VIRGINIA ELECTRIC AND POWER COMPANY
RICHMOND, VIRGINIA 23261
January 7, 2000

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

Serial No. 00-003
SPS Lic/JSA R0
Docket Nos. 50-280
50-281
License Nos. DPR-32
DPR-37

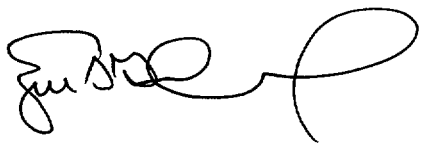
Gentlemen:

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 December 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
Region II
Atlanta Federal Center
61 Forsyth Street, S. W.
Suite 23T85
Atlanta, Georgia 30303

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. 99-12

Approved: _____ 1/07/00
Site Vice President Date

TABLE OF CONTENTS

OPERATING DATA REPORT

Docket No.: 50-280
Date: 01/04/00
Completed By: R. Stief
Telephone: (757) 365-2486

1. Unit Name: ..... Surry Unit 1
2. Reporting Period: ..... December 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:

		This Month	Year-To-Date	Cumulative
11.	Hours in Reporting Period	744.0	8760.0	236904.0
12.	Hours Reactor Was Critical	744.0	8760.0	170076.5
13.	Reactor Reserve Shutdown Hours	0.0	0.0	3774.5
14.	Hours Generator On-Line	744.0	8760.0	167531.4
15.	Unit Reserve Shutdown Hours	0.0	0.0	3736.2
16.	Gross Thermal Energy Generated (MWH)	1893674.1	22249290.9	396440248.4
17.	Gross Electrical Energy Generated (MWH)	630854.0	7375177.0	130145333.0
18.	Net Electrical Energy Generated (MWH)	609563.0	7116199.0	124102803.0
19.	Unit Service Factor	100.0%	100.0%	70.7%
20.	Unit Availability Factor	100.0%	100.0%	72.3%
21.	Unit Capacity Factor (Using MDC Net)	102.3%	101.4%	67.2%
22.	Unit Capacity Factor (Using DER Net)	104.0%	103.1%	66.5%
23.	Unit Forced Outage Rate	0.0%	0.0%	13.8%

24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each):
Refueling, April 15, 2000, 26 Days

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

26. Unit In Test Status (Prior to Commercial Operation):

	FORECAST	ACHIEVED
INITIAL CRITICALITY		
INITIAL ELECTRICITY		
COMMERCIAL OPERATION		

OPERATING DATA REPORT

Docket No.: 50-281
Date: 01/04/00
Completed By: R. Stief
Telephone: (757) 365-2486

1. Unit Name: ..... Surry Unit 2
2. Reporting Period: ..... December 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:

		This Month	Year-To-Date	Cumulative
11.	Hours in Reporting Period	744.0	8760.0	233785.0
12.	Hours Reactor Was Critical	744.0	7618.8	167529.1
13.	Reactor Reserve Shutdown Hours	0.0	0.0	328.1
14.	Hours Generator On-Line	744.0	7494.9	165388.4
15.	Unit Reserve Shutdown Hours	0.0	0.0	0.0
16.	Gross Thermal Energy Generated (MWH)	1893307.5	18232344.2	392027993.2
17.	Gross Electrical Energy Generated (MWH)	636840.0	6085005.0	128632898.0
18.	Net Electrical Energy Generated (MWH)	616192.0	5874830.0	122696857.0
19.	Unit Service Factor	100.0%	85.6%	70.7%
20.	Unit Availability Factor	100.0%	85.6%	70.7%
21.	Unit Capacity Factor (Using MDC Net)	103.4%	83.7%	67.0%
22.	Unit Capacity Factor (Using DER Net)	105.1%	85.1%	66.6%
23.	Unit Forced Outage Rate	0.0%	3.2%	11.0%

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):

	FORECAST	ACHIEVED
INITIAL CRITICALITY		
INITIAL ELECTRICITY		
COMMERCIAL OPERATION		

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

REPORT MONTH: December 1999

Docket No.: 50-280
Unit Name: Surry Unit 1
Date: 01/03/00
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: December 1999

Docket No.: 50-281
Unit Name: Surry Unit 2
Date: 01/03/00
Completed by: J. R. Pincus
Telephone: (757) 365-2863

None during the Reporting Period

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(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)

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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: 01/04/00
Completed by: J. S. Ashley
Telephone: (757) 365-2161

MONTH: December 1999

Day	Average Daily Power Level (MWe - Net)	Day	Average Daily Power Level (MWe - Net)
1	818	17	820
2	819	18	820
3	820	19	820
4	820	20	820
5	820	21	819
6	820	22	819
7	820	23	819
8	819	24	819
9	819	25	819
10	820	26	818
11	820	27	817
12	820	28	818
13	820	29	819
14	820	30	819
15	820	31	819
16	820		

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: 01/04/00
Completed by: J. S. Ashley
Telephone: (757) 365-2161

MONTH: December 1999

Day	Average Daily Power Level (MWe - Net)	Day	Average Daily Power Level (MWe - Net)
1	827	17	828
2	827	18	828
3	827	19	828
4	825	20	829
5	825	21	829
6	823	22	830
7	824	23	830
8	829	24	830
9	829	25	830
10	828	26	830
11	829	27	831
12	829	28	829
13	828	29	829
14	829	30	829
15	830	31	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: December 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:

12/01/99	0000	Unit started the month at 100% / 847 MWe.
12/31/99	2400	Unit finished the month at 100% / 847 MWe.

UNIT TWO:

12/01/99	0000	Unit started the month at 100% / 855 MWe.
12/31/99	2400	Unit finished the month at 100% / 860 MWe.

FACILITY CHANGES THAT DID NOT REQUIRE NRC APPROVAL

MONTH/YEAR: December 1999

FS 99-052 — **UFSAR Change Request** — 12/02/99
(Safety Evaluation 99-113)

Based on NEI guidance, UFSAR Change Request FS 99-052 deletes the phrase 'is incorporated into the UFSAR by reference' (consistent with NEI 98-03) and indicates that changes to the Technical Requirements Manual (TRM) not requiring prior NRC approval will be reported to the NRC in accordance with 10CFR50.59.

DCP 99-101 — **Design Change Package** — 12/09/99
(Safety Evaluation 99-115)

Design Change Package 99-101, "NIS Comparator and Rate Drawer Setpoint Change", increases the Nuclear Instrumentation System Comparator and Rate Drawer setpoint for the power range detectors from 2% to 4% to eliminate spurious alarms. The comparator provides audible warning to the operator if any power range drawer differs from any other power range drawer by this margin (such as channel failure or significant power distribution changes), but provides no automatic control or protection functions.

TM S2-99-014 — **Temporary Modification** — 12/09/99
(Safety Evaluation 99-116)

Temporary Modification S2-99-014 allows electrically bypassing the malfunctioning Unit 2 proportional pressurizer heater controller. Implementing this activity eliminates the proportional control features and causes this heater bank to operate at full output. This restores the total pressurizer heater output used to maintain pressurizer water at saturation temperature (corresponding to the desired RCS pressure) and prevents an unplanned unit transient.

SE 99-121 — **Safety Evaluation** — 12/16/99

Safety Evaluation 99-121 supports continued operation of Unit 2 until repairs can be made to the steam generator secondary manway access on 2-RC-E-1C. The manway leak is not considered to be a pressure boundary as defined in the Technical Specifications and can be monitored by containment pressure, temperature and sump in-leakage rate before it can grow to a size where the leakage would impact operations providing time for an orderly plant shutdown.

SE 99-122 — **Safety Evaluation** — 12/22/99

Safety Evaluation 99-122 allows decreasing the staffing at the Radwaste Facility and processing of liquid waste during dayshift only (except during Outages). The Main Control Room has been modified to have an annunciator to alert operators of rad monitor parameters on gaseous/liquid effluents as well as exhaust air flow problems at the facility. Operations, Rad Protection and Fire Brigade personnel have received training on responding to a trouble/fire alarm if one occurs.

FACILITY CHANGES THAT DID NOT REQUIRE NRC APPROVAL

MONTH/YEAR: December 1999

TM S1-99-009 **Temporary Modification** 12/29/99
(Safety Evaluation 99-124)

Temporary Modification S1-99-009 allows the use of electrical jumpers required for the replacement of a failed relay in the "B" train reactor protection circuit. The jumpers will maintain the power to the rest of the "B" train reactor protection circuitry and maintain logics to the "B" train turbine driven auxiliary feedwater pump start circuit while the relay is being replaced. The "A" train reactor protection and turbine driven auxiliary feedwater pump start circuit remain unaffected.

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

MONTH/YEAR: December 1999

SU-C-DSE-805 — **Bulk Power Delivery Surry Switchyard Procedure** — 12/08/99
(Safety Evaluation 99-114)

Safety Evaluation 99-114 allows the Reserve Station Service Transformer "A" Automatic Load Tap Changer to be placed in manual to facilitate oil addition to the Load Tap Changer Tank. Oil will be added in accordance with procedure SU-C-DSE-805, "Add Oil to RSST "A" Load Tap Changer (LTC) Tank".

0-ECM-1512-01 — **Electrical Corrective Maintenance Procedure** — 12/09/99
(Safety Evaluation 99-118)

Electrical Corrective Maintenance Procedure 0-ECM-1512-01, "Emergency Operation of the Auxiliary Building Central Exhaust Fans 1-VS-F-9A & B", was written to provide instructions for emergency operation of the Auxiliary Building Central Exhaust Fans to facilitate their operation in the event of an Appendix R Limiting Fire in the Auxiliary Building.

0-ECM-1513-01 — **Electrical Corrective Maintenance Procedure** — 12/16/99
(Safety Evaluation 99-120)

Electrical Corrective Maintenance Procedure 0-ECM-1513-01, "Emergency Operation of SI Accumulator MOVs", was written to provide instructions for local control at the breakers of the Safety Injection (SI) MOVs in the event of an Appendix R Limiting fire in the Main Control Room.

TESTS AND EXPERIMENTS THAT DID NOT REQUIRE NRC APPROVAL

MONTH/YEAR: December 1999

None during the Reporting Period

CHEMISTRY REPORT

MONTH/YEAR: December 1999

Primary Coolant Analysis	Unit No. 1			Unit No. 2		
	Max.	Min.	Avg.	Max.	Min.	Avg.
Gross Radioactivity, µCi/ml	3.53E-1	2.09E-1	2.81E-1	2.15E-1	1.60E-1	1.91E-1
Suspended Solids, ppm	≤ 0.010	≤ 0.010	≤ 0.010	≤ 0.010	≤ 0.010	≤ 0.010
Gross Tritium, µCi/ml	5.39E-1	4.42E-1	4.71E-1	8.63E-1	7.93E-1	8.19E-1
I^{131}, µCi/ml	6.03E-4	3.34E-4	4.34E-4	≤ 1.55E-4	≤ 6.38E-5	≤ 9.44E-5
I^{131}/I^{133}	0.08	0.06	0.06	≤ 0.31	≤ 0.14	≤ 0.21
Hydrogen, cc/kg	38.3	36.3	37.6	40.3	36.1	38.0
Lithium, ppm	2.17	1.65	1.92	2.33	2.07	2.19
Boron - 10, ppm*	65.9	45.7	56.6	171.5	156.6	164.3
Oxygen, (DO), ppm	≤ 0.005	≤ 0.005	≤ 0.005	≤ 0.005	≤ 0.005	≤ 0.005
Chloride, ppm	0.005	0.003	0.004	0.006	0.002	0.005
pH @ 25 degree Celsius	7.31	7.02	7.15	6.72	6.40	6.61

* Boron - 10 = Total Boron x 0.196

Comments:

None

FUEL HANDLING
UNITS 1 & 2

MONTH/YEAR: December 1999

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
Dry Storage Cask TN 32-11	12/14/99	32	0G3	LM0ME0	3.8123	
			0G4	LM0MDZ	3.8003	
			0L2	LM06FR	3.1260	
			0L4	LM06FN	3.1260	
			0L5	LM06FH	3.1260	
			0L6	LM06FP	3.1260	
			0P5	LM05YG	3.6070	
			0S4	LM0ESR	3.5999	
			1C1	LM08MH	3.3990	
			1F4	LM0JGT	3.6104	
			1F9	LM0JGJ	3.5871	
			1G5	LM0MDV	3.8045	
			1G7	LM0ME3	3.8007	
			1S0	LM0ESP	3.5981	
			2C9	LM08NL	3.3990	
			2F0	LM0JGR	3.6067	
			2F6	LM0JGF	3.5850	
			2F9	LM0JHM	3.7987	

FUEL HANDLING
UNITS 1 & 2

MONTH/YEAR: December 1999

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
			3C6	LM08M3	3.3990	
			3F7	LM0JHA	3.7996	
			3S5	LM0ERR	3.5947	
			3T0	LM0K96	3.7974	
			3T1	LM0K9C	3.7869	
			3T2	LM0K9F	3.7947	
			3T3	LM0K9J	3.7905	
			3T5	LM0K8X	3.7887	
			3T6	LM0K95	3.7993	
			4C6	LM08NC	3.3990	
			4F1	LM0JHL	3.7946	
			4S9	LM0ES0	3.5990	
			5S9	LM0EST	3.5975	
			6S0	LM0ET7	3.5980	

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

MONTH/YEAR: December 1999

None during the Reporting Period