

ATTACHMENT 1  
MONTHLY OPERATING REPORT  
DECEMBER, 1989

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VIRGINIA ELECTRIC AND POWER COMPANY

SURRY POWER STATION

MONTHLY OPERATING REPORT

REPORT # 89-12

APPROVED:

  
Station Manager

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OPERATING DATA REPORT

DOCKET NO.: 50-280  
 DATE: 01/03/90  
 COMPLETED BY: L.A. Warren  
 TELEPHONE: (804)357-3184 x355

OPERATING STATUS

NOTES

1. Unit Name: Surry Unit 1
2. Reporting Period: Dec 01-31, 1989
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. Reason For Restrictions, If Any: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

	<u>THIS MONTH</u>	<u>YTD</u>	<u>CUMULATIVE</u>
11. Hours In Reporting Period	744.0	8760.0	149256.0
12. Number of Hours Reactor Was Critical	719.2	4272.2	92750.8
13. Reactor Reserve Shutdown Hours	0	0	3774.5
14. Hours Generator On-Line	716.1	4217.8	90823.2
15. Unit Reserve Shutdown Hours	0	0	3736.2
16. Gross Thermal Energy Generated (MWH)	1733500.0	9945536.0	211116803.0
17. Gross Electrical Energy Generated (MWH)	587650.0	3341730.0	68545403.0
18. Net Electrical Energy Generated (MWH)	560183.0	3170527.0	65010930.0
19. Unit Service Factor	96.3%	48.1%	60.9%
20. Unit Available Factor	96.3%	48.1%	63.4%
21. Unit Capacity Factor (Using MDC Net)	96.4%	46.3%	56.3%
22. Unit Capacity Factor (Using DER Net)	95.6%	45.9%	55.3%
23. Unit Forced Rate	3.8%	51.9%	21.6%
24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each):			

25. If Shut Down at End of Report Period Estimated Date of Startup: \_\_\_\_\_
26. Unit In Test Status (Prior to Commercial Operation): FORECAST ACHIEVED

INITIAL CRITICALITY	_____	_____
INITIAL ELECTRICITY	_____	_____
COMMERCIAL OPERATION	_____	_____

OPERATING DATA REPORT

DOCKET NO.: 50-281  
 DATE: 01/03/90  
 COMPLETED BY: L.A. Warren  
 TELEPHONE: (804)357-3184 x355

OPERATING STATUS

NOTES

1. Unit Name: Surry Unit 2
2. Reporting Period: Dec 01-31, 1989
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. Reason For Restrictions, If Any: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

	<u>THIS MONTH</u>	<u>YTD</u>	<u>CUMULATIVE</u>
11. Hours In Reporting Period	744.0	8760.0	146136.0
12. Number of Hours Reactor Was Critical	744.0	1504.3	91198.6
13. Reactor Reserve Shutdown Hours	0	0	328.1
14. Hours Generator On-Line	744.0	1355.9	89648.9
15. Unit Reserve Shutdown Hours	0	0	0
16. Gross Thermal Energy Generated (MWH)	1789591.0	2869898.7	209610334.8
17. Gross Electrical Energy Generated (MWH)	602620.0	944355.0	68080599.0
18. Net Electrical Energy Generated (MWH)	573084.0	893581.0	64540959.0
19. Unit Service Factor	100%	15.5%	61.3%
20. Unit Available Factor	100%	15.5%	61.3%
21. Unit Capacity Factor (Using MDC Net)	98.6	13.1%	56.7%
22. Unit Capacity Factor (Using DER Net)	97.8%	12.9%	56%
23. Unit Forced Rate	0	45.7%	15.7%
24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each):			

25. If Shut Down at End of Report Period Estimated Date of Startup: \_\_\_\_\_
26. Unit In Test Status (Prior to Commercial Operation): FORECAST ACHIEVED

INITIAL CRITICALITY \_\_\_\_\_  
 INITIAL ELECTRICITY \_\_\_\_\_  
 COMMERCIAL OPERATION \_\_\_\_\_

UNIT SHUTDOWN AND POWER REDUCTION

REPORT MONTH: DECEMBER 1989

DOCKET NO.: 50-280  
 UNIT NAME: Surry Unit 1  
 DATE: 01/03/90  
 COMPLETED BY: L.A. Warren  
 TELEPHONE: 804-357-3184 x355

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
C-10-5	12/21/89	F	27.9	A	2	89-044	EB	XFMR	Insulation blew off of the turbine building room and struck the high side lead of a reserve station service (RSS) transformer actuating pilot wire trip. #3 EDG started and loaded on 1J 4160 emergency bus. Ensuing transient caused IRPI rod bottom runback with questionable rod position indication. Reactor operator manually tripped reactor. Additional insulator stacks were added to the high side of a RSS transformer to support feeder cable.

- (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

UNIT SHUTDOWN AND POWER REDUCTION

REPORT MONTH: DECEMBER 1989

DOCKET NO.: 50-281  
 UNIT NAME: Surry Unit 2  
 DATE: 01/03/90  
 COMPLETED BY: L.A. Warren  
 TELEPHONE: 804-357-3184 x355

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
	12/22/89	F	0	A	4	N/A	AA	FU	Control rod D-4 dropped causing turbine runback. Fuse blew and was replaced.
	12/26/89	S	0	B	4	N/A	SG	COND	Ramped down to perform valve freedom test on main turbine and clean water-boxes.

(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

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO.: 50-280  
UNIT NAME: Surry Unit 1  
DATE: 01/03/90  
COMPLETED BY: L.A. Warren  
TELEPHONE: (804)357-3184 x355

MONTH: DECEMBER 1989

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	<u>791</u>	17	<u>793</u>
2	<u>792</u>	18	<u>793</u>
3	<u>791</u>	19	<u>766</u>
4	<u>790</u>	20	<u>793</u>
5	<u>792</u>	21	<u>725</u>
6	<u>792</u>	22	<u>0</u>
7	<u>791</u>	23	<u>558</u>
8	<u>790</u>	24	<u>786</u>
9	<u>789</u>	25	<u>790</u>
10	<u>791</u>	26	<u>790</u>
11	<u>791</u>	27	<u>786</u>
12	<u>792</u>	28	<u>785</u>
13	<u>791</u>	29	<u>787</u>
14	<u>791</u>	30	<u>789</u>
15	<u>791</u>	31	<u>786</u>
16	<u>792</u>		

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.



AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO.: 50-281  
UNIT NAME: Surry Unit 2  
DATE: 01/03/90  
COMPLETED BY: L.A. Warren  
TELEPHONE: (804)357-3184 x355

MONTH: DECEMBER 1989

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	<u>752</u>	17	<u>785</u>
2	<u>747</u>	18	<u>785</u>
3	<u>757</u>	19	<u>784</u>
4	<u>748</u>	20	<u>784</u>
5	<u>770</u>	21	<u>783</u>
6	<u>735</u>	22	<u>724</u>
7	<u>752</u>	23	<u>781</u>
8	<u>782</u>	24	<u>780</u>
9	<u>783</u>	25	<u>781</u>
10	<u>783</u>	26	<u>710</u>
11	<u>783</u>	27	<u>783</u>
12	<u>783</u>	28	<u>783</u>
13	<u>784</u>	29	<u>783</u>
14	<u>783</u>	30	<u>741</u>
15	<u>785</u>	31	<u>781</u>
16	<u>785</u>		

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.

SUMMARY OF OPERATING EXPERIENCE

MONTH/YEAR: DECEMBER 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

12/01/89 0000 This reporting period started with the Unit at 100% power, 830 MW.

12/19/89 1217 Started rampdown for PT-29.1, 100% power, 830 MW.  
1342 Stopped ramp, 85% power, 700 MW.  
1707 Started rampup, PT-29.1, 82.8% power, 700 MW.  
1937 Stopped ramp, Unit at 100% power, 830 MW.

12/21/89 2156 Reactor tripped, Unit off line. 'D' transfer bus lost 'A' reserve station service fault.

12/22/89 1759 Commenced reactor startup.  
2112 Tripped rods, 'D' bank overlap problems.  
2157 Commenced pulling rods, reactor startup.  
2243 Reactor critical.  
2310 Pressurizing main steam, reactor/plant startup. 2% power.

12/23/89 0151 Unit on line and ramping, 15% power, 40 MW.  
0259 Stopped ramp up, IRPI adjust, 30% power.  
0352 Started ramp up, IRPI adjust, 30% power.  
0517 Stopped ramp up, placed secondary systems in service 1-FW-P-1A, recirculation valve problems, 62% power, 490 MW.  
0541 Ramped down, 1B feed pump amps high.  
1158 Started rampup, 1-FW-P-1A started, 60.4% power, 480 MW.  
1234 Stopped rampup for PT-35, 70% power, 560 MW.  
1354 Started rampup.  
1518 Stopped rampup, polisher differential pressure high, 90.2% power, 735 MW.  
1549 Started rampup, polisher AOV bypass opened, 90.2% power, 735 MW.

SUMMARY OF OPERATING EXPERIENCE

MONTH/YEAR: DECEMBER 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

12/23/89	1602	Stopped ramp, Hi differential pressure polisher, 93% power, 770 MW.
	1816	Started rampup, differential pressure satisfied polisher, 93% power, 770 MW.
	1918	Stopped rampup, Unit at 100% power, 820MW.
12/24/89	0824	Started ramp down, Hi loop 'C' differential temperature, 830MW.
	0835	Stopped ramp, Hi differential temperature clear, #2 governor valve drifting, 98.5% power, 810 MW.
	0959	Started rampup
	1050	Stopped ramp, Unit at 100% power, 825MW.
12/31/89	2400	This reporting period ended with the Unit at 100%.

SUMMARY OF OPERATING EXPERIENCE

MONTH/YEAR: DECEMBER 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 TWO

12/01/89 0000 This reporting period begins with the unit at 98% power, 805MW. Power reduced due to limitations on condensate polisher differential pressure.

0910 Rampdown, removed 2D polisher, maintain differential pressure.

0950 Stopped ramp, polisher differential pressure = 35 psi, 95% power, 785MW.

12/02/89 2230 Started rampup, polisher strainers clean.

2310 Stopped ramp, polisher differential pressure = 42 psi, 97% power, 800MW.

12/03/89 1130 Started rampdown, polisher differential pressure high, 97.5% power 805MW.

1135 Stopped ramp, 43 psi polisher differential pressure, 96.5% power, 800MW.

2300 Ramped down, polisher differential pressure, 95.5% power, 790MW.

12/04/89 2045 Started rampup, polisher differential pressure good.

2225 Stopped ramp, reactor coolant differential temperature A & B high, 98.5% power, 805MW.

12/05/89 1650 Ramped up, differential temperature reset, 99% power, 810MW.

2105 Ramped up, polisher building 43 lbs, 100% power, 815MW.

12/06/89 1229 Started rampdown, clean waterboxes, 100% power, 820MW.

1323 Stopped rampdown, 'D' waterbox out of service, 88% power, 720MW.

12/07/89 0321 Started rampup, all waterboxes cleaned.

0418 Stopped ramp up, condensate polishing differential pressure 44 psi, 'C' loop differential temperature 102, 99% power, 820MW.

0630 Ramped down, condensate polishing differential pressure 43 psi, 97.5% power, 810MW.

## SUMMARY OF OPERATING EXPERIENCE

MONTH/YEAR: DECEMBER 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 TWO

12/08/89	0031	Ramped up, condensate polishing differential pressure good, 97.5% 800MW.
	0105	Stopped rampup, condensate polishing differential pressure 45 psi, 100% power, 825MW.
12/15/89	1443	Started rampdown to 99% power, Instrument tech. to work differential temperature on channels 2 and 3.
	1444	Stopped rampdown/started ramp up, differential temperature satisfactory, 99.5% power, 820MW.
	1450	Stopped ramp, unit at 100%, 825MW.
12/22/89	1705	Runback, dropped rod D-4.
	1718	Plant stable after runback, rod D-4 blown fuse, 57% power 420MW.
	1832	Pulled dropped rod, D-4 at 225 steps.
	1851	Started rampup.
	1928	Stopped rampup, adjust IRPIs, 67% power.
	1940	Started rampup, IRPIs adjusted.
	2130	Stopped ramp, Unit at 100% power, 815MW.
12/24/89	0831	Started rampdown, canal level decreasing, 825MW.
	0856	Stopped ramp, ice at low level/canal level stable, 98% power, 800MW.
	1006	Started rampup, canal level steady.
	1100	Stopped rampup, canal steady, 100% power, 825MW.
12/26/89	0934	Started rampdown, PT-29.1, waterbox cleaning.
	1041	Stopped rampdown, 85% power, 705MW.
	1258	Started rampdown, unable to remove 'D' waterbox.
	1328	Stopped rampdown, 'D' waterbox out of service.

SUMMARY OF OPERATING EXPERIENCE

MONTH/YEAR: DECEMBER 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 TWO

12/26/89	1950	Started rampup, PT-29.1 complete, 78% power, 660MW.
	2127	Stopped rampup, unit at 100% power, 825MW.
12/30/89	1150	Started rampdown, 'D' waterbox to be cleaned.
	1250	Stopped rampdown, 'D' waterbox out of service, 93% power, 755MW.
	1600	Ramping to maintain vacuum, 90% power, 740MW.
	1622	Started rampdown, instrument air loss at low level intake canal decreasing.
	1634	Stopped ramp, intake canal level high, 87% power, 710MW.
	1659	Started rampdown, maintain vacuum 'D' waterbox out of service.
	1720	Stopped ramp, condensate vacuum satisfactory, 83% power, 680MW.
	1950	Started rampup, 'D' waterbox returned to service, 700MW.
	2333	Stopped ramp, unit at 100% power, 830MW.
12/31/89	2400	This reporting period ended with the unit at 100% power.

FACILITY CHANGES THAT DID NOT REQUIRE NRC APPROVAL

MONTH/YEAR: DECEMBER 1989

SCAFFOLD REQUEST UNIT 2  
(Safety Evaluation #D89-0047)

12/05/89

This request will erect a temporary scaffold located in Unit 2 turbine building at elevation 9'6" between column T-58 and valve 2-SD-LCV-200D. The 6' x 6' (max) scaffold will be erected from the floor about 15' high and will be laterally supported from structural steel.

The temporary scaffold is required for safe working. The installation of scaffold constructed per SUADM-ADM-07 has a high confidence level against failure and was reviewed for effects on accident analyses and equipment operability function. It is concluded that assumptions, bases and probabilities of accident analyses and equipment malfunctions are not affected.

EWR-89-565 ENGINEERING WORK REQUEST UNIT 1

12/05/89

This EWR was written to eliminate periodic testing and calibration of 1-SW-RM-107 until the monitor was replaced.

Technical Specification required surveillance via grab sample is being performed. Since the monitor is not presently in service, and will be replaced by one of a different design, cessation of testing and calibration of the monitor did not create an unreviewed safety question.

S2-AC-89-1210 ADMINISTRATIVE CONTROL  
(Safety Evaluation #D89-0047A)

12/10/89

Administrative control was placed to document that the "C" main feed regulating valve will be jacked open and MOV-FW-254C will be throttled to control "C" S/G level.

An operator will be stationed at the "C" main feed regulating valve to shut the valve should feedwater isolation be required by an automatic signal. The operator will be in contact with the control room by way of 2 radios and will close the valve if required. Therefore, an unreviewed safety question is not created.

TM-S1-89-172 TEMPORARY MODIFICATION  
(Safety Evaluation #D89-0048)

12/12/89

This modification was to maintain circuit continuity during the replacement of the test switch PC-457D in accordance with Work Order #086994.

FACILITY CHANGES THAT DID NOT REQUIRE NRC APPROVAL

MONTH/YEAR: DECEMBER 1989

Failure of this temporary modification would result in loss of continuity to the safety injection (SI) master relay from the pressurizer low pressure Train 'A' function and result in loss of this function. Redundant low pressure SI actuation will be provided by Train 'B' low pressure SI and backup protection for a loss of cooling accident is provided by the hi consequence limiting safeguard and manual SI actuations. The jumpers will be installed to limit the possibility of an inadvertent safety injection, including precautions to prevent jumper slippage. The affected pressurizer pressure channel will be in tripped position during jumper installation. Since the affected channel is in trip and the remaining safety injection actuation logics and component actuations are unaffected by this change and remain operable, no unreviewed safety question is created.

EWR-89-628      ENGINEERING WORK REQUEST    UNIT 2      12/14/89

This EWR was required to document the change in reference value and maximum limiting stroke time of power operated valves in the inservice testing program as required by NRC recommendation.

This EWR provides a change to the reference values and maximum limiting stroke times to the Unit 2 power operated valves in the inservice testing program in accordance with the requirements of NRC Generic Letter 89-04. The maximum stroke times listed in the EWR have been reviewed and do not affect the results of the safety analysis, therefore an unreviewed safety question was not created.

TM-S1-89-176      TEMPORARY MODIFICATION      12/14/89  
(Safety Evaluation #D89-0049)

Relay 33XB1590 is energized and the normal state for present operating condition is de-energized. With an energized relay signal, contacts are made up to the high differential pressure safety injection signal A loop defeat ('B' Train) and steam generator low low level reactor trip 'A' loop defeat ('B' Train) because the signal implies that A loop hot leg stop valve is closed.

By lifting the lead to 33XB1590, the relay will be de-energized (normal state) and hi steam line differential pressure safety injection defeat and low low steam generator level reactor trip defeat signals will not be functional. However, the safety injection and reactor protection signals will not be affected. The hot leg loop stop valve interlock with the reactor coolant pump will also not be functional (i.e. 'A' reactor coolant pump would not trip if the logic required a 1590 close signal). However, technical specifications do not allow loop isolation for present operating conditions. Therefore, an unreviewed safety question was not created.



FACILITY CHANGES THAT DID NOT REQUIRE NRC APPROVAL

MONTH/YEAR: DECEMBER 1989

JCO-89-3-012 JUSTIFICATION OF CONTINUED OPERATION UNITS 1 & 2 12/19/89  
(Safety Evaluation #D89-0055)

This JCO was written to temporarily resolve the station deviation documenting that the backflow preventors are not installed in the emergency switchgear room (ESGR) floor drains as described in UFSAR Appendix 9C. A JCO is required to provide contingency actions until permanent repairs are made.

An unreviewed safety question is not created by this JCO as the contingency actions perform the same function as the backflow preventors which should be installed in the emergency switchgear room floor drains. This function is to prevent flooding of the ESGR from water entering the room through the floor drain system from the turbine building.

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

MONTH/YEAR: DECEMBER 1989

SPS-EOP

SURRY EMERGENCY OPERATING PROCEDURES REV 1A - UNITS 1&2 12/29/89  
(Safety Evaluation #D89-0065)

Changes to the EOPs is to conform to Rev. 1A of the Westinghouse Owners Group Emergency Response Guidelines and miscellaneous plant specific items.

The effectiveness of the EOPs have been demonstrated through the EOP validation program in accordance with VPAP-0506 "EOP Development, Revision and Maintenance". Therefore, the revision 1A to the EOPs do not constitute an unreviewed safety question.

TESTS AND EXPERIMENTS THAT DID NOT REQUIRE NRC APPROVAL

MONTH/YEAR: DECEMBER 1989

NONE DURING THIS REPORTING PERIOD

**VIRGINIA POWER  
SURRY POWER STATION  
CHEMISTRY REPORT**

**MONTH/YEAR: DECEMBER 1989**

PRIMARY COOLANT ANALYSIS	UNIT NO. 1			UNIT NO. 2		
	MAX.	MIN.	AVG.	MAX.	MIN.	AVG.
Gross Radioact., $\mu\text{Ci/ml}$	8.46E-1	7.45E-2	6.73E-1	2.75E-1	2.65E-2	2.11E-1
Suspended Solids, ppm	0.0	0.0	0.0	0.0	0.0	0.0
Gross Tritium, $\mu\text{Ci/ml}$	2.87E-1	1.78E-1	2.51E-1	2.42E-1	1.18E-1	1.94E-1
Iodine-131, $\mu\text{Ci/ml}$	3.74E-1	2.82E-3	4.05E-2	1.10E-3	2.79E-4	5.26E-4
Iodine-131/Iodine-133	0.17	0.09	0.12	0.27	0.08	0.12
Hydrogen, cc/kg	32.4	21.1	27.3	32.2	28.0	30.5
Lithium, ppm	2.34	2.06	2.21	2.34	2.06	2.18
Boron - 10, ppm*	146.8	99.8	115.7	199.7	181.5	189.3
Oxygen, (DO), ppm	0.005	0.005	0.005	0.005	0.005	0.005
Chloride, ppm	0.010	0.006	0.008	0.010	0.007	0.008
pH @ 25 degree Celsius	6.85	6.60	6.77	6.50	6.39	6.45

\* Boron - 10 = Total Boron x 0.196

**REMARKS:**

UNIT ONE: The month began with the unit at 100% with B Mixed Bed in service. On 12/19/89, the unit was ramped back to 83% for a valve freedom test. The reactor was tripped on 12/21 at 2156 due to rod bottom runback. The unit was returned to criticality on 12/22 at 2243. The unit reached 100% on 12/23 at 1918.

The following Lithium additions were made to the RCS: 350g on 12/03, 368g on 12/12, 340g on 12/18, 325g on 12/21, 470g on 12/23, 420g on 12/24, and 430g on 12/28.

UNIT TWO: The month began with the unit at 98% with B Mixed Bed in service. The power level was maintained at approximately 98% for the first half of the month due to problems with condensate polishing DP. On 12/06, the unit was ramped back to 88% to clean waterboxes. On 12/22, the unit automatically ramped down to approximately 60% from a turbine runback caused by a rod drop. On 12/26, the unit ramped down to 85% to clean waterboxes. The unit again ramped back to 93% for waterbox cleaning on 12/30. The power was reduced further to 83% to maintain condenser vacuum. The CAT Bed was placed in service for Lithium removal on 12/01, 12/06, 12/10, 12/15 and 12/21.

UNIT 1&2

FUEL HANDLING

DATE: DECEMBER 1989

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

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

MONTH/YEAR: DECEMBER 1989

NONE DURING THIS REPORTING PERIOD

**ATTACHMENT 2**

**CORRECTED PAGES**  
**SEPTEMBER, OCTOBER,**  
**& NOVEMBER, 1989**