

VIRGINIA ELECTRIC AND POWER COMPANY
RICHMOND, VIRGINIA 23261
December 12, 2000

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

Serial No. 00-636
SPS Lic/JSA R0
Docket Nos. 50-280
50-281
License Nos. DPR-32
DPR-37

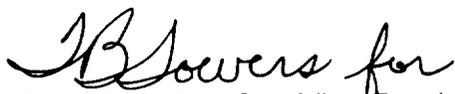
Gentlemen:

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 November 2000 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

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OPERATING DATA REPORT

Docket No.: 50-280
 Date: 12/01/00
 Completed By: R. Stief
 Telephone: (757) 365-2486

- 1. Unit Name:..... Surry Unit 1
- 2. Reporting Period: November 2000
- 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 | 720.0 | 8040.0 | 244944.0 |
| 12. Hours Reactor Was Critical | 720.0 | 7483.6 | 177560.1 |
| 13. Reactor Reserve Shutdown Hours | 0.0 | 0.0 | 3774.5 |
| 14. Hours Generator On-Line | 720.0 | 7445.3 | 174976.7 |
| 15. Unit Reserve Shutdown Hours | 0.0 | 0.0 | 3736.2 |
| 16. Gross Thermal Energy Generated (MWH) | 1832203.5 | 18518519.8 | 414958768.2 |
| 17. Gross Electrical Energy Generated (MWH) | 612796.0 | 6159962.0 | 136305295.0 |
| 18. Net Electrical Energy Generated (MWH) | 591342.0 | 5937183.0 | 130039986.0 |
| 19. Unit Service Factor | 100.0% | 92.6% | 71.4% |
| 20. Unit Availability Factor | 100.0% | 92.6% | 73.0% |
| 21. Unit Capacity Factor (Using MDC Net) | 102.5% | 92.2% | 68.0% |
| 22. Unit Capacity Factor (Using DER Net) | 104.2% | 93.7% | 67.4% |
| 23. Unit Forced Outage Rate | 0.0% | 0.4% | 13.3% |

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: 12/01/00
 Completed By: R. Stief
 Telephone: (757) 365-2486

- 1. Unit Name:..... Surry Unit 2
- 2. Reporting Period: November 2000
- 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 | 720.0 | 8040.0 | 241825.0 |
| 12. | Hours Reactor Was Critical | 714.2 | 7315.8 | 174844.9 |
| 13. | Reactor Reserve Shutdown Hours | 0.0 | 0.0 | 328.1 |
| 14. | Hours Generator On-Line | 703.2 | 7278.7 | 172667.1 |
| 15. | Unit Reserve Shutdown Hours | 0.0 | 0.0 | 0.0 |
| 16. | Gross Thermal Energy Generated (MWH) | 1657812.7 | 18299527.0 | 410327520.2 |
| 17. | Gross Electrical Energy Generated (MWH) | 555755.0 | 6138969.0 | 134771867.0 |
| 18. | Net Electrical Energy Generated (MWH) | 535301.0 | 5923385.0 | 128620242.0 |
| 19. | Unit Service Factor | 97.7% | 90.5% | 71.4% |
| 20. | Unit Availability Factor | 97.7% | 90.5% | 71.4% |
| 21. | Unit Capacity Factor (Using MDC Net) | 92.8% | 92.0% | 67.9% |
| 22. | Unit Capacity Factor (Using DER Net) | 94.3% | 93.5% | 67.5% |
| 23. | Unit Forced Outage Rate | 0.0% | 0.0% | 10.6% |

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: November 2000

Docket No.: 50-280
Unit Name: Surry Unit 1
Date: 12/01/00
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: November 2000

Docket No.: 50-281
 Unit Name: Surry Unit 2
 Date: 12/01/00
 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 |
|----------|-------------|-------------------|---------------|--|---------|-----------------------|--------------------------|--|
| 11/01/00 | S | 16 H 32 M | C | 1 | N/A | N/A | N/A | Refueling Outage |

(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: 12/01/00
 Completed by: R. Stief
 Telephone: (757) 365-2486

MONTH: November 2000

| Day | Average Daily Power Level (MWe - Net) | Day | Average Daily Power Level (MWe - Net) |
|-----|--|-----|--|
| 1 | 809 | 17 | 822 |
| 2 | 821 | 18 | 822 |
| 3 | 821 | 19 | 822 |
| 4 | 820 | 20 | 822 |
| 5 | 821 | 21 | 822 |
| 6 | 822 | 22 | 822 |
| 7 | 822 | 23 | 822 |
| 8 | 821 | 24 | 822 |
| 9 | 821 | 25 | 822 |
| 10 | 821 | 26 | 822 |
| 11 | 822 | 27 | 822 |
| 12 | 823 | 28 | 822 |
| 13 | 822 | 29 | 822 |
| 14 | 821 | 30 | 822 |
| 15 | 821 | | |
| 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: 12/01/00
 Completed by: R. Stief
 Telephone: (757) 365-2486

MONTH: November 2000

| Day | Average Daily Power Level (MWe - Net) | Day | Average Daily Power Level (MWe - Net) |
|-----|--|-----|--|
| 1 | 51 | 17 | 828 |
| 2 | 180 | 18 | 828 |
| 3 | 189 | 19 | 830 |
| 4 | 451 | 20 | 829 |
| 5 | 728 | 21 | 828 |
| 6 | 828 | 22 | 827 |
| 7 | 829 | 23 | 827 |
| 8 | 830 | 24 | 827 |
| 9 | 829 | 25 | 828 |
| 10 | 829 | 26 | 827 |
| 11 | 829 | 27 | 827 |
| 12 | 828 | 28 | 828 |
| 13 | 828 | 29 | 827 |
| 14 | 829 | 30 | 829 |
| 15 | 829 | | |
| 16 | 829 | | |

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: November 2000

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:

| | | |
|----------|------|--|
| 11/01/00 | 0000 | Unit started the month at 100% / 850 MWe. |
| 11/30/00 | 2400 | Unit finished the month at 100% / 855 MWe. |

UNIT TWO:

| | | |
|----------|------|---|
| 11/01/00 | 0000 | Unit started the month at 0% / 0 MWe. |
| 11/01/00 | 0550 | Reactor Critical. |
| 11/01/00 | 1632 | Unit on line. |
| 11/01/00 | 1732 | Unit at 30% / 210 MWe. |
| 11/03/00 | 1949 | Commenced raising power @ 3% per hour. Unit at 30% / 210 MWe. |
| 11/04/00 | 0000 | Unit at 42% / 340 MWe. |
| 11/04/00 | 0112 | Stopped ramp for 2-PT-1.2. Unit at 42% / 340 MWe. |
| 11/04/00 | 0249 | Commenced raising power @ 3% per hour. Unit at 42% / 340 MWe. |
| 11/04/00 | 1327 | Stop ramp at 67% / 556 MWe for possible problem with the shaft driven oil pump (2-FW-P-1B). |
| 11/05/00 | 0040 | Commenced ramp IAW 2-GOP-1.5. |
| 11/05/00 | 1008 | Reactor Power at 90% / 769 MWe. Ramp stopped, turbine swapped to IMP Out IAW GOP-1.5. |
| 11/05/00 | 1159 | Commenced unit ramp up from 90.5% power. |
| 11/05/00 | 1358 | Unit ramp stopped for alternate power comparison IAW 2-GOP-1.5 Unit at 95% / 810 MWe. |
| 11/05/00 | 1651 | Commenced ramp up to full power from 95% / 820 MWe. |
| 11/05/00 | 2325 | Commenced ramp. Unit at 98% / 850 MWe. |
| 11/06/00 | 0100 | Unit at 100% / 860 MWe. |
| 11/30/00 | 2400 | Unit finished the month at 100% / 857 MWe. |

FACILITY CHANGES THAT DID NOT REQUIRE NRC APPROVAL

MONTH/YEAR: November 2000

| | | |
|-------------------------|---|----------|
| TM S2-00-012, R1 | Temporary Modification (Safety Evaluation 00-133, Rev. 1) | 11/01/00 |
| | Temporary Modification S2-00-012 installed portable air blowers in the Unit 2 Pressurizer Cubicle to lower the safety valve ambient temperature, which may lower valve seat leakage. Revision 1 clarified the installation of temporary ducting in the cubicle. | |
| DCP 00-041 FS 00-047 | Design Change Package UFSAR Change Request (Safety Evaluation 00-134) | 11/07/00 |
| | Design Change Package 00-041, "Piping Cross-Connect Lines & Laundry Drain Pre-Filter Additions/Surry/Units 1&2" installs a cross-connect line and second laundry drain pre-filter in the Surry Radwaste Facility Liquid Waste System to prevent unnecessary downtime for filter element change out. | |
| FS 00-037 | UFSAR Change Request (Safety Evaluation 00-135) | 11/16/00 |
| | UFSAR Change Request 00-037 enhances the technical content of the Emergency Power System section of the UFSAR to be consistent with Chapter 9 Design Basis Accident definitions relative to a loss of offsite power. | |
| TM S1-00-032 | Temporary Modification (Safety Evaluation 00-136) | 11/17/00 |
| | Temporary Modification S1-00-032 installs a temporary hose from the Low Level Fish Spray System to the Low Level Intake Structure Vacuum Priming System while the "A" well pump is removed from service so that makeup water modifications can be implemented. | |
| FS 00-028 | UFSAR Change Request (Safety Evaluation 00-137) | 11/21/00 |
| | As a result of the Integrated Configuration Management Project review, UFSAR Change Request FS 00-028 corrects the statements in the UFSAR that discuss Surry's Thermal Hydraulic Reactor Design System. These changes are to enhance clarity and do not alter the technical basis of the UFSAR description. The changes also do not affect the Reactor Design System or any of its component's operation or performance. | |

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

MONTH/YEAR: November 2000

0-MOP-SW-014

Maintenance Operating Procedure
(Safety Evaluation 00-138)

11/22/00

Maintenance Operating Procedure 0-MOP-SW-014, "Removal From Service and Return to Service of Service Water Supply Strainer 1-VS-S-1A", was revised to allow installation of temporary blind flanges, when strainer 1-VS-S-1A is removed, to allow a portion of the system to be returned to service.

TESTS AND EXPERIMENTS THAT DID NOT REQUIRE NRC APPROVAL

MONTH/YEAR: November 2000

None during the Reporting Period

CHEMISTRY REPORT

MONTH/YEAR: November 2000

| Primary Coolant Analysis | Unit No. 1 | | | Unit No. 2 | | |
|--|--------------|--------------|--------------|-----------------------|-----------------------|-----------------------|
| | Max. | Min. | Avg. | Max. | Min. | Avg. |
| Gross Radioactivity, $\mu\text{Ci/ml}$ | 2.42E-1 | 1.45E-1 | 1.86E-1 | 2.33E-1 | 3.95E-2 | 1.40E-1 |
| Suspended Solids, ppm | - | - | - | - | - | - |
| Gross Tritium, $\mu\text{Ci/ml}$ | 9.59E-1 | 8.83E-1 | 9.29E-1 | 2.84E-1 | 4.54E-2 | 1.64E-1 |
| ^{131}I , $\mu\text{Ci/ml}$ | 3.41E-4 | 1.28E-4 | 1.99E-4 | $\leq 1.16\text{E-4}$ | $\leq 4.45\text{E-5}$ | $\leq 8.58\text{E-5}$ |
| $^{131}\text{I}/^{133}\text{I}$ | 0.11 | 0.05 | 0.07 | ≤ 0.11 | 0.06 | ≤ 0.09 |
| Hydrogen, cc/kg | 43.8 | 40.7 | 41.9 | 38.4 | 30.1 | 35.1 |
| Lithium, ppm | 2.32 | 2.11 | 2.21 | 3.58 | 2.33 | 2.69 |
| Boron - 10, ppm* | 197.8 | 184 | 190.6 | 383.2 | 259.9 | 279.9 |
| Oxygen, (DO), ppm | ≤ 0.005 | ≤ 0.005 | ≤ 0.005 | ≤ 0.005 | ≤ 0.005 | ≤ 0.005 |
| Chloride, ppm | 0.016 | 0.012 | 0.015 | 0.02 | 0.004 | 0.009 |
| pH @ 25 degree Celsius | 6.67 | 6.57 | 6.62 | 6.47 | 6.24 | 6.39 |

* Boron - 10 = Total Boron x 0.196

Comments:

None

**FUEL HANDLING
UNITS 1 & 2**

MONTH/YEAR: November 2000

| <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: November 2000

None during the Reporting Period