

OPERATING DATA REPORT

DOCKET NO. 50-317
DATE 11/15/79
COMPLETED BY S. D. Merson
TELEPHONE 301-236-5240

OPERATING STATUS

1. Unit Name: Calvert Cliffs No. 1
2. Reporting Period: October, 1979
3. Licensed Thermal Power (MWt): 2,700
4. Nameplate Rating (Gross MWe): 918
5. Design Electrical Rating (Net MWe): 845
6. Maximum Dependable Capacity (Gross MWe): 845
7. Maximum Dependable Capacity (Net MWe): 810
8. If Changes Occur in Capacity Ratings (Items Number 3 Through 7) Since Last Report, Give Reasons:

Notes

9. Power Level To Which Restricted, If Any (Net MWe): 790 MWE
10. Reasons For Restrictions, If Any: Blade problems in the high-pressure turbine.

	This Month	Yr.-to-Date	Cumulative
11. Hours In Reporting Period	<u>745</u>	<u>7,296</u>	<u>39,301</u>
12. Number Of Hours Reactor Was Critical	<u>736.5</u>	<u>4,895.8</u>	<u>30,984.4</u>
13. Reactor Reserve Shutdown Hours	<u>8.5</u>	<u>158.1</u>	<u>1,051.7</u>
14. Hours Generator On-Line	<u>723.1</u>	<u>4,703.7</u>	<u>30,248.7</u>
15. Unit Reserve Shutdown Hours	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>
16. Gross Thermal Energy Generated (MWH)	<u>1,816,240.8</u>	<u>11,750,748.4</u>	<u>73,020,952.8</u>
17. Gross Electrical Energy Generated (MWH)	<u>571,736</u>	<u>3,724,229</u>	<u>24,110,564</u>
18. Net Electrical Energy Generated (MWH)	<u>545,313</u>	<u>3,541,665</u>	<u>22,996,653</u>
19. Unit Service Factor	<u>97.1</u>	<u>64.5</u>	<u>77.0</u>
20. Unit Availability Factor	<u>97.1</u>	<u>64.5</u>	<u>77.0</u>
21. Unit Capacity Factor (Using MDC Net)	<u>90.4</u>	<u>59.9</u>	<u>72.2</u>
22. Unit Capacity Factor (Using DER Net)	<u>86.6</u>	<u>57.4</u>	<u>69.2</u>
23. Unit Forced Outage Rate	<u>2.9</u>	<u>17.6</u>	<u>9.4</u>

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

Calvert Cliffs No. 1 is scheduled for a planned outage starting April 19, 1979, and will be six weeks in duration for general inspection and refueling.

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

1398 331
7911270 434 (9/77)

OPERATING DATA REPORT

DOCKET NO. 50-318
 DATE 11/15/79
 COMPLETED BY S. D. Merson
 TELEPHONE 301-236-5240

OPERATING STATUS

1. Unit Name: Calvert Cliffs No. 2
2. Reporting Period: October, 1979
3. Licensed Thermal Power (MWt): 2,700
4. Nameplate Rating (Gross MWe): 911
5. Design Electrical Rating (Net MWe): 845
6. Maximum Dependable Capacity (Gross MWe): 845
7. Maximum Dependable Capacity (Net MWe): 810
8. If Changes Occur in Capacity Ratings (Items Number 3 Through 7) Since Last Report, Give Reasons:

Notes

9. Power Level To Which Restricted, If Any (Net MWe):
10. Reasons For Restrictions, If Any:

	This Month	Yr.-to-Date	Cumulative
11. Hours In Reporting Period	745	7,246	22,656
12. Number Of Hours Reactor Was Critical	281.0	6,305.6	19,298.1
13. Reactor Reserve Shutdown Hours	4.0	193.7	413.1
14. Hours Generator On-Line	281.0	6,190.1	19,001.9
15. Unit Reserve Shutdown Hours	0.0	0.0	0.0
16. Gross Thermal Energy Generated (MWH)	723,480.0	15,948,715.2	46,832,731.8
17. Gross Electrical Energy Generated (MWH)	237,620	5,277,828	15,531,900
18. Net Electrical Energy Generated (MWH)	225,114	5,040,602	14,808,631
19. Unit Service Factor	37.7	84.8	83.9
20. Unit Availability Factor	37.7	84.8	83.9
21. Unit Capacity Factor (Using MDC Net)	37.3	85.3	80.7
22. Unit Capacity Factor (Using DER Net)	35.8	81.8	77.4
23. Unit Forced Outage Rate	1.4	6.2	6.0
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: November 26, 1979

26. Units In Test Status (Prior to Commercial Operation):	Forecast	Achieved
INITIAL CRITICALITY	_____	_____
INITIAL ELECTRICITY	_____	_____
COMMERCIAL OPERATION	_____	_____

UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH October, 1979

DOCKET NO. 50-317
 UNIT NAME Calvert Cliffs #1
 DATE 11/15/79
 COMPLETED BY S.D. Merson
 TELEPHONE 301-234-5240

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
79-12	791006	F	6.3	A	3	N/A	CH	PUMPXX	Reactor tripped on low steam generator level due to loss of power to the speed control circuit of No. 12 generator feed pump.
79-13	791014	F	8.0	A	1	N/A	CH	PIPEXX	Unit tripped due to a steam leak on extraction steam line to No. 15 A & B feedwater heaters.
79-14	791025	F	7.6	A	2	N/A	HC	PUMPXX	Reactor tripped due to loss of power to circulating water pumps.

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)

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UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH October, 1979

DOCKET NO. 50-318
UNIT NAME Calvert Cliffs #2
DATE 11/15/79
COMPLETED BY S.D. Merson
TELEPHONE 301-234-5240

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
79-16	791012	F	4.0	B	3	N/A	ZZ	ZZZZZZ	Unit tripped while performing low vacuum trip test.
79-17	791012	S	460.00	C	4	N/A	RC	FUELXX	Reactor refueling and unit general inspection. Plant was already shut down due to unit trip as stated above.

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)

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AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-317
UNIT Calvert Cliffs#1
DATE 11/15/79
COMPLETED BY S.D. Merson
TELEPHONE 301-234-5240

MONTH October, 1979

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	<u>790</u>
2	<u>717</u>
3	<u>678</u>
4	<u>664</u>
5	<u>715</u>
6	<u>439</u>
7	<u>668</u>
8	<u>686</u>
9	<u>684</u>
10	<u>697</u>
11	<u>757</u>
12	<u>813</u>
13	<u>813</u>
14	<u>393</u>
15	<u>794</u>
16	<u>743</u>

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
17	<u>789</u>
18	<u>826</u>
19	<u>820</u>
20	<u>826</u>
21	<u>824</u>
22	<u>822</u>
23	<u>823</u>
24	<u>823</u>
25	<u>442</u>
26	<u>725</u>
27	<u>728</u>
28	<u>788</u>
29	<u>798</u>
30	<u>799</u>
31	<u>796</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.

(9/77)

1398 335

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-318

UNIT Calvert Cliffs #2

DATE 11/15/79

COMPLETED BY S. D. Vernon

TELEPHONE 301-234-5240

MONTH October, 1979

DAY AVERAGE DAILY POWER LEVEL
(MWe-Net)

1	791
2	831
3	834
4	698
5	833
6	830
7	840
8	839
9	841
10	810
11	770
12	535
13	-
14	-
15	-
16	-

DAY AVERAGE DAILY POWER LEVEL
(MWe-Net)

17	-
18	-
19	-
20	-
21	-
22	-
23	-
24	-
25	-
26	-
27	-
28	-
29	-
30	-
31	-

INSTRUCTIONS

On this format, list the average daily unit power level in MWe-Net for each day in the reporting month. Compute to the nearest whole megawatt.

(9/77)

1398 336

11/12/79

REFUELING INFORMATION REQUEST

1. Name of Facility: Calvert Cliffs Nuclear Power Plant, Unit No. 1
2. Scheduled date for next Refueling Shutdown: April 19, 1980
3. Scheduled date for restart following refueling: May 29, 1980
4. Will refueling or resumption of operation thereafter require a technical specification change or other license amendment?

Resumption of operation after refueling will require changes to Technical Specifications. The changes will be such as to allow operation of the plant with a fresh reload batch and reshuffled core.

5. Scheduled date(s) for submitting proposed licensing action and supporting information.

February 22, 1980

6. Important licensing considerations associated with refueling.

Reload fuel will be similar to that reload fuel inserted into the previous cycle.

7. The number of fuel assemblies (a) in the core and (b) in the spent fuel storage pool.

(a) 217

(b) 364**

Spent Fuel Pools are common to Units 1 and 2.

8. The present licensed spent fuel pool storage capacity and the size of any increase in licensed storage capacity that has been requested or is planned, in number of fuel assemblies.

1056 Licensed

728 Currently Installed

650 Addition is Planned.

9. The projected date of the last refueling that can be discharged to the Spent Fuel Pool assuming the present licensed capacity.

October, 1983.

**Information changed since last month.

1398 337

REFUELING INFORMATION REQUEST

1. Name of Facility: Calvert Cliffs Nuclear Power Plant, Unit No. 2
2. Scheduled date for next refueling shutdown: October 14, 1979
3. Scheduled date for restart following refueling: November 21, 1979
4. Will refueling or resumption of operation thereafter require a technical specification change or other license amendment?

A preliminary review of the design and safety analysis indicate that no changes to the Technical Specification or other amendments are required and that there will be no unreviewed safety questions as defined by 10 CFR 50.59 involved with this reload core design.
5. Scheduled date(s) for submitting proposed licensing action and supporting information.

August 22, 1979 (if required).
6. Important licensing considerations associated with refueling.

None, reload fuel will be identical to that reload fuel inserted in the previous cycle.
7. The number of fuel assemblies (a) in the core and (b) in the Spent Fuel Storage Pool.

(a) 217 (b) 364**

Spent Fuel Pools are common to Units 1 and 2.
8. The present licensed spent fuel pool storage capacity and the size of any increase in licensed storage capacity that has been required or is planned, in number of fuel assemblies.

1056 Licensed
728 Currently Installed
650 Addition is Planned
9. The projected date of the last refueling that can be discharged to the Spent Fuel Pool assuming the present licensed capacity.

October, 1983

**Information has changed since last month.

1398 338

SUMMARY OF UNIT 1 OPERATING EXPERIENCE - OCTOBER 1979

- 10/1 At the beginning of this reporting period, Unit 1 was operating at 845 MWe with the Reactor at 100% power. At 2250 reduced load to 735 MWe to investigate salt water leakage into the main condenser. Located and plugged one leaking tube.
- 10/2 Increased load to capacity (845 MWe) at 0930. Reduced load to 685 MWe at 1800 to investigate salt water leakage into the main condenser. Three leaking condenser tubes were plugged.
- 10/6 At 1208 the Reactor tripped on low steam generator level due to loss of power to the speed control circuit of #12 Steam Generator Feed Pump. The Reactor was brought critical at 1525 and the unit paralleled at 1824. Load was limited to 675 MWe at 2145 to investigate salt water leakage into the main condenser. Two leaking condenser tubes were plugged.
- 10/8 Started increasing power and at 0800 load was limited to 715 MWe to investigate salt water leakage into the main condenser.
- 10/11 After plugging one condenser tube, started increasing load and at 1200 load was limited to 635 MWe due to the approach to core power distribution limits.
- 10/12 Increased load to capacity (845 MWe) at 0200.
- 10/14 Began reducing load at 0700 to repair a steam leak on the Extraction Steam Line to #15 A & B Feedwater Heaters. The unit was taken off the line at 1149. At 1950 the unit was paralleled.
- 10/15 Increased load to capacity (845 MWe) at 1900.
- 10/16 At 0500 load was reduced to 745 MWe to investigate salt water leakage into the main condenser.

SUMMARY OF UNIT 1 OPERATING EXPERIENCE - OCTOBER 1979

- 10/17 Resumed full load operation (845 MWe) at 1500, after plugging one condenser tube.
- 10/25 The Reactor was manually tripped at 1103 due to loss of excitation to all Unit 1 Main Circulating Water Pumps. At 1615, the Reactor was brought critical and the unit was paralleled at 1843. Started increasing load and at 2300 load was limited to 735 MWe to investigate salt water leakage into the main condenser.
- 10/27 Began increasing power after plugging one condenser tube and at 2100 load was limited to 825 MWe due to the approach to core power distribution limits.
- 10/30 Load was increased to 835 MWe at 0000.
- 10/31 At the end of this reporting period, Unit 1 was operating at 835 MWe with the Reactor at 97% power, power being limited by core power distribution limits.

1398 340

SUMMARY OF UNIT 2 OPERATING EXPERIENCE - OCTOBER 1979

- 10/1 At the beginning of the reporting period Unit 2 was operating at 865 MWe with the Reactor at 100% power. At 2250 load was reduced to 735 MWe to investigate salt water leakage into the main condenser.
- 10/2 Resumed full load operation (865 MWe) at 0245, after plugging one condenser tube.
- 10/4 At 0228 Control Element Assembly (CEA) #1 dropped into the Core. Reactor power was immediately reduced to less than 70% in accordance with the Technical Specifications. CEA #1 was withdrawn back to its group at 0328. Began increasing power and at 2130 load was limited to 785 MWe due to the approach to core power distribution limits.
- 10/5 Increased load to capacity (875 MWe) at 0230.
- 10/10 Reduced load to 825 MWe due to the ETS 120°F limit on main condenser circulating water ΔT .
- 10/12 At 1701 the turbine tripped while conducting turbine low vacuum trip test. The Reactor tripped on loss of load. Commenced refueling outage at this time.
- 10/13 The Unit was in cold shutdown at 1121.
- 10/19 The Reactor Vessel Head was removed at 0230.
- 10/26 Refueling Operations were commenced at 0304.
- 10/31 At the end of this reporting period Unit 2 was shutdown for its second scheduled refueling outage.

SAFETY-RELATED MAINTENANCE

UNIT I
 GROUP I&C SHOP
 MONTH October YEAR 1979

SYSTEM OR COMPONENT	MR NO. - DATE	MALFUNCTION		CORRECTIVE ACTION
		CAUSE	RESULT	
Engineering Safety Features Actuation System/Steam Generator Isolation Signal Block	IC-79-103 8/1/79	Defective signal isolator	Block would not actuate	Replaced the isolator
#12 Steam Generator Pressure Indication 1-PI-1023C	0-79-2716 9/7/79	Dirty loop resistor terminals	Greater than 22 pound deviation between channel 'C' and the other three channels	Cleaned the loop resistor terminals
Engineering Safety Features Actuation System/#12 Steam Generator Isolation Signal Block Bistable Channel ZG	LC-79-075 9/10/79	Defective voltmeter on module	Meter sticks and will not respond	Replaced voltmeter
#11 Emergency Core Cooling System/Room Air Temperature Cooler/Temperature Controls 1-TC-5404	0-79-2096 9/5/79	Broken flapper arm on 1-TC-5404 temperature controller	Fan running and salt water valves open	Replaced flapper arm

1298 3A2

SAFETY-RELATED MAINTENANCE

UNIT I
 GROUP I&C
 MONTH October YEAR 1979

SYSTEM OR COMPONENT	MR NO. - DATE	MALFUNCTION		CORRECTIVE ACTION
		CAUSE	RESULT	
#12 Switchgear Air Conditioner	0-77-4318 8/24/79	Defective solenoid valve	The outside air damper would not open and unit was running when it should have been shut down	Replaced solenoid valve

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SAFETY-RELATED MAINTENANCE

UNIT II

GROUP I&C SHOP

MONTH October YEAR 1979

SYSTEM OR COMPONENT	MR NO. - DATE	MALFUNCTION		CORRECTIVE ACTION
		CAUSE	RESULT	
Reactor Protective System/Steam Generator Pressure Trip Module Channel 'A'	IC-79-2079 8/15/79	Broken spring on push-button reset assembly	Lights on trip module would not illuminate when a pretrip or trip occurred	Replaced trip module
Safety Injection Tank/ Bleed Off To Reactor Coolant Drain Tank Valve/2-CV-661	0-79-1737 7/31/79	Defective micro-switch, for position indication	Valve position indication would not indicate the actual valve position	Replaced the defective micro-switch
Refueling Water Tank/ Level Indication 2-LI-4142	IC-78-188 7/25/79	Defective voltage to current convertor and power supply	Narrow range level indication would not indicate properly	Replaced voltage to current converter and power supply
Safety Injection Tank Loop 12A Check Valve Leakage Isolation Valve 2-CV-638	0-79-1847 7/30/79	Positioning arm for the open-close position indication was out of adjustment	Intermediate position indication when the handswitch was in shut position	Adjusted the positioning arm

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SAFETY-RELATED MAINTENANCE

UNIT II

GROUP I&C SHOP

MONTH October YEAR 1979

SYSTEM OR COMPONENT	MR NO. - DATE	MALFUNCTION		CORRECTIVE ACTION
		CAUSE	RESULT	
Safety Injection Tank Check Valve Leakage Drain Valve 2-CV-618	0-79-1403 7/31/79	Positioner torque motor spring was disconnected and defective air supply regulator	Valve was full open with only a 20% open signal	Reconnected positioner torque motor spring and replaced the air supply regulator
Demineralized Water To Charging Pump Suction Valve 2-CV-210X	0-79-2300 7/28/79	Linkage from valve positioner was out of adjustment and output from controller to the solenoid had broken loose	Valve would not control properly	Adjusted linkage and reconnected output from controller to solenoid
Reactor Protective System Rod Drop Circuit Channel 'A'	0-79-2531 8/22/79	Defective rod drop assembly circuit card	Rod drop bistable in tripped condition for no apparent reason	Replaced defective circuit card

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SAFETY-RELATED MAINTENANCE

UNIT I

GROUP ELECTRIC SHOP

MONTH October YEAR 1979

SYSTEM OR COMPONENT	MR NO. - DATE	MALFUNCTION		CORRECTIVE ACTION
		CAUSE	RESULT	
High Pressure Safety Injection Loop 11A Isolation Valve 1-MOV-617	E-79-172 9/24/79	Movable contact for valve operator motor was misaligned	Motor operator was single phasing when valve was opening	Adjusted the movable contact
Containment Spray Pump Motor #12	E-79-167 9/17/79	Motor winding was rubbing against a stationary part of the motor	Caused an insulation break down and resulted in the motor burning up	Replaced motor with new one
Main Steam Isolation Valve Hydraulic Package #12/#12 High Pressure Pump	0-79-3020 10/8/79	The pump unloader valve, solenoid coil had burned up	Control fuse in pump breaker blew preventing the pump from starting	Replaced solenoid valve coil and control fuse
Service Water Cooling System/#13 Service Water Pump	0-79-2930 9/24/79	Defective auxiliary switch in motor breaker	Pump would not start when it received a safety injection actuation signal	Replaced defective switch

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SAFETY-RELATED MAINTENANCE

UNIT I

GROUP ELECTRIC SHOP

MONTH October YEAR 1979

SYSTEM OR COMPONENT	MR NO. - DATE	MALFUNCTION		CORRECTIVE ACTION
		CAUSE	RESULT	
#11 Main Steam Isolation Valve Hydraulic Package/#12 High Pressure Pump	0-79-2782 9/11/79	Defective solenoid valve coil in the pump unloader valve	Motor breaker control fuses kept blowing preventing motor from starting	Replaced solenoid coil
#11 Emergency Diesel Generator	0-79-2266 7/24/79	Transformer T-54 primary side was grounded	When diesel generator was started smoke came from control cabinet	Replaced the transformer T-54
1398 547				

SAFETY-RELATED MAINTENANCE

UNIT II
GROUP ELECTRIC SHOP
MONTH October YEAR 1979

SYSTEM OR COMPONENT	MR NO. - DATE	MALFUNCTION		CORRECTIVE ACTION
		CAUSE	RESULT	
#21 Charging Pump Breaker	0-79-2799 9/13/79	Loose fuse holder	Pump motor breaker would not trip remotely.	Adjusted the fuse clip for a tight connection
#23 Containment Iodine Removal Unit/ #24 Bus Disconnect	0-79-2722 9/7/79	Closing coil was burned up	The disconnect would not close from remote switch	Replaced the de- fective coil
1398 348				

SAFETY-RELATED MAINTENANCE

UNIT IIGROUP MACHINE SHOPMONTH October YEAR 1979

SYSTEM OR COMPONENT	MR NO. - DATE	MALFUNCTION		CORRECTIVE ACTION
		CAUSE	RESULT	
#22 Service Water Heat Exchanger Saltwater Inlet Valve 2-CV-5152	0-79-2667 9/5/79	Mechanical binding	Valve would not open fully	Shimmed between actuator and valve to allow smooth operation of valve
#21 Charging Pump	0-79-2568 8/24/79	Cyclic fatigue	Excessive packing leakage	Replaced packing, plungers, and associated seals
#21 Main Steam Isolation Valve	0-79-1680 8/1/79	2-SV-4044 was sticking	#21 main steam isolation took too long to close during partial stroke test	Replaced 2-SV-4044 with new solenoid valve

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