ATTACHMENT 1

MONTHLY OPERATING REPORT

MAY 1989

VIRGINIA ELECTRIC AND POWER COMPANY

SURRY POWER STATION

MONTHLY OPERATING REPORT

REPORT 89-05

APPROVED: _____
STATION MANAGER

OPERATING DATA REPORT

DOCKET NO. 50-280
DATE 06/06/89
COMPLETED BY L. A. Warren
TELEPHONE 804-357-3184 x355

OPERATING STATUS

1. Unit Name: Surry Unit 1
2. Reporting Period: 05/01/89 - 05/31/89
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:

Notes

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	3623.0	144119.0
12.	Number of Hours Reactor Was Critical	0	0	88478.6
13.	Reactor Reserve Shutdown Hours	0	0	3774.5
14.	Hours Generator On-Line	0	0	86605.4
15.	Unit Reserve Shutdown Hours	0	0	3736.2
16.	Gross Thermal Energy Generated (MWH)	0	0	201171267.0
17.	Gross Electrical Energy Generated (MWH)	0	0	65203673.0
18.	Net Electrical Energy Generated (MWH)	0	0	61840403.0
19.	Unit Service Factor	0	0	60.1%
20.	Unit Available Factor	0	0	62.7%
21.	Unit Capacity Factor (Using MDC Net)	0	0	55.4%
22.	Unit Capacity Factor (Using DER Net)	0	0	54.5%
23.	Unit Forced Rate	100%	100%	21.8%

24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each):
Forced Maintenance Outage on 09/14/89, scheduled on line date of 06/23/89.

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		

(9/77)

OPERATING DATA REPORT

DOCKET NO. 50-281
DATE 06/06/89
COMPLETED BY L. A. Warren
TELEPHONE 804-357-3184 x355

OPERATING STATUS

1. Unit Name: Surry Unit 2
2. Reporting Period: 05/01/89 - 05/31/89
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:

Notes

		This Month	Yr.-to-Date	Cumulative
11.	Hours In Reporting Period	744.0	3623.0	140999.0
12.	Number of Hours Reactor Was Critical	0	0	89694.3
13.	Reactor Reserve Shutdown Hours	0	0	328.1
14.	Hours Generator On-Line	0	0	88293.0
15.	Unit Reserve Shutdown Hours	0	0	0
16.	Gross Thermal Energy Generated (MWH)	0	0	206740436.1
17.	Gross Electrical Energy Generated (MWH)	0	0	67136244.0
18.	Net Electrical Energy Generated (MWH)	0	0	63647378.0
19.	Unit Service Factor	0	0	62.6%
20.	Unit Available Factor	0	0	62.6%
21.	Unit Capacity Factor (Using MDC Net)	0	0	57.9%
22.	Unit Capacity Factor (Using DER Net)	0	0	57.3%
23.	Unit Forced Rate	0	0	15%

24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each):
Refueling Outage on 09/10/88, scheduled on line date of 07/15/89.

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 Unit 1
DATE 06/06/89
COMPLETED BY L. A. Warren
TELEPHONE 804-357-3184 x355

REPORT MONTH May 1989

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 RECURRENT
89-05	05/01/89	F	744.0	F	1				Unit shutdown due to Emergency Diesel Generator operability concerns.

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 1 - Same Source

(9/77)

UNIT SHUTDOWNS AND POWER REDUCTIONS

DOCKET NO. 50-281
UNIT NAME Surry Unit 2
DATE 06/06/89
COMPLETED BY L. A. Warren
TELEPHONE 804-357-3184 x355

REPORT MONTH May 1989

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 RECURRENT
89-05	05/01/89	S	744.0	C	1,3				Unit shutdown for refueling outage, automatic reactor trip.

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)

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(9/77)

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-280
UNIT Surry Unit 1
DATE 06/06/89
COMPLETED BY L. A. Warren
TELEPHONE 804-357-3184 x355

MONTH MAY 1989

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	0
10	0	26	0
11	0	27	0
12	0	28	0
13	0	29	0
14	0	30	0
15	0	31	0
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.

(9/77)

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-281
UNIT Surry Unit 2
DATE 06/06/89
COMPLETED BY L. A. Warren
TELEPHONE 804-357-3184 x355

MONTH MAY 1989

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	0
10	0	26	0
11	0	27	0
12	0	28	0
13	0	29	0
14	0	30	0
15	0	31	0
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.

(9/77)

SUMMARY OF OPERATING EXPERIENCE

MONTH/YEAR MAY 1989

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

05/01/89	0000	This reporting period begins with the Unit at CSD.
05/31/89	2400	This reporting period ends with the Unit at CSD.

UNIT TWO

05/01/89	0000	This reporting period begins with the Unit at CSD.
05/31/89	2400	This reporting period ends with the Unit at CSD.

FACILITY CHANGES REQUIRING NRC APPROVAL

MONTH/YEAR MAY 1989

NONE DURING THIS PERIOD

FACILITY CHANGES THAT DID NOT REQUIRE NRC APPROVAL

MONTH/YEAR MAY 1989

DC 87-02 **ACCUMULATOR TANKS PRESSURE TRANSMITTER UPGRADE UNIT 2**

This design change installed six new qualified accumulator tank pressure transmitters above the flood level to replace six nonqualified pressure transmitters mounted below the flood level in the reactor containment.

SUMMARY OF SAFETY ANALYSIS

This modification provides qualified instrumentation to allow the operator to monitor the pressure of the safety injection accumulator tanks. The replacement of the instrumentation (transmitters and power supplies) does not impact the operation of safety related equipment or systems. The new instrumentation is environmentally and seismically qualified. Safety limits, as defined in the Technical Specifications, are not changed.

SCAFFOLDING REQUEST 05/02/89

This request erected temporary scaffolding in the fuel building, elevation 45' to work ventilation registers.

Installation of this temporary scaffolding was reviewed for effect on accident analyses and equipment operability/function. Conclusion is that assumptions, bases and probabilities of accident analyses and equipment malfunctions are not affected.

SCAFFOLDING REQUEST 05/02/89

This request erected temporary scaffolding in the mechanical equipment room #3, elevation 9'6" to work 1-VS-P-2A discharge and 1-VS-287 replacement.

Installation of this temporary scaffolding was reviewed for effect on accident analyses and equipment operability/function. Conclusion is that assumptions, bases and probabilities of accident analyses and equipment malfunctions are not affected.

1&2-FS 89-23 **UFSAR CHANGE** 05/02/89

This request was to change the UFSAR section 9.4.4.2 to delete a statement referring to the component cooling system as not normally being expected to contain radioactive water.

Since component cooling water is monitored for radioactivity and the station drains system is designed to collect component cooling water leakage for treatment as liquid waste, an unreviewed safety question is not created.

FACILITY CHANGES THAT DID NOT REQUIRE NRC APPROVAL

MONTH/YEAR MAY 1989

SCAFFOLDING REQUEST 05/06/89

This request erected temporary scaffolding in the Unit 1 containment loop rooms to work 2-RC-HCV-2557C and 2-RC-6

Installation of this temporary scaffolding was reviewed for effect on accident analyses and equipment operability/function. Conclusion is that assumptions, bases and probabilities of accident analyses and equipment malfunctions are not affected.

SCAFFOLDING REQUEST 05/06/89

This request erected temporary scaffolding in the Unit 2 cable vault to work cable pulls. This scaffolding will be in the vicinity of the electrical penetration area.

Installation of this temporary scaffolding was reviewed for effect on accident analyses and equipment operability/function. Conclusion is that assumptions, bases and probabilities of accident analyses and equipment malfunctions are not affected.

1-EWR-89-188 ENGINEERING WORK REQUEST 05/12/89

This engineering work request evaluated the test of the residual heat removal (RHR) system flow paths through the B and C accumulator discharge lines following maintenance to the accumulator discharge check valves.

An unreviewed safety question is not created because precautions are taken during the test to ensure uninterrupted RHR flow.

1&2 EWR-89-246 ENGINEERING WORK REQUEST - UNITS 1 & 2 05/12/89

This engineering work request evaluated the underground fuel oil storage tank 1-EE-TK-2B being drained for inspection. Provisions for a reliable supply of fuel oil to operate the emergency diesel generators in accordance with the technical specifications are maintained.

The design basis, margin of safety and consequences of malfunction have been considered as it relates to the emergency electrical system due to this EWR. This EWR will not adversely affect this station, personnel or the public.

SCAFFOLDING REQUEST 05/16//89

This request erected temporary scaffolding in the auxiliary basement to work 1-RC-LIS-1320.

Installation of this temporary scaffolding was reviewed for effect on accident analyses and equipment operability/function. Conclusion is that assumptions, bases and probabilities of accident analyses and equipment malfunctions are not affected.

FACILITY CHANGES THAT DID NOT REQUIRE NRC APPROVAL
MONTH/YEAR MAY 1989

SCAFFOLDING REQUEST 05/17/89

This request erected temporary scaffolding in the Unit 1 cable vault to work cable splices at penetrations 1A and 5A.

Installation of this temporary scaffolding was reviewed for effect on accident analyses and equipment operability/function. Conclusion is that assumptions, bases and probabilities of accident analyses and equipment malfunctions are not affected.

SCAFFOLDING REQUEST 05/17/89

This request erected temporary scaffolding in the Unit 1 containment to work 1-RC-LS-1320 in "B" loop room.

Installation of this temporary scaffolding was reviewed for effect on accident analyses and equipment operability/function. Conclusion is that assumptions, bases and probabilities of accident analyses and equipment malfunctions are not affected.

1&2 EWR-89-152 ENGINEERING WORK REQUEST 05/19/89

This EWR documented the addition of flow sensing elements in the service water inlet side to the component cooling heat exchanger (CCHX) to determine service water flow. The EWR also documented the addition of Delta P gauges between the inlet and outlet of the CCHX tubes to measure macrofouling and microfouling.

This modification does not pose an unreviewed safety question since the annubar and Delta P instrumentation will be installed in accordance with previously approved codes and standards. The instrumentation will not alter the function of the service water system but will improve the ability to monitor CCHX performance.

SCAFFOLDING REQUEST 05/20/89

This request erected temporary scaffolding in the Unit 2 emergency switchgear room to work ventilation duct close to the ceiling.

Installation of this temporary scaffolding was reviewed for effect on accident analyses and equipment operability/function. Conclusion is that assumptions, bases and probabilities of accident analyses and equipment malfunctions are not affected.

TM-S1-89-107 TEMPORARY MODIFICATION 05/23/89

This modification blocked open a pressurizer power operated relief valve (PORV) 1-RC-PCV-1456 using a split schedule 80 pipe with clamps attached to the valve stem.

Technical specification 3.1.G requires that two (2) PORVs be operable or provide a relief path equivalent to one PORV being open. This change will provide the required relief path thru an open PORV. The blocking device will be installed on only one PORV at a time. Therefore, no unreviewed safety question is created.

FACILITY CHANGES THAT DID NOT REQUIRE NRC APPROVAL

MONTH/YEAR MAY 1989

TM-S1-89-109 TEMPORARY MODIFICATION 05/23/89

This modification blocked open a pressurizer power operated relief valve (PORV) 1-RC-PCV-1455C using a split schedule 80 pipe with clamps attached to the valve stem.

Technical specification 3.1.G requires that two (2) PORVs be operable or provide a relief path equivalent to one PORV being open. This change will provide the required relief path thru an open PORV. The blocking device will be installed on only one PORV at a time. Therefore, no unreviewed safety question is created.

2-EWR-88-176 ENGINEERING WORK REQUEST 05/23/89

This engineering work request replaced the existing bowser turbine lube oil conditioner with a unit of improved design.

This replacement is an enhancement and does not create an unreviewed safety question. The turbine lube oil conditioner is non-safety related equipment located in the turbine building and its normal operation does not affect safety related equipment.

TM-S1-89-110 TEMPORARY MODIFICATION 05/24/89

This modification wired open the exhaust damper for 1-VS-F-1A.

This change does not constitute an unreviewed safety question in that the containment air recirculation system is not required to function during design basis events.

1&2 EWR-88-308 ENGINEERING WORK REQUEST 05/25/89

This engineering work request evaluated the additional information obtained from Westinghouse that needs to be incorporated into the package.

The UFSAR accidents were reviewed to determine the impact of Westinghouse recommendations.

SCAFFOLDING REQUEST 05/25/89

This request erected temporary scaffolding in the emergency service water pump house to work the ceiling louvers.

Installation of this temporary scaffolding was reviewed for effect on accident analyses and equipment operability/function. Conclusion is that assumptions, bases and probabilities of accident analyses and equipment malfunctions are not affected.

FACILITY CHANGES THAT DID NOT REQUIRE NRC APPROVAL

MONTH/YEAR MAY 1989

SCAFFOLDING REQUEST 05/25/89

This request erected temporary scaffolding in the Unit 1 containment to cable splices at penetrations 1A and 5A.

Installation of this temporary scaffolding was reviewed for effect on accident analyses and equipment operability/function. Conclusion is that assumptions, bases and probabilities of accident analyses and equipment malfunctions are not affected.

SCAFFOLDING REQUEST 05/29/89

This request erected temporary scaffolding in the Unit 1 'B' loop room to work 1 1/2" CC-802-1501 hanger modifications.

Installation of this temporary scaffolding was reviewed for effect on accident analyses and equipment operability/function. Conclusion is that assumptions, bases and probabilities of accident analyses and equipment malfunctions are not affected.

SCAFFOLDING REQUEST 05/29/89

This request erected temporary scaffolding in the Unit 1 'A' loop room to work 1 1/2" CC-800-1501 hanger modifications.

Installation of this temporary scaffolding was reviewed for effect on accident analyses and equipment operability/function. Conclusion is that assumptions, bases and probabilities of accident analyses and equipment malfunctions are not affected.

1&2-FS-88-15 UFSAR CHANGE 05/30/89

The UFSAR states that two isolation valves are located in the steam generator channel head drain. There is actually one valve and one blank flange. Based on drawing revisions, the original steam generator did not have these drains and the new steam generators have always had one valve and one blank flange.

There are no unreviewed safety questions posed by this difference since equivalent isolation has always been provided.

SCAFFOLDING REQUEST 05/30/89

This request erected temporary scaffolding in the Unit 2 containment residual heat removal flat to work snubber 2-RH-HSS-11.

Installation of this temporary scaffolding was reviewed for effect on accident analyses and equipment operability/function. Conclusion is that assumptions, bases and probabilities of accident analyses and equipment malfunctions are not affected.

PROCEDURE OR METHOD OF OPERATION CHANGES
REQUIRING NRC APPROVAL

MONTH/YEAR MAY 1989

NONE DURING THIS PERIOD

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

MONTH/YEAR MAY 1989

1&2-STP-30 SURVEILLANCE TEST PROCEDURE 05/07/89

This test procedure ensures that instrument air compressors 1-IA-C-1 and 2-IA-C-1 load/unload and run properly. The test is also required to ensure that the instrument air system design flow rate can be achieved.

The instrument air system will be fully operable during performance of this test. The components will be operated per design. Technical specification limiting condition of operation will be met during the test. There is no unreviewed safety question.

1&2-STP-31 SURVEILLANCE TEST PROCEDURE 05/10/89

This test procedure involves air sampling at the outlet of the instrument air dryers for baseline data. The normal operating configuration for this system is not affected.

This test does not constitute an unreviewed safety question, nor does it change the technical specifications. This conclusion is based on a review of technical specifications, UFSAR, and performance requirements in the Test Procedure.

TTI ENGINEERING PROCEDURE 05/23/89

This procedure has been revised to simplify its use and decrease the change of spreading contamination due to air usage.

Resin transfer by this procedure is acceptable and safe. Therefore, an unreviewed safety question is not created.

TESTS AND EXPERIMENTS REQUIRING NRC APPROVAL

MONTH/YEAR MAY 1989

NONE DURING THIS PERIOD

TESTS AND EXPERIMENTS THAT DID NOT REQUIRE NRC APPROVAL

MONTH/YEAR MAY 1989

NONE DURING THIS PERIOD

VIRGINIA POWER

SURRY POWER STATION

CHEMISTRY REPORT

MAY 1989

PRIMARY COOLANT ANALYSIS	UNIT NO. 1			UNIT NO. 2		
	MAX.	MIN.	AVG.	MAX.	MIN.	AVG.
Gross Radioact., µCi/ml	9.62E-3	5.95E-4	2.69E-3	1.07E-2	1.01E-3	2.67E-3
Suspended Solids, ppm	0.0	0.0	0.0	0.0	0.0	0.0
Gross Tritium, µCi/ml	---	---	---	---	---	---
Iodine^{131}, µCi/ml	---	---	---	---	---	---
I^{131} / I^{133}	---	---	---	---	---	----
Hydrogen, cc/kg	---	---	---	---	---	---
Lithium, ppm	1.31	0.30	0.67	0.20	0.18	0.19
Boron-10, ppm*	414.9	396.3	405.3	427.3	417.9	422.8
Oxygen, (DO), ppm	5.5	0.005	1.116	0.005	0.005	0.005
Chloride, ppm	0.014	0.004	0.007	0.014	0.009	0.011
pH @ 25 degree Celsius	5.70	4.97	5.18	5.16	4.95	5.06

*** Boron-10 = Total Boron X 0.196**

UNIT ONE: The month started with the unit at cold shutdown with RHR and BMB in service. On 5/4 at 2300 hrs., letdown was isolated for maintenance. Letdown was restored on 5/7 at 0340 with BMB in service. On 5/11 thru 5/12, all three RCPs were jogged to get each leg solid. 1C RCP was left running in order to heat up to 175° to establish primary chemistry. On 5/13 BMB diverted for 3 gallons hydrazine addition to RCS. Another 1 gallon hydrazine added at 1837 hrs. on 5/13. Commenced cooling back down at 5/14 at 0200 hrs. in order to perform maintenance on the pressurizer MOVs. On 5/30 started 1C RCP and later added another 1 gallon of hydrazine at 2035 hrs. with BMB diverted. On 5/31 at 0230 hrs added 1780 grms. LiOH to RCS. Switched to 1A RCP to continue to hold primary at approximately 175°.

UNIT TWO: Started the month at cold shutdown on RHR and AMB in service. On 5/23 letdown was isolated for maintenance on the charging system MOVs. The month ended with letdown isolated, RHR in service, and at cold shutdown.

UNIT 1 & 2 FUEL HANDLING DATE MAY 1989

NEW OR SPENT FUEL SHIPMENT #	DATE SHIPPED OR RECEIVED	NUMBER OF ASSEMBLIES PER SHIPMENT	ASSEMBLY #	ANSI #	INITIAL ENRICHMENT	NEW OR SPENT FUEL SHIPPING CASK ACTIVITY LEVEL
		NONE DURING THIS PERIOD				

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

MONTH/YEAR MAY 1989

NONE DURING THIS PERIOD