VIRGINIA ELECTRIC AND POWER COMPANY RICHMOND, VIRGINIA 23261

June 13, 2005

U. S. Nuclear Regulatory Commission Attention: Document Control Desk Washington, D.C. 20555-0001 Serial No. 05-363 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 May 2005 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

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VIRGINIA ELECTRIC AND POWER COMPANY SURRY POWER STATION MONTHLY OPERATING REPORT REPORT NO. 05-05

65 Ь Site Vice President Date

Approved:

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OPERATING DATA REPORT

Docket No.: 50-280 Date: 06/01/05 Completed By: R. Stief Telephone: (757) 365-2486

Unit Name: Surry Unit 1 1. Reporting Period: May 2005 2. Licensed Thermal Power (MWt):..... 3. 2546 Nameplate Rating (Gross MWe): 4. 847.5 Design Electrical Rating (Net MWe):..... 788 5. Maximum Dependable Capacity (Gross MWe):.... 840 6. Maximum Dependable Capacity (Net MWe):..... 7. 799

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> </u> | This Month | Year-To-Date | Cumulative |
|-----|---|------------|--------------|--------------|
| 11. | Hours in Reporting Period | 744.00 | 3623.00 | 284375.00 |
| 12. | Hours Reactor Was Critical | 744.00 | 3531.53 | 212932.93 |
| 13. | Reactor Reserve Shutdown Hours | 0.00 | 0.00 | 3774.50 |
| 14. | Hours Generator On-Line | 744.00 | 3500.97 | 210050.19 |
| 15. | Unit Reserve Shutdown Hours | 0.00 | 0.00 | 3736.20 |
| 16. | Gross Thermal Energy Generated (MWH) | 1893527.40 | 8893177.00 | 503377854.80 |
| 17. | Gross Electrical Energy Generated (MWH) | 635321.00 | 2977015.00 | 165822290.00 |
| 18. | Net Electrical Energy Generated (MWH) | 602130.00 | 2831711.00 | 157519110.00 |
| 19. | Unit Service Factor | 100.00% | 96.63% | 73.86% |
| 20. | Unit Availability Factor | 100.00% | 96.63% | 75.18% |
| 21. | Unit Capacity Factor (Using MDC Net) | 101.29% | 97.82% | 70.60% |
| 22. | Unit Capacity Factor (Using DER Net) | 102.70% | 99.19% | 70.29% |
| 23. | Unit Forced Outage Rate | 0.00% | 3.37% | 11.52% |

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):

| | FORECAST | ACHIEVED |
|----------------------|----------|----------|
| INITIAL CRITICALITY | | |
| INITIAL ELECTRICITY | | |
| COMMERCIAL OPERATION | | _ |

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OPERATING DATA REPORT

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 Docket No.:
 50-281

 Date:
 06/01/05

 Completed By:
 R. Stief

 Telephone:
 (757) 365-2486

| 1. | Unit Name: | Surry Unit 2 |
|----|--|--------------|
| 2. | Reporting Period: | May 2005 |
| 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): | 799 |

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 | 744.00 | 3623.00 | 281256.00 |
| 12. | Hours Reactor Was Critical | 234.22 | 2945.82 | 210537.64 |
| 13. | Reactor Reserve Shutdown Hours | 0.00 | 0.00 | 328.10 |
| 14. | Hours Generator On-Line | 198.12 | 2909.27 | 207962.44 |
| 15. | Unit Reserve Shutdown Hours | 0.00 | 0.00 | 0.00 |
| 16. | Gross Thermal Energy Generated (MWH) | 455567.00 | 7347367.60 | 499849759.40 |
| 17. | Gross Electrical Energy Generated (MWH) | 150945.00 | 2469455.00 | 164762300.00 |
| 18. | Net Electrical Energy Generated (MWH) | 137807.00 | 2343653.00 | 156520098.00 |
| 19. | Unit Service Factor | 26.63% | 80.30% | 73.94% |
| 20. | Unit Availability Factor | 26.63% | 80.30% | 73.94% |
| 21. | Unit Capacity Factor (Using MDC Net) | 23.18% | 80.96% | 70.61% |
| 22. | Unit Capacity Factor (Using DER Net) | 23.51% | 82.09% | 70.62% |
| 23. | Unit Forced Outage Rate | 0.00% | 0.00% | 9.14% |

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

| Type and duration of scheduled shutdowns are no longer provid | ded. |
|---|------|
| [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 | |
|--|----------|--|
| INITIAL CRITICALITY INITIAL ELECTRICITY COMMERCIAL OPERATION | | |
| | | |

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

REPORT MONTH: May 2005

Docket No.: 50-280 Unit Name: Surry Unit 1 Date: 06/01/05 Completed by: R. Stief Telephone: (757) 365-2486

None during the Reporting Period

(1)

- F: Forced S: Scheduled
- (2) REASON:
- A -B -C -Equipment Failure (Explain) Maintenance or Test

 - Refueling
- Regulatory Restriction D -
- **Operator Training & Licensing Examination** Ε-
- F -Administrative
- G -**Operational Error (Explain)**
- н Other (Explain)

(3) METHOD:

- 1 -Manual
- 2 -Manual Scram
- 3 Automatic Scram
- 4 - Other (Explain)

(5) Exhibit 1 - Same Source

(4)

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

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

REPORT MONTH: May 2005

Docket No.: 50-281 Unit Name: Surry Unit 2 Date: 06/01/05 Completed by: R. Stief Telephone: (757) 365-2486

| Date | (1) Туре | Duration Hours | (2) Reason | (3) Method of Shutting Down Rx | LER No. | (4) System Code | (5) Component Code | Cause & Corrective Action to Prevent Recurrence |
|----------|-------------|-------------------|---------------|--|---------|-----------------------|--------------------------|--|
| 05/01/05 | S | 545.88 | С | 1 | N/A | N/A | N/A | Unit offline for refueling |
| 05/30/05 | F | 8.48 | A | 1 | N/A | JA | LIC | Unit ramped to 75% due to secondary drain control system repairs |

(1)

F: Forced

S: Scheduled

- (2) REASON: Equipment Failure (Explain)
- A -B -Maintenance or Test
- С-Refueling
- D -
 - **Regulatory Restriction**
- Ε-**Operator Training & Licensing Examination**
- Administrative F -
- Operational Error (Explain) G -Η
 - 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

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AVERAGE DAILY UNIT POWER LEVEL

| 50-280 |
|----------------|
| Surry Unit 1 |
| 06/01/05 |
| R. Stief |
| (757) 365-2486 |
| |

MONTH: May 2005

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| Day | Average Daily Power Level (MWe - Net) | Day | Average Daily Power Level (MWe - Net) |
|-----|--|-----|--|
| 1 | 812 | 17 | 807 |
| 2 | 812 | 18 | 803 |
| 3 | 812 | 19 | 801 |
| 4 | 813 | 20 | 797 |
| 5 | 813 | 21 | 796 |
| 6 | 813 | 22 | 796 |
| 7 | 813 | 23 | 799 |
| 8 | 813 | 24 | 809 |
| 9 | 813 | 25 | 810 |
| 10 | 813 | 26 | 810 |
| 11 | 813 | 27 | 809 |
| 12 | 812 | 28 | 809 |
| 13 | 812 | 29 | 809 |
| 14 | 812 | 30 | 809 |
| 15 | 812 | 31 | 808 |
| 16 | 812 | | |

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.

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AVERAGE DAILY UNIT POWER LEVEL

| Docket No.: | 50-281 |
|---------------|----------------|
| Unit Name: | Surry Unit 2 |
| Date: | 06/01/05 |
| Completed by: | R. Stief |
| | (757) 365-2486 |
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MONTH: May 2005

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| Day | Average Daily Power Level (MWe - Net) | Day | Average Daily Power Level (MWe - Net) |
|-----|--|------|--|
| 1 | 0 | 17 | 0 |
| 2 | 0 | 18 | 0 |
| 3 | 0 | 19 | 0 |
| 4 | 0 | 20 | 0 |
| 5 | 0 | . 21 | 0 |
| 6 | 0 | 22 | 0 |
| 7 | 00 | 23 | 20 |
| 8 | 0 | 24 | 374 |
| 9 | 0 | 25 | 722 |
| 10 | 0 | 26 | 812 |
| 11 | 0 | 27 | 812 |
| 12 | 0 | 28 | 812 |
| 13 | 0 | 29 | 812 |
| 14 | 0 | 30 | 753 |
| 15 | 0 | 31 | 811 |
| 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.

SUMMARY OF OPERATING EXPERIENCE

MONTH/YEAR: May 2005

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.

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| UNIT ONE: | | |
|-----------|--------|---|
| 05/01/05 | 0000 | Unit started the month at 100% / 854 MWe. |
| 05/31/05 | 2400 | Unit finished the month at 100% / 853 MWe |
| | | |
| UNIT TWO: | | |
| 05/01/05 | 0000 | Unit started the month at 0% / 0 MWe. |
| 05/22/05 | 0547 | Reactor Critical. |
| 05/23/05 | 1753 | Unit online. |
| 05/24/05 | 0302 | Commenced ramp to 40%. Unit at 26% / 170 MWe. |
| 05/24/05 | 0344 | Secured ramp at 40% / 273 MWe. |
| 05/24/05 | 0524 | Commenced ramp to 70% power. Unit at 40% / 273 MWe. |
| 05/24/05 | 0650 | Stopped ramp for turnover. Unit at 45% / 328 MWe. |
| 05/24/05 | 0721 | Commenced ramp. |
| 05/24/05 | 0816 | Unit at 49% / 358 MWe. |
| 05/24/05 | 1341 | Unit at 62% / 458 MWe. |
| 05/24/05 | 1543 | Stopped ramp due to high turbine vibrations. Unit at 67% / 528 MWe. |
| 05/24/05 | 2303 | Commenced ramp. |
| 05/25/05 | 0001 | Unit at 73% / 565 MWe. |
| 05/25/05 | 0453 | Unit at 82% / 695 MWe. |
| 05/25/05 | 1026 | Unit at 90% / 760 MW e. |
| 05/25/05 | 1523 | Unit at 96% / 815 MWe. |
| 05/25/05 | 2140 | Unit at 100% / 852 MWe. |
| 05/30/05 | 1121 | Commenced unit ramp to 75% for Network 90 repairs. |
| 05/30/05 | 1145 | Stopped ramp at 96% / 815 MWe to place turbine in IMP IN. |
| 05/30/05 | 1156 · | Commenced ramp. |
| 05/30/05 | 1321 | Secured ramp for Network 90 repairs. Unit at 73% / 635 MWe. |
| 05/30/05 | 1738 | Commenced ramp to 100%. Unit at 75% / 640 MWe. |
| 05/30/05 | 1900 | Stopped ramp at 93% / 794 MWe to place turbine in IMP OUT. |
| 05/30/05 | 1950 | Unit at 100% / 854 MWe. |
| 05/31/05 | 2400 | Unit finished the month at 100% / 854 MWe. |
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FACILITY CHANGES THAT DID NOT REQUIRE NRC APPROVAL

MONTH/YEAR: May 2005

None during the Reporting Period.

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

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MONTH/YEAR: May 2005

None during the Reporting Period.

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TESTS AND EXPERIMENTS THAT DID NOT REQUIRE NRC APPROVAL

MONTH/YEAR: May 2005

None during the Reporting Period

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CHEMISTRY REPORT

MONTH/YEAR: May 2005

| | Unit No. 1 | | | Unit No. 2 | | |
|-----------------------------|------------|---------|---------|------------|---------|---------|
| Primary Coolant Analysis | Max. | Min. | Avg. | Max. | Min. | Avg. |
| Gross Radioactivity, µCi/ml | 3.73E-1 | 1.76E-1 | 2.46E-1 | 2.59E-1 | 2.71E-4 | 2.77E-2 |
| Suspended Solids, ppm | - | - | - | 0.150 | ≤ 0.010 | 0.025 |
| Gross Tritium, μCi/ml | 1.20E+0 | 9.86E-1 | 1.12E+0 | 1.07E-1 | 3.89E-2 | 7.28E-2 |
| l ¹³¹ , μCi/ml | 1.87E-4 | 8.06E-5 | 1.18E-4 | 1.84E-4 | 8.00E-6 | 6.78E-5 |
| 131 _{/1} 133 | 0.11 | 0.05 | 0.07 | 0.19 | 0.19 | 0.19 |
| Hydrogen, cc/kg | 40.7 | 36.1 | 37.4 | 36 | 15.9 | 29.9 |
| Lithium, ppm | 3.29 | 2.97 | 3.11 | 5.95 | 0.10 | 2.45 |
| Boron - 10, ppm* | 224 | 209 | 217 | 482 | 268 | 390 |
| Oxygen, (DO), ppm | ≤ 0.005 | ≤ 0.005 | ≤ 0.005 | 6.00 | ≤ 0.005 | 2.69 |
| Chloride, ppm | 0.012 | 0.009 | 0.010 | 0.025 | 0.001 | 0.008 |
| pH @ 25 degree Celsius | 6.70 | 6.62 | 6.66 | 6.53 | 4.62 | 5.09 |

* Boron - 10 = Total Boron x 0.196

Comments:

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Unit 1: Unit at 100% power. Quarterly Suspended Solids not required. Unit 2: Unit startup on 05/23/2005 from RFO.

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FUEL HANDLING UNITS 1 & 2

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MONTH/YEAR: May 2005

| New Fuel | | Number of | | | | New or Spent |
|-------------|----------------|--------------|----------|--------|------------|---------------|
| Shipment or | Date Stored or | Assemblies | Assembly | ANSI | Initial | Fuel Shipping |
| Cask No. | Received | per Shipment | Number | Number | Enrichment | Cask Activity |

None during the Reporting Period

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

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MONTH/YEAR: May 2005

None during the Reporting Period