VIRGINIA ELECTRIC AND POWER COMPANY
RICHMOND, VIRGINIA 23261

January 12, 1995

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

Serial No. 95-015
NO/RPC:vlh
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

Enclosed is the Monthly Operating Report for Surry Power Station Units 1 and 2 for the month of December 1994.

Very truly yours,

M. L. Bowling, Manager
Nuclear Licensing and Programs

Enclosure

cc: U. S. Nuclear Regulatory Commission
Region II
101 Marietta Street, N. W.
Suite 2900
Atlanta, Georgia 30323

Mr. M. W. Branch
NRC Senior Resident Inspector
Surry Power Station

IE24

VIRGINIA ELECTRIC AND POWER COMPANY
SURRY POWER STATION
MONTHLY OPERATING REPORT
REPORT NO. 94-12

Approved:

Station Manager — Date: 1-12-95

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OPERATING DATA REPORT

Docket No.: 50-280
Date: 01-05-95
Completed By: D. Mason
Telephone: (804) 365-2459

1. Unit Name:..... Surry Unit 1
2. Reporting Period:..... December, 1994
3. Licensed Thermal Power (MWt):..... 2441
4. Nameplate Rating (Gross MWe):..... 847.5
5. Design Electrical Rating (Net MWe):..... 788
6. Maximum Dependable Capacity (Gross MWe):.... 820
7. Maximum Dependable Capacity (Net MWe):..... 781

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	YTD	Cumulative
11.	Hours In Reporting Period	744.0	8760.0	193080.0
12.	Number of Hours Reactor Was Critical	215.4	6662.5	130469.7
13.	Reactor Reserve Shutdown Hours	0	0	3774.5
14.	Hours Generator On-Line	152.3	6562.0	128241.0
15.	Unit Reserve Shutdown Hours	0	0	3736.2
16.	Gross Thermal Energy Generated (MWH)	331175.4	15285994.1	298453739.2
17.	Gross Electrical Energy Generated (MWH)	110500.0	5074285.0	97613833.0
18.	Net Electrical Energy Generated (MWH)	106379.0	4881922.0	92709023.0
19.	Unit Service Factor	20.5%	74.9%	66.4%
20.	Unit Availability Factor	20.5%	74.9%	68.4%
21.	Unit Capacity Factor (Using MDC Net)	18.3%	71.4%	61.9%
22.	Unit Capacity Factor (Using DER Net)	18.1%	70.7%	60.9%
23.	Unit Forced Outage Rate	0.0%	0.4%	16.7%

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		

OPERATING DATA REPORT

Docket No.: 50-281
Date: 01-05-95
Completed By: D. Mason
Telephone: (804) 365-2459

1. Unit Name:..... Surry Unit 2
2. Reporting Period:..... December, 1994
3. Licensed Thermal Power (MWt):..... 2441
4. Nameplate Rating (Gross MWe):..... 847.5
5. Design Electrical Rating (Net MWe):..... 788
6. Maximum Dependable Capacity (Gross MWe):.... 820
7. Maximum Dependable Capacity (Net MWe):..... 781

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	YTD	Cumulative
11.	Hours In Reporting Period	744.0	8760.0	189960.0
12.	Number of Hours Reactor Was Critical	744.0	8261.2	128337.5
13.	Reactor Reserve Shutdown Hours	0	0	328.1
14.	Hours Generator On-Line	744.0	8251.5	126467.1
15.	Unit Reserve Shutdown Hours	0	0	0
16.	Gross Thermal Energy Generated (MWH)	1814475.4	19592721.9	295268464.3
17.	Gross Electrical Energy Generated (MWH)	605405.0	6496670.0	96442294.0
18.	Net Electrical Energy Generated (MWH)	584305.0	6260966.0	91593036.0
19.	Unit Service Factor	100.0%	94.2%	66.6%
20.	Unit Availability Factor	100.0%	94.2%	66.6%
21.	Unit Capacity Factor (Using MDC Net)	100.6%	91.5%	61.8%
22.	Unit Capacity Factor (Using DER Net)	99.7%	90.7%	61.2%
23.	Unit Forced Outage Rate	0%	0%	13.3%

24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each):
Refueling (10 Year ISI), February 2, 1995, 53 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		

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

REPORT MONTH: December, 1994

Docket No.: 50-280
Unit Name: Surry Unit 1
Date: 01-05-95
Completed by: Craig Olsen
Telephone: (804) 365-2155

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
941229	F	N/A	A	N/A	N/A	JD	RCT	Turbine runback initiated when IRPI K-02 failed. IRPI K-02 instrumentation cable was replaced.

(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, 1994

Docket No.: 50-281
Unit Name: Surry Unit 2
Date: 01-05-95
Completed by: Craig Olsen
Telephone: (804) 365-2155

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

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.

AVERAGE DAILY UNIT POWER LEVEL

Docket No.: 50-280
Unit Name: Surry Unit 1
Date: 01-04-95
Completed by: Pat Kessler
Telephone: 365-2790

MONTH: December, 1994

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	0	23	0
8	0	24	0
9	0	25	70
10	0	26	488
11	0	27	767
12	0	28	775
13	0	29	742
14	0	30	795
15	0	31	795
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.

AVERAGE DAILY UNIT POWER LEVEL

Docket No.: 50-281
Unit Name: Surry Unit 2
Date: 01-04-95
Completed by: Pat Kessler
Telephone: 365-2790

MONTH: December, 1994

Day	Average Daily Power Level (MWe - Net)	Day	Average Daily Power Level (MWe - Net)
1	787	17	786
2	787	18	786
3	789	19	786
4	790	20	785
5	783	21	784
6	783	22	784
7	789	23	784
8	790	24	785
9	790	25	785
10	789	26	785
11	790	27	782
12	785	28	763
13	782	29	785
14	786	30	786
15	786	31	787
16	787		

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, 1994

The following chronological sequence by unit is a summary of operating experiences for this month which required load reductions or resulted in significant non-load related incidents.

UNIT ONE:

12/01/94	0000	The reporting period began with the unit shutdown for a maintenance outage (steam generator chemical cleaning).
12/23/94	0039	Reactor critical.
12/25/94	1544	Generator on line. Started power increase.
	1629	Stopped power increase at 33%, 210 MWe.
12/26/94	0344	Started power increase.
	0500	Stopped power increase at 57%, 400 MWe.
	0834	Started power increase.
	0910	Stopped power increase at 70%, 510 MWe.
	1847	Started power increase.
	2235	Stopped power increase at 97%, 795 MWe.
12/28/94	1115	Started power increase.
	1230	Stopped power increase at 99%, 820 MWe.
	1433	Started power reduction to perform Delta T calibration.
	1448	Stopped power reduction at 98%, 810 MWe.
	2217	Started power increase.
	2300	Stopped power increase at 100%, 825 MWe.
12/29/94	1626	Turbine runback initiated due to failed IRPI K-02.
	1628	Runback stopped at 46% power, 370 MWe.
	1650	Started power increase to close the main steam dump valves.
	1658	Stopped power increase at 68%, 510 MWe.
	1944	Started power increase.
	2258	Stopped power increase at 100%, 825 MWe.
12/31/94	2400	The reporting period ended with the unit operating at 100% power, 825 MWe.

SUMMARY OF OPERATING EXPERIENCE

MONTH/YEAR: December, 1994

UNIT TWO:

12/01/94	0000	The reporting period began with the unit operating at 100% power, 820 MWe.
12/28/94	0935	Started power reduction to perform Operations Surveillance Test, 2-OSP-TM-001, "Turbine Inlet Valve Freedom Test."
	1010	Stopped power reduction at 94%, 775 MWe.
	1226	Started power reduction.
	1323	Stopped power reduction at 85%, 700 MWe.
	1417	Started power increase.
	1700	Stopped power increase at 100%, 825 MWe.
12/31/94	2400	The reporting period ended with the unit operating at 100% power, 825 MWe.

FACILITY CHANGES THAT DID NOT REQUIRE NRC APPROVAL

MONTH/YEAR: December, 1994

DR S-94-2132
DR S-94-2138

Deviation Reports 12-06-94
(Safety Evaluation No. 94-208)

Safety Evaluation 94-208 assessed the condition addressed by Deviation Reports S-94-2132 and S-94-2138 concerning the operation of Unit 1 with hot leg loop stop valve 1-RC-MOV-1594 fixed on its backseat with the disc assembly wedged between the seat ring and the backseat.

A UT examination was performed on the hot leg loop stop valve to ensure the stem was free of cracks. The valve manufacturer was contacted and concurred that no additional valve damage would result from leaving the valve in the fixed position during unit heat-up and operation. The subject configuration was determined to be acceptable since the loop stop valves are used for maintenance isolation and are not required for accident mitigation. Therefore, an unreviewed safety question does not exist.

TM S1-94-038

Temporary Modification 12-06-94
(Safety Evaluation No. 94-210)

Temporary Modification (TM) S1-94-038 failed Primary Drains Transfer Tank (PDTT) pressure control valve, 1-DG-PCV-100, in the open position to eliminate spurious High Flux at Shutdown alarms caused from electrical noise generated when 1-DG-SOV-100 energizes to open 1-DG-PCV-100.

The TM was in place while the unit was at Cold Shutdown (CSD) with the containment at atmospheric conditions. At these conditions, the Primary Drains System functioned normally. Containment isolation capability was maintained and unaffected by this TM. Therefore, an unreviewed safety question did not exist.

DR S-94-2248

Deviation Report 12-16-94
(Safety Evaluation No. 94-211)

Safety Evaluation 94-211 assessed the condition identified by Deviation Report S-94-2248 concerning the induction of pieces of 1.5 inch rubber hose ($\leq$ six inches per steam generator) into the secondary side of the Unit 1 steam generators (SG) during the SG chemical cleaning process.

An evaluation of Unit 1 operation with the SGs containing the foreign objects was performed by Westinghouse Nuclear Safety. The evaluation concluded that the presence of the objects is not expected to have an adverse effect on the primary pressure boundary integrity of the SGs. Therefore, an unreviewed safety question does not exist.

FACILITY CHANGES THAT DID NOT REQUIRE NRC APPROVAL

MONTH/YEAR: December, 1994

FS 94-01 **Updated Final Safety Analysis Report Change** 12-19-94
(Safety Evaluation No. 93-212)

UFSAR Change 94-01 revised Section 6.3, "Consequence-Limiting Safeguards," to identify the types of fibrous material used inside containment and added a section to discuss how the containment design reduces the potential for significant debris buildup on the containment sump screens during a loss of coolant accident or high energy line break.

This change was administrative in nature and did not involve any physical changes to the plant. Therefore, an unreviewed safety question does not exist.

DCP 94-56 **Design Change Package** 12-23-94
(Safety Evaluation No. 93-182)

Design Change Package 94-56 connected the compensating lead to one of the two normal leads for Unit 2 Reactor Coolant System (RCS) "C" hot leg wide range temperature indication spare element, 2-RC-TE-2433-2. This configuration allows the compensating lead to be used in lieu of a failed normal lead, enabling 2-RC-TE-2433-2 to be returned to service.

The associated transmitter was adjusted, based on previous measurements, to offset the change in lead resistance and ensure the accuracy of the subject temperature indicator. This modification did not affect other RCS temperature indication. Therefore, an unreviewed safety question does not exist.

DCP 88-24 **Design Change Package** 12-30-94

Design Change Package 88-24 modified or replaced various indicators, recorders, and controllers in the Main Control Room and Emergency Switchgear Room to correct Human Engineering Deficiencies (HED).

These modifications correct HEDs identified during the Control Room Design Review that was required by NUREG-0737. Implementation of these modifications did not affect the operation of safety-related equipment or systems or the availability of safety-related power sources. Therefore, an unreviewed safety question does not exist.

DCP 93-53 **Design Change Package** 12-30-94
(Safety Evaluation No. 94-142)

Design Change Package 93-53 corrected Human Engineering Deficiencies (HED) including the labeling of the auxiliary shutdown panel, certain heat tracing, and emergency diesel generator switches and indicators and respective panels. The titles of certain control room status tiles were also changed to improve clarity.

These modifications correct HEDs identified in the Control Room Design Review Reassessment Report that was required by NUREG-0737. Implementation of these modifications did not affect the operation of safety-related equipment or systems or the availability of safety-related power sources. Therefore, an unreviewed safety question does not exist.

FACILITY CHANGES THAT DID NOT REQUIRE NRC APPROVAL

MONTH/YEAR: December, 1994

TM S1-94-39 **Temporary Modification** 12-31-94
(Safety Evaluation No. 94-214)

Temporary Modification (TM) S1-94-39 installed an individual rod position indication (IRPI) rod bottom bistable module with a soldered jumper which defeats the IRPI dropped control rod turbine runback and rod stop for Unit 1 control rod K-2. This modification will prevent a spurious turbine runback and allow continued operation of Unit 1.

Other IRPI turbine runback and rod stop circuits, as well as nuclear instrument, over-pressure delta temperature and over-temperature delta temperature turbine runback and rod stop circuitry remain operable while this modification is installed. Therefore, an unreviewed safety question does not exist.

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

MONTH/YEAR: December, 1994

1-OPT-SI-005
2-OPT-SI-005

Operations Periodic Test Procedures 12-06-94
(Safety Evaluation No. 94-209)

Operations Periodic Test Procedures 1-OPT-SI-005 and 2-OPT-SI-005, "LHSI Pump Test" were temporarily revised to permit the use of temporary transmitters to enable the measurement of low head safety injection pump discharge pressure during the few seconds following pump start.

The use of the temporary safety-related transmitters does not affect the operation of the subject pumps or the ability of the safety injection system to perform its required safety function. Therefore, an unreviewed safety question does not exist.

TESTS AND EXPERIMENTS THAT DID NOT REQUIRE NRC APPROVAL

MONTH/YEAR: December, 1994

None During the Reporting Period

CHEMISTRY REPORT

MONTH/YEAR: December, 1994

Primary Coolant Analysis	Unit No. 1			Unit No. 2		
	Max.	Min.	Avg.	Max.	Min.	Avg.
Gross Radioactivity, µCi/ml	4.01E-1	4.18E-3	9.09E-2	1.54E-1	8.89E-2	1.17E-1
Suspended Solids, ppm	≤0.1	≤0.1	≤0.1	≤0.1	≤0.1	≤0.1
Gross Tritium, µCi/ml	1.94E-2	1.94E-2	1.94E-2	1.52E-1	8.49E-2	1.23E-1
I^{131}, µCi/ml	4.55E-4	5.28E-5	2.66E-4	1.35E-4	6.00E-5	9.83E-5
I^{131}/I^{133}	0.06	0.06	0.06	0.10	0.05	0.07
Hydrogen, cc/kg	43.7	3.2	28.1	45.4	36.5	41.5
Lithium, ppm	2.33	0.57	1.50	1.41	0.89	1.14
Boron - 10, ppm*	332.6	122.7	278.1	25.3	5.9	15.6
Oxygen, (DO), ppm	8.0	≤0.005	1.2	≤0.005	≤0.005	≤0.005
Chloride, ppm	≤0.050	≤0.001	0.006	<0.050	≤0.001	0.003
pH at 25 degree Celsius	7.08	5.76	6.24	7.96	7.51	7.65

* Boron - 10 = Total Boron x 0.196

Comments:

None

FUEL HANDLING
UNITS 1 & 2

MONTH/YEAR: December, 1994

New or Spent Fuel Shipment Number	Date Stored or Received	Number of Assemblies per Shipment	Assembly Number	ANSI Number	Initial Enrichment	New or Spent Fuel Shipping Cask Activity
ISFSI CASTOR X/33	12/14/94	33	B01	NOANSI	2.573	N/A
			B06	NOANSI	2.573	
			B07	NOANSI	2.573	
			B09	NOANSI	2.573	
			B14	NOANSI	2.573	
			B15	NOANSI	2.573	
			B17	NOANSI	2.573	
			B19	NOANSI	2.573	
			B21	NOANSI	2.573	
			B22	NOANSI	2.573	
			B25	NOANSI	2.573	
			B26	NOANSI	2.573	
			B27	NOANSI	2.573	
			B29	NOANSI	2.573	
			B30	NOANSI	2.573	
			B33	NOANSI	2.573	
			B34	NOANSI	2.573	
			B35	NOANSI	2.573	
			B36	NOANSI	2.573	
			B38	NOANSI	2.573	
			B39	NOANSI	2.573	
			B42	NOANSI	2.573	
			B43	NOANSI	2.573	

FUEL HANDLING
UNITS 1 & 2

MONTH/YEAR: December, 1994

New or Spent Fuel Shipment Number	Date Stored or Received	Number of Assemblies per Shipment	Assembly Number	ANSI Number	Initial Enrichment	New or Spent Fuel Shipping Cask Activity
ISFSI CASTOR X/33 (Continued)	12/14/94	33	B45	NOANSI	2.573	N/A
			B48	NOANSI	2.573	
			B49	NOANSI	2.573	
			B52	NOANSI	2.573	
			S02	LM00TG	2.606	
			S04	LM00TJ	2.606	
			S05	LM00TZ	2.606	
			S07	LM00TP	2.606	
			S08	LM00TX	2.606	
			S09	LM00TT	2.606	

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

MONTH/YEAR: December, 1994

None During the Reporting Period