

VIRGINIA ELECTRIC AND POWER COMPANY
RICHMOND, VIRGINIA 23261

March 15, 2001

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

Serial No. 01-147
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 February 2001 is provided in the attachment.

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

Very truly yours,



R. H. Blount II, 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- 02**

Approved:

 3/15/01

Site Vice President Date

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OPERATING DATA REPORT

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

1. Unit Name: Surry Unit 1
2. Reporting Period: February 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	672.0	1416.0	247104.0
12. Hours Reactor Was Critical	672.0	1416.0	179720.1
13. Reactor Reserve Shutdown Hours	0.0	0.0	3774.5
14. Hours Generator On-Line	672.0	1416.0	177136.7
15. Unit Reserve Shutdown Hours	0.0	0.0	3736.2
16. Gross Thermal Energy Generated (MWH)	1710667.6	3602508.5	420455256.3
17. Gross Electrical Energy Generated (MWH)	572611.0	1204463.0	138142866.0
18. Net Electrical Energy Generated (MWH)	552876.0	1162476.0	131813704.0
19. Unit Service Factor	100.0%	100.0%	71.7%
20. Unit Availability Factor	100.0%	100.0%	73.2%
21. Unit Capacity Factor (Using MDC Net)	101.6%	101.4%	68.3%
22. Unit Capacity Factor (Using DER Net)	104.4%	104.2%	67.7%
23. Unit Forced Outage Rate	0.0%	0.0%	13.1%

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

1. Unit Name: Surry Unit 2
2. Reporting Period: February 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	672.0	1416.0	243985.0
12. Hours Reactor Was Critical	634.9	1378.9	176967.8
13. Reactor Reserve Shutdown Hours	0.0	0.0	328.1
14. Hours Generator On-Line	627.8	1371.8	174782.9
15. Unit Reserve Shutdown Hours	0.0	0.0	0.0
16. Gross Thermal Energy Generated (MWH)	1565912.2	3460075.1	415681636.0
17. Gross Electrical Energy Generated (MWH)	525280.0	1163320.0	136573452.0
18. Net Electrical Energy Generated (MWH)	507461.0	1123422.0	130359729.0
19. Unit Service Factor	93.4%	96.9%	71.6%
20. Unit Availability Factor	93.4%	96.9%	71.6%
21. Unit Capacity Factor (Using MDC Net)	92.7%	97.3%	68.1%
22. Unit Capacity Factor (Using DER Net)	95.8%	100.7%	67.8%
23. Unit Forced Outage Rate	6.6%	3.1%	10.5%

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: February 2001

Docket No.: 50-280
Unit Name: Surry Unit 1
Date: 03/01/01
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: February 2001

Docket No.: 50-281

Unit Name: Surry Unit 2

Date: 03/01/01

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
02/10/01	F	44 H 14 M	A	1	Reportability Under Review	AB	SNB	Unit Shutdown to Repair 2-RC-HSS-116

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

MONTH: February 2001

Day	Average Daily Power Level (MWe - Net)	Day	Average Daily Power Level (MWe - Net)
1	823	17	826
2	822	18	825
3	823	19	825
4	824	20	825
5	824	21	825
6	824	22	824
7	824	23	824
8	825	24	825
9	824	25	825
10	804	26	825
11	798	27	825
12	822	28	824
13	824		
14	826		
15	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: 03/01/01
 Completed by: R. Stief
 Telephone: (757) 365-2486

MONTH: February 2001

Day	Average Daily Power Level (MWe - Net)	Day	Average Daily Power Level (MWe - Net)
1	827	17	830
2	828	18	830
3	815	19	829
4	828	20	829
5	827	21	828
6	827	22	828
7	827	23	827
8	828	24	828
9	829	25	829
10	146	26	828
11	0	27	827
12	391	28	828
13	747		
14	827		
15	828		
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: February 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:

02/01/01	0000	Unit started the month at 100% / 851 MWe.
02/28/01	2400	Unit finished the month at 100% / 852 MWe.

UNIT TWO:

02/01/01	0000	Unit started the month at 100% / 855 MWe.
02/03/01	0038	Commenced unit ramp to 90% IAW 2-OSP-TM-001. Unit at 100% / 857 MWe.
02/03/01	0125	Stop ramp at 92% / 788 MWe for IRPI adjustments.
02/03/01	0442	2-OSP-TM-001 suspended due to #4 Governor Valve (GV) cycling badly.
02/03/01	0449	Commenced ramp to full power. Unit at 90% / 780 MWe.
02/03/01	0525	Ramp stopped at 98% / 845 MWe. Slowly raising power to 100% for GV observations.
02/03/01	0618	Unit at 100 % / 854 MWe.
02/10/01	0105	Commenced unit shutdown for repair of 2-RC-HSS-116. Unit at 100% / 858 MWe.
02/10/01	0150	Stopped ramp to adjust IRPI's. Unit at 90% / 75 MWe.
02/10/01	0200	Recommended ramp.
02/10/01	0422	Stopped ramp to adjust IRPI's. Unit at 50% / 390 MWe.
02/10/01	0430	Recommended ramp.
02/10/01	0611	Stopped ramp at 20% / 143 MWE to swap to RSST's.
02/10/01	0700	Generator Output Breakers opened. Unit off line.
02/10/01	0710	Tripped Turbine.
02/10/01	0736	Tripped Reactor.
02/10/01	1647	2-RC-HSS-116 replacement complete.
02/11/01	2040	Reactor Critical.
02/12/01	0314	Unit on Line.
02/12/01	0420	Stopped ramp to adjust IRPI's. Unit at 30% / 230 MWe.
02/12/01	0455	Recommended ramp.
02/12/01	0620	Stopped ramp at 50% / 398 MWe for turnover.
02/12/01	1417	Recommended ramp. Unit at 50.5% / 400 MWe.
02/12/01	1458	Stopped ramp due to high CN Polishing D/P. Unit at 64% / 480 MWe.
02/12/01	1525	Recommended ramp.
02/12/01	1555	Stopped ramp to perform calorimetric and increase PRNI setpoints. Unit at 70% / 575 MWe.
02/12/01	1800	Recommended ramp.

02/12/01	1847	Stopped ramp due to HP Heater Drain pump discharge normal level control valve stuck open. Unit at 82% / 685 MWe.
02/13/01	0245	Recommended ramp.
02/13/01	0313	Stopped ramp for I&C to record EHC data. Unit at 88% / 725 MWe.
02/13/01	0335	Recommended ramp.
02/13/01	2032	Unit at 100% / 855 MWe.
02/28/01	2400	Unit finished the month at 100% / 860 MWe.

FACILITY CHANGES THAT DID NOT REQUIRE NRC APPROVAL

MONTH/YEAR: February 2001

DCP 90-007	Design Change Package (Safety Evaluation 91-016)	01/29/92
Design Change Package 90-007, "Electrical Duct Bank, Pipe Trench and MER 3 HVAC Modifications/Surry 1 & 2" upgraded the Control Room envelope air-conditioning system to provide additional capacity for removal of increased heat loads and improve equipment reliability and performance.		
FS 00-054	UFSAR Change Request (Safety Evaluation 01-008)	02/08/01
UFSAR Change Request 00-054 inserts an item in UFSAR Table 15.2-1 to show that the "yard hydrant piping system" portion of the Fire Protection System is designed Seismic Class I as stated in UFSAR Section 9.10.1.		
ET S-01-0035	Engineering Transmittal (Safety Evaluation 01-009)	02/10/01
Engineering Transmittal S-01-0035 details the work sequence for replacing inoperable snubber 2-RC-HSS-116.		
CCE-00-0006 FS 01-002	Engineering Transmittal UFSAR Change Request (Safety Evaluation 01-012)	02/21/01
Engineering Transmittal CCE-00-0006 and UFSAR Change Request 01-002 controls the inspection and documentation of the Reactor Vessel Head Stud Racks as newly identified NUREG-0612 special lifting devices.		

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

MONTH/YEAR: February 2001

0-ECM-1205-01

Electrical Corrective Maintenance Procedure
(Safety Evaluation 01-011)

02/15/01

Electrical Corrective Maintenance Procedure 0-ECM-1205-01, "EDG Battery Temperature Monitoring", was written to provide direction for monitoring and implementing compensatory actions to maintain EDG Battery temperatures during periods of cold weather.

2-OP-RC-011

Operating Procedure
(Safety Evaluation 01-010)

02/15/01

Operating Procedure 2-OP-RC-011, "Pressurizer Relief Tank Operations", was revised to provide the necessary instructions to cool the pressurizer relief tank (PRT) using recirculated PRT water through the primary drain transfer tank cooler to minimize creation of liquid waste.

TESTS AND EXPERIMENTS THAT DID NOT REQUIRE NRC APPROVAL

MONTH/YEAR: February 2001

None during the Reporting Period

CHEMISTRY REPORT

MONTH/YEAR: February 2001

Primary Coolant Analysis	Unit No. 1			Unit No. 2		
	Max.	Min.	Avg.	Max.	Min.	Avg.
Gross Radioactivity, $\mu\text{Ci/ml}$	3.99E-1	1.71E-1	2.72E-1	3.07E-1	2.87E-2	2.11E-1
Suspended Solids, ppm	-	-	-	≤ 0.010	≤ 0.010	≤ 0.010
Gross Tritium, $\mu\text{Ci/ml}$	1.03E+0	9.97E-1	1.01E+0	8.38E-1	5.24E-1	6.57E-1
I^{131} , $\mu\text{Ci/ml}$	4.33E-4	1.60E-4	2.52E-4	1.56E-4	4.90E-5	9.96E-5
I^{131}/I^{133}	0.09	0.06	0.08	0.12	0.06	0.09
Hydrogen, cc/kg	42.4	35.5	40.3	37	30.8	34.4
Lithium, ppm	2.88	2.13	2.24	3.36	2.16	2.43
Boron - 10, ppm*	147.8	132.3	140.3	367.1	224.8	266.2
Oxygen, (DO), ppm	≤ 0.005	≤ 0.005	≤ 0.005	≤ 0.005	≤ 0.005	≤ 0.005
Chloride, ppm	0.011	0.009	0.01	0.009	0.005	0.006
pH @ 25 degree Celsius	6.81	6.56	6.73	6.51	6.22	6.39

* Boron - 10 = Total Boron x 0.196

Comments:

None

**FUEL HANDLING
UNITS 1 & 2**

MONTH/YEAR: February 2001

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: February 2001

Description/Title

1. 10 Year ISI Inspection for 2nd Interval ASME XI welds on eight pump casings
2. Technical Specifications 4.12.A.4, 4.12.A.6 and 4.12.A.7 required inspections were not performed within the required time limits

The above documented missed surveillances have been completed and the equipment was found to be capable of performing its specified safety functions.