VIRGINIA ELECTRIC AND POWER COMPANY

SURRY POWER STATION

MONTHLY OPERATING REPORT

REPORT NO. 79-01

JANUARY, 1979

APPROVED:

W. Stewart

MANAGER

CONTENTS

KEY PERSONNEL CHANGES

JANUARY, 1979

Due to a reorganization of the station, the following new key positions were established effective on the dates indicated and filled by the individuals listed:

Position	Effective Date	Incumbent
Station Manager	January 1, 1979	W. L. Stewart
Superintendent-Operations	Janaury 1, 1979	J. L. Wilson
Superintendent-Maintenance	January 1, 1979	R. F. Saunders
Superintendent-Technical Services	January 1, 1979	T. A. Peebles
Supervisor-Administrative Services	January 16, 1979	R. L. Baldwin

CORRECTED REPORT
1-22-79

UNIT Surry Unit 1
DATE October 3, 1977
COMPLETED BY O. W. Akins
DOCKET NO. 50-280

OPERATING STATUS

1. REPORTING PERIOD: 0001 770901 THROUGH 2400 770930
   HOURS IN REPORTING PERIOD: 720
2. CURRENTLY AUTHORIZED POWER LEVEL (MWth) 2441 MAX. DEPENDABLE CAPACITY (MWe-NET) 775
3. LOWEST POWER LEVEL TO WHICH SPECIFICALLY RESTRICTED (IF ANY) (MWe-NET): N/A
4. REASONS FOR RESTRICTION (IF ANY):

		THIS REPORTING PERIOD	YR TO DATE	CUMULATIVE TO DATE
5.	HOURS REACTOR WAS CRITICAL	718.8	5167.1	27,721.5
6.	REACTOR RESERVE SHUTDOWN HOURS	0	0	0
7.	HOURS GENERATOR ON LINE	712.5	5072.8	26,972.8
8.	UNIT RESERVE SHUTDOWN HOURS	0	0	0
9.	GROSS THERMAL ENERGY GENERATED (MWH)	1,729,792	12,193,702	61,282,058
10.	GROSS ELECTRICAL ENERGY GENERATED (MWH)	565,955	4,009,580	20,087,943
11.	NET ELECTRICAL ENERGY GENERATED (MWH)	537,539	3,812,369	19,056,134
12.	REACTOR AVAILABILITY FACTOR (1)	99.8%	78.9%	66.2%
13.	UNIT AVAILABILITY FACTOR (2)	99.0%	77.4%	64.4%
14.	UNIT CAPACITY FACTOR (3)	96.3%	75.1%	58.7%
15.	UNIT FORCED OUTAGE RATE (4)	1.0%	2.4%	19.0%

16. SHUTDOWNS SCHEDULED TO BEGIN IN NEXT 6 MONTHS (STATE TYPE, DATE, AND DURATION OF EACH): S/G Inspection, Nov. 19, 1977 - 4 weeks
17. IF SHUT DOWN AT END OF REPORT PERIOD, ESTIMATED DATE OF STARTUP: N/A
18. UNITS IN TEST STATUS (PRIOR TO COMMERCIAL OPERATION) REPORT THE FOLLOWING:

	DATE LAST FORECAST	DATE ACHIEVED
INITIAL CRITICALITY		
INITIAL ELECTRICAL POWER GENERATION		
COMMERCIAL OPERATION		

(1) REACTOR AVAILABILITY FACTOR = $\frac{\text{HOURS REACTOR WAS CRITICAL}}{\text{HOURS IN REPORTING PERIOD}} \times 100$

(2) UNIT AVAILABILITY FACTOR = $\frac{\text{HOURS GENERATOR ON LINE}}{\text{HOURS IN REPORTING PERIOD}} \times 100$

(3) UNIT CAPACITY FACTOR = $\frac{\text{NET ELECTRICAL POWER GENERATED}}{\text{MAX. DEPENDABLE CAPACITY (MWe-NET) X HOURS IN REPORTING PERIOD}}$

(4) UNIT FORCED OUTAGE RATE = $\frac{\text{FORCED OUTAGE HOURS}}{\text{HOURS GENERATOR ON LINE + FORCED OUTAGE HOURS}} \times 100$

OPERATING DATA REPORT

DOCKET NO. 50-280
DATE 05 FEB 79
COMPLETED BY O.J. COSTELLO
TELEPHONE 804-357-3184

OPERATING STATUS

1.	UNIT NAME	SURRY UNIT 1
2.	REPORTING PERIOD	179
3.	LICENSED THERMAL POWER (MWT)	2441
4.	NAMEPLATE RATING (GROSS MWE)	947.5
5.	DESIGN ELECTRICAL RATING (NET MWE)	822
6.	MAXIMUM DEPENDABLE CAPACITY (GROSS MWE)	811
7.	MAXIMUM DEPENDABLE CAPACITY (NET MWE)	775
8.	IF CHANGES OCCUR IN CAPACITY RATINGS (ITEMS 3 THROUGH 7) SINCE LAST REPORT, GIVE REASONS	N/A
9.	POWER LEVEL TO WHICH RESTRICTED, IF ANY (NET MWE)	N/A
10.	REASONS FOR RESTRICTIONS, IF ANY	N/A

NOTES

		THIS MONTH	YR-TO-DATE	CUMULATIVE
11.	HOURS IN REPORTING PERIOD	744.0	744.0	53569.0
12.	NUMBER OF HOURS REACTOR WAS CRITICAL	704.1	704.1	36404.0
13.	REACTOR RESERVE SHUTDOWN HOURS	0.0	0.0	0.0
14.	HOURS GENERATOR ON-LINE	702.7	702.7	35561.6
15.	UNIT RESERVE SHUTDOWN HOURS	0.0	0.0	0.0
16.	GROSS THERMAL ENERGY GENERATED (MWH)	1701725.0	1701725.0	82057679.0
17.	GROSS ELECTRICAL ENERGY GENERATED (MWH)	546305.0	546305.0	26953998.0
18.	NET ELECTRICAL ENERGY GENERATED (MWH)	519513.0	519513.0	25490232.0
19.	UNIT SERVICE FACTOR	94.4 o/o	94.4 o/o	66.4 o/o
20.	UNIT AVAILABILITY FACTOR	94.4 o/o	94.4 o/o	66.4 o/o
21.	UNIT CAPACITY FACTOR (USING MDC NET)	89.9 o/o	89.9 o/o	61.4 o/o
22.	UNIT CAPACITY FACTOR (USING DER NET)	84.8 o/o	84.8 o/o	57.9 o/o
23.	UNIT FORCED OUTAGE RATE	5.6 o/o	5.6 o/o	16.1 o/o
24.	SHUTDOWNS SCHEDULED OVER NEXT 6 MONTHS (TYPE, DATE, AND DURATION OF EACH)	S/G INSPECTION - 6/2/79 - 3 WEEK		

25.	IF SHUT DOWN AT END OF REPORT PERIOD, ESTIMATE DATE OF STARTUP	N/A	
26.	UNITS IN TEST STATUS (PRIOR TO COMMERCIAL OPERATION)	FORECAST	ACHIEVED
	INITIAL CRITICALITY		
	INITIAL ELECTRICITY		
	COMMERCIAL OPERATION		

CORRECTED REPORT
1-22-79

UNIT Surry Unit 1

DATE January 31, 1978

COMPLETED BY O. W. Akins

DOCKET NO. 50-280

OPERATING STATUS

1. REPORTING PERIOD: 0001 771201 THROUGH 2400 771231
   HOURS IN REPORTING PERIOD: 744
2. CURRENTLY AUTHORIZED POWER LEVEL (MWth) 2441 MAX. DEPENDABLE CAPACITY (MWe-NET) 775
3. LOWEST POWER LEVEL TO WHICH SPECIFICALLY RESTRICTED (IF ANY) (MWe-NET): N/A
4. REASONS FOR RESTRICTION (IF ANY):

		THIS REPORTING PERIOD	YR TO DATE	CUMULATIVE TO DATE
5.	HOURS REACTOR WAS CRITICAL	592.2	6762.5	29,316.9
6.	REACTOR RESERVE SHUTDOWN HOURS	0	0	0
7.	HOURS GENERATOR ON LINE	589.4	6665.2	28,565.2
8.	UNIT RESERVE SHUTDOWN HOURS	0	0	0
9.	GROSS THERMAL ENERGY GENERATED (MWH)	1,418,378	16,052,640	65,140,996
10.	GROSS ELECTRICAL ENERGY GENERATED (MWH)	469,850	5,281,480	21,359,843
11.	NET ELECTRICAL ENERGY GENERATED (MWH)	447,962	5,023,799	20,267,564
12.	REACTOR AVAILABILITY FACTOR (1)	79.6%	77.2%	66.5%
13.	UNIT AVAILABILITY FACTOR (2)	79.2%	76.1%	64.8%
14.	UNIT CAPACITY FACTOR (3)	77.7%	74.0%	59.3%
15.	UNIT FORCED OUTAGE RATE (4)	.3%	1.9%	18.1%

16. SHUTDOWNS SCHEDULED TO BEGIN IN NEXT 6 MONTHS (STATE TYPE, DATE, AND DURATION OF EACH):
    Refueling S/G Inspection, April 1978, 4 weeks
17. IF SHUT DOWN AT END OF REPORT PERIOD, ESTIMATED DATE OF STARTUP: N/A
18. UNITS IN TEST STATUS (PRIOR TO COMMERCIAL OPERATION) REPORT THE FOLLOWING:

	DATE LAST FORECAST	DATE ACHIEVED
INITIAL CRITICALITY		
INITIAL ELECTRICAL POWER GENERATION		
COMMERCIAL OPERATION		

(1) REACTOR AVAILABILITY FACTOR = $\frac{\text{HOURS REACTOR WAS CRITICAL}}{\text{HOURS IN REPORTING PERIOD}} \times 100$

(2) UNIT AVAILABILITY FACTOR = $\frac{\text{HOURS GENERATOR ON LINE}}{\text{HOURS IN REPORTING PERIOD}} \times 100$

(3) UNIT CAPACITY FACTOR = $\frac{\text{NET ELECTRICAL POWER GENERATED}}{\text{MAX. DEPENDABLE CAPACITY (MWe-NET) X HOURS IN REPORTING PERIOD}}$

(4) UNIT FORCED OUTAGE RATE = $\frac{\text{FORCED OUTAGE HOURS}}{\text{HOURS GENERATOR ON LINE + FORCED OUTAGE HOURS}} \times 100$

OPERATING DATA REPORT

DOCKET NO. 50-281
DATE 05 FEB 79
COMPLETED BY O.J. COSTELLO
TELEPHONE 804-357-3184

OPERATING STATUS

1.	UNIT NAME	SURRY UNIT 2
2.	REPORTING PERIOD	179
3.	LICENSED THERMAL POWER (MWT)	2441
4.	NAMEPLATE RATING (GROSS MWE)	847.5
5.	DESIGN ELECTRICAL RATING (NET MWE)	822
6.	MAXIMUM DEPENDABLE CAPACITY (GROSS MWE)	811
7.	MAXIMUM DEPENDABLE CAPACITY (NET MWE)	775
8.	IF CHANGES OCCUR IN CAPACITY RATINGS (ITEMS 3 THROUGH 7) SINCE LAST REPORT GIVE REASONS	N/A
9.	POWER LEVEL TO WHICH RESTRICTED, IF ANY (NET MWE)	N/A
10.	REASONS FOR RESTRICTIONS, IF ANY	N/A

NOTES

		THIS MONTH	YR-TO-DATE	CUMULATIVE
11.	HOURS IN REPORTING PERIOD	744.0	744.0	50448.0
12.	NUMBER OF HOURS REACTOR WAS CRITICAL	744.0	744.0	34424.5
13.	REACTOR RESERVE SHUTDOWN HOURS	0.0	0.0	0.0
14.	HOURS GENERATOR ON-LINE	744.0	744.0	33921.3
15.	UNIT RESERVE SHUTDOWN HOURS	0.0	0.0	0.0
16.	GROSS THERMAL ENERGY GENERATED (MWH)	1799584.0	1799584.0	79035761.0
17.	GROSS ELECTRICAL ENERGY GENERATED (MWH)	590085.0	590085.0	25814624.0
18.	NET ELECTRICAL ENERGY GENERATED (MWH)	560289.0	560289.0	24485373.0
19.	UNIT SERVICE FACTOR	100.0 °/°	100.0 °/°	67.2 °/°
20.	UNIT AVAILABILITY FACTOR	100.0 °/°	100.0 °/°	67.2 °/°
21.	UNIT CAPACITY FACTOR (USING MDC NET)	97.2 °/°	97.2 °/°	62.6 °/°
22.	UNIT CAPACITY FACTOR (USING DER NET)	91.6 °/°	91.6 °/°	59.0 °/°
23.	UNIT FORCED OUTAGE RATE	0.0	0.0	21.1 °/°

24. SHUTDOWNS SCHEDULED OVER NEXT 6 MONTHS (TYPE, DATE, AND DURATION OF EACH): STEAM GENERATOR REPLACEMENT 6 MONTHS 2/4/79

25. IF SHUT DOWN AT END OF REPORT PERIOD. ESTIMATE DATE OF STARTUP: NONE

26. UNITS IN TEST STATUS (PRIOR TO COMMERCIAL OPERATION)

	FORECAST	ACHIEVED
INITIAL CRITICALITY		
INITIAL ELECTRICITY		
COMMERCIAL OPERATION		

UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH JANUARY 1979

DOCKET NO. 50-280
UNIT NAME SURRY 1
DATE FEB. 2, 1979
COMPLETED BY S. STEVENS
TELEPHONE (804) 357-3184

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
79-1	1-1-79	F	41.3	D	1	78-047/03L-0			Continuation of shutdown began 12-8-78 for primary to secondary leakage on "C" S/G exceeding 0.3 GPM limitation. Inspected steam generators and plugged leaking tubes.

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

(9/77)

12-28-77

UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH JANUARY 1979

DOCKET NO. 50-281
UNIT NAME SURRY 2
DATE FEB. 2, 1979
COMPLETED BY S. STEVENS
TELEPHONE (804) 357-3184

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
				NONE DURING THIS REPORTING PERIOD.					

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

(9/77)

LOAD REDUCTIONS DUE TO ENVIRONMENTAL RESTRICTIONS

UNIT NO.1 MONTH: JANUARY, 1979

DATE	TIME	HOURS	LOAD, MW.	REDUCTIONS, MW	MWH	REASON
			NONE DURING THIS REPORTING PERIOD.			
				MONTHLY TOTAL	0	

LOAD REDUCTIONS DUE TO ENVIRONMENTAL RESTRICTIONS

UNIT NO. 2 MONTH: JANUARY, 1979

DATE	TIME	HOURS	LOAD, MW	REDUCTIONS, MW	MWH	REASON
NONE DURING THIS REPORTING PERIOD.						
				MONTHLY TOTAL	0	

DOCKET NO 50-280
UNIT SURRY I
DATE 2-1-78
COMPLETED BY O J COSTELLO

AVERAGE DAILY UNIT POWER LEVEL

MONTH: JANUARY 1978

DAY	AVERAGE DAILY POWER LEVEL (MWE-NET)	DAY	AVERAGE DAILY POWER LEVEL (MWE-NET)
1	0.0	17	749.3
2	90.7	18	745.3
3	733.2	19	743.8
4	735.5	20	738.6
5	735.4	21	745.7
6	738.4	22	744.9
7	737.4	23	744.8
8	735.9	24	746.5
9	736.1	25	745.4
10	735.6	26	744.7
11	736.4	27	743.2
12	737.6	28	744.6
13	749.8	29	742.7
14	746.3	30	742.8
15	745.4	31	743.2
16	745.5		

DAILY UNIT POWER LEVEL FORM INSTRUCTIONS

ON THIS FORM, LIST THE AVERAGE DAILY UNIT POWER LEVEL IN MWE-NET FOR EACH DAY IN THE REPORTING MONTH. THESE FIGURES WILL BE USED TO PLOT A GRAPH FOR EACH REPORTING MONTH. NOTE THAT BY USING MAXIMUM DEPENDABLE CAPACITY FOR THE NET ELECTRICAL RATING OF THE UNIT, THERE MAY BE OCCASIONS WHEN THE DAILY AVERAGE POWER EXCEEDS THE 100 °/° LINE (OR THE RESTRICTED POWER LEVEL LINE). IN SUCH CASES, THE AVERAGE DAILY UNIT POWER OUTPUT SHEET SHOULD BE FOOTNOTED TO EXPLAIN THE APPARENT ANOMALY

DOCKET NO 50-281
UNIT SURRY II
DATE 2-1-78
COMPLETED BY O J COSTELLO

AVERAGE DAILY UNIT POWER LEVEL

MONTH: JANUARY 1978

DAY	AVERAGE DAILY POWER LEVEL (MWE-NET)	DAY	AVERAGE DAILY POWER LEVE (MWE-NET)
1	751.3	17	760.0
2	748.3	18	761.2
3	755.6	19	760.3
4	763.5	20	761.5
5	762.8	21	760.5
6	762.1	22	761.3
7	762.0	23	760.3
8	761.6	24	758.5
9	761.0	25	747.5
10	762.6	26	742.6
11	763.2	27	737.1
12	761.8	28	725.4
13	760.4	29	715.2
14	761.2	30	710.7
15	760.4	31	724.3
16	761.2		

DAILY UNIT POWER LEVEL FORM INSTRUCTIONS

ON THIS FORM, LIST THE AVERAGE DAILY UNIT POWER LEVEL IN MWE-NET FOR EACH DAY IN THE REPORTING MONTH. THESE FIGURES WILL BE USED TO PLOT A GRAPH FOR EACH REPORTING MONTH. NOTE THAT BY USING MAXIMUM DEPENDABLE CAPACITY FOR THE NET ELECTRICAL RATING OF THE UNIT, THERE MAY BE OCCASIONS WHEN THE DAILY AVERAGE POWER EXCEEDS THE 100 o/o LINE (OR THE RESTRICTED POWER LEVEL LINE). IN SUCH CASES, THE AVERAGE DAILY UNIT POWER OUTPUT SHEET SHOULD BE FOOTNOTED TO EXPLAIN THE APPARENT ANOMALY

SUMMARY OF OPERATING EXPERIENCE

JANUARY, 1979

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 1

January 1 - This reporting period began with the unit at cold shutdown condition for steam generator tube leak repairs.

January 2 - Unit temperature/pressure exceeded 350°F/450 PSIG at 0310. The reactor was taken critical at 1556 and the main generator was placed on the line at 1716. The unit reached 50% power at 1830 and power was maintained at 50% until 2225 to allow calibration of reactor coolant loop flow transmitters. Increasing power to 100% began at 2225.

January 3 - At 0245 reactor power was held at 99% due to high steam flow alarms.

January 12 - The high steam flow alarms were rescaled in accordance with setpoint change SP-79-02. The unit was at 100% power at 1848.

January 20 - Reactor power was reduced to 98% at 0030 to accomplish Special Test ST-6 and power was returned to 100% at 0745.

January 24 - A temporary 75 KVA 230 KV/34.5 KV transformer has been installed in place of the No. 1 Autotie transformer to supply the No. 5 34.5 KV bus. The transformer was placed in service at 1445.

January 31 - This reporting period ends with the unit at 100% power.

UNIT 2

January 1 - This reporting period begins with the unit at 100% power.

January 10 - Unit 2 containment inner door of personnel air lock was damaged. Outer door was closed and properly sealed. Use of the personnel airlock is prohibited until after unit is shutdown.

January 20 - Pressurizer pressure channel 455 was placed in trip mode at 1223 due to instrument drift.

January 25 - At approximately 0001 commenced coastdown phase at end-of-life by reducing power as necessary to maintain T_{ave}.

January 26 - Unit at 98% power in coastdown phase at EDL.

January 28 - Unit at 97% in coastdown phase at E.O.L.

January 29 - Unit at 96% in coastdown phase at E.O.L.

January 30 - Unit at 94% in coastdown phase at E.O.L.

SUMMARY OF OPERATING EXPERIENCE
(CONTINUED)

UNIT 2

January 31 - This reporting period ended with the unit at 96% after replacing deborating demineralizer resin and placing demineralizer in service to remove remaining boron. This action allowed subsequent increase in power of approximately 2%.

AMENDMENTS TO FACILITY LICENSE OR TECHNICAL SPECIFICATIONS

JANUARY, 1979

The Nuclear Regulatory Commission has issued an amendment No. 46 December 29, 1978, which modifies Surry Unit No. 1 operating license. The amendment results from the NRC Staff's review of the Steam Generator Inspection Program. Of significance, the conditions limit the operation of Surry Unit No. 1 and has the following provisions:

1. Unit No. 1 shall be brought to the cold shutdown condition in order to perform an inspection of the steam generators within six months of equivalent operation from December 29, 1978.

   Nuclear Regulatory Commission (NRC) approval shall be obtained before resuming power operation following this inspection.

   Equivalent operation is defined as operation with the reactor coolant at or above 350°F.

2. Reactor coolant leakage from the reactor coolant system (RCS) to the secondary system (SS) through the steam generator tubes shall be limited to 0.3 gpm per steam generator, as described in the NRC Safety Evaluation of May 6, 1977. With any steam generator tube leakage greater than this limit the reactor shall be brought to the cold shutdown condition within 24 hours. NRC approval shall be obtained before resuming reactor operation.

3. Reactor operation shall be terminated if RCS to SS leakage which is attributable to 2 or more steam generator tubes which occurs during a 20 day period. NRC approval shall be obtained before resuming reactor operation.

4. The concentration of radioiodine in the reactor coolant shall be limited to 1 μCi/gram during normal operation and to 10 μCi/gram during power transients as defined in Appendix A-1 to the Technical Specifications of the license. Appendix A-1 was issued with the May 6, 1977 Order and shall remain in effect for six equivalent months from December 29, 1978.

The Nuclear Regulatory Commission has issued amendment Nos. 47 and 46 to the Operating License for the Surry Power Station Unit Nos. 1 and 2, respectively January 19, 1979. The amendment results from the NRC Staff's review of the Steam Generator Repair Program. Of significance, the conditions have the following provisions:

1. The Surry Power Station Steam Generator Repair Program for Unit Nos. 1 and 2 is approved.

2. During the steam generator repair program the following conditions shall be met:

   (a) All fuel shall be removed from the reactor pressure vessel and stored in the spent fuel pool.

(b) The temporary containment and ventilation systems shall be operating for all cutting and grinding operations involving components with removable radioactive contamination >2200 DPM per 100 cm^2.

(c) The health physics program and procedures which have been established for the steam generator repair program shall be implemented.

(d) Progress reports shall be provided at 60 day intervals from the start of the repair program and due 30 days after close of the interval with a final report provided within 60 days after completion of the repair. These reports will include:

(i) A summary of the occupational exposure expended to date using the format and detail of Table 5.3-1 of the report entitled "Steam Generator Repair Program".

(ii) An evaluation of the effectiveness of dose reduction techniques as specified in Chapter 6 of the report entitled "Steam Generator Repair Programs" in reducing occupational exposures.

(iii) An estimate of radioactivity released in both liquid and gaseous effluents.

(iv) An estimate of the solid radioactive waste generated during the repair effort including volume and radioactive content.

3. Sixty days prior to fuel loading, the program for pre-operational testing and startup shall be submitted for NRC review.

FACILITY CHANGES REQUIRING NRC APPROVAL

JANUARY, 1979

None during this reporting period.

FACILITY CHANGES THAT DID NOT REQUIRE NRC APPROVAL

JANUARY, 1979

None during this reporting period.

TESTS AND EXPERIMENTS REQUIRING NRC APPROVAL

JANUARY, 1979

None during this reporting period.

TEST AND EXPERIMENTS THAT DID NOT REQUIRE NRC APPROVAL

JANUARY, 1979

None during this reporting period.

OTHER CHANGES, TESTS AND EXPERIMENTS

JANUARY, 1979

None during this reporting period.

SURRY POWER STATION

CHEMISTRY REPORT

JANUARY , 1979

T.S.6.6.A.11

PRIMARY COOLANT ANALYSIS	UNIT NO. 1			UNIT NO. 2		
	MAXIMUM	MINIMUM	AVERAGE	MAXIMUM	MINIMUM	AVERAGE
Gross Radioact., µCi/ml	5.14E-1	1.46E-2	3.18E-1	1.74E-1	4.78E-2	9.93E-2
Suspended Solids, ppm	0.3	0.1	0.2	0.4	0.0	0.2
Gross Tritium, µCi/ml	1.76E-1	1.05E-2	9.91E-2	1.02E-1	7.54E-2	8.46E-2
Iodine-131, µCi/ml	2.00E-2	3.21E-3	8.51E-3	6.12E-4	3.03E-4	4.20E-4
I-131/I-133	0.7673	0.1669	0.3873	0.1548	0.0508	0.0934
Hydrogen, cc/kg	35.6	1.1 (1)	22.7	37.9	27.1	32.1
Lithium, ppm	2.77	0.54	2.10	0.31	0.10	0.20
Boron-10, ppm +	254	99	128	10	0.0	4
Oxygen-16, ppm	7.700 (1)	0.000	0.355	0.000	0.000	0.000
Chloride, ppm	0.05	0.05	0.05	0.05	0.05	0.05
pH @ 25°C	7.38	6.12	7.13	8.84	6.98	7.68

+ Boron-10 = Total Boron x 0.196

NON-RADIOACTIVE CHEMICAL
RELEASES, POUNDS
T.S. 4.13.A.8

Phosphate	0.0	Boron	259
Sulfate	1,112	Chromate	0.0
50% NaOH	1,400	Chlorine	0.0

Remarks: (1) Unit #1 Shutdown.

DESCRIPTION OF ALL INSTANCES WHERE THERMAL DISCHARGE LIMITS WERE EXCEEDED

JANUARY, 1979

Due to impairment of the circulating water system on the following days the thermal discharge limits were exceeded as noted.

January 3, 1979	*	Exceeded 17.5°F ΔT across station.
January 4, 1979	*	Exceeded 15°F ΔT across station.
January 28,1979	*	Exceeded 15°F ΔT across station.

* Indicates dates when station ΔT was <15°F across the station for sometime during the day.

These ΔT excursions were allowable under T.S. 4.14.B.2. There were no reported instances of significant adverse environmental impact.

On January 25, 1979, the temperature change at the station discharge exceeded 3°F per hour due to severe temperature transient of James River at both intake and discharge and was reported in accordance with T.S. 4.14.B.1.

FUEL HANDLING

JANUARY, 1979

Two shipments of new fuel for the upcoming refueling on Unit 2 were received. One shipment containing 12 fuel assemblies arrived January 22, 1979, and another shipment containing 4 fuel assemblies arrived January 29, 1979.

UNIT NO. 1

FUEL HANDLING

JANUARY, 1979

DATE SHIPPED/RECEIVED	NO OF ASSEMBLIES PER SHIPMENT	ANSI NO. INITIAL ENRICHMENT	NEW OR SPENT FUEL SHIPPING CASK ACTIVITY LEVEL
	None during this reporting period.		

UNIT NO. 2
FUEL HANDLING
JANUARY, 1979

DATE SHIPPED/RECEIVED	NO OF ASSEMBLIES PER SHIPMENT	ANSI NO. INITIAL ENRICHMENT	NEW OR SPENT FUEL SHIPPING CASK ACTIVITY LEVEL
1-22-79	12	LM06FV/3.4	2.5 mrem/hr.
		LM06F8/3.4	2.5 mrem/hr.
		LM06FW/3.4	2.5 mrem/hr.
		LM06EX/3.4	2.5 mrem/hr.
		LM06ES/3.4	2.5 mrem/hr.
		LM06FC/3.4	2.5 mrem/hr.
		LM06F7/3.4	2.5 mrem/hr.
		LM06F0/3.4	2.5 mrem/hr.
		LN06FU/3.4	2.5 mrem/hr.
		LM06F5/3.4	2.5 mrem/hr.
		LM06F9/3.4	2.5 mrem/hr.
		LM06F4/3.4	2.5 mrem/hr.
1-29-79	4	LM06EN/3.4	2.5 mrem/hr.
		LM06ER/3.4	2.5 mrem/hr.
		LM06FA/3.4	2.5 mrem/hr.
		LM06FD/3.4	2.5 mrem/hr.

PROCEDURE REVISIONS THAT CHANGED THE OPERATING MODE DESCRIBED IN THE FSAR

JANUARY, 1979

None during this reporting period.

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

JANUARY, 1979

None during this reporting period.

INSERVICE INSPECTION

JANUARY, 1979

None during this reporting period.

RE[redacted]TABLE OCCURRENCES PERTAINING T[redacted]
ANY OUTAGE OR POWER REDUCTIONS

JANUARY, 1979

None during this reporting period.

Maintenance of Safety Related Systems During Outage or Reduced Power Periods

UNIT #1

Mechanical Maintenance

DEPT=MECH

UNIT1-
(MAINTENANCE OF SAFETY RELATED SYSTEMS DURING OUTAGE OR REDUCED POWER PERIODS)

RETSERVDT	SYS	COMP	MARKNO	SUMMARY	WKPERF	U	MR	TOTDWNTM
01/01/79	RC	SG	1 RC-E-1A	REMOVE/INSTALL PRIM MANWAYS	INSTALLED MANWAYS	1	812111243	434
01/02/79	VS	CHILLER	1 VS-E-1B	FAN BELTS SLIPPING	CHECKED SAT	1	807010800	7
01/02/79	BS	HATCH		ESCAPE MANWAY ORINGS	REPLACED ORINGS	1	812311700	43
01/02/79	BS	HATCH		VALVE LEAK THRU	REPAIRED VALVE	1	812311701	43
								527

DEPT TOTAL

Maintenance of Safety Related Systems During Outage or Reduced Power Periods

UNIT #2

Mechanical Maintenance

Mechanical Maintenance

UNIT 2

There was none during this reporting period.

Maintenance of Safety Related Systems During Outage or Reduced Power Periods

UNIT #1

Electrical Maintenance

UNIT1-
(MAINTENANCE OF SAFETY RELATED SYSTEMS DURING OUTAGE OR REDUCED POWER PERIODS)

RETSERVDT	SYS	COMP	MARKNO	SUMMARY	WKPERF	U	MR	TOTDWNTM
01/02/79	RS	PMTM MTR	1-RS P-1B	DISCONN/RECONN PMP MTR FOR MECH	DISC+REC	1	812121100	774
01/02/79	RC	PUMP	1 RC P-1B	BALANCE PUMP+MOTOR	BALANCE UNIT	1	901011600	24
01/02/79	RC	PUMP	1-RC-P-1A	BALANCE PUMP+MOTOR	BALANCED MOTOR+PUMP	1	901011601	23
								821

DEPT TOTAL

Maintenance of Safety Related Systems During Outage or Reduced Power Periods

UNIT #2

Electrical Maintenance

Electrical Maintenance

UNIT 2

There was none during this reporting period.

Maintenance of Safety Related Systems During Outage or Reduced Power Periods

UNIT #1

Instrument Maintenance

Instrument Maintenance

UNIT 1

There was none during this reporting period.

Maintenance of Safety Related Systems During Outage or Reduced Power Periods

UNIT #2

Instrument Maintenance

Instrument Maintenance

UNIT 2

There was none during this reporting period.

HEALTH PHYSICS

JANUARY, 1979

There was no single release of radioactivity specifically associated with an outage that accounted for more than 10% of the allowable annual values in 10CFR20.

There were no individuals who received single radiation exposure specifically associated with Unit #1 outage, which accounted for more than 10% of the allowable annual values in 10CFR20.101.

PROCEDURE DEVIATIONS REVIEWED BY STATION NUCLEAR SAFETY AND OPERATING COMMITTEE AFTER TIME LIMITS SPECIFIED IN TECHNICAL SPECIFICATIONS

JANUARY, 1979

Number	Unit	Title	Deviation
PT-17.2	2	Containment Inside Recirculation Spray Pumps	Step 5.3-Change to "This reading should be 110 amps. Step 6.1-Change to ".... The ammeter reading should be 110 amps ± 10 amps for 2-RS-P-1A..." Step 3.3-Did not dewater pumps.

This procedure was completed and the deviation initiated January 4, 1979. The procedure deviation was reviewed by the Station Nuclear Safety and Operating Committee January 25, 1979.