## VIRGINIA ELECTRIC AND POWER COMPANY RICHMOND, VIRGINIA 23261

June 11, 2002

U. S. Nuclear Regulatory Commission Attention: Document Control Desk Washington, D.C. 20555-0001 Serial No. 02-339 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 2002 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

JENY

# VIRGINIA ELECTRIC AND POWER COMPANY SURRY POWER STATION MONTHLY OPERATING REPORT REPORT No. 02-05

Approved:

Site Vice President

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#### **OPERATING DATA REPORT**

Docket No.: 50-280 Date: 06/03/02

|  |                                  | eted By: R. Stief<br>ephone: (757) 36                            |                   |
|--|----------------------------------|--|-------------------|
| Unit Name:Reporting Period:Licensed Thermal Power (MWt): | Surry Unit 1<br>May 2002<br>2546 |  |                   |
| Nameplate Rating (Gross MWe):                            | 847.5                            |  |                   |
| Design Electrical Rating (Net MWe):                      | 788                              |  |                   |
| Maximum Dependable Capacity (Gross MWe):                 | 842                              |  |                   |
| Maximum Dependable Capacity (Net MWe):                   | 810                              |  |                   |
| If Changes Occur in Capacity Ratings (Items Numb         | per 3 Through 7) Since           | Last Report, Give  | Reasons:          |
| Power Level To Which Restricted, If Any (Net MWe         | e):                              |  |                   |
| Reasons For Restrictions, if Any:                        |                                  |  |                   |
|  | This Month                       | Year-To-Date   | Cumulative        |
| Hours in Reporting Period                                | 744.0                            | 3623.0   | 258071.0          |
| Hours Reactor Was Critical                               | 744.0                            | 3623.0   | 189384.6          |
| Reactor Reserve Shutdown Hours                           | 0.0                              | 0.0  | 3774.5            |
| lours Generator On-Line                                  | 744.0                            | 3623.0   | 186725.2          |
| Jnit Reserve Shutdown Hours                              | 0.0                              | 0.0  | 3736.2            |
| Gross Thermal Energy Generated (MWH)                     | 1866543.9                        | 9166842.5  | 444474320.4       |
| Gross Electrical Energy Generated (MWH)                  | 624082.0                         | 3071573.0  | 146151676.0       |
| Net Electrical Energy Generated (MWH)                    | 601939.0                         | 2959749.0  | 139552610.0       |
| Jnit Service Factor                                      | 100.0%                           | 100.0%   | 72.4%             |
| Jnit Availability Factor                                 | 100.0%                           | 100.0%   | 73.8%             |
| Unit Capacity Factor (Using MDC Net)                     | 99.9%                            | 100.9%   | 69.1%             |
| Unit Capacity Factor (Using DER Net)                     | 102.7%                           | 103.7%   | 68.6%             |
| Jnit Forced Outage Rate                                  | 0.0%                             | 0.0%   | . 12.5%           |
| Shutdowns Scheduled Over Next 6 Months (Type,            | Date, and Duration of            | Each):   |                   |
| Type and duration of schedu                              | led shutdowns are no I           | onger provided.  |                   |
| [Reference: Letter S/N                                   | 00-069, dated Februar            | y 7, 2000]   |                   |
| If Shut Down at End of Report Period, Estimated D        | prov                             | nated start-up date<br>ided. [Reference: L<br>d February 7, 2000 | etter S/N 00-069, |
| Unit In Test Status (Prior to Commercial Operation       | ):                               |  |                   |
|  | FORECAS                          | T ACHIE  | EVED              |
| INITIAL CRITICAL   | ITY                              |  |                   |
| INITIAL CHITICAL   |                                  |  |                   |
| COMMERCIAL OPERATI                                       |                                  |  |                   |

#### **OPERATING DATA REPORT**

Docket No.: 50-281 Date: 06/03/02

|   |   |  | Complet<br>Tele | ed By:<br>ohone: | R. Stief<br>(757) 365-2                       | 486                                   |
|---|---|--|-----------------|------------------|---|---------------------------------------|
|   | Unit Name:  | Surry Unit 2<br>May 2002<br>2546<br>847.5<br>788<br>847<br>815 |                 |                  |   |                                       |
|   | If Changes Occur in Capacity Ratings (Items Numl          | ber 3 Through  | 7) Since L      | ast Rep          | ort, Give Rea                                 | sons:                                 |
|   | Power Level To Which Restricted, If Any (Net MW           | e):  |                 |                  |   | · · · · · · · · · · · · · · · · · · · |
|   | Reasons For Restrictions, If Any:                         |  |                 |                  |   |                                       |
|   |   | This   | <u>Month</u>    | Yea              | r-To-Date                                     | Cumulative                            |
|   | Hours in Reporting Period                                 |  | 744.0           | •                | 3623.0  | 254952.0                              |
|   | Hours Reactor Was Critical                                |  | 744.0           |                  | 2964.8  | 186782.                               |
|   | Reactor Reserve Shutdown Hours                            |  | 0.0             |                  | 0.0   | 328.                                  |
|   | Hours Generator On-Line                                   |  | 744.0           |                  | 2926.3  | 184542.                               |
|   | Unit Reserve Shutdown Hours                               |  | 0.0             |                  | 0.0   | 0.                                    |
|   | Gross Thermal Energy Generated (MWH)                      |  | 3674.1          |                  | 370688.4                                      | 440395592.                            |
|   | Gross Electrical Energy Generated (MWH)                   |  | 5108.0          |                  | 475926.0                                      | 144852933.                            |
|   | Net Electrical Energy Generated (MWH)                     |  | 3004.0          | 2                | 390258.0                                      | 138347308.                            |
|   | Unit Service Factor                                       |  | 00.0%           |                  | 80.8%   | 72.49                                 |
|   | Unit Availability Factor                                  |  | 00.0%           |                  | 80.8%   | 72.49                                 |
|   | Unit Capacity Factor (Using MDC Net)                      |  | 01.1%           |                  | 81.0%   | 69.19                                 |
|   | Unit Capacity Factor (Using DER Net)                      | 1  | 04.6%           |                  | 83.7%   | 68.99                                 |
|   | Unit Forced Outage Rate                                   |  | 0.0%            |                  | 0.0%  | 10.09                                 |
|   | Shutdowns Scheduled Over Next 6 Months (Type,             | Date, and Dur  | ation of E      | ach):            |   |                                       |
|   | Type and duration of schedu                               |  |                 |                  |   |                                       |
|   | [Reference: Letter S/N                                    | 00-069, dated  | February        | 7, 2000          |   |                                       |
| • | If Shut Down at End of Report Period, Estimated D         | ate of Start-up  | provid          | ed. [Ref         | rt-up dates ar<br>erence: Lette<br>y 7, 2000] | e no longer<br>r S/N 00-069,          |
| • | Unit In Test Status (Prior to Commercial Operation        | ):   |                 |                  |   |                                       |
|   |   | FC   | RECAST          |                  | ACHIEVE                                       | D                                     |
|   | INITIAL CRITICAL<br>INITIAL ELECTRIC<br>COMMERCIAL OPERAT | TTY  |                 |                  |   |                                       |

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

REPORT MONTH: May 2002

Docket No.: 50-280

Unit Name: Surry Unit 1

Date: 06/03/02 Completed by: R. Stief

Telephone: (757) 365-2486

| Date     | (1)<br>Type | Duration<br>Hours | (2)<br>Reason | (3)<br>Method<br>of<br>Shutting<br>Down Rx | LER No. | (4)<br>System<br>Code | (5)<br>Component<br>Code | Cause & Corrective Action to Prevent Recurrence   |
|----------|-------------|-------------------|---------------|--|---------|-----------------------|--------------------------|---|
| 05/04/02 | S           | N/A               | В             | N/A  | N/A     | EL                    | BLO                      | Ramped power to replace<br>fan pedestal bearings on<br>Isophase Bus Duct Cooling<br>Fan and perform Turbine<br>Valve Freedom of<br>Movement testing |

(1) F: Forced

(2)REASON:

(3) METHOD:

S: Scheduled

Equipment Failure (Explain)

Manual

Maintenance or Test

Manual Scram

Refueling

Automatic Scram 3 -

B -C -D -Regulatory Restriction

Other (Explain)

E -Operator Training & Licensing Examination F

Administrative

G-Operational Error (Explain) Other (Explain)

(5)

Exhibit 1 - Same Source

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

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

REPORT MONTH: May 2002

Docket No.: 50-281 Unit Name: Surry Unit 2 Date: 06/03/02 Completed by: R. Stief Telephone: (757) 365-2486

None during the Reporting Period

(1) F: Forced

(2) REASON:

(3)METHOD:

Scheduled

Equipment Failure (Explain)

Manual 1 -

В -Maintenance or Test

Manual Scram 2 -

С Refueling 3 -**Automatic Scram** 

D Regulatory Restriction Other (Explain)

E Operator Training & Licensing Examination

Administrative

G Operational Error (Explain)

Other (Explain) Н

Exhibit 1 - Same Source

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

#### **AVERAGE DAILY UNIT POWER LEVEL**

Docket No.: 50-280

Unit Name: Surry Unit 1 Date: 06/03/02 Completed by: R. Stief

Telephone: (757) 365-2486

MONTH: May 2002

| Day | Average Daily Power Level<br>(MWe - Net) | Day | Average Daily Power Level<br>(MWe - Net) |
|-----|--|-----|--|
| 1   | 823                                      | 17  | 822                                      |
| 2   | 823                                      | 18  | 822                                      |
| 3   | 823                                      | 19  | 822                                      |
| 4   | 547                                      | 20  | 822                                      |
| 5   | 713                                      | 21  | 820                                      |
| 6   | 823                                      | 22  | 823                                      |
| 7   | 823                                      | 23  | 819                                      |
| 8   | 822                                      | 24  | 822                                      |
| 9   | 822                                      | 25  | 822                                      |
| 10  | 821                                      | 26  | 822                                      |
| 11  | 821                                      | 27  | 822                                      |
| 12  | 821                                      | 28  | 817                                      |
| 13  | 821                                      | 29  | 820                                      |
| 14  | 823                                      | 30  | 815                                      |
| 15  | 823                                      | 31  | 820                                      |
| 16  | 823                                      |     |  |

#### 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: 06/03/02
Completed by: R. Stief
Telephone: (757) 365-2486

May 2002 MONTH:

| Day | Average Daily Power Level<br>(MWe - Net) | Day | Average Daily Power Level<br>(MWe - Net) |
|-----|--|-----|--|
| 1   | 824                                      | 17  | 824                                      |
| 2   | 824                                      | 18  | 825                                      |
| 3   | 824                                      | 19  | 827                                      |
| 4   | 825                                      | 20  | 827                                      |
| 5   | 826                                      | 21  | 827                                      |
| 6   | 825                                      | 22  | 827                                      |
| 7   | 824                                      | 23  | 827                                      |
| 8   | 824                                      | 24  | 826                                      |
| 9   | 824                                      | 25  | 821                                      |
| 10  | 824                                      | 26  | 823                                      |
| 11  | 820                                      | 27  | 823                                      |
| 12  | 824                                      | 28  | 822                                      |
| 13  | 822                                      | 29  | 822                                      |
| 14  | 823                                      | 30  | 821                                      |
| 15  | 824                                      | 31  | 821                                      |
| 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: May 2002

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: |      |   |
|-----------|------|---|
| 05/01/02  | 0000 | Unit started the month at 100% / 847 MWe.                               |
| 05/04/02  | 0108 | Commenced ramp from 100% to 85% for 1-OSP-TM-001 and work to 1-EP-F-1A. |
| 05/04/02  | 0250 | 1-OSP-TM-001 completed SAT. Unit at 88% / 753 MWe.                      |
| 05/04/02  | 0256 | Recommenced ramp to 65% for 1-EP-F-1A work.                             |
| 05/04/02  | 0442 | Stopped ramp at 65% / 527 MWe.  |
| 05/05/02  | 0620 | 1-EP-F-1A RTS. Unit at 65% / 534 MWe.                                   |
| 05/05/02  | 1140 | Unit at 100% / 851 MWe.   |
| 05/31/02  | 2400 | Unit finished the month at 100% / 848 MWe.                              |
|           |      |   |
|           |      |   |
| Unit Two: |      |   |
| 05/01/02  | 0000 | Unit started the month at 100% / 854 MWe.                               |
| 05/31/02  | 2400 | Unit finished the month at 100% / 851 MWe.                              |

#### FACILITY CHANGES THAT DID NOT REQUIRE NRC APPROVAL

MONTH/YEAR: May 2002

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

MONTH/YEAR: May 2002

#### TESTS AND EXPERIMENTS THAT DID NOT REQUIRE NRC APPROVAL

Month/Year: May 2002

#### **CHEMISTRY REPORT**

Month/Year: May 2002

|                             | Unit No. 1 |         |         | Unit No. 2 |         |         |  |
|-----------------------------|------------|---------|---------|------------|---------|---------|--|
| Primary Coolant Analysis    | Max.       | Min.    | Avg.    | Max.       | Min.    | Avg.    |  |
| Gross Radioactivity, μCi/ml | 3.90E-1    | 2.06E-1 | 2.81E-1 | 3.83E-1    | 1.91E-1 | 2.58E-1 |  |
| Suspended Solids, ppm       | -          | -       | -       | -          | -       | -       |  |
| Gross Tritium, μCi/ml       | 1.14E+0    | 1.03E+0 | 1.09E+0 | 4.25E-1    | 2.09E-1 | 3.14E-1 |  |
| l <sup>131</sup> , μCi/ml   | 1.94E-4    | 9.02E-5 | 1.41E-4 | 1.16E-4    | 7.59E-5 | 1.01E-4 |  |
| 131/133                     | 0.09       | 0.05    | 0.07    | 0.14       | 0.09    | 0.12    |  |
| Hydrogen, cc/kg             | 39.2       | 34.7    | 37.3    | 40.4       | 34.2    | 37.2    |  |
| Lithium, ppm                | 2.33       | 2.12    | 2.22    | 2.69       | 2.37    | 2.54    |  |
| Boron - 10, ppm*            | 238        | 206     | 217     | 287        | 276     | 280     |  |
| Oxygen, (DO), ppm           | ≤ 0.005    | ≤ 0.005 | ≤ 0.005 | ≤ 0.005    | ≤ 0.005 | ≤ 0.005 |  |
| Chloride, ppm               | 0.013      | 0.006   | 0.007   | 0.004      | 0.003   | 0.004   |  |
| pH @ 25 degree Celsius      | 6.82       | 6.47    | 6.58    | 6.7        | 6.33    | 6.45    |  |

<sup>\*</sup> Boron - 10 = Total Boron x 0.196

Comments:

None

#### FUEL HANDLING UNITS 1 & 2

MONTH/YEAR: May 2002

| 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 |

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

Month/Year: May 2002