

VIRGINIA ELECTRIC AND POWER COMPANY
RICHMOND, VIRGINIA 23261

March 10, 1999

United States Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, D.C. 20555

Serial No. 99-133
SPS Lic/JSA R0
Docket Nos. 50-280
50-281
License Nos. DPR-32
DPR-37

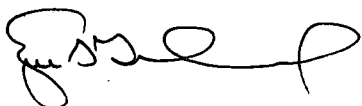
Gentlemen:

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 1999 is provided in the attachment.

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

Very truly yours,



E. S. Grecheck, Site Vice President
Surry Power Station

Attachment

Commitments made by this letter: None

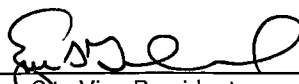
cc: U. S. Nuclear Regulatory Commission
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Mr. R. A. Musser
NRC Senior Resident Inspector
Surry Power Station

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**VIRGINIA ELECTRIC AND POWER COMPANY
SURRY POWER STATION
MONTHLY OPERATING REPORT
REPORT NO. 99-02**

Approved:


Site Vice President

3/10/99

Date

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OPERATING DATA REPORT

Docket No.: 50-280

Date: 03/02/99

Completed By: R. Stief

Telephone: (757) 365-2486

1. Unit Name: Surry Unit 1
2. Reporting Period: February 1999
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): ... 840
7. Maximum Dependable Capacity (Net MWe): 801

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	229560.0
12. Hours Reactor Was Critical	672.0	1416.0	162732.5
13. Reactor Reserve Shutdown Hours	0.0	0.0	3774.5
14. Hours Generator On-Line	672.0	1416.0	160187.4
15. Unit Reserve Shutdown Hours	0.0	0.0	3736.2
16. Gross Thermal Energy Generated (MWH)	1710178.8	3603852.9	377794810.4
17. Gross Electrical Energy Generated (MWH)	570072.0	1201430.0	123971586.0
18. Net Electrical Energy Generated (MWH)	551212.0	1161506.0	118148110.0
19. Unit Service Factor	100.0%	100.0%	69.8%
20. Unit Availability Factor	100.0%	100.0%	71.4%
21. Unit Capacity Factor (Using MDC Net)	102.4%	102.4%	66.0%
22. Unit Capacity Factor (Using DER Net)	104.1%	104.1%	65.3%
23. Unit Forced Outage Rate	0.0%	0.0%	14.3%

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

25. If Shut Down at End of Report Period, Estimated Date of Start-up: _____

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: 03/02/99
Completed By: R. Stief
Telephone: (757) 365-2486

1. Unit Name: Surry Unit 2
2. Reporting Period: February 1999
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): ... 840
7. Maximum Dependable Capacity (Net MWe): 801
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	226441.0
12. Hours Reactor Was Critical	672.0	1416.0	161326.3
13. Reactor Reserve Shutdown Hours	0.0	0.0	328.1
14. Hours Generator On-Line	672.0	1416.0	159309.5
15. Unit Reserve Shutdown Hours	0.0	0.0	0.0
16. Gross Thermal Energy Generated (MWH)	1694841.7	3588943.5	377384592.5
17. Gross Electrical Energy Generated (MWH)	570072.0	1206282.0	123754175.0
18. Net Electrical Energy Generated (MWH)	549688.0	1164701.0	117986728.0
19. Unit Service Factor	100.0%	100.0%	70.4%
20. Unit Availability Factor	100.0%	100.0%	70.4%
21. Unit Capacity Factor (Using MDC Net)	102.1%	102.7%	66.6%
22. Unit Capacity Factor (Using DER Net)	103.8%	104.4%	66.1%
23. Unit Forced Outage Rate	0.0%	0.0%	11.3%

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

Refueling, April 18, 1999, 36 Days

25. If Shut Down at End of Report Period, Estimated Date of Start-up: _____

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 1999

Docket No.: 50-280
Unit Name: Surry Unit 1
Date: 03/01/99
Completed by: J. R. Pincus
Telephone: (757) 365-2863

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)

(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 1999

Docket No.: 50-281

Unit Name: Surry Unit 2

Date: 03/01/99

Completed by: J. R. Pincus

Telephone: (757) 365-2863

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)

(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: 03/02/99
 Completed by: J. S. Ashley
 Telephone: (757) 365-2161

MONTH: February 1999

Day	Average Daily Power Level (MWe - Net)	Day	Average Daily Power Level (MWe - Net)
1	818	17	818
2	819	18	821
3	820	19	823
4	819	20	822
5	821	21	822
6	822	22	822
7	822	23	822
8	822	24	821
9	822	25	810
10	822	26	819
11	822	27	820
12	819	28	820
13	818		
14	818		
15	820		
16	822		

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: 03/02/99

Completed by: J. S. Ashley

Telephone: (757) 365-2161

MONTH: February 1999

Day	Average Daily Power Level (Mwe - Net)	Day	Average Daily Power Level (Mwe - Net)
1	828	17	824
2	829	18	824
3	828	19	824
4	787	20	823
5	827	21	823
6	827	22	823
7	827	23	824
8	828	24	821
9	827	25	812
10	825	26	803
11	825	27	754
12	829	28	753
13	829		
14	829		
15	826		
16	824		

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 1999

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:

02/01/99	0000	Unit starts the month at 100% / 845 MWe.
02/28/99	2400	Unit finishes the month at 100% / 855 MWe.

UNIT TWO:

02/01/99	0000	Unit starts the month at 100% / 860 MWe.
02/04/99	1006	Commenced unit ramp down to perform 2-OSP-TM-001, Turbine Inlet Valve Freedom Test. Unit at 100% / 855 MWe.
02/04/99	1045	Stopped ramp. Unit at 90% / 780 MWe.
02/04/99	1428	Commenced unit ramp down. Unit at 90% / 778 MWe.
02/04/99	1438	Stopped ramp. Unit at 88% / 766 MWe.
02/04/99	2035	Commenced ramp up. Unit at 88% / 760 MWe.
02/04/99	2245	Reactor power at 99.5% / 855 MWe, slow ramp to 100% in progress.
02/04/99	2340	Unit at 100% / 860 MWe.
02/24/99	1200	Unit began end of cycle coastdown for Spring refueling outage.
02/28/99	2400	Unit finishes the month at 91.5% / 780 MWe.

FACILITY CHANGES THAT DID NOT REQUIRE NRC APPROVAL

MONTH/YEAR: February 1999

DCP 97-059 **Design Change Package** 05/04/98
(Safety Evaluation 98-051)

Design Change Package 97-059, "Containment Spray (CS) Chemical Addition Tank (CAT) Supply Valves Replacement", replaces the existing Unit 1 CAT Isolation Valves to eliminate the leakage of the CAT contents into the CS system piping.

DCP 98-008 **Design Change Package** 02/25/99
(Safety Evaluation 98-110, Rev. 1)

Design Change Package 98-008, "Containment Radiant Energy Shields", installs Marinite board and stainless steel in containment that either replaces or sheaths existing Thermo-Lag material to perform as radiant energy shields. The installation of the Marinite board and stainless steel will provide a noncombustible radiant energy shield in accordance with NRC requirements. Revision 1 uses suitcase latches on the front face panel of two boxes to allow quick and repeatable removal of the panel for future maintenance work on transmitters.

TM S1-99-001 **Temporary Modification** 02/03/99
(Safety Evaluation 99-006)

Temporary Modification S1-99-001 was used to install a temporary temperature calibrator for a thrust bearing temperature thermocouple for a Circulating Water pump.

DCP 97-048 **Design Change Package** 02/04/99
(Safety Evaluation 99-007)

Design Change Package 97-048, "Fuel Handling Manipulator Crane Electrical Upgrades", describes the replacing of the Control Panel, Motor Control Center (MCC) and related cables and controls to the Fuel Handling Manipulator Crane in Containment.

DCP 98-053 **Design Change Package** 02/25/99
FS 99-005 **UFSAR Change Request**
(Safety Evaluation 99-009)

The recirculation line for the Unit 2 Low Head Safety Injection (LHSI) pumps will be relocated to originate at the upstream side of each pump's discharge side check valve. This will reduce the potential for pump damage when the pumps operate in a parallel operating configuration and are recirculating back to the Refueling Water Storage Tank (RWST).

DCP 97-032 **Design Change Package** 02/25/99
(Safety Evaluation 99-010)

The Unit 2 Main Control Room 'A' through 'K' annunciator panels will be replaced with larger panels. This activity will be performed while the unit is defueled and increased monitoring and compensatory measures will be implemented while the affected annunciator panels are removed from service for system change out.

FACILITY CHANGES THAT DID NOT REQUIRE NRC APPROVAL

MONTH/YEAR: February 1999

TM S1-99-002

Temporary Modification
(Safety Evaluation 99-011)

02/25/99

Temporary Modification S1-99-002 installs a remote gravity oil addition system to the lower motor reservoir of Unit 1 Reactor Coolant pump 1B. The purpose of adding the system is to reduce radiation exposure to the workers entering containment to add the oil.

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

MONTH/YEAR: February 1999

2-OP-CN-013

Operating Procedure
(Safety Evaluation 99-008)

02/18/99

Operating Procedure, 2-OP-CN-013, "Manual Regeneration of Condensate Polishing Resin", was revised for installation of a Temporary Modification (TM) to close valve 2-CP-AOV-241 which will allow the anion resin to be transferred from the anion tank to the cation tank to be regenerated with sulfuric acid to remove chloride impurities.

TESTS AND EXPERIMENTS THAT DID NOT REQUIRE NRC APPROVAL

MONTH/YEAR: February 1999

None during the Reporting Period

CHEMISTRY REPORT

MONTH/YEAR: February 1999

Primary Coolant Analysis	Unit No. 1			Unit No. 2		
	Max.	Min.	Avg.	Max.	Min.	Avg.
Gross Radioactivity, $\mu\text{Ci/ml}$	3.90E-1	2.07E-1	2.91E-1	2.01E-1	1.19E-1	1.56E-1
Suspended Solids, ppm	-	-	-	-	-	-
Gross Tritium, $\mu\text{Ci/ml}$	6.77E-1	5.59E-1	6.10E-1	1.32E-1	4.61E-2	8.90E-2
I^{131} , $\mu\text{Ci/ml}$	4.62E-4	2.73E-4	3.39E-4	1.08E-4	4.68E-5	7.65E-5
I^{131}/I^{133}	0.10	0.03	0.06	0.13	0.05	0.08
Hydrogen, cc/kg	42.3	39.7	40.4	39.7	32.1	35.4
Lithium, ppm	2.63	1.89	2.25	1.08	0.68	0.83
Boron - 10, ppm*	239.5	226.8	233.8	15.68	0.39	7.54
Oxygen, (DO), ppm	≤ 0.005	≤ 0.005	≤ 0.005	≤ 0.005	≤ 0.005	≤ 0.005
Chloride, ppm	0.023	0.021	0.022	0.008	0.001	0.002
pH @ 25 degree Celsius	6.55	6.05	6.40	9.38	7.38	7.98

* Boron - 10 = Total Boron x 0.196

Comments:

None

FUEL HANDLING
UNITS 1 & 2

MONTH/YEAR: February 1999

<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: February 1999

None during the Reporting Period