

VIRGINIA ELECTRIC AND POWER COMPANY
RICHMOND, VIRGINIA 23261

February 13, 2003

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

Serial No. 03-100
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 January 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

IE24

**VIRGINIA ELECTRIC AND POWER COMPANY
SURRY POWER STATION
MONTHLY OPERATING REPORT
REPORT No. 03-01**

Approved:


Site Vice President

2/13/02
Date

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OPERATING DATA REPORT

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

- 1. Unit Name: Surry Unit 1
- 2. Reporting Period: January 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: _____

	This Month	Year-To-Date	Cumulative
11. Hours in Reporting Period	744.0	744.0	263952.0
12. Hours Reactor Was Critical	453.7	453.7	194975.3
13. Reactor Reserve Shutdown Hours	0.0	0.0	3774.5
14. Hours Generator On-Line	400.3	400.3	192262.5
15. Unit Reserve Shutdown Hours	0.0	0.0	3736.2
16. Gross Thermal Energy Generated (MWH)	933791.3	933791.3	458440108.0
17. Gross Electrical Energy Generated (MWH)	308402.0	308402.0	150813726.0
18. Net Electrical Energy Generated (MWH)	296029.0	296029.0	144038350.0
19. Unit Service Factor	53.8%	53.8%	72.8%
20. Unit Availability Factor	53.8%	53.8%	74.3%
21. Unit Capacity Factor (Using MDC Net)	49.1%	49.1%	69.7%
22. Unit Capacity Factor (Using DER Net)	50.5%	50.5%	69.3%
23. Unit Forced Outage Rate	46.2%	46.2%	12.4%

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]

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

- 1. Unit Name: Surry Unit 2
- 2. Reporting Period:..... January 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	744.0	744.0	260833.0
12. Hours Reactor Was Critical	681.1	681.1	192564.5
13. Reactor Reserve Shutdown Hours	0.0	0.0	328.1
14. Hours Generator On-Line	656.3	656.3	190240.7
15. Unit Reserve Shutdown Hours	0.0	0.0	0.0
16. Gross Thermal Energy Generated (MWH)	1657384.9	1657384.9	454884369.4
17. Gross Electrical Energy Generated (MWH)	555643.0	555643.0	149696176.0
18. Net Electrical Energy Generated (MWH)	536142.0	536142.0	143016859.0
19. Unit Service Factor	88.2%	88.2%	72.9%
20. Unit Availability Factor	88.2%	88.2%	72.9%
21. Unit Capacity Factor (Using MDC Net)	88.4%	88.4%	69.8%
22. Unit Capacity Factor (Using DER Net)	91.4%	91.4%	69.6%
23. Unit Forced Outage Rate	11.8%	11.8%	9.8%

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	_____	_____

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

REPORT MONTH: January 2003

Docket No.: 50-280
 Unit Name: Surry Unit 1
 Date: 02/04/03
 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
01/14/03	F	268.70	A	1	Report Under Review	AB	MO	Reactor manually tripped due to "C" Reactor Coolant Pump Motor bearing failure
01/25/03	F	74.75	A	3	Report Under Review	AB	FCV	During startup reactor tripped on low SG level, cause due to level control associated with the feedwater control valves

(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

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

Exhibit 1 - Same Source

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

REPORT MONTH: January 2003

Docket No.: 50-281
 Unit Name: Surry Unit 2
 Date: 02/04/03
 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
01/25/03	F	87.68	A	3	Report Under Review	EL	87	Reactor tripped due to generator differential lockout

(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)

AVERAGE DAILY UNIT POWER LEVEL

Docket No.: 50-280
 Unit Name: Surry Unit 1
 Date: 02/03/03
 Completed by: R. Stief
 Telephone: (757) 365-2486

MONTH: January 2003

<u>Day</u>	<u>Average Daily Power Level (MWe - Net)</u>	<u>Day</u>	<u>Average Daily Power Level (MWe - Net)</u>
1	822	17	0
2	823	18	0
3	823	19	0
4	823	20	0
5	823	21	0
6	821	22	0
7	818	23	0
8	819	24	0
9	820	25	0
10	821	26	0
11	822	27	0
12	824	28	99
13	823	29	154
14	55	30	540
15	0	31	803
16	0		

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

MONTH: January 2003

Day	Average Daily Power Level (MWe - Net)	Day	Average Daily Power Level (MWe - Net)
1	828	17	825
2	828	18	823
3	828	19	823
4	828	20	823
5	828	21	825
6	828	22	822
7	828	23	821
8	828	24	822
9	827	25	486
10	827	26	0
11	827	27	0
12	824	28	0
13	824	29	419
14	822	30	823
15	809	31	822
16	821		

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: January 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:

01/01/03	0000	Unit started the month at 100% / 852 MWe.
01/14/03	0137	Reactor Manually Tripped due to 1-RC-P-1C motor bearing failure.
01/24/03	1124	Reactor Critical.
01/25/03	0619	Unit 1 Online.
01/25/03	0701	Reactor Tripped due to Lo Lo SG Level on 1-RC-E-1B.
01/26/03	2328	Reactor Critical.
01/28/03	0946	Unit 1 Online.
01/29/03	0000	Unit holding at 32% / 225 MWe pending resolution of 1-CH-LCV-1460B.
01/29/03	1337	Ramped unit to 20% to repair 1-CH-LCV-1460B.
01/29/03	1415	Ramped stopped at 20% / 135 MWe.
01/29/03	2342	1-CH-LCV-1460B repaired.
01/30/03	0058	Commenced ramp to full power. Unit at 21% / 140 MWe.
01/30/03	1228	Stopped ramp at 85% / 711 MWe to repair 1-FW-FCV-150B.
01/31/03	0048	Repairs completed.
01/31/03	0111	Commenced ramp.
01/31/03	0755	Unit at 100% / 850 MWe.
01/31/03	2400	Unit finished the month at 100% / 849 MWe

UNIT TWO:

01/01/03	0000	Unit started the month at 100% / 856 MWe.
01/25/03	1414	Reactor Trip due to Generator Differential Lockout.
01/28/03	0503	Reactor Critical.
01/29/03	0555	Unit 2 Online.
01/29/03	1037	Holding ramp at 53% / 425 MWe to place LP Heater Drain Pumps in service.
01/29/03	1231	Commenced ramp.
01/29/03	1715	Stopped ramp at 92% / 786 MWe to adjust IRPI's.
01/29/03	1810	Stopped ramp at 95.5% / 815 MWe for alternate power indication comparison.
01/29/03	2159	Unit at 100% / 849 MWe.
01/31/03	2400	Unit finished the month at 100% / 850 MWe.

FACILITY CHANGES THAT DID NOT REQUIRE NRC APPROVAL

MONTH/YEAR: January 2003

None during the Reporting Period

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

MONTH/YEAR: January 2003

None during the Reporting Period

TESTS AND EXPERIMENTS THAT DID NOT REQUIRE NRC APPROVAL

MONTH/YEAR: January 2003

None during the Reporting Period

CHEMISTRY REPORT

MONTH/YEAR: January 2003

Primary Coolant Analysis	Unit No. 1			Unit No. 2		
	Max.	Min.	Avg.	Max.	Min.	Avg.
Gross Radioactivity, $\mu\text{Ci/ml}$	5.82E-1	7.60E-3	2.30E-1	4.08E-1	7.48E-3	2.31E-1
Suspended Solids, ppm	0.15	0.01	0.05	0.05	0.01	0.02
Gross Tritium, $\mu\text{Ci/ml}$	5.53E-1	1.01E-1	2.82E-1	1.23E+0	1.15E+0	1.20E+0
^{131}I , $\mu\text{Ci/ml}$	2.54E-4	2.72E-5	1.45E-4	1.52E-4	7.44E-5	1.11E-4
$^{131}\text{I}/^{133}\text{I}$	0.09	0.05	0.07	0.13	0.08	0.1
Hydrogen, cc/kg	38.7	1.4	22.3	39.9	35.9	38
Lithium, ppm	2.39	0.1	1.66	2.56	1.94	2.23
Boron - 10, ppm*	368	66	198	271	157	202
Oxygen, (DO), ppm	≤ 0.005					
Chloride, ppm	0.006	0.002	0.004	0.003	0.001	0.002
pH @ 25 degree Celsius	7.36	5.39	6.17	7.01	5.7	6.54

* Boron - 10 = Total Boron x 0.196

Comments:

None

**FUEL HANDLING
UNITS 1 & 2**

MONTH/YEAR: January 2003

<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>
----------------------------------------------	------------------------------------	--------------------------------------------------	----------------------------	------------------------	-------------------------------	---------------------------------------------------------

None during the Reporting Period

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

MONTH/YEAR: January 2003

None during the Reporting Period