

VIRGINIA ELECTRIC AND POWER COMPANY

SURRY POWER STATION

MONTHLY OPERATING REPORT

REPORT NO. 85-08

APPROVED BY:

R. J. Saunders
STATION MANAGER

8510010643 850731
PDR ADOCK 05000280
R PDR

IE 24

<u>Section</u>	<u>Page</u>
Operating Data Report - Unit #1	1
Operating Data Report - Unit #2	2
Unit Shutdowns and power Reductions - Unit #1	3
Unit Shutdowns and Power Reductions - Unit #2	4
Load Reductions Due to Environmental Restrictions - Unit #1	5
Load Reductions Due to Environmental Restrictions - Unit #2	6
Average Daily Unit Power Level - Unit #1	7
Average Daily Unit Power Level - Unit #2	7
Summary of Operating Experience	8 - 12
Amendments to Facility License or Technical Specifications	13
Facility Changes Requiring NRC Approval	14
Facility Changes That Did Not Require NRC Approval	14
Tests and Experiments Requiring NRC Approval	15
Tests and Experiments That Did Not Require NRC Approval	15
Other Changes, Tests and Experiments	16
Chemistry Report	17
Description of All Instances Where Thermal Discharge Limits Were Exceeded	18
Fuel Handling	19 - 20
Procedure Revisions That Changed the Operating Mode Described in the FSAR	21
Description of Periodic Tests Which Were Not Completed Within the Time Limits Specified in Technical Specifications	22

<u>Section</u>	<u>Page</u>
Operating Data Report - Unit #1	1
Operating Data Report - Unit #2	2
Unit Shutdowns and power Reductions - Unit #1	3
Unit Shutdowns and Power Reductions - Unit #2	4
Load Reductions Due to Environmental Restrictions - Unit #1	5
Load Reductions Due to Environmental Restrictions - Unit #2	6
Average Daily Unit Power Level - Unit #1	7
Average Daily Unit Power Level - Unit #2	7
Summary of Operating Experience	8 - 12
Amendments to Facility License or Technical Specifications	13
Facility Changes Requiring NRC Approval	14
Facility Changes That Did Not Require NRC Approval	14
Tests and Experiments Requiring NRC Approval	15
Tests and Experiments That Did Not Require NRC Approval	15
Other Changes, Tests and Experiments	16
Chemistry Report	17
Description of All Instances Where Thermal Discharge Limits Were Exceeded	18
Fuel Handling	19 - 20
Procedure Revisions That Changed the Operating Mode Described in the FSAR	21
Description of Periodic Tests Which Were Not Completed Within the Time Limits Specified in Technical Specifications	22

<u>Section</u>	<u>Page</u>
Maintenance of Safety Related Systems During Outage or Reduced Power Periods - Unit #1 - Mechanical Maintenance	23 - 24
Maintenance of Safety Related Systems During Outage or Reduced Power Periods - Unit #2 - Mechanical Maintenance	25 - 28
Maintenance of Safety Related Systems During Outage or Reduced Power Periods - Unit #1 - Electrical Maintenance	29 - 31
Maintenance of Safety Related Systems During Outage or Reduced Power Periods - Unit #2 - Electrical Maintenance	32 & 33
Maintenance of Safety Related Systems During Outage or Reduced Power Periods - Unit #1 - Instrument Maintenance	34 - 36
Maintenance of Safety Related Systems During Outage or Reduced Power Periods - Unit #2 - Instrument Maintenance	37 - 39

OPERATING DATA REPORT

FEB 02 1984

DOCKET NO. 50-280

DATE 08-08-85

COMPLETED BY V. Jones

TELEPHONE (804) 357-3184

OPERATING STATUS

1. Unit Name: <u>Surry Unit 1</u>	Notes _____
2. Reporting Period: <u>07-01-85 to 07-31-85</u>	
3. Licensed Thermal Power (MWt): <u>2441</u>	
4. Nameplate Rating (Gross MWe): <u>847.5</u>	
5. Design Electrical Rating (Net MWe): <u>788</u>	
6. Maximum Dependable Capacity (Gross MWe): <u>820</u>	
7. Maximum Dependable Capacity (Net MWe): <u>781</u>	
8. If Changes Occur in Capacity Ratings (Items Number 3 Through 7) Since Last Report, Give Reasons: <u>N/A</u>	

9. Power Level To Which Restricted, If Any (Net MWe): _____

10. Reasons For Restrictions, If Any: _____

	This Month	Yr.-to-Date	Cumulative
11. Hours In Reporting Period	<u>744.0</u>	<u>5087.0</u>	<u>110519.0</u>
12. Number of Hours Reactor Was Critical	<u>744.0</u>	<u>4671.8</u>	<u>69048.5</u>
13. Reactor Reserve Shutdown Hours	<u>0</u>	<u>0</u>	<u>3774.5</u>
14. Hours Generator On-Line	<u>744.0</u>	<u>4631.3</u>	<u>67640.4</u>
15. Unit Reserve Shutdown Hours	<u>0</u>	<u>0</u>	<u>3736.2</u>
16. Gross Thermal Energy Generated (MWE)	<u>1729522.1</u>	<u>10714929.7</u>	<u>156729106.8</u>
17. Gross Electrical Energy Generated (MWE)	<u>557525.0</u>	<u>3560680.0</u>	<u>50412643.0</u>
18. Net Electrical Energy Generated (MWE)	<u>527526.0</u>	<u>3383984.0</u>	<u>47795828.0</u>
19. Unit Service Factor	<u>100.0%</u>	<u>91.0%</u>	<u>61.2%</u>
20. Unit Available Factor	<u>100.0%</u>	<u>91.0%</u>	<u>64.6%</u>
21. Unit Capacity Factor (Using MDC Net)	<u>90.8%</u>	<u>85.2%</u>	<u>55.4%</u>
22. Unit Capacity Factor (Using DER Net)	<u>90.0%</u>	<u>84.4%</u>	<u>54.9%</u>
23. Unit Forced Rate	<u>0</u>	<u>2.3%</u>	<u>19.4%</u>
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 Startup _____

26. Units In Test Status (Prior to Commercial Operation): Forecast Achieved

INITIAL CRITICALITY _____

INITIAL ELECTRICITY _____

COMMERCIAL OPERATION _____

OPERATING DATA REPORT

FEB 02 1984

DOCKET NO. 50-281

DATE 08-08-85

COMPLETED BY V. Jones

TELEPHONE (804) 357-3184

OPERATING STATUS

1. Unit Name:	Surry Unit 2	Notes
2. Reporting Period:	07-01-85 to 07-31-85	
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):	811	
7. Maximum Dependable Capacity (Net MWe):	775	
8. If Changes Occur in Capacity Ratings (Items Number 3 Through 7) Since Last Report, Give Reasons:	N/A	

9. Power Level To Which Restricted, If Any (Net MWe): _____

10. Reasons For Restrictions, If Any: _____

	This Month	Yr.-to-Date	Cumulative
11. Hours In Reporting Period	744.0	5087.0	107399.0
12. Number of Hours Reactor Was Critical	744.0	2718.9	68725.1
13. Reactor Reserve Shutdown Hours	0	0	328.1
14. Hours Generator On-Line	732.0	2646.5	67554.1
15. Unit Reserve Shutdown Hours	0	0	0
16. Gross Thermal Energy Generated (MWE)	1218981.3	5703284.2	157701689.5
17. Gross Electrical Energy Generated (MWE)	383285.0	1813690.0	51104164.0
18. Net Electrical Energy Generated (MWE)	357484.0	1713927.0	48430369.0
19. Unit Service Factor	98.4%	52.0%	62.9%
20. Unit Available Factor	98.4%	52.0%	62.9%
21. Unit Capacity Factor (Using MDC Net)	62.0	43.5	58.2
22. Unit Capacity Factor (Using DER Net)	61.0%	42.8%	57.2%
23. Unit Forced Rate	1.6%	1.0%	14.0%
24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each):	Snubber/Maintenance - 10-11-85 - 10 days		

25. If Shut Down At End Of Report Period Estimated Date of Startup: _____

26. Units In Test Status (Prior to Commercial Operation): Forecast Achieved

INITIAL CRITICALITY
INITIAL ELECTRICITY
COMMERCIAL OPERATION

UNIT SHUTDOWNS AND POWER REDUCTIONS

DOCKET NO. 50-280
UNIT NAME Surry I
DATE 08-08-85
COMPLETED BY V.H. Jones
TELEPHONE (804)357-3184

REPORT MONTH July, 1985

No.	Date	Type ¹	Duration (Hours)	Reason ²	Method of Shutting Down Reactor ³	Licensee Event Report #	System Code ⁴	Component Code ⁵	Cause & Corrective Action to Prevent Recurrence
85-9	07-20-85	S	0.0	H	1				Unit power was decreased to 75%, 550MW's to allow cleaning of waterboxes.
85-10	07-27-85	S	0.0	H	1				Unit power was decreased to 80%; 580 MW's to allow cleaning of waterboxes.

1
F: Forced
S: Scheduled

2
Reason:
A-Equipment Failure (Explain)
B-Maintenance of Test
C-Refueling
D-Regulatory Restriction
E-Operator Training & License Examination
F-Administrative
G-Operational Error (Explain)
H-Other (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 I - Same Source

UNIT SHUTDOWNS AND POWER REDUCTIONS

DOCKET NO. 50-281
 UNIT NAME Surry II
 DATE 08-08-85
 COMPLETED BY V. H. Jones
 TELEPHONE (804) 357-3184

REPORT MONTH July, 1985

No.	Date	Type ¹	Duration (Hours)	Reason ²	Method of Shutting Down Reactor ³	Licensee Event Report #	System Code ⁴	Component Code ⁵	Cause & Corrective Action to Prevent Recurrence
85-3	07-08-85	F	12.0	A	1				The generator was taken off the line to balance the turbine due to high vibrations. Cause of vibrations not known at this time.
85-4	07-11-85	F	0.0	H	1				Power was reduced to 20%, 100MW's due to chemistry going out of specs., when attempting to flow the HPD pumps to the steam generators.

¹
 F: Forced
 S: Scheduled

²
 Reason:
 A-Equipment Failure (Explain)
 B-Maintenance or Test
 C-Refueling
 D-Regulatory Restriction
 E-Operator Training & License Examination
 F-Administrative
 G-Operational Error (Explain)
 H-Other (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 I - Same Source

LOAD REDUCTIONS DUE TO ENVIRONMENTAL RESTRICTIONSUNIT NO. 1MONTH: July - 1985

<u>DATE</u>	<u>TIME</u>	<u>HOURS</u>	<u>LOAD, MW</u>	<u>REDUCTIONS, MW</u>	<u>MWH</u>	<u>REASON</u>
			NONE THIS REPORTING PERIOD			
MONTHLY TOTAL						

LOAD REDUCTIONS DUE TO ENVIRONMENTAL RESTRICTIONSUNIT NO. 2MONTH: July - 1985

<u>DATE</u>	<u>TIME</u>	<u>HOURS</u>	<u>LOAD, MW</u>	<u>REDUCTIONS, MW</u>	<u>MWH</u>	<u>REASON</u>
			NONE THIS REPORTING PERIOD			
MONTHLY TOTAL						

VEPCO AVERAGE DAILY UNIT POWER LEVEL

SURRY POWER STATION

REPORTING MONTH JULY, 1985

DOCKET NO. 50-280

DOCKET NO. 50-281

DATE AUGUST 1, 1985COMPLETED BY V. JONES

UNIT ONE

UNIT TWO

DAY
AVERAGE DAILY POWER LEVEL
-MWE-NET-AVERAGE DAILY POWER LEVEL
-MWE-NET-

1	166.5
2	165.9
3	161.1
4	154.4
5	152.8
6	155.9
7	161.0
8	160.9
9	145.1
10	162.7
11	153.8
12	151.5
13	145.2
14	150.1
15	148.4
16	148.4
17	141.3
18	127.8
19	130.0
20	563.0
21	642.8
22	651.2
23	688.0
24	132.7
25	680.3
26	651.4
27	561.4
28	553.0
29	538.1
30	661.4
31	142.8

107.9
149.5
257.0
258.0
293.1
349.0
331.1
86.7
364.5
336.6
267.3
131.8
237.7
38.3
389.5
478.9
551.6
657.5
684.0
680.9
670.2
743.1
727.2
675.6
743.7
609.0
703.1
734.2
743.7
738.7
734.5

SUMMARY OF OPERATING EXPERIENCE**UNIT 1****MONTH/YEAR JULY - 1985**

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:

07-01-85	0000	This reporting period begins with the unit at 100% power, 810 MW's.
07-13-85	0415	Commenced rampdown for load follow.
	0507	Holding power at 88%, 700 MW's.
	0520	Commenced power increase at 3%/hr.
	1005	Unit at 100%, 800 MW's
07-18-85	0151	Commenced rampdown to clean waterboxes.
	0318	Holding power at 88%, 660 MW's.
	0613	Commenced power increase at 3%/hr.
	1024	Unit at 100%, 790 MW's.
07-19-85	2215	Commenced rampdown to clean waterboxes.
07-20-85	0155	Holding power at 75%, 550 MW's.
	1130	Commenced power increase at 3%/hr.
	1530	Holding power at 88%, 645 MW's, holding power due to lack of circulators. Only six running.
07-22-85	1427	Increased power to 90%, 700 MW's.
07-23-85	0932	Declared an Unusual Event due to an uncontrolled gas release via the process vent system. Terminated, Unusual Event after NRC notification
	1450	Commenced power increase at 3%/hr.
	2005	Unit at 100%, 775 MW's. Unit is at reduced output due to the throttling of waterboxes to maintain canal level.
07-24-85	2211	Commenced rampdown to clean waterboxes.
	2337	Holding power at 87%, 670 MW's.
07-25-85	0455	Commenced power increase at 3%/hr.
	0930	Holding power at 94%, 740 MW's.
07-27-85	0242	Commenced rampdown to remove "A" waterbox from service to plug a condenser tube leak.
	0414	Holding power at 80%, 580 MW's.

SUMMARY OF OPERATING EXPERIENCE (continued)MONTH/YEAR JULY - 1985UNIT 1

07-30-85	0449	Commenced power increase at 5%/hr.
	1655	Unit at 100% power, 790 MW's.
07-31-85	2400	This reporting period ends with the unit at 100%power, 790 MW's.

SUMMARY OF OPERATING EXPERIENCEUNIT 2MONTH/YEAR JULY - 1985

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.

07-01-85	0000	This reporting period begins with the unit at 27% power, 140 MW's, holding for chemistry.
07-02-85	1149	Commenced power increase at 3%/hr.
	2238	Holding power at 45%, 280 MW's for chemistry.
07-05-85	1227	Commenced power increase at 3%/hr.
	1241	Holding power at 50%, 340 MW's.
07-06-85	1504	Commenced power increase at 3%/hr.
	2001	Holding power at 67%, 460 MW's due to high turbine vibrations.
07-07-85	0906	Commenced rampdown due to increasing turbine vibrations.
	1035	Holding power at 50%, 320 MW's.
	2223	Commenced rampdown to balance turbine.
07-08-85	0054	Generator breakers opened.
	1257	Generator breakers closed, increasing power at 3%/hr.
	1328	Holding power at 30%, 170 MW's for chemistry.
	2032	Commenced power increase at 150 MW/hr.
	2132	Reduced the rate of power increase to 3%/hr., Unit at 47% power, 290 MW's.
07-09-85	0405	Holding power at 63%, 435 MW's for chemistry.
07-10-85	0400	Commenced rampdown for load following.
	0447	Holding power at 47%, 300 MW's.
	0516	Commenced power increase at 3%/hr.
	0600	Holding power at 57%, 380 MW's.
07-11-85	0509	Commenced power increase at 3%/hr.
	0912	Holding power at 70%, 520 MW's.
07-11-85	1107	Commenced rampdown for chemistry. Chemistry went out of spec., after flowing HP drain pump to the steam generators.

SUMMARY OF OPERATING EXPERIENCE (Continued)UNIT 2MONTH/YEAR JULY - 1985

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.

	1831	Holding power at 20%, 100 MW's.
07-12-85	0102	Commenced power increase at 150 MW/hr.
	0145	Holding power at 29%, 170 MW's.
07-13-85	0800	Commenced power increase at 3%/hr.
	1845	Holding power at 61%, 400 MW's.
07-16-85	0027	Commenced power increase at 3%/hr.
	0314	Holding power at 63%, 485 MW's.
	0715	Commenced power increase at 3%/hr.
	0901	Holding power at 70%, 535 MW's.
	2144	Commenced power increase at 3%/hr.
	2345	Holding power at 76%, 585 MW's.
07-17-85	1820	Commenced power increase at 3%/hr.
	2300	Holding power at 83%, 650 MW's.
07-18-85	1045	Commenced power increase at 3%/hr.
	1322	Holding power at 92%, 715 MW's.
07-20-85	2207	Commenced rampdown to clean waterboxes.
	2315	Holding power at 80%, 610 MW's.
07-21-85	0720	Commenced power increase at 3%/hr.
	1450	Unit at 100% power, 775 MW's.
07-23-85	1445	Commenced rampdown at 3%/hr for chemistry.
	1800	Holding power at 90%, 720 MW's.
07-24-85	0237	Commenced rampdown at 150 MW's/hr for load following.
	0310	Holding power at 79%, 630 MW's.

SUMMARY OF OPERATING EXPERIENCE (continued)UNIT 2MONTH/YEAR JULY - 1985

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.

07-24-85	0332	Commenced power increase at 150 MW/hr.
	0424	Holding power at 90%, 720 MW's.
	0255	Commenced power increase at 3%/hr.
07-25-85	0207	Unit at 100%, 790 MW's.
	2110	Commenced rampdown at 150 MW/hr., lost circulator at low level.
	2310	Holding power at 93%, 730 MW's.
07-27-85	1047	Commenced power increase at 3%/hr.
	1122	Holding power at 96%, 755 MW's.
07-28-85	1643	Commenced power increase at 3%/hr.
07-29-85	0024	Holding power at 99%, 770 MW's, due to OTΔT Channel I alarming.
07-31-85	2400	This reporting period ends with the unit at 99% power, 770 MW's holding do to OTΔT Channel I setpoint.

AMENDMENTS TO FACILITY LICENSE OR TECHNICAL SPECIFICATIONS

JULY - 1985

NONE THIS REPORTING PERIOD

FACILITY CHANGES REQUIRING
NRC APPROVAL

JULY - 1985

NONE THIS REPORTING PERIOD

FACILITY CHANGES THAT
DID NOT REQUIRE NRC APPROVAL

DC-83-22

Capping of RCP Test Connection

Unit 1

The Reactor Coolant Pumps were originally supplied with a test connection between the number 1 and 2 seals. This design change cut the test connection lines and welded caps on them to eliminate a potential leakage problem.

SUMMARY OF SAFETY ANALYSIS

The modification has no adverse safety implications because it only reduces the chance of a Reactor Coolant leak.

TESTS AND EXPERIMENTS REQUIRING
NRC APPROVAL

JULY - 1985

NONE THIS REPORTING PERIOD

TESTS AND EXPERIMENTS THAT
DID NOT REQUIRE NRC APPROVAL

UNIT 2

ST-171	Rockwell Globe Valve Operability Test.
ST-172	Inspection of Steam Generator 2-RC-E-1A Weld No. 1-6
ST-173	Inspection of Steam Generator 2-RC-E-1A Weld No. 1-6
ST-179	Subsequent Testing for Periodic Test 8.5A
ST-180	Sebsequent Testing for periodic Test 18.2A and 18.2B

OTHER CHANGES, TESTS AND EXPERIMENTS

JULY - 1985

NONE THIS REPORTING PERIOD

VIRGINIA POWER
SURRY POWER STATION
CHEMISTRY REPORT

July 19 85

PRIMARY COOLANT ANALYSIS	UNIT NO. 1			UNIT NO. 2		
	MAXIMUM	MINIMUM	AVERAGE	MAXIMUM	MINIMUM	AVERAGE
Gross Radioact., uCi/ml	1.29	7.19E-1	1.04	9.65E-1	1.06E-2	9.05E-2
Suspended Solids, ppm	0.0	0.0	0.0	0.0	0.0	0.0
Gross Tritium, uCi/ml	3.89E-12	4.0E-1	3.00E-1	6.94E-2	2.16E-2	4.34E-2
Iodine ¹³¹ , uCi/ml	5.61E-2	2.31E-2	3.04E-2	2.72E-4	3.25E-5	1.14E-4
I ¹³¹ /I ¹³¹	0.55	0.35	0.43	0.14	0.14	0.14
Hydrogen, cc/kg	40.4	26.1	31.1	49.8	27.2	33.9
Lithium, ppm	1.17	0.89	1.04	2.12	1.47	1.75
Boron-10, ppm*	110	99	105	230	166	193
Oxygen, (D.O.), ppm	0.005	0.005	0.005	0.005	0.005	0.005
Chloride, ppm	0.010	0.010	0.010	0.010	0.010	0.010
pH @ 25°C	6.43	6.30	6.38	6.29	6.02	6.20

* Boron-10 = Total Boron x 0.196

REMARKS: Unit 1: Cat bed placed in service on 7/7 and 7/15 for LiOH removal.

Ramped down to 90% power on 7/25 due to loss of circ H2O pump. Load follow on 7/27 down to 78% and remained at that level until 7/30 when they began ramping up at 5%/hr. On 7/30 - unit at 100% power.

Unit 2: Cat bed placed in service on 7/4, 7/10, 7/18, 7/21 and 7/31 for LiOH removal. LiOH added on 7/8 and 7/11 (1090 gms total) to bring Lithium concentration to mid band. Ramped down to 91% power on 7/25 due to loss of circ H2O pump. On 7/6 unit brought off line for turbine vibrations and began ramping back up on 7/8. Slow ramp due to chemistry holds on secondary chemistry. Unit at 99% on 7/31.

DESCRIPTION OF ALL INSTANCES WHERE
THERMAL DISCHARGE LIMITS WERE EXCEEDED

JULY - 1985

NONE THIS REPORTING PERIOD

JULY - 1985

[illegible]

JULY - 1985

[illegible]

PROCEDURE REVISIONS THAT CHANGED THE
OPERATING MODE DESCRIBED IN THE PSAR

JULY - 1985

NONE THIS REPORTING PERIOD

DESCRIPTION OF PERIODIC TESTS WHICH WERE NOT
COMPLETED WITHIN THE TIME LIMITS
SPECIFIED IN TECHNICAL SPECIFICATIONS

JULY - 1985

NONE THIS REPORTING PERIOD

MAINTENANCE OF SAFETY RELATED SYSTEMS DURING
OUTAGE OR REDUCED POWER PERIODS

UNIT NO. 1

MECHANICAL MAINTENANCE

See the Attached

VEPCO. SAFETY RELATED DURING REDUCED POWER SORTED BY UNIT AND DEPARTMENT
 FROM 07/27/85 THRU 07/30/85
 UNIT 01 SURRY

DEPT	RETURNED TO SERVICE	MARK NUMBER	WO NUMBER	WO TITLE	HISTORY SUMMARY
0228	07/29/85	01-CH -P -1A	022295	ZINC PLUG MISSING	INSTALLED ZINC PLUGS WITH ZINC RODS
0228	07/30/85	01-BR -C -1A	013226	REPLACE OIL SIGHT GLASS	INSTALLED OIL SIGHT GLASS
0228	07/30/85	01-BR -C -1A	019668	DOES NOT PUMP AND OVER HEATS	REPLACED O-RINGS DIAPHRAGM. INSTALL UNION IN DISCHARGE LINE
0228	07/30/85	01-GW -RM -101	022201	DRAIN WATER & DRY COMPONENTS	REMOVED LID FROM PARTICULATE MONITO R, APPROXIMATELY 1/4" OF WATER IN BOTTOM OF PARTICULATE CHAMBER, DRIED OFF ALL COMPONENTS MONITOR DRY, OPS SAT, REPLACED FILTER PAPER
0228	07/30/85	01-GW -RM -102	022252	DRAIN WATER & DRY OUT RADI-	REMOVED DETECTOR FROM GAS CHAMBER, PIG FULL OF WATER, DRIED WATER FROM PIG LINES AND PUMP, REMOVED ROTAMETE R AND DRIED SAME, HAD HP DECON PIG REPLACED DETECTOR MON DRY OPS SAT
0228	07/30/85	01-MS - -86	017659	PACKING LEAK	ADJUST PACKING
0228	07/30/85	01-SW -P -1B	022331	REMOVE VENT VALVE FROM 1-SW-P-1A	REMOVED VENT VALVE FROM 1-SW-P-1A AND INSTALLED ON 1-SW-P-1C, PLACED VALVE ON 1-SW-P-1C ON 1-SW-P-1C

MAINTENANCE OF SAFETY RELATED SYSTEMS DURING
OUTAGE OR REDUCED POWER PERIODS

UNIT NO. 2

MECHANICAL MAINTENANCE

SEE THE ATTACHED

VEPCO, SAFETY RELATED DURING REDUCED POWER SORTED BY UNIT AND DEPARTMENT
 FROM 07/01/85 THRU 07/03/85
 UNIT 02 SURRY

DEPT	RETURNED TO SERVICE	MARK NUMBER	WO NUMBER	WO TITLE	HISTORY SUMMARY
0228	07/01/85	02-BD - -1	021261	SLIGHT PACKING LEAK	ADJUSTED PACKING
0228	07/01/85	02-BD - -11	021262	SLIGHT PACKING LEAK	ADJUSTED PACKING
0228	07/01/85	02-CS -LT -200D	020535	CONSTRUCT FLANGE AND MOUNTING	MFG BLANK AS PER EWR 85-278
0228	07/01/85	02-MS - -120	019832	EXCESSIVE SEAT LEAKAGE, FAILS	REPLACE VALVE
0228	07/01/85	02-RC - -106	021260	PACKING LEAK, .2 GPM	ADJUSTED PACKING
0228	07/01/85	02-RC - -39	021202	PACKING LEAK, 20 DROPS/MIN	ADJUSTED PACKING
0228	07/01/85	02-RC - -42	021201	PACKING LEAK, 3 DROPS/SEC	ADJUSTED PACKING
0228	07/01/85	02-RC -E -1A	017161	REMOVE/INSTALL HANDHOLE COVERS	REMOVED 1,2,3,4 HAND HOLE PLUGS FOR SLUDGE LANCE REINSTALL 1,2,3,4 HAND HOLE PLUGS WITH NEW GASKETS
0228	07/01/85	02-RC -E -1C	017159	REMOVE/INSTALL HANDHOLE COVERS	OPENED AND CLOSED HAND HOLES
0228	07/01/85	02-RC -E -1C	020088	MANWAY LEAKS ON BOTH SIDES	RETORQUE MANWAY TO 500 FT/LBS
0228	07/01/85	02-RC -HCV -2557C	021200	PACKING LEAK, 1 DROP/SEC	ADJUSTED PACKING
0228	07/01/85	02-RC -MOV -2590	021263	SLIGHT PACKING LEAK	ADJUSTED PACKING
0228	07/01/85	02-SI - -338	021203	PACKING LEAK, 3 DROPS/MIN	ADJUSTED PACKING
0228	07/01/85	02-SI - -339	021204	PACKING LEAK, 3 DROPS/MIN	ADJUSTED PACKING
0228	07/01/85	02-SI - -340	021205	PACKING LEAK, 3 DROPS/MIN	ADJUSTED PACKING
0228	07/01/85	02-SI - -91	021259	LEAKS, 12 DROPS/MINUTE	2-SI-91 IS A 6" CHECK VALVE DOES NOT HAVE PACKING GLAND. 2-SI-91 WAS TIGHTENED ON ANOTHER WORK ORDER FOR TIGHTENING COVER PLATE
0228	07/02/85	02-CH -P -1B	021458	REPLACE ZINC PLUG ON LO CLR	INSTALLED 2 NEW ZINC PLUGS
0228	07/02/85	02-CH -P -1C	021226	AUX LO PUMP DOES NOT PUMP OIL,	REPLACED PUMP DRIVE GEAR
0228	07/02/85	02-CV -P -1A	021042	INVESTIGATE AND REPAIR AS NECESSARY	REPLACED PUMP WITH FACTORY NEW PUMP REPLACE MOTOR PULLY WITH NEW SHOP MANUFACTURED PULLY OF LARGER DIA INSTALL NEW BELT. THESE PUMPS NOW NE ED 38"X 1/2" BELT DAYCO 4L-380
0228	07/02/85	02-RC -HCV -2556C	011464	BODY TO BONNET LEAK	DISCONNECTED AIR AND ELECTRICAL FRAMES FROM VALVE ACTUATOR LIFTED VALVE CLEANED CAGE VALVE AND BONNET REPLACED CAGE GASKET AND BODY TO BONNET GASKET TO 540 FT LBS RECONN
0228	07/02/85	02-RC -MISC-NA	010540	REPAIR AS NECESSARY	REPAIRED TOOLS AND EQUIPMENT FOR REFUELING
0228	07/03/85	02-CS -C -1A	008045	COMPRESSOR BROKEN	WORK PERFORMED IS ATTACHED TO BACK OF THIS WORK ORDER.

VEPCO. SAFETY RELATED DURING REDUCED POWER SORTED BY UNIT AND DEPARTMENT
 FROM 07-07-85 THRU 07-15-85
 UNIT 02 SURRY

DEPT	RETURNED TO SERVICE	MARK NUMBER	WO NUMBER	WO TITLE	HISTORY SUMMARY
0228	07/07/85	02-CH -P -1A	021576	REPLACE BLOWN ZINC PLUG	REPLACED ZINC PLUGS
0228	07/08/85	02-SS -TV -200B	021417	VERY MINOR BODY TO BONNET LEAK	TIGHTENED BODY NUT AND CLEANED SURFACES
0228	07/11/85	02-RC -MISC-A/B	019714	REMOVE & REINSTALL (WELD)	INSTALLED ISOLATOR 1311 AND VALVES AS PER WESTINGHOUSE
0228	07/12/85	02-RM -RR -200	021658	INK PAD NEEDS REPLACEMENT	REPLACED INK PADS
0228	07/12/85	02-SI -MOV -2842	019732	INNER PACKING LEAK PREVENTING	REPACKED VALVE
0228	07/15/85	02-MS -TCV -207B	014076	REMOVE & REPLACE INSULATION	INSULATION REMOVED & REPLACED WITH ASBESTOS-FREE INSULATION

DEPT	RETURNED TO SERVICE	MARK NUMBER	WO NUMBER	WO TITLE	HISTORY SUMMARY
0228	07/20/85	02-CH -F -1A	019404	PUMP OUTBOARD BEARING HAS AN OIL LEAK	LEAK BETWEEN BRG AND END PLATE ON OUTBOARD BRG REPLACE WITH GASKET. REPLACE BEARING HOUSING END CAP GASKET ADD 1 1/2 GAL OIL TO GEAR BOX SUMP.
0228	07/23/85	02-CW -PP -N/A	020650	WELD PATCH TO REPAIR PIPE	PATCHED HOLES AND INSTALLED 1/4" PLATE ON PIPE AS PER EWR 85-352
0228	07/23/85	01-CH -P -2C	022167	FAILED PT 18.9, ADJUST IMPELLER	ADJUSTED IMPELLER CLEARANCE TO SPEC 7/22. PUMP PASSED PT WITH 105 PSI SHUT OFF HEAD.

MAINTENANCE OF SAFETY RELATED SYSTEMS DURING
OUTAGE OR REDUCED POWER PERIODS

UNIT NO. 1

ELECTRICAL MAINTENANCE

SEE THE ATTACHED

VEPCO. SAFETY RELATED DURING REDUCED POWER SORTED BY UNIT AND DEPARTMENT
FROM 07-23-85 THRU 07/29/85
UNIT 01 SURRY

PROGRAM WPT09860 08/07/85 9:53 PAGE 30

DEPT	RETURNED TO SERVICE	MARK NUMBER	WO NUMBER	WO TITLE	HISTORY SUMMARY
------	------------------------	-------------	--------------	----------	-----------------

0229	07/23/85	01-SW -MOV -10SC	014228	VALVE FAILS TO TRAVEL CLOSED	VOID AS PER HANSON
------	----------	------------------	--------	------------------------------	--------------------

VEPCO SAFETY RELATED DURING REDUCED POWER SORTED BY UNIT AND DEPARTMENT
FROM 07/27/85 THRU 07/30/85
UNIT 01 SURRY

DEPT	RETURNED TO SERVICE	MARK NUMBER	WO NUMBER	WO TITLE	HISTORY SUMMARY
0229	07/30/85	01-SW -MISC-20	001307	VLV OPEN LIGHT SWITCH BAD	REPLACED SWITCH.

MAINTENANCE OF SAFETY RELATED SYSTEMS DURING
OUTAGE OR REDUCED POWER PERIODS

UNIT NO. 2

ELECTRICAL MAINTENANCE

SEE THE ATTACHED

VEPCO SAFETY RELATED DURING REDUCED POWER SORTED BY UNIT AND DEPARTMENT
 FROM 07/01/85 THRU 07-15-85
 UNIT 02 SURRY

DEPT	RETURNED TO SERVICE	MARK NUMBER	WO NUMBER	WO TITLE	HISTORY SUMMARY
0229	07/02/85	02-BS -DR -NA	007156	REPAIR ELECT LOCK IN #2 SFGDS	4/3/85 INSTALLED LOCK DURING TESTIN G FOUND THAT LOCK OPERATED IN REVERSE THROUGH CARD READERS. INSTRU MENT TECHS WILL CHECK OUT SYSTEM 4/4/85 DOOR LOCK NOW WORKS SAT 7/2
0229	07/03/85	02-RM -FS -200A	020685	SUSPECT FAULTY SWITCH.	OPERATIONS PERFORMED PT 17.7 STEP 5.7 PERFORMED SATISFACTORY NO PROBLEMS WITH THE FLOW SWITCH
0229	07/08/85	02-EPL-MG -R0D 2	013688	PERFORM PROTECTIVE RELAY MAINT	MEGGERED, PERFORMED RELAY MAINTENANC E TESTED RELAYS OPERATIONAL CHECKED CHANGED FUSES .SY-05790/PART #46033 93. SY05790/PART #4603395 SY-07626/032549
0229	07/12/85	02-CH -FCV -2114B	021687	INDICATES INTERMEDIATE	ADJUSTED LIMIT SW CYCLES OK 7/11/85
0229	07/12/85	02-FW -P -3B	016631	CHECK HEATERS ON 2-FW-P-3B	REMOVED BAD HEATER FROM MOTOR (NO STOCK ITEM) HEATER ORDERED 3/25 /85 .REPLACED DEFECTIVE HEATER TEST SAT.
0229	07/12/85	02-HS -HTT -2A3	017935	BOTH 'UT' & 'OT' LIGHTS ON	ALARM WAS CLEARED 2A3 CKT 15

MAINTENANCE OF SAFETY RELATED SYSTEMS DURING
OUTAGE OR REDUCED POWER PERIODS

UNIT NO. 1

INSTRUMENT MAINTENANCE

SEE THE ATTACHED

DEPT	RETURNED TO SERVICE	MARK NUMBER	WO NUMBER	WO TITLE	HISTORY SUMMARY
0237	07/23/85	01-NI -DETR-31B	021488	NI-31 INDICATING 1500 CPS.	VOID SUSPECT NOISE FROM WORK IN AREA OF PRE AMP CAUSED THE INDICATI ON BACK TO NORMAL SO NO FURTHER WORK DEEMED NECESSARY
0237	07/23/85	01-VS -FI -116	021239	VENT FLOW INDICATOR PEGGED LOW	PERFORM CAL-247 REPLACE SQUARE ROOT EXTRACTOR 18 MONTH CALIBRATION
0237	07/23/85	02-CV -PI -201A2	020198	RETAG DEVICE & WIRING IAW RE- VISION 8	RETAGGED WIRING AS PER 11548-FE-3BG DEVICE WAS TAGGED CORRECTLY
0237	07/23/85	02-CV -PI -201B	020197	RETAG DEVICE & WIRING IAW RE- VISION 8	RETAGGED WIRING AS PER 11548-FE-3BG DEVICE WAS TAGGED CORRECTLY
0237	07/23/85	02-RC -LI -459A	021897	LEVEL INDICATION PEGGED HI	FOUND 02-RC-LI-459A INDICATING CONSISTANT WITH CH I PROTECTION PZR LEVEL
0237	07/26/85	01-CH -P -1A	021954	DISCONNECT/RECONNECT THERMOCUP	REMOVED & RECONNECTED T/CS.
0237	07/26/85	01-CH -P -1A	022342	CHECK INBOARD RTD ,INDICATES 2	FOUND COMPUTER POINT OUT OF SCAN. PLACED T0106A IN SCAN

REF: SAFETY RELATED DURING REDUCED POWER SORTED BY UNIT AND DEPARTMENT
 FROM 07/27/85 THRU 07/30/85
 UNIT 01 SURRY

DEPT	RETURNED TO SERVICE	MARK NUMBER	WO NUMBER	WO TITLE	HISTORY SUMMARY
0237	07/30/85	01-CH -TK -1A	018233	HINLO TEMP. ALARM IN ON CH. #1	OBSERVED ALARM ACTUATION. OF CHECK SAT
0237	07/30/85	01-GW -RM -130-2	022253	DRAIN WATER AND DRY OUT	REMOVED ALL FILTERS AND CHECKED FOR SIGNS OF MOISTURE NONE OBSERVED. BROKE INLET LINE NO SIGNS OF MOISTURE MONITOR BACK IN SERVICE OPS SAT
0237	07/30/85	01-RFI-ROD -K-6	021908	INOPERABLE > 12 STEPS	ADJUSTED CONDITIONS MODULE FOR 20+200 STEPS PT SENT TO ENGINEERING

MAINTENANCE OF SAFETY RELATED SYSTEMS DURING
OUTAGE OR REDUCED POWER PERIODS

UNIT NO. 2

INSTRUMENT MAINTENANCE

SEE THE ATTACHED

VEPCO SAFETY RELATED DURING REDUCED POWER SORTED BY UNIT AND DEPARTMENT
FROM 07/01/85 THRU 07/03/85
UNIT 02 SURRY

DEPT	RETURNED TO SERVICE	MARK NUMBER	WO NUMBER	WO TITLE	HISTORY SUMMARY
0237	07/01/85	02-CH -FI -110	021152	IT APPEARS THAT FLOW ELEMENT IS WIRE UP BACKWARD	REVERSED POLARITY OF THE SIGNAL LEADS GOING FROM THE FLOW ELEMENT TO THE FLOW CONVERTER
0237	07/01/85	02-CS -LI -200D	012000	PERFORM REFUELING CALIBRATION	PERFORMED RACK WORK (REFUELING) NO ADJUSTMENTS ATTEMPTED TO CAL TRANSMITTER, IT'S RESPONSE WAS SLOW. TRANSMITTER IS NO LONGER MADE, SUBMITTED EWR/INSTALLED NEW 85-278
0237	07/01/85	02-CS -LT -200D	021243	REMOVE EXISTING TRANSMITTER IN INSTALLED NEW TRANSMITTER	REMOVED EXISTING TRANSMITTER INSTALLED NEW TRANSMITTER AS PER EWR-85-278
0237	07/01/85	02-FW -FI -2476	021022	FLOW INDICATED WITH NO FLOW THROUGH LINE	OPEN EQUALIZER ON THE TRANSMITTER TO EQUALIZE THE WATER IN THE SENSING LINES, CLOSED EQUALIZER AND INDICATION RETURNED TO NORMAL
0237	07/01/85	02-FW -FI -2487	021021	FLOW INDICATED WITH NO FLOW THROUGH LINE	OPENED EQUALIZER ON THE TRANSMITTER TO EQUALIZE WATER IN THE SENSING LINES CLOSED EQUALIZER INDICATION RETURNED TO NORMAL
0237	07/01/85	02-HS -FI -2474	021351	INDICATION HIGH FOR PLANT CONDITION	PERFORMED LOOP CALIBRATION CHECK WITH EXCEPTION OF TRANSMITTER, FOUND INDICATOR OFF AND ADJUSTED IT, REST OF LOOP CHECKED SAT
0237	07/01/85	02-RC -LI -2459A	021098	CH I INDICATING 3% LESS THAN C III	CHECKED AND ADJUSTED LM-2-459 TO A SAT OUTPUT PT SENT TO ENGINEERING
0237	07/01/85	02-RC -MISC-NA	012588	PERFORM IMP-C-IC-63	ROBO JR NOT REQUIRED ENGINEERS PERFORMED FLUX MAP WITH EXISTING FLUX MAPPING EQUIPMENT
0237	07/01/85	02-RPI-ROD -F-8	021213	WOULD NOT MOVE > 40 STEPS DURING ROD DROPS	CALIBRATED SIGNAL CONDITIONING MODULE WITH OLD AC DATA FROM SECTION 5.6 OF PT 5.2 AND WORKING FINE PT SENT TO ENGINEERING
0237	07/01/85	02-RPI-ROD -J-13	021167	IRPI STOPPED AT 65 STEPS DURING HOT ROD DROPS	CALIBRATED SIGNAL CONDITIONER MODULE WITH OLD AC DATA FROM 5.6 OF PT 5.2 AND WORKING FINE
0237	07/01/85	02-RPI-ROD -L-5	021168	DURING HOT ROD DROPS L-5 STOPPED AT 85 STEPS	CALIBRATED SIGNAL CONDITIONING MODULE WITH OLD AC DATA FROM SECTION 5.6 OF PT 5.2 AND WORKING FINE
0237	07/01/85	02-RPI-ROD -M-10	021166	DURING HOT ROD DROPS, M-10 STOPPED AT 80 STEPS	CALIBRATED SIGNAL CONDITIONING MODULE WITH OLD AC DATA FROM SECTION 5.6 OF PT 5.2 AND WORKING FINE
0237	07/03/85	02-RC -LI -2-484	020526	CHANNEL 1 LEVEL INDICATION DID NOT DROP	FILLED REFERENCE LEG, OPENED HIGH SIDE DRAIN VALVE BUT COULD NOT GET ANY WATER TO COME OUT OF HIGH SIDE OPS CHECKED THE ROOT VALVE, FOUND

NEPCO SAFETY RELATED DURING REDUCED POWER SORTED BY UNIT AND DEPARTMENT
 FROM 07/07/85 THRU 07-15-85
 UNIT 02 SURRY

DEPT	RETURNED TO SERVICE	MARK NUMBER	WO NUMBER	WO TITLE	HISTORY SUMMARY
0237	07/08/85	02-FW -FI -2497	021392	ACTED VERY ERRATIC DURING START-UP	PERFORMED PT 2.10 OPS SAT PT SENT TO ENGINEERING
0237	07/08/85	02-FW -FI -497	021274	INDICATING FW FLOW WITH NONE ESTABLISHED	PERFORMED PT 2.10 OPS SAT PT SENT TO ENGINEERING
0237	07/08/85	02-RC -YI -200A	021155	ACCOUSTIC MONITOR INDICATOR VALVE OPEN	PERFORMED BENCH CAL ON SC MODULE CK SAT MONITORED FOR 24 HRS PROBLEM DID NOT RE-OCCUR
0237	07/11/85	02-CH -LT -102	021023	CORRECT DEVIATION BETWEEN LT-102-LT-165	LT-02 WAS CALIBRATED AND FOUND GOOD . THE DEVIATION BETWEEN CHANNELS WA S DUE TO LT-165. CALIBRATED LT-165, AND TESTED THE LOOP L-1-165. OPS S AT. PT SENT TO ENGINEERING
0237	07/12/85	02-NI - -42	021382	REDUCE TRIP STPTS DUE TO NO MORE GAIN LEFT	CHANGED OVERPOWER TRIP AND RESET (LO RANGE) AND OVERPOWER TRIP AND RESET (HI RANGE) SO THAT PT 35.0 (OPS) COULD BE COMPLETED SATISFACTO RY
0237	07/12/85	02-RC -TE -465	020926	PERFORM 18 MONTH CALIBRATION	ADJUSTED LOW LEVEL PERFORMED 18 MONTH CALIBRATION CK SAT
0237	07/15/85	02-NI -DETR-42B	021465	INDICATOR READING 2% HIGHER THAN ACTURAL	VERIFIED PROPER INDICATION WHILE RESEALING POWER RANGE DETECTORS INDICATOR READING SAT. PT SENT TO ENGINEERING.
0237	07/15/85	02-RI -RMS -RVLIS	021689	RVLIS TRAIN B STOPPED OPERATING	RESET MICROPROCESSOR, PERFORMED PT TO VERIFY PROPER OPS. PLACED IN TREND MODE FOR 1/2 HOUR TO OBSERVE. CHECKED SAT. PT SENT TO ENGINEERING
0237	07/15/85	02-RP -DETR-35/36	021408	HIGH FLUX TRIP SETPOINT IS GREATER THAN 25% FULL POWER	READJUSTED I.R. HIGH LEVEL ROD STOP AND ROD STOP RESET. I.R. HIGH LEVEL TRIP AND TRIP RESET ACCORDINT TO SETPOINT CHANGE 85-15 (N-36) 85-14 (N-35). PT SENT TO ENGINEERING
0237	07/15/85	02-RPI- -D4	021776	INDICATOR DRIFTING	CHECKED OUTPUT SIGNAL FROM ROD SIGNAL DRIFTING, SIMULATED SIGNAL, SIGNAL CONDITIONING MODULE, NO LONGER DRIFTING. PUT D-4 BACK IN SERVICE, NO LONGER DRIFTING.



VIRGINIA POWER

August 15, 1985

Mr. Maurice R. Beebe
Office of Resource Management
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Serial No. 85-591
NO/JDH:acm
Docket Nos. 50-280
50-281
License Nos. DPR-32
DPR-37

Dear Mr. Beebe:

VIRGINIA POWER
SURRY POWER STATION UNIT NOS. 1 AND 2
MONTHLY OPERATING REPORT

Enclosed is the Monthly Operating Report for Surry Power Station Unit Nos. 1 and 2 for the month of July, 1985.

Very truly yours,


W. L. Stewart

Enclosure (3 copies)

cc: Mr. J. Taylor, Director (12 copies)
Office of Inspection and Enforcement

Dr. J. Nelson Grace (1 copy)
Regional Administrator
Region II

Mr. D. J. Burke
NRC Resident Inspector
Surry Power Station

TE24
11