# VIRGINIA ELECTRIC AND POWER COMPANY Richmond, Virginia 23261

October 12, 1992

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

Serial No.	92-665
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 September 1992.

Very truly yours,

ML Burling

M. L. Bowling, Manager Nuclear Licensing & Programs

9210150260 920930 PDR ADDCK 05000280

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

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VIRGINIA ELECTRIC AND POWER COMPANY SURRY POWER STATION MONTHLY OPERATING REPORT REPORT NO. 92-09

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Approved: ms. tation Manager .∕Ďaté

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# **OPERATING DATA REPORT**

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		C	Docket No.: Date: Completed By: Telephone:	50-280 10-07-92 D. Mason (804) 365-	-2459
1. 2. 3. 4. 5. 6. 7.	Unit Name: Reporting Period: Licensed Thermal Power (MWt): Nameplate Rating (Gross MWe): Design Electrical Rating (Net MWe): Maximum Dependable Capacity (Gross MWe): Maximum Dependable Capacity (Net MWe):	. Surry Unit 1 . September 199 . 2441 . 847.5 . 788 . 820 . 781	2		
8.	If Changes Occur in Capacity Ratings (Items Num	ber 3 Through 7)	Since Last Repo	ort, Give Re	asons:
				· · · · ·	
9.	Power Level To Which Restricted, If Any (Net MW	/e):			
10.	Reasons For Restrictions, If Any:	. <u> </u>			
		<u>.</u>			
		This Month	YTD		Cumulative
11.	Hours In Reporting Period	720.0	6575	.0	173351.0
12.	Number of Hours Reactor Was Critical	720.0	4931	.8	113166.0
13.	Reactor Reserve Shutdown Hours	0.0	0	.0	3774.5
14.	Hours Generator On-Line	669.6	4826	5.2	111066.4
15.	Unit Reserve Shutdown Hours	0.0	0	.0	3736.2
16.	Gross Thermal Energy Generated (MWH)	1610/68.0	11136225	0.0	258252901./
17.	Gross Electrical Energy Generated (MWH)	530430.0	3693985	0.0	842091/3.0
18.	Net Electrical Energy Generated (MWH)	503350.0	3503091	.0	/98//15/.0
19.	Unit Availability Easter	93.0%	73	0.470 0.40/	04.1%
20.	Unit Availability Factor. (Lising MDC Not)	93.0%	/3	0.470 00/	50.2%
∠1. 22	Unit Capacity Factor (Using MDO Net)	88.7%	67	6%	58.4%
23.	Unit Forced Outage Rate	7.0%	4	.5%	18.7%
24.	Shutdowns Schedule Over Next 6 Months (Type,	Date, and Duration	n 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**

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		с	Docket No.: Date: ompleted By: Telephone:	50-281 10-07-92 D. Mason (804) 365-2	459
. 2. 3.	Unit Name: Reporting Period: Licensed Thermal Power (MWt):	Surry Unit 2 September 1992 2441	2		
1.	Nameplate Rating (Gross MWe):	847.5			
). S	Design Electrical Hating (Net MWe): Maximum Dependable Capacity (Gross MWe):	/88			
7.	Maximum Dependable Capacity (Net MWe):	781			
3.	If Changes Occur in Capacity Ratings (Items Nur	mber 3 Through 7) S	Since Last Repo	rt, Give Reas	ions:
9.	Power Level To Which Restricted, If Any (Net MV	Ve):			
).	Reasons For Restrictions, If Any:		<u> </u>		
		This Month			Cumulative
	Hours In Reporting Period	720.0	6575	.0	170231.0
•	Reactor Reserve Shutdown Hours	720.0	0209 N	.8 0	928 1
•	Hours Generator On-Line	720.0	6261	.0	109722.0
	Unit Reserve Shutdown Hours	0.0	0_01	.0	0.0
	Gross Thermal Energy Generated (MWH)	1751444.8	15073521	.2 25	55952203.3
	Gross Electrical Energy Generated (MWH)	569310.0	4971195	.0 8	33405044.0
	Net Electrical Energy Generated (MWH)	540142.0	4723603	.0 7	79087541.0
	Unit Service Factor	100.0%	95	.2%	64.5%
	Unit Availability Factor	100.0%	95	.2%	64.5%
	Unit Capacity Factor (Using MDC Net)	90.1%	92	.0%	59.6%
	Unit Forced Outage Rate	0.0%	0	.2 %	14.6%
•	Shutdowns Schedule Over Next 6 Months (Type, Refueling, I	, Date, and Duration March 6, 1993 74	of Each): days.		
5.	If Shut Down at End of Report Period Estimated I	Date of Start-up:			
<b>3</b> .	Unit In Test Status (Prior to Commercial Operation	on):			
		FORE	CAST	ACHIEVE	D
	INITIAL CRITIC/ INITIAL ELECTR	ALITY			
	COMMERCIAL OPERA	ATION			

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

				REPORT M	IONTH:	September	r 1992		
						•	c	Docket No.: Unit Name: Date: Completed by: Telephone:	50-280 Surry Unit 1 10-07-92 Anthony Xenakis (804) 365-2145
	(1)		(2)	(3) Method		(4)	(5)		
Date	Туре	Duration Hours	Reason	of Shutting Down Rx	LER No.	System Code	Componen Code	t Cause & Co Prevent Re	prrective Action to currence
920905	F	50.4	В	4	N/A	EA	XFMR	Ramped Ur repairs to "( Transforme remained c	hit off line to effect C" Station Service r. The reactor ritical at 2% power.
920908	S	0	В	4	N/A	SG	COND	Reduced Ui maintain co while cleani	nit power to 75% to indenser vacuum ing water boxes.

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# (2) REASON:

- (1) F: Forced S: Scheduled

- A Equipment Failure (Explain) B Maintenance or Test C Refueling D Regulatory Restriction E Operator Training & Licensing Examination
  - Administrative
- F -G -**Operational Error (Explain)**

(4)

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

# (3) METHOD:

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- Manual -
- 2 -Manual Scram.
  - Automatic Scram.
- -4 Other (Explain)
- (5) Exhibit 1 Same Source.

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

**REPORT MONTH:** September 1992

								Docket No.:	50-281
								Unit Name:	Surry Unit 2
								Date:	10-07-92
							Co	mpleted by:	Anthony Xenakis
								Telephone:	(804) 365-2145
	(1)		(2)	(3) Method		(4)	(5)		
		Duration		of	LER	System	Component	Cause & Co	prrective Action to
Date	Туре	Hours	Reason	Shutting Down Rx	No.	Code	Code	Prevent Re	currence

No entries for this reporting period.

F: S:	(1) Forced 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)
Exh	(4) ibit G - Instructions for	r Preparation of Data Entry Sheets	(5) Exhibit 1 - Same Source.

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

Docket No.:	50-280
Unit Name:	Surry Unit 1
Date:	10-07-92
Completed by:	M. A. Negron
Telephone:	(804) 365-2795

#### Month: September 1992

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Day	Average Daily Power Level (MWe - Net)	Day	Average Daily Power Level (MWe - Net)
1	707	17	763
2	735	18	764
3	760	19	764
4	756	20	765
5		21	765
6	00	22	762
7	129	23	766
8	706	24	772
9	693	25	775
10	757	26	775
11	760	27	774
12	758	28	773
13	767	29	774
14	767	30	778
15	768	31	
16	766		

#### 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:	10-07-92
Completed by:	M. A. Negron
Telephone:	(804) 365-2795

#### Month: September 1992

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Day	Average Daily Power Level (MWe - Net)	Day	Average Daily Power Level (MWe - Net)
1	746	17	748
2	740	18	741
<b>3</b> .	738	19	721
4	747	20	756
5	744	21	759
6	744	22	755
7	752	23	755
8	746	24	766
9	744	25	767
10	739	26	766
11	742	27	759
12	732	28	764
13	757	29	761
14	755	30	760
15	751	31	
16	754		

#### 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

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MONTH/YEAR: September 1992

Listed below in 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		
09-01-92	0000	This reporting period started with the Unit operating at 88% power, 670 MWe. Power reduction was under way to maintain condenser vacuum while cleaning water boxes.
	0022	Stopped power reduction; 83% power, 635 MWe.
	0510	Started ramp up; 83% power, 635 MWe.
	0630	Stopped ramp; 100% power, 800 MWe.
	2059	Started power reduction to maintain condenser vacuum while cleaning water boxes; 100% power, 795 MWe.
	2204	Stopped power reduction; 85% power, 660 MWe.
09-02-92	0528	Started ramp up; 88% power, 690 MWe.
	0617	Stopped ramp; 100% power, 800 MWe.
09-05-92	0912	Started ramp down to bring the Unit off line in order to effect repairs on "C" Station Service Transformer; 100% power, 800 MWe.
	1436	Unit off line.
09-07-92	1630	Commence ramp to 100% power following transformer repair; 5% power.
	1659	Unit on line and ramping to 100% power.
09-08-92	0000	Unit at 100% power, 790 MWe.
	1821	Started ramp down to maintain condenser vacuum while cleaning water boxes; 100% power, 785 MWe.
	2008	Stopped ramp; 75% power, 540 MWe.
09-09-92	0515	Started ramp up; 75% power, 595 MWe.
	0700	Stopped ramp; 100% power, 795 MWe.
09-12-92	2235	Started ramp down to maintain condenser vacuum while cleaning water boxes; 100% power, 770 MWe.
	2255	Stopped ramp; 94.4% power, 770 MWe.
09-13-92	0005	Started ramp up; 94% power, 760 MWe.
	0024	Stopped ramp; 100% power, 815 MWe.
09-30-92	2400	This reporting period ended with the Unit operating at 100% power, 815 MWe.

# [continued]

# UNIT TWO

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09-01-92	0000	This reporting period started with the Unit operating at 100% power, 795 MWe.
09-02-92	2114	Started ramp down to maintain condenser vacuum while cleaning water boxes; 100% power, 770 MWe.
	2116	Stopped ramp; 95% power, 710 MWe.
09-03-92	0355	Started ramp up; 93% power, 750 MWe.
	0432	Stopped ramp; 100% power, 800 MWe.
09-12-92	0945	Started power reduction to maintain condenser vacuum while cleaning water boxes; 100% power, 770 MWe.
	1518	Stopped power reduction; 94.5% power, 725 MWe.
	1832	Started ramp up; 95% power, 720 MWe.
	1900	Stopped ramp; 100% power, 805 MWe.
09-18-92	2133	Started ramp down to maintain condenser vacuum while cleaning water boxes; 100% power 780 MWe.
	2143	Stopped ramp; 96.5% power, 740 MWe.
09-19-92	0107	Started ramp up; 96.5% power, 740 MWe.
	0121	Stopped ramp; 100% power, 790 MWe.
	0847	Started ramp down to maintain condenser vacuum while cleaning water boxes; 100% power, 790 MWe.
	0955	Stopped ramp; 94% power, 750 MWe.
	2030	Started ramp up; 94% power, 730 MWe.
	2121	Stopped ramp; 100% power, 800 MWe.
09-30-92	2400	This report period ended with the Unit operating at 100% power, 780 MWe, and "D" water box out of service for cleaning.

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

MONTH/YEAR: September 1992

QLCR S91-217 Q-List Change Request (Safety Evaluation No. 92-166A)

This Q-List Change Request changes the classification of Unit 1 circulating water system screen wash components from "Safety-Related" (SR) to "Nonsafety-Related" (NSR).

An evaluation of this change determined that the subject components do not perform a safe shutdown function and are not required for accident mitigation. Furthermore, these components are not described in the UFSAR as being SR. Therefore, an unreviewed safety question is not created.

QLCR R92-054 Q-List Change Request (Safety Evaluation No. 92-193)

This Q-List Change Request changes the classification of the gaseous waste disposal system from "Safety-Related" (SR) to "Nonsafety-Related with Special Quality/Regulatory Requirements" (NSQ).

An evaluation of this change determined that the subject system does not perform a safe shutdown function and is not required for accident mitigation. Therefore, an unreviewed safety question is not created.

AC S1-92-0906 Administrative Control (Safety Evaluation No. 92-194)

Administrative control of Unit 1 steam generator power operated relief valves (PORV) was established to facilitate the control of reactor coolant system temperature. This action was necessary for a short period of time during which reactor power was less than 5 % and the generator was disconnected from the grid to enable transformer repairs.

The PORVs were required to be promptly placed in the automatic control mode in the event of a main steam line break or if containment isolation was required. This operating condition was evaluated by Engineering and determined to be acceptable since the probability of occurrence of a main steam line break is very small (4.56 E-8 in 4 hours) and the additional steam flow (with reactor power less than 5 %) has a negligible effect on the accident analysis. Therefore, an unreviewed safety question was not created.

07-23-92

09-03-92

09-06-92

# FACILITY CHANGES THAT DID NOT REQUIRE NRC APPROVAL

#### MONTH/YEAR: September 1992

[continued]

DR S-92-0846	<b>Deviation Report</b> (Safety Evaluation No. 92-195)	09-08-92
	This Safety Evaluation was performed to evaluate Deviation Reconcerning Unit 1 operation with a body-to-bonnet leak on press space sample trip valve 1-SS-TV-101B and seat leakage on redu SS-TV-101A. Isolation valve 1-RC-133 is being maintained clos isolate the penetration. Closure of this valve also isolates the d path of the pressurizer vent system.	port S-92-0846 surizer vapor undant valve 1- ed in order to lischarge flow
	The evaluation determined that this operating condition is accepta affected trip valves are in their fail-safe position (closed), ensu- containment integrity. The pressurizer vent system vent valves identified as accident mitigation equipment or required to be oper Technical Specifications. Therefore, an unreviewed safety quest created.	able since the Iring are not rable by tion is not
TM S2-92-24	<b>Temporary Modification</b> (Safety Evaluation No. 92-197)	09-18-92
	This Temporary Modification (TM) installed an electrical jumper replacement of Unit 2 reactor protection system (RPS) relay, 2	to permit the B/AFP.
	This TM was used to maintain the auxiliary feedwater (AFW) tra- circuit continuity during this activity. Double verification of the installation/removal and post maintenance testing were performer motor-driven AFW pumps remained operable and the turbine-drive was secured during this activity. The AFW train "A" logic was Therefore, an unreviewed safety question was not created.	ain "B" start jumper d. The en AFW pump not affected.
AC S2-92-0807	Administrative Control (Safety Evaluation No. 92-173B)	09-24-92
	Administrative control of Unit 2 main feedwater regulating value established (one at a time) in order to close the values in the ev trip or safety injection signal. Administrative control of these values required while they were jacked open (preventing performance automatic safety function) to facilitate troubleshooting and reparcontrollers and operators.	es was ent of a reactor valves was of their ir of valve
	This setting did not offer the execution of other suctors on an	

This activity did not affect the operation of other systems or components. The subject valves were controlled by a licensed operator who was capable of closing the valve (from the control room) within 30 seconds following a feedwater isolation signal. This capability ensured that the activity was bounded by the main steam line break accident analysis. Therefore, an unreviewed safety question was not created.

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

MONTH/YEAR: September 1992

0-TOP-4019Temporary Operating Procedures0-TOP-4020(Safety Evaluation No. 92-192)

09-03-92

Temporary Operating Procedures (TOP) 0-TOP-4019, "Blend System Resin Transfer Using [Transfer Pump 1-LW-P-13]", and 0-TOP-4020, "Blend System Resin Transfer Using [Transfer Pump 1-LW-P-12]" were developed to provide instructions for spent resin transfer within the catch and blend tank system and from the spent resin blend tank to a high integrity container.

The operations addressed by these TOPs are controlled by Operating Procedure 0-OP-22.9.21, "Spent Resin Catch Tank And Blend Tank Transfer System Operation". The TOPs were issued to sequence the operations and to incorporate requirements for infrequently conducted or complex tests or evolutions. The spent resin piping will be operated well below its design pressure rating and is located in an area with no safety-related equipment. Therefore, an unreviewed safety question is not created.

TSI-010 Technical Specification Interpretation 09-15-92 (Safety Evaluation No. 92-196)

Technical Specification Interpretation TSI-010 was developed to clarify the operability requirements, specified in Technical Specification (TS) 3.23.C.2, for the main control room and emergency switch gear room air handling units (AHU) while Unit 1/Unit 2 are at cold shutdown or refueling shutdown.

An evaluation of the requirements specified in TSI-010 (i.e., limiting conditions for operation) determined that the subject AHUs will continue to be operated in accordance with TS requirements and applicable operating procedures. Therefore, an unreviewed safety question is not created.

# TESTS AND EXPERIMENTS THAT DID NOT REQUIRE NRC APPROVAL

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MONTH/YEAR: September 1992

None during this reporting period.

# CHEMISTRY REPORT

#### MONTH/YEAR: September 1992

	Unit No. 1		Unit No. 2			
Primary Coolant Analysis	Max.	Min.	Avg.	Max.	Min.	Avg.
Gross Radioact., μCi/ml	3.87E-1	1.88E-2	2.69E-1	2.35E-1	1.14E-1	1.70E-1
Suspended Solids, ppm	≤ 0.1	≤ 0.1	≤ 0.1	≤ 0.1	≤ 0.1	≤ 0.1
Gross Tritium, μCi/ml	3.88E-1	2.55E-1	2.99E-1	2.94E-1	2.42E-1	2.63E-1
τ <sup>131</sup> . μCi/ml	8.19E-4	1.69E-4	5.53E-4	4.50E-4	1.80E-4	3.24E-4
 131 <sub>//</sub> 133	0.11	0.06	0.09	0.13	0.06	0.09
	44.5	26.5	31.8	43.6	26.1	34.3
	2 41	1 98	2 21	2 34	2 10	2 20
Boron - 10 ppm*	284.0	198.5	213.2	96.4	78.6	87.3
Oxygen (DO) pom	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Chloride ppm	0.008	0.003	0.006	0.003	< 0.001	0.002
pH at 25 degree Celsius	6.63	5.96	6.54	7.15	6.90	7.05

\* Boron - 10 = Total Boron x 0.196

Comments:

None.

#### FUEL HANDLING UNITS 1 & 2

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#### MONTH/YEAR: September 1992

New or Spent		Number for				New or Spent
Fuel Shipment	Date Stored or	Assemblies	Assembly	ANSI	Initial	Fuel Shipping
Number	Received	per Shipment	Number	Number	Enrichment	Cask Activity

No fuel received or stored during this report period.

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

MONTH/YEAR: September 1992

None During This Reporting Period.