

VIRGINIA ELECTRIC AND POWER COMPANY
RICHMOND, VIRGINIA 23261

January 11, 2005

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

Serial No. 05-007
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 2004 is provided in the attachment.

If you have any questions or require additional information, please contact us.

Very truly yours,



Donald E. Jernigan,
Site Vice President
Surry Power Station

Attachment

Commitments made by this letter: None

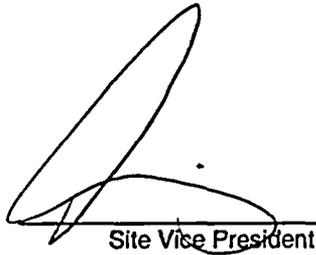
cc: United States Nuclear Regulatory Commission
Region II
Sam Nunn Atlanta Federal Center
61 Forsyth Street, SW, Suite 23 T85
Atlanta, Georgia 30303-8931

Mr. N. P. Garrett
NRC Senior Resident Inspector
Surry Power Station

IE24

**VIRGINIA ELECTRIC AND POWER COMPANY
SURRY POWER STATION
MONTHLY OPERATING REPORT
REPORT NO. 04-12**

Approved:



Site Vice President

1/11/2005
Date

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OPERATING DATA REPORT

Docket No.: 50-280
Date: 01/03/05
Completed By: R. Stief
Telephone: (757) 365-2486

- 1. Unit Name: Surry Unit 1
- 2. Reporting Period:..... December 2004
- 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	8784.00	280752.00
12.	Hours Reactor Was Critical	702.12	7997.92	209401.40
13.	Reactor Reserve Shutdown Hours	0.00	0.00	3774.50
14.	Hours Generator On-Line	677.66	7944.44	206549.21
15.	Unit Reserve Shutdown Hours	0.00	0.00	3736.20
16.	Gross Thermal Energy Generated (MWH)	1671292.20	20092754.20	494484677.80
17.	Gross Electrical Energy Generated (MWH)	556873.00	6706010.00	162845275.00
18.	Net Electrical Energy Generated (MWH)	529931.00	6457133.00	155619233.00
19.	Unit Service Factor	91.08%	90.44%	73.57%
20.	Unit Availability Factor	91.08%	90.44%	74.90%
21.	Unit Capacity Factor (Using MDC Net)	87.93%	90.75%	70.68%
22.	Unit Capacity Factor (Using DER Net)	90.39%	93.29%	70.34%
23.	Unit Forced Outage Rate	0.00%	0.36%	11.65%

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: 01/03/05
Completed By: R. Stief
Telephone: (757) 365-2486

1. Unit Name: Surry Unit 2
2. Reporting Period:..... December 2004
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	8784.00	277633.00
12. Hours Reactor Was Critical	744.00	8629.52	207591.82
13. Reactor Reserve Shutdown Hours	0.00	0.00	328.10
14. Hours Generator On-Line	744.00	8606.75	205053.17
15. Unit Reserve Shutdown Hours	0.00	0.00	0.00
16. Gross Thermal Energy Generated (MWH)	1893570.20	21856048.00	492502391.80
17. Gross Electrical Energy Generated (MWH)	637645.00	7314531.00	162292845.00
18. Net Electrical Energy Generated (MWH)	609101.00	7051735.00	155144571.00
19. Unit Service Factor	100.00%	97.98%	73.86%
20. Unit Availability Factor	100.00%	97.98%	73.86%
21. Unit Capacity Factor (Using MDC Net)	100.45%	98.50%	70.93%
22. Unit Capacity Factor (Using DER Net)	103.89%	101.88%	70.92%
23. Unit Forced Outage Rate	0.00%	2.02%	9.26%

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

April 2005

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 2004

Docket No.: 50-280
 Unit Name: Surry Unit 1
 Date: 01/03/05
 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
12/01/04	S	66.2	C	1	N/A	N/A	N/A	Unit continues offline for refueling

(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 2004

Docket No.: 50-281
Unit Name: Surry Unit 2
Date: 01/03/05
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
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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: 01/03/05
 Completed by: R. Stief
 Telephone: (757) 365-2486

MONTH: December 2004

Day	Average Daily Power Level (MWe - Net)	Day	Average Daily Power Level (MWe - Net)
1	0	17	812
2	0	18	812
3	36	19	812
4	297	20	812
5	640	21	812
6	796	22	812
7	812	23	812
8	813	24	812
9	813	25	812
10	813	26	812
11	813	27	812
12	813	28	812
13	813	29	812
14	812	30	813
15	812	31	812
16	813		

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: 01/03/05
 Completed by: R. Stief
 Telephone: (757) 365-2486

MONTH: December 2004

<u>Day</u>	<u>Average Daily Power Level (MWe - Net)</u>	<u>Day</u>	<u>Average Daily Power Level (MWe - Net)</u>
1	818	17	816
2	797	18	816
3	803	19	816
4	827	20	816
5	827	21	816
6	828	22	816
7	828	23	816
8	827	24	815
9	826	25	816
10	827	26	816
11	827	27	815
12	828	28	815
13	827	29	815
14	823	30	816
15	817	31	815
16	817		

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 2004

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:

12/01/04	0000	Unit started the month at 0% / 0 MWe.
12/02/04	1753	Reactor Critical.
12/03/04	1820	Unit online.
12/03/04	1927	Stopped ramp @ 30% / 225 MWe.
12/04/04	0619	Commenced ramp. Unit at 35% / 237 MWe.
12/04/04	0635	Stopped ramp at 40% / 248 MWe.
12/04/04	0655	Recommenced ramp.
12/04/04	0825	Holding ramp @ 44.5% / 315 MWe due to Main Feed Pump suction pressure and LP drain pump oil level issues.
12/04/04	1139	Recommenced ramp to 70%.
12/04/04	2249	Holding ramp at 70% / 583 MWe for flux mapping.
12/05/04	0622	Recommenced ramp to 90%. Unit at 69% / 582 MWe.
12/05/04	1445	Stopped ramp at 90% / 748 MWe for power rod stop and trip setpoints.
12/05/04	1617	Ramped unit down 2% due to high vibrations on Main Turbine. Engineering to evaluate turbine condition.
12/05/04	2229	Recommenced ramp. Unit at 87% / 742 MWe.
12/06/04	0930	Unit at 100% / 850 MWe.
12/31/04	2400	Unit finished the month at 100% / 852 MWe.

UNIT TWO:

12/01/04	0000	Unit started the month at 100% / 856 MWe.
12/31/04	2400	Unit finished the month at 100% / 857 MWe.

FACILITY CHANGES THAT DID NOT REQUIRE NRC APPROVAL

MONTH/YEAR: December 2004

None during the Reporting Period.

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

MONTH/YEAR: December 2004

None during the Reporting Period.

TESTS AND EXPERIMENTS THAT DID NOT REQUIRE NRC APPROVAL

MONTH/YEAR: December 2004

None during the Reporting Period

CHEMISTRY REPORT

MONTH/YEAR: December 2004

Primary Coolant Analysis	Unit No. 1			Unit No. 2		
	Max.	Min.	Avg.	Max.	Min.	Avg.
Gross Radioactivity, $\mu\text{Ci/ml}$	4.33E-1	1.85E-2	3.15E-1	2.91E-1	1.45E-1	2.03E-1
Suspended Solids, ppm	0.025	0.01	0.018	0.01	0.01	0.01
Gross Tritium, $\mu\text{Ci/ml}$	3.22E-1	6.77E-2	1.78E-1	1.22E+0	1.14E+0	1.20E+0
^{131}I , $\mu\text{Ci/ml}$	1.50E-4	1.26E-5	8.56E-5	1.10E-4	2.85E-5	6.58E-5
$^{131}\text{I}/^{133}\text{I}$	0.11	0.05	0.07	0.41	0.15	0.23
Hydrogen, cc/kg	40.9	21	32	45.9	40.7	42.6
Lithium, ppm	5.31	0.23	3.56	2.29	2.11	2.21
Boron - 10, ppm*	479	269	309	110	92	101
Oxygen, (DO), ppm	≤ 0.005					
Chloride, ppm	0.009	0.004	0.007	0.003	0.002	0.003
pH @ 25 degree Celsius	6.92	5.09	6.5	7.14	6.89	7.03

* Boron - 10 = Total Boron x 0.196

Comments:

Unit 1: Unit startup from RFO, 100% power achieved on 12-6-04.

Unit 2: Unit at 100% power.

**FUEL HANDLING
UNITS 1 & 2**

MONTH/YEAR: December 2004

<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 2004

None during the Reporting Period