VIRGINIA ELECTRIC AND POWER COMANY

SURRY POWER STATION

MONTHLY OPERATING REPORT

REPORT NO.: 78-12

DECEMBER, 1978

APPROVED:

W. L. Stewart

MANAGER

CONTENTS

OPERATING DATA REPORT

DOCKET NO. 50-280
DATE 04 JAN 79
COMPLETED BY O.J. COSTELLO
TELEPHONE 804-357-3184

OPERATING STATUS

1.	UNIT NAME	SURRY UNIT 1
2.	REPORTING PERIOD	0001 12-1-78 TO 2400 12-31-78
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	8760.0	52824.0
12.	NUMBER OF HOURS REACTOR WAS CRITICAL	259.9	6393.0	35699.9
13.	REACTOR RESERVE SHUTDOWN HOURS	0.0	0.0	0.0
14.	HOURS GENERATOR ON-LINE	250.8	6293.7	34959.9
15.	UNIT RESERVE SHUTDOWN HOURS	0.0	0.0	0.0
16.	GROSS THERMAL ENERGY GENERATED (MWH)	583981.0	15214957.0	80355953.0
17.	GROSS ELECTRICAL ENERGY GENERATED (MWH)	197570.0	4947740.0	26307583.0
18.	NET ELECTRICAL ENERGY GENERATED (MWH)	178035.0	4704155.0	24971719.0
19.	UNIT SERVICE FACTOR	33.7 °/°	71.8 °/°	66.0 °/°
20.	UNIT AVAILABILITY FACTOR	33.7 °/°	71.8 °/°	66.0 °/°
21.	UNIT CAPACITY FACTOR (USING MDC NET)	30.9 °/°	69.3 °/°	61.0 °/°
22.	UNIT CAPACITY FACTOR (USING DER NET)	29.1 °/°	65.3 °/°	57.5 °/°
23.	UNIT FORCED OUTAGE RATE	65.6 °/°	7.2 °/°	16.3 °/°

24. SHUTDOWNS SCHEDULED OVER NEXT 6 MONTHS (TYPE, DATE, AND DURATION OF EACH): NONE

25. IF SHUT DOWN AT END OF REPORT PERIOD, ESTIMATE DATE OF STARTUP: 1-2 79

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 04 JAN 79
COMPLETED BY O.J. COSTELLO
TELEPHONE 804-357-3184

OPERATING STATUS

1.	UNIT NAME	SURRY UNIT 2
2.	REPORTING PERIOD	0001 120178 TO 2400 123178
3.	LICENSED THERMAL POWER (MWT)	2441
4.	NAMEPLATE RATING (GROSS MWE)	947.5
5.	DESIGN ELECTRICAL RATING (NET MWE)	922
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	8760.0	49704.0
12.	NUMBER OF HOURS REACTOR WAS CRITICAL	724.2	7267.7	33680.5
13.	REACTOR RESERVE SHUTDOWN HOURS	0.0	0.0	0.0
14.	HOURS GENERATOR ON-LINE	722.1	7249.4	33177.3
15.	UNIT RESERVE SHUTDOWN HOURS	0.0	0.0	0.0
16.	GROSS THERMAL ENERGY GENERATED (MWH)	1747175.0	17525943.0	77236177.0
17.	GROSS ELECTRICAL ENERGY GENERATED (MWH)	567125.0	5657145.0	25224539.0
18.	NET ELECTRICAL ENERGY GENERATED (MWH)	538749.0	5371967.0	23925084.0
19.	UNIT SERVICE FACTOR	97.1 °/°	82.7 °/°	66.7 °/°
20.	UNIT AVAILABILITY FACTOR	97.1 °/°	82.7 °/°	66.7 °/°
21.	UNIT CAPACITY FACTOR (USING MDC NET)	93.4 °/°	79.1 °/°	62.1 °/°
22.	UNIT CAPACITY FACTOR (USING DER NET)	88.1 °/°	74.6 °/°	59.6 °/°
23.	UNIT FORCED OUTAGE RATE	2.9 °/°	2.2 °/°	21.4 °/°

24. SHUTDOWNS SCHEDULED OVER NEXT 6 MONTHS (TYPE, DATE, AND DURATION OF EACH): STEAM GENERATOR REPLACEMENT 6 MONTHS 1-25-79

25. IF SHUT DOWN AT END OF REPORT PERIOD, ESTIMATE 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

REPORT MONTH DECEMBER 1978

DOCKET NO. 50-280
UNIT NAME Surry 1
DATE Jan. 4, 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
78-7	12-8-78	S	15.4	A	3				Rampdown to repack "B" and "C" Main Feed Regulating valves. Repacked valves. While returning to 100% power, reactor tripped by turbine trip on Hi-Hi level in "C" steam generator caused by malfunction of "C" Main Feed Regulating valve. Adjusted stroke of valves.
78-8	12-12-78	F	477.8	D	1	78-047/03L-0			Primary to Secondary leakage on "C" steam generator exceeded 0.3 gpm limitation. Shut down at end of reporting period. Inspected steam generators and plugged leaking tubes.

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)

UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH DECEMBER 1978

DOCKET NO. 50-281
UNIT NAME Surry 2
DATE Jan. 4, 1978
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
78-8	12-2-78	F	21.9	A	1				8 GPM Primary leakage via 2-CH-314 valve packing. Repacked valve.

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: DECEMBER, 1978

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: DECEMBER, 1978

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 1-1-79
COMPLETED BY O J COSTELLO

AVERAGE DAILY UNIT POWER LEVEL

MONTH: DECEMBER 1978

DAY	AVERAGE DAILY POWER LEVEL (MWE NET)	DAY	AVERAGE DAILY POWER LEVEL (MWE-NET)
1	736.9	17	0.0
2	747.7	18	0.0
3	737.8	19	0.0
4	746.5	20	0.0
5	749.2	21	0.0
6	748.6	22	0.0
7	750.4	23	0.0
8	664.6	24	0.0
9	76.9	25	0.0
10	710.0	26	0.0
11	731.3	27	0.0
12	18.3	28	0.0
13	0.0	29	0.0
14	0.0	30	0.0
15	0.0	31	0.0
16	0.0		

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 50-291
UNIT SURRY II
DATE 1-1-79
COMPLETED BY O J COSTELLO

AVERAGE DAILY UNIT POWER LEVEL

MONTH: DECEMBER 1979

DAY	AVERAGE DAILY POWER LEVEL (MWE-NET)	DAY	AVERAGE DAILY POWER LEVEL (MWE-NET)
1	752.9	17	749.0
2	647.5	18	747.3
3	25.4	19	753.1
4	682.0	20	758.4
5	755.2	21	758 0
6	755.6	22	757.5
7	757.3	23	756.3
8	756.3	24	750.2
9	753.8	25	750.4
10	755.4	26	752.8
11	756.9	27	756.2
12	747.8	28	751.5
13	755.2	29	750.1
14	751.7	30	751.6
15	749.5	31	753.4
16	749.8		

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.

SUMMARY OF OPERATING EXPERIENCE

DECEMBER, 1978

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

December 1 - This report period begins with the unit at 100% power. At 0735 power was reduced to 97% to facilitate removing "A" High Pressure Drain Pump for repacking. At 0810 power was returned to 100%. Operation with the "A" High Pressure Drain Pump out for repacking and the "B" High Pressure Drain Pump inoperable with a motor problem caused an approximate 40 MWe reduction in unit output. At 1550 "A" High Pressure Drain Pump was returned to service.

December 8 - At 1855, commenced unit rampdown to approximately 100 MWe to allow repacking "B" and "C" Main Feed Regulating Valves. At 2220, stopped rampdown at 100 MWe, 17% reactor power.

December 9 - At 0416, the reactor tripped on turbine trip caused by Hi-Hi Level in "C" Steam Generator. Hi-Hi Level was the result of a malfunction of "C" Main Feed Regulating Valve. At 0550 reactor was critical. At 0735 reactor tripped by turbine trip on Hi-Hi Level in "C" Steam Generator. Hi-Hi Level was the result of malfunction of "C" Main Feed Regulating Valve. At 0817 reactor was critical. At 1025, with unit critical and turbine latched but not on the line, received rod urgent failure alarm. At 1144 while instrument technicians were attempting to resolve the problem with the rod control system, rods F-10 and K-10 dropped. The reactor and turbine were manually tripped. Instrument Technicians resolved the problem with the rod control system, and at 1715 the reactor was critical. At 1940 the turbine generator was on the line and power increase commenced. At 2252, secured ramp at 600 MWe due to secondary chemistry transient caused by condenser inleakage. At 2345, commenced slow ramp to 675 MWe. At 0650 unit at 670 MWe.

December 10 - At 0700 commenced ramp to 100% power. At 0921 reactor power was at 100%.

December 11 - At 2140 commenced unit shutdown due to "C" Steam Generator primary to secondary leakage in excess of allowable limit.

December 12 - At 0214 the generator was off the line. At 0243 the reactor was shutdown and at 0825 the unit was at less than 350°F.

December 31 - This reporting period ends with the unit still shutdown for steam generator tube inspection and repair.

UNIT 2

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

December 2 - At 1625, commenced unit shutdown due to excessive primary leakage on 2-CH-314 (Letdown Line Manual Isolation Valve) packing. At 2325 the generator was taken off the line. At 2335 the reactor was shutdown.

SUMMARY OF OPERATING EXPERIENCE
(CONTINUED)

UNIT 2

December 3 - At 1925 after repairs to 2-CH-314 were completed, the reactor was taken critical. At 2119 the generator was placed on the line.

December 4 - At 0200 the power increase was stopped at 71% power on request of the system operator. At 0500 commenced raising power. At 0730 the unit was at 100% power.

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

AMENDMENTS TO FACILITY LICENSE OR TECHNICAL SPECIFICATIONS

DECEMBER, 1978

None during this reporting period.

FACILITY CHANGES REQUIRING NRC APPROVAL

DECEMBER, 1978

None during this reporting period.

FACILITY CHANGES THAT DID NOT REQUIRE NRC APPROVAL

DECEMBER, 1978

Design Change	Unit
1. DC-76-31 - Steam Generator Blowdown	1,2

Description - This modification reduced the blowdown water to a sufficiently low temperature and pressure to enable processing the water by a demineralizer system.

Summary of Safety Evaluation

This design change meets or exceeds the safety specifications of the previous system.

Conclusion

This modification neither constitutes an unreviewed safety question nor alters the basis for any Technical Specification.

2. DC-77-08 - RCS Overpressure Mitigating System — 1

Description - The containment instrument air system header to the power operated relief valves (PORV), was modified with the addition of a solenoid valve and a backup high pressure air supply in the line to each relief valve. Two existing RCS transmitters have been used to provide high pressure alarms and to control the PORV's. Two keylock switches were installed in the main control board vertical section to permit administrative control of the system at the appropriate point during cooldown or heatup.

Summary of Safety Evaluation

No margin of safety defined in the basis for any Technical Specification has been reduced, no potential accident or malfunction different from those previously evaluated have been created, and no consequences of accidents previously postulated have been increased in magnitude.

Conclusion

This design change neither constitutes an unreviewed safety question nor alters the basis of any existing Technical Specifications.

FACILITY CHANGES THAT
DID NOT REQUIRE NRC APPROVAL
(CONTINUED)

Design Change	Unit

3. DC-77-49 - Domestic Water Backflow Prevention — 1,2

Description - In order to comply with State (Virginia) water works regulations air gap, vacuum breaker, and reduced pressure backflow preventers were installed in the domestic water system at appropriate postions.

Summary of Safety Analysis

The installation of this design change has no reflection on the Safety Analysis Report or the Technical Specification.

Conclusion

This design change does not constitute or create an unreviewed safety question.

4. DC-78-14 - Waste Oil Storage Facility — 1,2

Description - This design change provides for a sump, a sump pump with accompanying equipment to collect and transfer waste oil to a storage tank - Provisions have been included to reduce the probability of oil spillage which would ultimately seep into the river with the installation of a dike surrounding the tank.

Summary of Safety Evaluation

No modification to or category 1 systems have been incorporated into this design change and safety aspects have been addressed with respect to fire and oil spill measures.

Conclusion

This design change does not constitute an unreviewed safety question and the subject is not addressed in Technical Specification.

TESTS AND EXPERIMENTS REQUIRING NRC APPROVAL

DECEMBER, 1978

There were none during this reporting period.

TEST AND EXPERIMENTS THAT DID NOT REQUIRE NRC APPROVAL

DECEMBER, 1978

ST-31	Service Water Subsystems Data Acquisition Test	Unit
	The results of this test are still being analyzed at this time, however, indications are that it was completed successfully and any results to the contrary will be reported in the next monthly report. Test was conducted December 28, 1978.	1,2
ST-35	Inside Recirculation Spray Pump	1
	Test was conducted on December 30, 1978. This test to check the amperage on the recirculation spray pump motors after pump maintenance proved satisfactory.	

OTHER CHANGES, TESTS AND EXPERIMENTS

DECEMBER, 1978

There were none during this reporting period.

SURRY POWER STATION

CHEMISTRY REPORT

DECEMBER , 19 78

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	5.77E-1	9.07E-3	1.53E-1	2.07E-1	9.04E-3	8.35E-2
Suspended Solids, ppm	0.3	0.2	0.2	0.2	0.1	0.1
Gross Tritium, µCi/ml	1.61E-1	8.50E-2	1.23E-1	1.04E-1	4.05E-2	7.90E-2
Iodine-131, µCi/ml	6.38E-1	7.09E-3	7.19E-2	6.79E-4	1.32E-4	3.69E-4
I-131/I-133	0.6822	0.4796	0.5904	0.1436	0.0556	0.0884
Hydrogen, cc/kg	40.7	4.8	27.1	47.1	21.1	30.3
Lithium, ppm	2.15	0.13	1.08	0.38	0.21	0.30
Boron-10, ppm +	333.8	99.2	239.5	116.8	10.6	21.6
Oxygen-16, ppm	4.7	.000	1.14	.000	.000	.000
Chloride, ppm	.05	.05	.05	.05	.05	.05
pH @ 25°C	7.02	5.39	6.22	7.38	6.56	7.14

+ Boron-10 = Total Boron x 0.196

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

Phosphate	0.0	Boron	656
Sulfate	1112	Chromate	.06
50% NaOH	1400	Chlorine	0.0

Remarks: Unit 1 shutdown for maintenance 12-12-78 to 12-31-78

DESCRIPTION OF ALL INSTANCES WHERE THERMAL DISCHARGE LIMITS WERE EXCEEDED

DECEMBER, 1978

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

December 1, 1978	*	Exceeded 17.5°F ΔT across station
December 2, 1978	*	Exceeded 15°F ΔT across station
December 4, 1978	*	Exceeded 15°F ΔT across station
December 5, 1978	*	Exceeded 15°F ΔT across station
December 6, 1978	*	Exceeded 15°F ΔT across station
December 7, 1978	*	Exceeded 17.5°F ΔT across station
December 8, 1978	*	Exceeded 17.5°F ΔT across station
December 9, 1978	*	Exceeded 15°F ΔT across station
December 10, 1978	*	Exceeded 17.5°F ΔT across station
December 11, 1978	*	Exceeded 15°F ΔT across station

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

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

On December 27, 1978, the temperature change at the station discharge exceeded 3°F per hour while performing Special Test ST-31. On December 31, 1978, the temperature change at the station discharge again exceeded 3°F per hour. These changes occurred while increasing flow through Unit No. 1 condenser waterboxes and were reported as required by Tech. Spec. 4.14.B.1.

FUEL HANDLING

DECEMBER, 1978

One shipment of new fuel for the upcoming refueling on Unit 2 was received December 21, 1978.

UNIT NO. 1
FUEL HANDLING
DECEMBER, 1978

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

UNIT NO. 2
FUEL HANDLING
DECEMBER, 1978

DATE SHIPPED/RECEIVED	NO OF ASSEMBLIES PER SHIPMENT	ANSI NO. INITIAL ENRICHMENT	NEW OR SPENT FUEL SHIPPING CASK ACTIVITY LEVEL
12-21-78	12	LM06FT/3.1	2.5 mrem/hr.
		LM06FS/3.1	2.5 mrem/hr.
		LM06FN/3.1	2.5 mrem/hr.
		LM06FR/3.1	2.5 mrem/hr.
		LM06FG/3.4	2.5 mrem/hr.
		LM06F3/3.4	2.5 mrem/hr.
		LM06FH/3.1	2.5 mrem/hr.
		LM06FL/3.1	2.5 mrem/hr.
		LM06FP/3.1	2.5 mrem/hr.
		LM06ET/3.1	2.5 mrem/hr.
		LM06EW/3.1	2.5 mrem/hr.
		LM06FJ/3.1	2.5 mrem/hr.

PROCEDURE REVISIONS THAT CHANGED THE OPERATING MODE DESCRIBED IN THE FSAR

DECEMBER, 1978

There were none during this reporting period.

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

DECEMBER, 1978

There were none during this reporting period.

INSERVICE INSPECTION

DECEMBER, 1978

An Eddy Current, Gaging Inspection was performed in Unit #1 A,B, and C Steam Generators in accordance with VEPCO NDT Procedure 14.1. Eddy current inspections were performed at 100KHZ and 400KHZ using .650, .610 and .540 probes.

As a result of the eddy current inspection the following number of tubes were plugged:

A Steam Generator	B Steam Generator	C Steam Generator
75	69	114

Due to leaks, eight (8) previously plugged tube ends were repair welded in "A" Steam Generator in accordance with approved Westinghouse procedures.

REPORTABLE OCCURRENCES PERTAINING TO ANY OUTAGE OR POWER REDUCTION

DECEMBER, 1978

On 12-11-78, a tube leak in Unit 1 "C" Steam Generator was determined to be of such intensity that unit shutdown was required. LER-78-047/03L-0 was submitted covering the details of this event.

Maintenance of Safety Related Systems During Outage or Reduced Power Periods

UNIT #1

Mechanical Maintenance

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

RETSERVDT	SYS	COMP	MARKNO	SUMMARY	WKPERF	U	MR	TOTDWNTM
12/09/78	FW	VALVE	FCV1488	REPACK	REPACKED VALVE	1	808161508	3
12/09/78	FW	VALVE	FCV-1488	REPACK VALVE	REPACKED VALVE	1	811200806	3
12/13/78	MS	VALVE	1 MS-118	REPACK VALVE	REPACKED VALVE	1	812051222	9
12/13/78	SW	VALVE	1-SW-115	REPLACE STEM WITH STAINLESS 1 1/2	REPLACED STEM	1	812061140	7
12/13/78	SW	VALVE	1-SW-131	REPLACED STEM WITH STAINLESS 2	REPLACE VALVE STEM	1	812061230	7
12/13/78	SW	VALVE	1-SW-116	REPLACE STEM WITH STAINLESS 2	REPLACED STEM	1	812061255	7
12/13/78	SW	VALVE	1-SW-171	REPLACE STEM WITH STAINLESS 2	REPLACED STEM	1	812061302	7
12/13/78	SW	VALVE	1-SW-121	REPLACE STEM WITH STAINLESS 1 1/2	REPLACE STEM	1	812061305	7
12/14/78	SW	VALVE	1-SW-169	REPLACE STEM WITH STAINLESS 1 1/2	REPLACE STEM	1	812061315	33
12/14/78	SW	VALVE	1-SW-170	REPLACE STEM WITH STAINLESS 1 1/2 IN	REPLACED STEM	1	812131532	2
12/14/78	SW	VALVE	1-SW-172	REPLACE STEM WITH STAINLESS 1 1/2 IN	REPLACEDSTEM	1	812131533	8
12/14/78	SW	VALVE	1-SW-168	VALVE DISC MISSING	REPLACE STEM+DISC	1	812131545	8
12/16/78	CH	VALVE	LCV-1460B	BODY TO BONNET GASKET LEAK	REPLACED BONNET AND LOWER GAGE GASKE	1	806271311	28
12/16/78	RC	VALVE	PCV-1455A	INSPECT AND REPAIR	RENEWED GAGE AND LOWER FLANGE GASKET	1	812121101	56
12/16/78	RC	VALVE	1-RC-77	C LOOP RELIEF LINE ISOLATION	REPACKED VALVE	1	812131520	7
12/17/78	CH	VALVE	1-CH-94	VALVE DIFFICULT TO OPERATE	REPLACED BONNET	1	807011523	1
12/17/78	RC	VALVE	PCV-1456	VALVE LEAKS THRU BADLY	REPAIRED VALVE INTERNALS	1	812051215	64
12/17/78	RC	VALVE	PCV-1455C	VALVE LEAKS THRU	REPLACED GASKETS LAPPED SAT FOR 100	1	812051216	64
12/17/78	RC	SG	1-RC-E-1A	REMOVE+REINSTALL 6 INCH HANDHOLE	REMOVED AND REINSTALLED 6IN HAND HOL	1	812121125	12
12/17/78	CH	VALVE	1 CH-314	REPACK VALVE	REMOVED OLD PACKING AND REPLACED	1	812131022	8
12/17/78	RC	VALVE	1-RC-45	REPACK VALVE	REPACKED VALVE	1	812131032	28
12/18/78	CH	VALVE	1-CH-297	LEAKS THRU	REPLACED VALVE	1	806270900	51
12/18/78	CH	VALVE	1-CH-300	VALVE LEAKS THRU	REPLACED VALVE	1	806270901	50
12/18/78	CH	VALVE	1-CH-294	VALVE LEAKS THRU WHEN SHUT TIGHT	REPLACED VALVE	1	806270802	51
12/18/78	CH	VALVE	1-CH-302	PACKING LEAK	REPACKED VALVE	1	809032309	2
12/18/78	FW	VALVE	FCV-1499	REPACK-CHECK FOR STEM WEAR	REPLACED STEM AND PACKING RING	1	811251215	151
12/18/78	FW	VALVE	FCV-1479	REPACK-CHECK FOR STEM WEAR	REPLACED STEM AND PACKING RING	1	811251216	151
12/18/78	CH	VALVE	FCV-1122	VALVE STICKING	ADJUSTED PACKING	1	812080925	3
12/18/78	CH	PIPING	FE 1122	LEAKS ONE DROP EVERY 4 SECONDS	CHARGE FLEX GASKET (TIGHTENED)	1	812111459	3
12/19/78	HSS	SNUBBER		PERFORM PT.39A+PT.39B VISUAL INSP	COMPLETED VISUAL INSPECTION	1	812121036	142
12/19/78	MS	VALVE	1-MS-81	REPACK VALVE	REMOVED OLD PACKING REPLACED WITH NE	1	812141423	7
12/19/78	MS	VALVE	1-MS-75	REPACK VALVE	REMOVED OLD PACKING REPLACED WITH NE	1	812141424	7
12/19/78	MS	VALVE	PCV-MS-114	PACKING LEAK NO4 STOP BYPASS	REPACKED VALVE	1	811210733	4
12/19/78	RC	SG	1-RC-E-1B	REMOVE+REINSTALL 6 INCH HANDHOLE	REMOVED AND INSTALLED HANDHOLE COVER	1	812121126	48
12/19/78	RC	VALVE	PCV-1455C	SOLENOID ON PCV-1455C BLOWS AIR BY	REPLACED VALVE ASSYS	1	812180230	13
12/19/78	RC	VALVE	PCV-1456	SOLENOID ON PCV-1456 BLOWS AIR BY	REPLACED VALVE ASSYS	1	812180231	13
12/20/78	BR	PUMP	1-BR-P-9	ANNUAL PMS MMP-P-G-012	COMPLETED ANNUAL PMS	1	811271026	455
12/20/78	RC	SG	1-RC-E-1C	REMOVE+REPLACE SECONDARY MANWAY	REMOVED + REPLACED MANWAYS	1	812121130	101
12/21/78	RC	SG	1 RC-E-1C	REMOVE AND REINSTALL 6 INCH HANDHOLE	REMOVED+REINSTALLED HANDHOLE COVERS	1	812120913	35
12/21/78	SI	MOV	MOV-1864A	BODY TO BONNET LEAK	REPLACED BONNET GASKET AND PACKED	1	812141230	72
12/22/78	CH	VALVE	LCV1460B	SOLONOID VALVE LEAKS BADLY	INSTALLED NEW SOLONOID VALVE	1	806220145	129
12/22/78	IA	COMPRESS	1-IA-C-2A	CHECK OPERATION AND REPAIR	CHANGED OUT ENTIRE COMP	1	811251210	240
12/22/78	IA	COMPRESS	1-IA-C-2B	CHECK OPERATION AND REPAIR	OVERHAULED COMPRESSOR	1	811251211	10
12/22/78	FW	VALVE	1-MOV-FW-151	MOV-FW-151C HAS PACKING LEAK	INSTALLED NEW PACKING	1	812140713	10
12/22/78	FW	VALVE	MOV-FW-151E	PACKING LEAKS	INSTALLED NEW PACKING	1	812141007	15
12/22/78	FW	VALVE	MOV-FW-151F	PACKING LEAKS	INSTALLED NEW PACKING	1	812141008	15
12/22/78	SI	PIPING	SI 93-152	DISC FLANGE LEAKS ON B LHS 1 PUMP	REPLACED FLEX GASKET	1	812141232	26

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

RETSERVDT	SYS	COMP	MARKNO	SUMMARY	WKPERF	U	MR	TOTDWNTM
12/22/78	CH	VALVE	MOV-1370	PACKING LEAK	REPLACED PACKING	1	812210616	7
12/23/78	CH	VALVE	HCV-1310A	SOLENOID WILL NOT OPERATE	INSTALLED NEW SOLENOID	1	812161252	259
12/23/78	CH	VALVE	1-CH 110	STEM SEPARATED FROM DIAPHRAM	REPLACED STEM+DIAPHARGM	1	812172000	27
12/27/78	RH	MOV	MOV-RH-1700	INSPECT AND REPACK	REPACKED	1	811251220	121
12/27/78	SI	VALVE	1-SI-85	BODY TO BONNET STUDS DETERIORATED	REPLACED STUD AND GASKET	1	812191227	107
12/28/78	MS	VALVE	1-MS-378	REPACK VALVE	REPACKED VALVE	1	811281055	34
12/28/78	MS	VALVE	1-MS-149	PACKING LEAK	REPACKED VALVE	1	811281057	34
12/28/78	MS	VALVE	1-MS-208	REPACK VALVE	REPACKED VALVE	1	811281155	24
12/28/78	MS	VALVE	1-MS-158	REPACK VALVE	REPACKED VALVE	1	811281159	34
12/28/78	MS	VALVE	1-MS-80	REPACK VALVE	REPACKED VALVE	1	811281205	33
12/28/78	MS	VALVE	1-MS-266	REPACK ISOL FOR DRAIN	REPACKED VALVE	1	811281210	34
12/28/78	MS	VALVE	1-MS-74	REPACK VALVE	REPACKED VALVE	1	811281305	4
12/28/78	MS	VALVE	1-MS-143	REPACK VALVE	REPACKED VALVE	1	811281420	34
12/28/78	SI	VALVE	1-SI-79	BODY TO BONNET STUDS DETERIORATED	CHANGED GASKET	1	812191126	129
12/28/78	SW	PIPING	1-SW-E-1A	SW LEAKS INTO CC HEAD TK	REPAIRED LEAK	1	812281345	47
12/29/78	MS	VALVE	1-MS-145	BODY TO BONNET AND PACKING LEAK	REPACKED AND REPAIRED BONNET LEAK	1	811281056	9
12/29/78	MS	PIPING		FLANGE LEAK	TIGHTENED FLANGE	1	811281145	4
12/29/78	MS	PIPING		INSTALL MS LINE BLOCKS FOR HYDRO	INSTALLED AND REMOVED	1	812131020	385
12/29/78	MSS	SNUBBERS		CONDUCT SNUBBER VISUAL INSPECTION	COMPLETED VISUAL INSPECTION	1	812171415	219
12/29/78	RM	MONITOR	RM-GW-101	LOW FLOW	REPLACED PUMP WITH SER 775	1	812180800	2
12/29/78	RC	VALVE	1-HCV-1455A	CHANGE SOLENOID	REPLACED SOLENOID	1	812281400	23
12/29/78	RC	VALVE	1-HCV-1455C	CHANGE SOLENOID	REPLACED SOLENOID	1	812281402	23
12/30/78	RS	PUMP	1-RS-P-1B	OPTICALLY ALIGN PUMP	OPTICALLY ALIGNED PUMP	1	809071605	437
12/31/78	RC	SG	1-RC-E 1B	REMOVE/INSTALL PRIM MANWAYS	COMPLETED	1	812111245	429
12/31/78	RC	SG	1-RC-E-1C	REMOVE/INSTALL PRIM MANWAYS	INSTALLED MANWAYS	1	812111320	387
12/28/78	CC	PUMP	1-CC-P-2B	EXCESS SEAL LEAKAGE	REPLACED MECH SEAL	1	812251300	26
DEPT. TOTAL								5043

Maintenance of Safety Related Systems During Outage or Reduced Power Periods

UNIT #2

Mechanical Maintenance

UNIT2-

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

RETSERVDT	SYS	COMP	MARKNO	SUMMARY	WKPERF	U	MR	TOTDWNTM
12/03/78	CH	VALVE	2-CH-314	PACKING LEAK	REPACKED VALVE	2	812021252	103
DEPT TOTAL								103

Maintenance of Safety Related Systems During Outage or Reduced Power Periods

UNIT #1

Electrical Maintenance

DEPT=ELEC

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

RETSERVDT	SYS	COMP	MARKNO	SUMMARY	WKPERF	U	MR	TOTMNTY
12/09/78	FW	CONT	FCV-1498	CHECK SOLENOIDS	TESTED SAT	1	812081332	8
12/19/78	RS	CONT	LS-RS-100C	UP ALARM SW LEAKING AROUND TREADS	SWITCH OPERATIONAL	1	812150720	20
12/19/78	RS	CONT	LS-RS-100D	LO LEV SW DOESN'T OP LOCAL IND LIGHT	REWIRED MICRO SWITCH	1	812150721	20
12/22/78	CH	CONT		MAKEUP MODE CONROLLER OFF	FIX SAT	1	807090500	3844
12/22/78	RC	PMP MTR	1-RC-P-1B	BRIDGE PI CURVE OIL SAMPLE	PI AND OIL IS SATISFACTORY	1	811131507	200
12/22/78	RC	PMP MTR	1-RC-P 1A	BRIDGE PI CURVE OIL SAMPLE	PI AND OIL SATISFACTORY	1	811131508	200
12/22/78	RC	MOTOR	1-RC-P-1C	BRIDGE PI CURVE OIL SAMPLE	PI AND OIL SATISFACTORY	1	811131510	200
12/26/78	SS	VALVE	TV-SS-106A	WILL NOT SHUT FROM CONTROL ROOM	ADJUSTED LIMITS	1	812190913	157

DEPT TOTAL 4649

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

DEPT=INST

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UNIT1=

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

RETSERVDT	SYS	COMP	MARKNO	SUMMARY	WKPERF	U	MR	TOTDWNTM
12/08/78	CH	INST	FCV-1122	CONTROLLER IS HUNTING	VALVE IS STICKING	1	811301415	168
12/09/78	FW	CONT	FCV-1498	REPAIR CONTROLS AFTER MECH REPACK	CHECKED THE CONTROLLER FOR OPERATION	1	812081330	7
12/09/78	FW	CONT	FCV-1488	REPAIR CONTROLS AFTER MECH REPACK	CHECKED THE CONTROLLER FOR OPERATION	1	812081331	7
12/12/78	RH	INST	TR-1-604	NEEDS CALIBRATION OR REPAIR	INSTALLED NEW RTD ELEMENT	1	810051634	1320
12/15/78	RC	VALVE	PCV-1455A	EXCESIVE FLOW	VALVE OVERHAULED AND STROKE ADJUSTED	1	807102342	3774
12/19/78	RC	INST	LI-1-461	PZR LEVEL TRANSMITTER	RAN 2.3 SAT	1	812180435	17
12/20/78	FW	CONT	HCV-FW-155B	FITTINGS LEAKING AT ISOL VALVE+REG	TIGHTENED FITTINGS	1	812180915	22
12/20/78	FW	CONT	FCV-1498	AIR LEAK AT FITTING TO REGULATOR	TIGHTENED FITTING	1	812180917	22
12/27/78	CH	INST	PI1153	DISC PRESSURE GAUGE FAILED ON C PUMP	CALIBRATED GAUGE	1	812130730	118
12/27/78	CH	INST	PI-1152	REPLACE GAGE	CALIBRATED GAUGE	1	812210617	118
DEPT TOTAL								5573

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.

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 5 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

DECEMBER, 1978

There were none during this reporting period.