

VIRGINIA ELECTRIC AND POWER COMPANY
RICHMOND, VIRGINIA 23261
October 11, 2000

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

Serial No. 00-509
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 September 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

**VIRGINIA ELECTRIC AND POWER COMPANY
SURRY POWER STATION
MONTHLY OPERATING REPORT
REPORT NO. 00-09**

Approved:



Site Vice President

10/11/02
Date

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OPERATING DATA REPORT

Docket No.: 50-280
 Date: 10/05/00
 Completed By: R. Stief
 Telephone: (757) 365-2486

- 1. Unit Name: Surry Unit 1
- 2. Reporting Period: September 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	6575.0	243479.0
12. Hours Reactor Was Critical	720.0	6038.0	176114.5
13. Reactor Reserve Shutdown Hours	0.0	0.0	3774.5
14. Hours Generator On-Line	720.0	6008.0	173539.4
15. Unit Reserve Shutdown Hours	0.0	0.0	3736.2
16. Gross Thermal Energy Generated (MWH)	1832142.3	14868595.3	411308843.7
17. Gross Electrical Energy Generated (MWH)	609843.0	4940995.0	135086328.0
18. Net Electrical Energy Generated (MWH)	588002.0	4764851.0	128867654.0
19. Unit Service Factor	100.0%	91.4%	71.3%
20. Unit Availability Factor	100.0%	91.4%	72.8%
21. Unit Capacity Factor (Using MDC Net)	102.0%	90.5%	67.8%
22. Unit Capacity Factor (Using DER Net)	103.6%	92.0%	67.2%
23. Unit Forced Outage Rate	0.0%	0.0%	13.4%

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: 10/05/00
 Completed By: R. Stief
 Telephone: (757) 365-2486

- 1. Unit Name: Surry Unit 2
- 2. Reporting Period: September 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	6575.0	240360.0
12.	Hours Reactor Was Critical	720.0	6575.0	174104.1
13.	Reactor Reserve Shutdown Hours	0.0	0.0	328.1
14.	Hours Generator On-Line	720.0	6575.0	171963.4
15.	Unit Reserve Shutdown Hours	0.0	0.0	0.0
16.	Gross Thermal Energy Generated (MWH)	1738486.7	16641447.0	408669440.2
17.	Gross Electrical Energy Generated (MWH)	583550.0	5583184.0	134216082.0
18.	Net Electrical Energy Generated (MWH)	561920.0	5388062.0	128084919.0
19.	Unit Service Factor	100.0%	100.0%	71.5%
20.	Unit Availability Factor	100.0%	100.0%	71.5%
21.	Unit Capacity Factor (Using MDC Net)	97.4%	102.3%	68.0%
22.	Unit Capacity Factor (Using DER Net)	99.0%	104.0%	67.6%
23.	Unit Forced Outage Rate	0.0%	0.0%	10.6%

24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each):
 October 2000

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: September 2000

Docket No.: 50-280
Unit Name: Surry Unit 1
Date: 10/01/00
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)

(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: September 2000

Docket No.: 50-281
 Unit Name: Surry Unit 2
 Date: 10/01/00
 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
09/30/00	S	4H 30M	C	1	N/A	N/A	N/A	Power Reduction for 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)

(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: 10/05/00
 Completed by: R. Stief
 Telephone: (757) 365-2486

MONTH: September 2000

Day	Average Daily Power Level (MWe - Net)	Day	Average Daily Power Level (MWe - Net)
1	814	17	817
2	815	18	818
3	815	19	818
4	815	20	817
5	816	21	817
6	817	22	818
7	817	23	818
8	817	24	818
9	816	25	818
10	816	26	819
11	815	27	819
12	815	28	819
13	815	29	819
14	814	30	817
15	817		
16	817		

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: 10/05/00
 Completed by: R. Stief
 Telephone: (757) 365-2486

MONTH: September 2000

Day	Average Daily Power Level (MWe - Net)	Day	Average Daily Power Level (MWe - Net)
1	818	17	782
2	817	18	773
3	818	19	770
4	819	20	760
5	820	21	758
6	823	22	754
7	823	23	750
8	821	24	745
9	820	25	741
10	819	26	737
11	814	27	733
12	811	28	730
13	805	29	722
14	799	30	660
15	788		
16	784		

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: September 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:

09/01/00	0000	Unit started the month at 100% / 846 MWe.
09/30/00	2400	Unit finished the month at 100% / 849 MWe.

UNIT TWO:

09/01/00	0000	Unit started the month at 100% / 850 MWe.
09/11/00	0350	Commenced power reduction for EOL coastdown IAW 2-OP-TM-005. Unit at 100% / 850 MWe.
09/30/00	1930	Started ramp for refueling shutdown. Unit at 86.2% / 750 MWe.
09/30/00	2400	Unit finished the month at 20% / 155 MWe.

FACILITY CHANGES THAT DID NOT REQUIRE NRC APPROVAL

MONTH/YEAR: September 2000

DCP 99-002 FS 99-043	Design Change Package UFSAR Change Request (Safety Evaluation 99-091)	09/27/99
	Design Change Package 99-002, "Air Supply Modification to Vital Battery Rooms/Surry/Units 1&2", modified the ventilation system to the Vital Battery Rooms to allow air to be forced into the rooms to prevent hydrogen buildup during post accident conditions.	
DCP 94-059	Design Change Package (Safety Evaluation 94-186, Rev. 1)	12/09/99
	Design Change Package 94-059, "RC and CS MOV Modification/Units/1&2", removes the motor operators from four Containment Spray (CS) valves to be used as replacements for Reactor Coolant (RC) valves that will be restored. The CS valves will become manually operated valves. Revision 1 revised the DCP to remove the reference to the Unit 1 CS valve modifications that were originally included.	
FS 00-032	UFSAR Change Request (Safety Evaluation 00-104)	09/14/00
	The UFSAR is being revised to document the results of a reanalysis of the dose consequences of the Steam Generator Tube Rupture and Main Steam Line Break that was performed to address concerns presented in OE 9686 "Beaver Valley Power Station dose calculations, non-conservative methodology".	
TM S1-00-030	Temporary Modification (Safety Evaluation 00-107)	09/15/00
	Temporary Modification S1-00-030 connects a piece of ductwork from the existing discharge lines of the ventilation system in the Control Room Envelope to the bottom of the Unit 1 P-250 computer compartment to provide additional airflow and reduce the risk of computer failure.	
FS 00-027	UFSAR Change Request (Safety Evaluation 00-109)	09/21/00
	As a result of the Integrated Configuration Management Project review, UFSAR Change Request FS 00-027 corrects the statements in the UFSAR that discuss Surry's reactor design. 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, the core or any of its component's operation or performance.	
SE 00-114	Safety Evaluation	09/28/00
	Safety Evaluation 00-114 evaluates the 2000 Unit 2 Refueling Outage against current industry guidelines and Virginia power administrative requirements for shutdown risk management including NUMARC 91-06 and Nuclear Engineering Technical Report 865, Rev. 3. The schedule provides a plan for safety and efficiently accomplishing refueling, maintenance, modification, and testing activities.	

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

MONTH/YEAR: September 2000

0-MCM-1918-03	Mechanical Corrective Maintenance Procedure (Safety Evaluation 00-102)	09/06/00
	Mechanical Corrective Maintenance Procedure 0-MCM-1918-03, "Freeze Seal of Piping", establishes a freeze seal between the letdown flowstream and valve 2-CH-27 to allow repair of the valve.	
2-NPT-RX-002 2-OPT-RX-006	Engineering Periodic Test Procedure Operations Periodic Test Procedure (Safety Evaluation 00-105)	09/14/00
	Engineering Periodic Test Procedure 2-NPT-RX-002, "Reactor Core Flux Maps" and Operations Periodic Test Procedure 2-OPT-RX-006, "Rod Position Verification Using the Incore Flux Mapping System", were temporarily modified to jumper out the problematic Withdrawn Limit Switch on the Unit 2 "A" Incore Detector that has been prohibiting performance of the Technical Specification required flux map for power distribution measurement.	
0-MCM-1925-01	Mechanical Corrective Maintenance Procedure (Safety Evaluation 00-106)	09/15/00
	New Mechanical Corrective Maintenance Procedure 0-MCM-1925-01, "Temporary Trailer Fire Supply Line Installation and Removal", procedurally controls connecting the turbine deck temporary trailers' sprinkler fire protection systems to the fire protection water system on the turbine deck.	
0-ECM-1509-06	Electrical Corrective Maintenance Procedure (Safety Evaluation 00-110)	09/21/00
	Electrical Corrective Maintenance Procedure 0-ECM-1509-06, "Quiklook Testing for Quarter Turn Motor Operated Valves", was written to provide administrative controls to ensure the design basis for non-essential Service Water (SW) safety functions are met while SW flowpaths are isolated when SW valves are taken out of service for testing.	
2-OP-RH-004.00	Operating Procedure (Safety Evaluation 00-111)	09/21/00
	Operating Procedure 2-OP-RH-004.00, "Dewatering the Reactor Vessel to Mid-Nozzle With Fuel Off-Loaded", was written to administratively control injecting compressed nitrogen in the "A" steam generator in order to force drain the tubes so that loop stop valve 2-RC-MOV-2591 can be repaired. The nitrogen injection will take place when the reactor is defueled, the vessel head removed and the Reactor Coolant System is out of service.	
2-OPT-SI-007	Operations Periodic Test Procedure (Safety Evaluation 00-115)	09/28/00
	Operations Periodic Test Procedure 2-OPT-SI-007, "Refueling Test of the High Head Safety Injection Check Valves to the Cold Legs", was temporarily modified to install pressure gauges and transducers on the High Head Safety Injection (HHSI) lines upstream and downstream of Motor Operated Valves 2-SI-MOV-2867C and 2869A&B to facilitate testing to satisfy GL 96-05.	

TESTS AND EXPERIMENTS THAT DID NOT REQUIRE NRC APPROVAL

MONTH/YEAR: September 2000

None during the Reporting Period

CHEMISTRY REPORT

MONTH/YEAR: September 2000

Primary Coolant Analysis	Unit No. 1			Unit No. 2		
	Max.	Min.	Avg.	Max.	Min.	Avg.
Gross Radioactivity, $\mu\text{Ci/ml}$	3.10E-1	1.66E-1	2.55E-1	1.33E-1	6.22E-2	9.73E-2
Suspended Solids, ppm	-	-	-	-	-	-
Gross Tritium, $\mu\text{Ci/ml}$	1.13E+0	1.05E+0	1.08E+0	5.21E-2	1.80E-2	3.48E-2
^{131}I , $\mu\text{Ci/ml}$	2.73E-4	1.23E-4	1.79E-4	$\leq 1.40\text{E-4}$	6.16E-5	$\leq 9.30\text{E-5}$
$^{131}\text{I}/^{133}\text{I}$	0.1	0.05	0.07	≤ 0.28	0.08	≤ 0.15
Hydrogen, cc/kg	39.6	37.8	38.7	45	17.4	35.6
Lithium, ppm	2.35	2.1	2.22	0.84	0.4	0.7
Boron - 10, ppm*	226.4	213.6	220.7	6.86	0.2	1.42
Oxygen, (DO), ppm	≤ 0.005	≤ 0.005	≤ 0.005	≤ 0.005	≤ 0.005	≤ 0.005
Chloride, ppm	0.018	0.016	0.017	≤ 0.001	≤ 0.001	≤ 0.001
pH @ 25 degree Celsius	6.64	6.41	6.46	9.97	7.79	9.11

* Boron - 10 = Total Boron x 0.196

Comments:

None

**FUEL HANDLING
UNITS 1 & 2**

MONTH/YEAR: September 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>
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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: September 2000

None during the Reporting Period