.39	2.71
Boron - 10, ppm*	202	185	193	391	272	298
Oxygen, (DO), ppm	≤ 0.005	≤ 0.005	≤ 0.005	≤ 0.005	≤ 0.005	≤ 0.005
Chloride, ppm	0.007	0.004	0.005	0.009	0.006	0.008
pH @ 25 degree Celsius	6.65	6.5	6.58	6.45	6.15	6.3

* Boron - 10 = Total Boron x 0.196

Comments:

Unit 1: 100% power

Unit 2: In startup/power ascension, following Refueling Shutdown

**FUEL HANDLING
UNITS 1 & 2**

MONTH/YEAR: December 2003

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
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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 2003

None during the Reporting Period