VIRGINIA ELECTRIC AND POWER COMPANY
RICHMOND, VIRGINIA 23261

W. L. STEWART
VICE PRESIDENT
NUCLEAR OPERATIONS

August 15,1983

Mr. N. M. Haller, Director
Office of Management and Program Analysis
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Serial No. 469
NO/JHL:acm
Docket Nos. 50-338
50-339
License Nos. NPF-4
NPF-7

Dear Mr. Haller:

Enclosed is the Monthly Operating Report for North Anna Power Station Unit Nos. 1 and 2 for the month of July, 1983.

Very truly yours,

W. L. Stewart

Enclosure (3 copies)

cc: Mr. R. C. DeYoung, Director (12 copies)
Office of Inspection and Enforcement

Mr. James P. O'Reilly (1 copy)
Regional Administrator
Region II

Mr. M. B. Shymlock
NRC Resident Inspector
North Anna Power Station

IE24
1/1

VIRGINIA ELECTRIC AND POWER COMPANY

NORTH ANNA POWER STATION

MONTHLY OPERATING REPORT

MONTH July YEAR 1983

APPROVED:

STATION MANAGER

OPERATING DATA REPORT

DOCKET NO. 50-338
DATE 08-02-83
COMPLETED BY G. D. Schmitendorf
TELEPHONE (703) 894-5151 X2502

OPERATING STATUS

Notes

1. Unit Name: North Anna 1
2. Reporting Period: July 1983
3. Licensed Thermal Power (MWt): 2775
4. Nameplate Rating (Gross MWe): 947
5. Design Electrical Rating (Net MWe): 907
6. Maximum Dependable Capacity (Gross MWe): 930
7. Maximum Dependable Capacity (Net MWe): 877
8. If Changes Occur in Capacity Ratings (Items No. 3 thru 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

		This Month	Yr.-to-Date	Cumulative
11.	Hours In Reporting Period	744	5,087	45,168
12.	Number of Hours Reactor Was Critical	708.9	3,360.5	30,483.5
13.	Reactor Reserve Shutdown Hours	35.1	1,726.5	2,980.6
14.	Hours Generator On-Line	697.3	3,198.3	29,580.5
15.	Unit Reserve Shutdown Hours	0	0	0
16.	Gross Thermal Energy Generated (MWH)	1,846,960	8,447,334	76,707,688
17.	Gross Electrical Energy Generated (MWH)	614,160	2,821,055	24,605,587
18.	Net Electrical Energy Generated (MWH)	581,796	2,673,780	23,194,513
19.	Unit Service Factor	93.7	62.9	65.5
20.	Unit Availability Factor	93.7	62.9	65.5
21.	Unit Capacity Factor (Using MDC Net)	89.2	59.9	58.6
22.	Unit Capacity Factor (Using DER Net)	86.2	58.0	56.6
23.	Unit Forced Outage Rate	6.3	37.1	11.8

24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each):

Scheduled Maintenance, 10-07-83, 10 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

REPORT MONTH July

DOCKET NO. 50-338
UNIT NAME North Anna 1
DATE 08-02-83
COMPLETED BY G. D. Schmitendorf
TELEPHONE (703) 894-5151 X2502

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
83-05	830710	F	23.8	A	2	NA	NA	NA	Gland Steam Condenser tube leaks. Commenced rampdown to off-line; Conditions required a manual trip of turbine and reactor during rampdown. Repairs were made and the unit returned to on-line.
83-06	830723	F	22.9	A	1	NA	NA	NA	Gland Steam Condenser tube leaks. Commenced rampdown to off-line. A normal reactor shutdown was completed. Repairs were made and the unit returned to on-line.

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-Continuations
5-Load Reduction
9-Other

4
Exhibit F - Instructions for Preparation of Data Entry Sheets for Licensee Event Report (LER) File (NUREG-0161)

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Exhibit H - Same Source

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-338

UNIT NA-1

DATE 08-02-83

COMPLETED BY G. Schmitendorf

TELEPHONE 703-894-5151X2502

MONTH July

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	867	17	871
2	867	18	869
3	883	19	870
4	883	20	871
5	883	21	870
6	883	22	868
7	883	23	479
8	880	24	131
9	877	25	735
10	688	26	880
11	44	27	881
12	356	28	882
13	816	29	882
14	870	30	870
15	867	31	867
16	865		

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.

UNIT SHUTDOWN AND POWER REDUCTIONS

EXPLANATION SHEET DOCKET NO. 50-338

REPORT MONTH July UNIT NAME NA-1

YEAR 1983 DATE 08-02-83

COMPLETED BY G. D. Schmitendorf

83-05	(A)	(2)	At 1840 on July 10, 1983, a rampdown of Unit 1 from 100% power was commenced due to a tube leak in the Gland Steam Condenser. At 1842 the Turbine and Reactor were manually tripped, from approximately 90% power due to an increasing leak rate from the suspected tube rupture. The unit was stabilized in Mode 3 (Hot Standby) while the necessary repairs to the Gland Steam Condenser were made. The repairs were completed and the Unit returned to on-line at 1829 on July 11, 1983.
83-06	(A)	(1)	At 1230 on July 23, 1983, a rampdown of Unit 1 from 100% power was commenced due to a tube leak in the Gland Steam Condenser. The generator was taken off-line at 1417 and a reactor shutdown commenced at 1425 on July 23, 1983. The reactor shutdown was completed at 1440 on July 23,1983. The unit was stabilized in Mode 3 (Hot Standby) while the necessary repairs to the Gland Steam Condenser were made. The repairs were completed and the Unit returned to on-line at 1308 on July 24, 1983.

VIRGINIA ELECTRIC AND POWER COMPANY
NORTH ANNA POWER STATION

UNIT NO. 1

MONTH July

SUMMARY OF OPERATING EXPERIENCE

Listed below in chronological sequence is a summary of operating experiences for this month which required load reductions or resulted in significant non-load related incidents.

July 1, 1983	0000	This month begins with the unit stable at 100% power.
July 10,	1840	Commenced Unit rampdown to off-line due to Gland Steam Condenser tube leak.
	1842	Manually tripped the Turbine and Reactor due to water spraying out of condenser.
July 11,	1600	Commenced Reactor Start-up.
	1645	Reactor critical.
	1829	Generator on-line.
	2235	Unit stabilized at 30% power for secondary chemistry hold.
July 12,	0818	Released from secondary chemistry hold. Commenced increasing power (limited to 3%/hr).
July 13,	0942	Unit stable at 100% power.
July 23,	1230	Commenced Unit rampdown to off-line due to Gland Steam Condenser tube leak.
	1417	Generator off-line.
	1425	Commenced Reactor Shutdown.
	1440	Reactor Shutdown completed.
July 24	0257	Commenced Reactor Start-up.
	0322	Reactor critical.

	1308	Generator on-line.
	1411	Unit stabilized at 30% power for secondary chemistry hold.
	1615	Released from secondary chemistry hold. Commenced increasing power (limited to 3%/hr).
July 25	1545	Unit stable at 100% power.
July 31	2400	This month ends with the unit stable at 100% power.

OPERATING DATA REPORT

DOCKET NO. 50-339
DATE 08-02-83
COMPLETED BY G. D. Schmitendorf
TELEPHONE (703) 894-5151 X2502

OPERATING STATUS

Notes

1. Unit Name: North Anna 2
2. Reporting Period: July 1983
3. Licensed Thermal Power (MWt): 2775
4. Nameplate Rating (Gross MWe): 947
5. Design Electrical Rating (Net MWe): 907
6. Maximum Dependable Capacity (Gross MWe): 939
7. Maximum Dependable Capacity (Net MWe): 890
8. If Changes Occur in Capacity Ratings (Items No. 3 thru 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

	This Month	Yr.-to-Date	Cumulative
11. Hours In Reporting Period	744	5,087	23,039
12. Number of Hours Reactor Was Critical	722.2	3,492.2	15,995.3
13. Reactor Reserve Shutdown Hours	7.4	1,753.9	3,008
14. Hours Generator On-Line	712.1	3,409.4	15,862.1
15. Unit Reserve Shutdown Hours	0	0	0
16. Gross Thermal Energy Generated (MWH)	1,957,664	8,694,688	40,420,708
17. Gross Electrical Energy Generated (MWH)	638,605	2,832,629	13,421,942
18. Net Electrical Energy Generated (MWH)	604,940	2,679,062	12,728,680
19. Unit Service Factor	95.7	67.0	68.8
20. Unit Availability Factor	95.7	67.0	68.8
21. Unit Capacity Factor (Using MDC Net)	91.4	59.2	62.1
22. Unit Capacity Factor (Using DER Net)	89.6	58.1	60.9
23. Unit Forced Outage Rate	4.3	8.0	17.7

24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each):

Scheduled Maintenance, 11-18-83, 10 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

REPORT MONTH July

DOCKET NO. 50-339
UNIT NAME North Anna 2
DATE 08-02-83
COMPLETED BY G. D. Schmitendorf
TELEPHONE (703) 894-5151 X2502

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
83-12	830717	F	7.8	A	3	059	EB	GENERA	Loss of Vital Bus 2-I due to blown fuse on Vital Bus 2-I inverter. Reactor trip/turbine trip from 100% power. Repairs and check-outs of equipment completed. Unit returned to on-line.
83-13	830730	F	19.3	A	1	062	CB	VALVEX	Excessive Primary Plant leak rate (unidentified). Unit rampdown to off-line followed by normal reactor shutdown. Cause of the excessive leakage was determined and necessary repairs made. Unit returned to on-line.
83-14	830731	F	4.8	A	3	NA	NA	NA	High-High level "D" MSR turbine/ reactor trip caused by malfunction of "C" HP Heater Drain Tank high level divert valve. The problem was investigated, resolved, and unit returned to on-line.

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-Continuations
5-Load Reduction
9-Other

4
Exhibit F - Instructions for Preparation of Data Entry Sheets for Licensee Event Report (LER) File (NUREG-0161)

5
Exhibit H - Same Source

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-339

UNIT NA-2

DATE 08-02-83

COMPLETED BY G. Schmitendor

TELEPHONE 703-894-5151X2502

MONTH July

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	862	17	534
2	865	18	656
3	859	19	875
4	863	20	874
5	859	21	875
6	862	22	875
7	866	23	870
8	858	24	865
9	850	25	866
10	871	26	864
11	869	27	866
12	869	28	867
13	869	29	854
14	877	30	40
15	875	31	576
16	873		

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.

UNIT SHUTDOWN AND POWER REDUCTIONS

EXPLANATION SHEET DOCKET NO. 50-339

REPORT MONTH July UNIT NAME NA-2

YEAR 1983 DATE 08-02-83

COMPLETED BY G. D. Schmitendorf

83-12	(A)	(3)	At 1418 on July 17, 1983, with Unit 2 stable at 100% power, a Reactor/Turbine trip occurred due to a loss of Vital Bus 2-I. The loss of the Vital Bus was due to a blown fuse on Vital Bus 2-I Inverter. The Reactor Trip signal was "A" Reactor Coolant Pump breaker open, coincident with P-8 (> 30% power). The Reactor Coolant Pump breaker never opened; however, the relay used to sense the breaker position is powered by Vital Bus 2-I and fails to the safe (tripped) condition. The Vital Bus was restored from the alternate power source within several minutes of the unit trip. The Unit was stabilized in Mode 3 (Hot Standby) while repairs to the Vital Bus 2-I Inverter were made. The necessary repairs were completed and the unit returned to on-line at 2208 on July 17, 1983.
83-13	(A)	(1)	At 2157 on July 29, 1983, a rampdown of Unit 2 from 100% power was commenced due to a greater than allowed Primary Plant Leak Rate (unidentified). The unit was taken off-line at 0158 on July 30, 1983; followed by a normal Reactor Shutdown. The Reactor Shutdown was completed at 0224 on July 30, 1983. The excessive leakage was found to be from the valve stem leak-off line of MOV-2585. The packing of MOV-2585 was replaced. The Primary Plant Leak rate was reduced and the Unit returned to on-line at 2116 on July 30, 1983.
83-14	(A)	(3)	At 0142 on July 31, 1983, with the unit at approximately 60% power and a ramp-up to 100% power following a release from a secondary plant chemistry hold in progress, a Turbine/Reactor Trip occurred. The trip signal was High-High Level "D" MSR (one minute time delay) turbine trip. The high level was due to a malfunction of the "C" High Pressure Heater Drain Tank high level divert valve. The problem with the level control was investigated, resolved, and the Unit was returned to on-line at 0620 on July 31, 1983.

VIRGINIA ELECTRIC AND POWER COMPANY
NORTH ANNA POWER STATION

UNIT NO. 2

MONTH July

SUMMARY OF OPERATING EXPERIENCE

Listed below in chronological sequence is a summary of operating experiences for this month which required load reductions or resulted in significant non-load related incidents.

July 1, 1983	0000	This month begins with the unit stable at 100% power.
July 8,	0302	Commenced unit rampdown as per System Operator for load following.
	0331	Unit stabilized at 825MW as per System Operator.
	0500	Commenced unit ramp-up as per System Operator.
	0730	Unit stabilized at 100% power.
July 9,	0314	Commenced unit rampdown as power System Operator for load following.
	0414	Unit stabilized at 800 MW as per System Operator.
	0615	Commenced unit ramp-up as per System Operator
	0741	Unit stabilized at 100% power.
July 17,	1420	Reactor Trip. The trip was due to loss of Vital Bus 2-I caused by a blown fuse in Vital Bus 2-I Inverter.
	1422	Vital Bus 2-I energized via alternate power source.
	1816	Commenced Reactor Start-up.
	1908	Reactor critical
	2208	Generator on-line.

July 18,	0000	Unit stabilized at 30% power for secondary chemistry hold.
	0528	Released from secondary chemistry hold. Commenced increasing power.
	1111	Unit stable at 100% power.
July 29,	2157	Commenced Unit rampdown to off-line due to Primary Plant leak rate (unidentified), greater than allowable.
July 30,	0158	Generator off-line.
	0212	Commenced Reactor Shutdown.
	0224	Reactor Shutdown completed.
	1342	Commenced Reactor Start-up.
	1405	Reactor Critical.
	1645	Reactor Trip. The trip was due to a First Stage Pressure spike while transferring from throttle valve to governor valve control of the turbine.
	1715	Commenced Reactor Start-up.
July 30,	1824	Reactor Critical.
	1857	Reactor Trip. The trip was due to a First Stage Pressure spike while transferring from throttle valve to governor valve control of the turbine.
	1915	Commenced Reactor start-up.
	1947	Reactor Critical.
	2116	Generator on-line.
	2205	Unit stabilized at 30% power for secondary chemistry hold.
July 31,	0035	Released from secondary chemistry hold. Commenced increasing power.
	0142	Reactor trip. The trip was due to High-High Level "D" MSR caused by a malfunction of "C" High Pressure Heater Drain Tank high level divert valve. The unit was at approximately 60% power at the time of the trip.

0358	Commenced Reactor Start-up.
0420	Reactor Critical.
0628	Generator on-line.
0645	Secondary chemistry is within specifications, no chemistry hold is necessary. Commence ramp-up to 100% power.
1215	Unit stable at 100% power.
2400	This month ends with the unit stable at 100% power.