VIRGINIA ELECTRIC AND POWER COMPANY

SURRY POWER STATION

MONTHLY OPERATING REPORT

REPORT 88-04

APPROVED: David L. Benson
STATION MANAGER

IE24
1/1

OPERATING DATA REPORT

DOCKET NO. 50-280
DATE 5/5/88
COMPLETED BY L. A. Warren
TELEPHONE 804-357-3184

OPERATING STATUS

1. Unit Name: Surry Unit # 1
2. Reporting Period: April 01 - 30, 1988
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	719.0	2903.0	134615.0
12. Number of Hours Reactor Was Critical	193.6	2312.6	87036.0
13. Reactor Reserve Shutdown Hours	0.0	0.0	3774.5
14. Hours Generator On-Line	192.8	2297.6	85268.8
15. Unit Reserve Shutdown Hours	0	0	3736.2
16. Gross Thermal Energy Generated (MWH)	369249.8	5322810.2	198043031.6
17. Gross Electrical Energy Generated (MWH)	120255.0	1794685.0	64169858.0
18. Net Electrical Energy Generated (MWH)	112948.0	1705504.0	60860880.0
19. Unit Service Factor	26.8%	79.2%	63.3%
20. Unit Available Factor	26.8%	79.2%	66.1%
21. Unit Capacity Factor (Using MDC Net)	20.1%	75.2%	58.4%
22. Unit Capacity Factor (Using DER Net)	19.9%	74.6%	57.4%
23. Unit Forced Rate	0.0%	3.3%	17.3%

24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each):
Refueling Outage 04/08/88 thru 06/08/88

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

DOCKET NO. 50-281
DATE 5/5/88
COMPLETED BY L. A. Warren
TELEPHONE 804-357-3184

OPERATING STATUS

1. Unit Name: Surry Unit # 2
2. Reporting Period: April 01-30, 1988
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	719.0	2903.0	131495.0
12.	Number of Hours Reactor Was Critical	604.4	2684.8	87350.8
13.	Reactor Reserve Shutdown Hours	0.0	0.0	328.1
14.	Hours Generator On-Line	576.5	2656.9	85955.2
15.	Unit Reserve Shutdown Hours	0.0	0.0	0.0
16.	Gross Thermal Energy Generated (MWH)	1391179.6	6428995.2	201599357.9
17.	Gross Electrical Energy Generated (MWH)	464035.0	2143685.0	65516509.0
18.	Net Electrical Energy Generated (MWH)	441794.0	2040475.0	62116952.0
19.	Unit Service Factor	80.2%	91.5%	65.4%
20.	Unit Available Factor	80.2%	91.5%	65.4%
21.	Unit Capacity Factor (Using MDC Net)	78.7%	90%	60.6%
22.	Unit Capacity Factor (Using DER Net)	78%	89.2%	60%
23.	Unit Forced Rate	19.8%	8.5%	14.2%

24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each):
Refueling Outage 8/19/88 48 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 Unit # 1
DATE 05/05/88
COMPLETED BY L. A. Warren
TELEPHONE 804-357-3184

REPORT MONTH April 1988

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
88-04	04-09-88	S	526.2	C	1				Unit was shutdown for refueling outage.

1
F: Forced
S: Scheduled

2
Reason:
A - Equipment Failure (Explain)
B - Maintenance or Test
C - Refueling
D - Regulatory Restriction
E - Operator Training & 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 05/05/88
COMPLETED BY L. A. Warren
TELEPHONE 804-357-3184

REPORT MONTH April 1988

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
88-06	03/27/88	F	142.5	A	2	LER-281/ 88-004			Unit was manually tripped due to vital bus 2-III inverter failure, unit was kept down to inspect AFW system for blockage, none found.

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)

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-280
UNIT Surry Unit # 1
DATE 05/05/88
COMPLETED BY L. A. Warren
TELEPHONE 804-357-3184

MONTH April 1988

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	619	17	0
2	611	18	0
3	604	19	0
4	597	20	0
5	583	21	0
6	581	22	0
7	582	23	0
8	549	24	0
9	81	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	
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 05/05/88
COMPLETED BY L. A. Warren
TELEPHONE 804-357-3184

MONTH April 1988

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	0	17	780
2	0	18	781
3	0	19	781
4	0	20	782
5	0	21	781
6	12	22	780
7	625	23	781
8	770	24	781
9	773	25	780
10	773	26	780
11	774	27	780
12	776	28	779
13	780	29	779
14	781	30	654
15	779	31	
16	780		

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 April 1988

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

04-01-88	0000	This reporting period begins with the unit at 81% power, 660 MWs in end of life cycle coastdown.
04-08-88	2100	Unit is at 75% power, 615 MWs, commenced rampdown for refueling outage.
04-09-88	0148	Generator off line.
	0238	Reactor shutdown.
	1044	RCS at 500°F, setting safeties.
04-10-88	0120	RCS at 350°F, 450 psig, holding for chemistry on RHR.
	1307	RCS at <200°F.
04-12-88	0840	RCS degassed.
04-15-88	0408	Completed cleanup from crud burst, depressurizing RCS.
04-16-88	0732	RCS at mid-nozzle.
04-17-88	0156	Completed RCS head evacuation, isolating RCS loops.
04-30-88	2400	This reporting period ends with the RCS level at 17' standpipe, preparing to start refueling activities.

SUMMARY OF OPERATING EXPERIENCE

MONTH/YEAR April 1988

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 TWO

04-01-88	0000	This reporting period begins with the unit at CSD on RHR.
04-04-88	1100	RCS >200°F.
	1835	RCS >350°F, 450 psig.
04-05-88	0159	RCS at HSD.
	1932	Reactor critical.
04-06-88	2329	Generator on line, commencing power increase at 150 MWs/hr.
04-07-88	0250	Holding power at 55%, 460 MWs, working secondary plant.
	0543	Commenced power increase at 150 MW/hr.
	0945	Holding power at 95%, 755 MWs, working secondary plant.
	1805	Unit at 100%, 815 MWs.
04-30-88	1105	Commenced rampdown at 150 MW/hr. for PT-29.1.
	1314	Holding power at 73%, 600 MWs.
	1715	Commenced rampdown at 150 MW/hr. to work isolated phase bus duct fan.
	1742	Holding power at 66%, 545 MWs.
	2400	This reporting period ends with the unit at 66% power, 545 MWs while repairing 'A' isolated phase bus duct fan.

FACILITY CHANGES REQUIRING NRC APPROVAL

MONTH/YEAR April 1988

NONE DURING THIS PERIOD

FACILITY CHANGES THAT DID NOT REQUIRE NRC APPROVAL

MONTH/YEAR April 1988

DC 84-51 STATION PERSONNEL FACILITIES RENOVATION UNITS 1 & 2

This design change added a second story over part of the service building and a two story addition to the west end of the service building. The spaces allocated to Chemistry, Health Physics and the Instrument Shop were enlarged and/or relocated in the same general area. The laundry and warehouse facilities were relocated to other areas of the station. Additional office spaces, locker rooms with toilet facilities and a PBX room were installed.

SUMMARY OF SAFETY ANALYSIS

The control room annex and the slab roof over the relay room, cable vault and mechanical equipment room No. 3 have not been degraded structurally, seismically or with respect to missile protection. The loading on these structures has been minimized. The new CMU wall at column line 10 has been designed so as not to fail and damage the control room annex door or wall during a seismic event. The structural integrity of the Turbine Building has not been affected. The additional loading on the service water discharge tunnel has been reviewed and found to be acceptable. The main steam and main feedwater piping will be unaffected by these modifications. The ability of chiller 1-VS-E-3A or 3B (and associated pump 1-VS-P-3A or 3B) to provide a backup control room chilled water supply in the unlikely event of a fire which disables all three control room chillers will not be affected.

The relocation of the breathing air compressor to the loss prevention storage room will not reduce access of the fire brigade to breathing air.

These modifications are non-safety-related and do not affect the design basis, operation, or control of equipment important to safety. No accidents or malfunctions previously evaluated will be affected and no new accidents or malfunctions will be created.

FACILITY CHANGES THAT DID NOT REQUIRE NRC APPROVAL

MONTH/YEAR April 1988

SCAFFOLD REQUEST **04-11-88**

A temporary scaffolding platform was located in the control room annex.

Installation of temporary scaffolding in the Control Room Annex was reviewed for effect on accident analyses. Conclusion is that assumptions, bases and probabilities of accident analyses and equipment malfunction are not affected.

SCAFFOLD REQUEST **04-13-88**

A temporary scaffold platform was located in Unit 1 containment 'C' loop room to work snubber hanger 01-WGC-MSS-10.

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.

SCAFFOLD REQUEST **04-13-88**

A temporary scaffolding platform was located in the Unit 1 containment, 'B' loop room to work snubber hangers 01-WGC-MSS-18A.

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.

SCAFFOLD REQUEST **04-13-88**

A temporary scaffold was located in Unit 1 containment, 'A' loop room to work snubber hangers 01-WGC-MSS-13/14A

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 April 1988

SCAFFOLD REQUEST **04-13-88**

A temporary platform was located in Unit 1 Turbine Building basement to work 1-CN-110, condensate outlet of the flash evaporator.

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.

SCAFFOLD REQUEST **04-13-88**

A temporary platform was located in the Unit 1 containment, residual heat removal flats to inspect welds and components.

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 and equipment malfunctions are not affected.

TM S2-88-25 **TEMPORARY MODIFICATION** **04-13-88**

This change involved wiring open the exhaust motor operated dampers for fans 2-VS-F-1B & 2-VS-F-1C.

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.

SCAFFOLD REQUEST **04-14-88**

A temporary platform was located in the Unit 1 Safeguard, elevation 45' level, to work 1-MS-92,127,128, 165 and 166.

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 April 1988

SCAFFOLD REQUEST **04-14-88**

A temporary scaffold platform was located in the Unit 1 containment at the 18' elevation to perform NDE of various primary piping.

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.

SCAFFOLD REQUEST **04-14-88**

A temporary scaffold platform was located in the Unit 1 containment to perform NDE of various primary piping.

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.

SCAFFOLD REQUEST **04-20-88**

A temporary platform was located in the 27'7" elevation of Containment to perform NDE of various primary piping and components.

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.

SCAFFOLD REQUEST **04-20-88**

A temporary platform was located in the Unit 1 containment 'B' S/G cubicle and loop room to perform NDE of primary piping welds and components.

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 April 1988

SCAFFOLD REQUEST — 04-21-88

A temporary platform was located in the Unit 1 containment electrical penetration area to work pipe and hanger installation IAW DCP-86-15.

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.

AC S1-88-0423 ADMINISTRATIVE CONTROL — 04-23-88

The dike at the emergency switchgear room door was temporarily removed and a flood watch placed at the door and turbine building sump areas. The dike would be reinstalled in the event of the flood.

The removal of this dike did not adversely affect any safety related equipment or create an unanalyzed accident.

AC S2-88-0424 ADMINISTRATIVE CONTROL — 04-24-88

A flood watch was posted at mechanical equipment room (MER) #3 while the flood dike was removed. The operator would isolate the line if a break occurred in MER #3 until the flood dike was replaced. If the line break occurred downsteam of MER #3 the Turbine Building operators would isolate the line break.

Since administrative control will ensure flood protection of safety related equipment, an unreviewed safety question is not created.

TM S1-88-42 TEMPORARY MODIFICATION — 04-26-88

This temporary modification was required to provide a letdown flow path for reactor coolant system clean up while work was being done on the letdown trip valve TV-1204.

The requirements of containment isolation will be met because the jumper will be removed prior to leaving cold shutdown and the trip valve (TV-1204) will be operable.

FACILITY CHANGES THAT DID NOT REQUIRE NRC APPROVAL

MONTH/YEAR April 1988

SCAFFOLD REQUEST **04-26-88**

A temporary platform was located in the containment 'B' loop room, 18' and 3'6" annulus to work replacement of the RCP feeder.

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 S1-88-40 **TEMPORARY MODIFICATION** **04-26-88**

This temporary modification was required to install a flexible hose from 1-DG-74 to 1-CH-413 maintaining the following valves shut: MOV-1381, 1-DG-TV-108A, HCV-1522A,B,C and HCV-1523.

Since the installation was verified for leak tightness, and the design specifications for the hose used exceed expected pressure and temperature, and possible leakage paths were contained, and possible dilution paths were isolated, no unreviewed safety question was created.

SCAFFOLD REQUEST **04-29-88**

A temporary platform was located in Unit 1 containment 3'6" annulus to install conduit from cable trays to location of new transmitters on the wall.

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.

EWR 88-037 **ENGINEERING WORK REQUEST** **04-12-88**

This engineering work request replaced the existing liquid waste demineralizer with Duratek skid mounted package system of demineralizer, filters, pump, instrumentation, associated piping, etc.

The new system improves waste processing efficiency and reduces personal exposure to radiation. The system is fully tested and inspected. Failure of equipment is analyzed in the UFSAR. No unreviewed safety question involved.

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

MONTH/YEAR APRIL 1988

1&2-MOP-14.3
1&2-MOP-14.4
1&2-OP-14A

MAINTENANCE OPERATING PROCEDURES (MOP)/ OPERATING PROCEDURES (OP) — **04-07-88**

These procedural changes were required to recognize the normal positions of the RHR pump seal vents and constant casing vents and to recognize RH-MOV-200 as lock closed.

These changes updates the normal positions of the RHR pump seal and casing vents to open and as such have no affect on the consequence or probability of any analyzed accident/malfunction and does not create any new accident/malfunction sequences. These changes will ensure the pump casing/seals remain vented.

AC S1-88-0418

ADMINISTRATIVE CONTROL — **04-18-88**

Administrative control was required to close the door between the emergency switchgear room and the turbine building. The door was blocked open to allow access for an exhaust duct for maintenance work.

The design basis accident was reviewed and it was determined that since the emergency switchgear door would be closed by the dedicated continuous fire watch when the control room is required to be pressurized, an unreviewed safety question did not exist nor is a technical specification change required.

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

MONTH/YEAR April 1988

S1-87-946 **DEVIATION REPORT** **04-19-88**

The 'B' and 'C' control room/relay room chiller units are not 100% capacity (90 tons) as described in the UFSAR. The change involved operation of the system under more restrictive conditions in order to be consistent with the mode of operation described in the UFSAR.

If service water (SW) temperature at the inlet of the control room/relay room (CR/RR) chillers is limited to 70°F, then a single chiller unit is capable of maintaining the CR/RR spaces below 100°F. The equipment in the CR/RR is designed to 120°, therefore, plant operation with one chiller operating and one chiller operable (per technical specifications) provides the necessary redundancy such that no unreviewed safety question is created. Operation with SW temperature in excess of 70°F requires that all three CR/RR chillers be operable which provides for 100% redundancy, so that no unreviewed safety question is created.

Subsequent to the performance of this safety analysis, the 'B' chiller was restored to 100% capacity. The upgrade on 'C' chiller is in progress. Service water temperatures have not yet reached 70°F.

AC S2-88-0419/ AC S2-88-0420 **ADMINISTRATIVE CONTROL** **04-19-88/ 04-20-88**

The 'A' feedwater regulating valve was jacked open, MOV-FW-254A throttled and 'A' S/G level was controlled on the bypass, FCV-255A.

An operator was stationed at 'A' feedwater regulating valve to shut the valve should feedwater isolation be required by an automatic signal. The operator was in contact with the control room by way of a radio and could close the feedwater regulating valve in thirty seconds if required.

AC S1-88-0421 **ADMINISTRATIVE CONTROL** **04-21-88**

Administrative control (reactor operator notification by the gaitronics system) of the high flux at shutdown alarm system was taken because the evacuation alarm in containment was inoperable.

Using the gaitronics to evacuate containment in lieu of the evacuation alarm, should a high flux condition exist, has no impact on the UFSAR safety analysis.

PROCEDURE OR METHOD OF OPERATION CHANGES

THAT DID NOT REQUIRE NRC APPROVAL

MONTH/YEAR April 1988

AC S2-88-0426 **ADMINISTRATIVE CONTROL** **04-26-88**

Administrative control was required to perform maintenance on the limit switches for TV-DA-203A, and to comply with the technical specification for containment integrity.

The containment isolation valve TV-DA-203A will be closed and under administrative control to provide containment integrity, but can be operated within two hours if a sample is needed. Therefore, an unreviewed safety question does not exist.

AC S1-88-0427 **ADMINISTRATIVE CONTROL** **04-27-88**

Administrative control was required to close mechanical equipment room #3 door and emergency switchgear room/turbine building door. The doors were blocked open to allow access for welding hoses, cables and air hoses to perform work on 1-VS-E-4B/4C.

The design basis accident was reviewed and it was determined that since the mechanical equipment room #3 door and emergency switchgear/turbine building door will be closed upon receiving an safety injection signal, the control room pressure boundary will be satisfied.

1&2-OP-62.1/ 2-OP-12A **OPERATING PROCEDURES** **04-28-88**

UFSAR 11.3.3.8 states that all three steam generators blowdown flows are through one radiation monitor. These procedures align two steam generator blowdowns to flow through one radiation monitor and the remaining steam generator blowdown to flow through the other radiation monitor.

Changing the steam generator blowdown radiation monitor flow alignment from flowing through one radiation monitor to flow through two radiation monitors enhances the ability to detect primary-to-secondary leakage. Therefore, SGTR accident and consequences are unaffected.

PROCEDURE OR METHOD OF OPERATION CHANGES THAT DID REQUIRE NRC APPROVAL

MONTH/YEAR April 1988

NONE DURING THIS PERIOD

TESTS AND EXPERIMENTS REQUIRING NRC APPROVAL

MONTH/YEAR April 1988

NONE DURING THIS PERIOD

TESTS AND EXPERIMENTS THAT DID NOT REQUIRE NRC APPROVAL

MONTH/YEAR APRIL 1988

2-ST-211 SPECIAL TEST 04-01-88

This special test was used to verify the auxiliary feedwater flow paths to 'A' steam generator to ensure that there were no obstructions in the line.

This test was performed when Unit 2 was at cold shutdown and only a motor driven pump was used for the test; therefore, no effect was identified in 10CFR50.59/10CFR72.35 review.

2-ST-211 SPECIAL TEST 04-03-88

This special test was used to verify the auxiliary feedwater flow paths to all steam generators to ensure that there were no obstructions in the line.

This test was performed when Unit 2 was at cold shutdown and only a motor driven pump was used for the test; therefore, no effect was identified in 10CFR50.59/10CFR72.35 review.

VIRGINIA POWER
SURRY POWER STATION
CHEMISTRY REPORT

APRIL 1988

PRIMARY COOLANT ANALYSIS	UNIT NO. 1			UNIT NO. 2		
	MAX.	MIN.	AVG.	MAX.	MIN.	AVG.
Gross Radioact., µCi/ml	$1.85E^{0}$	$4.55E^{-2}$	$3.21E^{-1}$	$2.57E^{-1}$	$1.50E^{-2}$	$1.30E^{-1}$
Suspended Solids, ppm	0.0	0.0	0.0	0.0	0.0	0.0
Gross Tritium, µCi/ml	$4.57E^{-2}$	$4.57E^{-2}$	$4.57E^{-2}$	$6.30E^{-2}$	$2.56E^{-2}$	$4.47E^{-2}$
Iodine^{131}, µCi/ml	$3.09E^{-1}$	$6.73E^{-4}$	$4.47E^{-2}$	$3.87E^{-4}$	$5.94E^{-5}$	$1.36E^{-4}$
I^{131} / I^{131}	0.18	0.11	0.14	0.12	0.06	0.08
Hydrogen, cc/kg	34.9	3.9	14.9	34.7	17.5	30.2
Lithium, ppm	0.46	0.42	0.44	1.98	0.51	0.76
Boron-10, ppm*	397.880	0.764	192.682	231.084	24.500	72.283
Oxygen, (DO), ppm	5.500	0.005	2.412	0.005	0.005	0.005
Chloride, ppm	0.030	0.001	0.013	0.010	0.002	0.007
pH @ 25 degree Celsius	8.31	5.35	6.35	6.99	5.98	6.71

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

REMARKS: UNIT ONE: U-1 began the month at 82% power, coasting toward refueling shutdown. On 4-8 rampdown to refueling began and the unit was at cold shutdown at the end of the month. No LiOH additions for U-1 in April.

UNIT TWO: U-2 began the month at 0% power; reactor went critical on 4-5 and the unit was at 100% On 4-7 where it stayed until 4-30 when the unit was ramped back to 73% for PT-29.1. Lithium additions: 4-3 at 1500, 1635g; 4-5 at 1025, 320g; 4-7 at 0400,200g; 4-7 at 1435, 204g; 4-8 at 1010, 248g; for a monthly total of 2607 grams of LiOH. Cation bed was placed in service for lithium removal on 4-16 from 1845 until 2048.

UNIT 1 FUEL HANDLING DATE April 1988

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				

UNIT 2 FUEL HANDLING DATE April 1988

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 April 1988

NONE DURING THIS PERIOD

VIRGINIA ELECTRIC AND POWER COMPANY
RICHMOND, VIRGINIA 23261

May 16, 1988

D. S. CRUDEN
VICE PRESIDENT-NUCLEAR

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

Serial No. 88-292
NO/DAS: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 April 1988.

Very truly yours,

D. S. Cruden

Enclosure

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

Mr. W. E. Holland
NRC Senior Resident Inspector
Surry Power Station

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