

# OPERATING DATA REPORT

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

## OPERATING STATUS

1. Unit Name: Calvert Cliffs No. 1
2. Reporting Period: December, 1978
3. Licensed Thermal Power (MWt): 2700
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): None
10. Reasons For Restrictions, If Any: N/A

	This Month	Yr.-to-Date	Cumulative
11. Hours In Reporting Period	<u>744</u>	<u>8,760</u>	<u>32,005</u>
12. Number Of Hours Reactor Was Critical	<u>449.1</u>	<u>6,385.0</u>	<u>26,088.6</u>
13. Reactor Reserve Shutdown Hours	<u>294.9</u>	<u>355.7</u>	<u>893.6</u>
14. Hours Generator On-Line	<u>390.5</u>	<u>6,153.3</u>	<u>25,545.0</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>967,632.0</u>	<u>11,801,279.8</u>	<u>61,270,201.1</u>
17. Gross Electrical Energy Generated (MWH)	<u>327,748</u>	<u>4,911,392</u>	<u>20,386,335</u>
18. Net Electrical Energy Generated (MWH)	<u>310,363</u>	<u>4,676,123</u>	<u>19,454,988</u>
19. Unit Service Factor	<u>52.5</u>	<u>70.2</u>	<u>79.8</u>
20. Unit Availability Factor	<u>52.5</u>	<u>70.2</u>	<u>79.8</u>
21. Unit Capacity Factor (Using MDC Net)	<u>51.5</u>	<u>65.9</u>	<u>75.0</u>
22. Unit Capacity Factor (Using DER Net)	<u>49.4</u>	<u>63.2</u>	<u>72.9</u>
23. Unit Forced Outage Rate	<u>47.5</u>	<u>13.0</u>	<u>7.7</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 14, 1979  
and will be six week's in duration for general inspection and refueling.

25. If Shut Down At End Of Report Period, Estimated Date of Startup: 1/20/79

26. Units In Test Status (Prior to Commercial Operation):

INITIAL CRITICALITY  
 INITIAL ELECTRICITY  
 COMMERCIAL OPERATION

Forecast Achieved  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

7901190054

(9/77)



# OPERATING DATA REPORT

DOCKET NO. 50-318  
DATE 1/15/79  
COMPLETED BY S. D. Merson  
TELEPHONE 301-234-5240

## OPERATING STATUS

1. Unit Name: Calvert Cliffs No. 2
2. Reporting Period: December, 1978
3. Licensed Thermal Power (MWt): 2700
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): None
10. Reasons For Restrictions, If Any: N/A

	This Month	Yr.-to-Date	Cumulative
11. Hours In Reporting Period	<u>744</u>	<u>8,760</u>	<u>15,360</u>
12. Number Of Hours Reactor Was Critical	<u>734.5</u>	<u>7,233.6</u>	<u>12,992.5</u>
13. Reactor Reserve Shutdown Hours	<u>0.0</u>	<u>72.5</u>	<u>219.4</u>
14. Hours Generator On-Line	<u>730.2</u>	<u>7,134.7</u>	<u>12,811.8</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>1,873,968.0</u>	<u>16,554,823.8</u>	<u>30,884,016.6</u>
17. Gross Electrical Energy Generated (MWH)	<u>632,018</u>	<u>5,499,690</u>	<u>10,254,072</u>
18. Net Electrical Energy Generated (MWH)	<u>605,236</u>	<u>5,226,675</u>	<u>9,768,029</u>
19. Unit Service Factor	<u>98.1</u>	<u>81.4</u>	<u>83.4</u>
20. Unit Availability Factor	<u>98.1</u>	<u>81.4</u>	<u>83.4</u>
21. Unit Capacity Factor (Using MDC Net)	<u>100.4</u>	<u>73.7</u>	<u>78.5</u>
22. Unit Capacity Factor (Using DER Net)	<u>96.3</u>	<u>70.6</u>	<u>75.3</u>
23. Unit Forced Outage Rate	<u>1.9</u>	<u>7.0</u>	<u>5.9</u>

24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each):  
Calvert Cliffs No. 2 is scheduled for a planned outage starting February 25, 1979,  
and will be one week in duration to test safety related snubbers.

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	_____	_____



# AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-317

UNIT Calvert Cliffs #1

DATE 1/15/79

COMPLETED BY S. D. Merson

TELEPHONE 301-234-5240

MONTH December, 1978

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	<u>732</u>
2	<u>827</u>
3	<u>827</u>
4	<u>824</u>
5	<u>821</u>
6	<u>823</u>
7	<u>821</u>
8	<u>817</u>
9	<u>787</u>
10	<u>834</u>
11	<u>822</u>
12	<u>817</u>
13	<u>233</u>
14	<u>782</u>
15	<u>784</u>
16	<u>849</u>

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
17	<u>660</u>
18	<u>-</u>
19	<u>-</u>
20	<u>-</u>
21	<u>-</u>
22	<u>-</u>
23	<u>-</u>
24	<u>-</u>
25	<u>-</u>
26	<u>-</u>
27	<u>-</u>
28	<u>-</u>
29	<u>-</u>
30	<u>-</u>
31	<u>-</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. 50-318

UNIT Calvert Cliffs #2

DATE 1/15/79

COMPLETED BY S. D. Merson

TELEPHONE 301-234-5240

MONTH December, 1978

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	<u>845</u>
2	<u>837</u>
3	<u>699</u>
4	<u>845</u>
5	<u>845</u>
6	<u>851</u>
7	<u>849</u>
8	<u>837</u>
9	<u>842</u>
10	<u>733</u>
11	<u>838</u>
12	<u>852</u>
13	<u>841</u>
14	<u>843</u>
15	<u>844</u>
16	<u>846</u>

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
17	<u>846</u>
18	<u>847</u>
19	<u>846</u>
20	<u>844</u>
21	<u>843</u>
22	<u>845</u>
23	<u>851</u>
24	<u>859</u>
25	<u>232</u>
26	<u>769</u>
27	<u>805</u>
28	<u>842</u>
29	<u>848</u>
30	<u>850</u>
31	<u>850</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.



## UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH December, 1978

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

No.	Date	Type <sup>1</sup>	Duration (Hours)	Reason <sup>2</sup>	Method of Shutting Down Reactor <sup>3</sup>	Licensee Event Report #	System Code <sup>4</sup>	Component Code <sup>5</sup>	Cause & Corrective Action to Prevent Recurrence
78-18	121378	F	12.4	G	3	N/A	ZZ	ZZZZZZ	Forced outage due to an operational error when No. 11 precoat filter drain valve was opened. This resulted in the tripping of No. 11 and No. 12 steam generator feed pumps due to low suction pressure. Low steam generator level caused a reactor trip.
78-19	121778	F	341.1	A	3	N/A	HA	ZZZZZZ	Forced outage due to vibration on the high-pressure turbine.

<sup>1</sup>  
 F: Forced  
 S: Scheduled

<sup>2</sup>  
 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)

<sup>3</sup>  
 Method:  
 1-Manual  
 2-Manual Scram.  
 3-Automatic Scram.  
 4-Other (Explain)

<sup>4</sup>  
 Exhibit G - Instructions  
 for Preparation of Data  
 Entry Sheets for Licensee  
 Event Report (LER) File (NUREG-  
 0161)

<sup>5</sup>  
 Exhibit I - Same Source



## UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH December, 1978

DOCKET NO. 50-318  
 UNIT NAME Calvert Cliffs No. 2  
 DATE 1/15/79  
 COMPLETED BY S. D. Merson  
 TELEPHONE 301-234-5240

No.	Date	Type <sup>1</sup>	Duration (Hours)	Reason <sup>2</sup>	Method of Shutting Down Reactor <sup>3</sup>	Licensee Event Report #	System Code <sup>4</sup>	Component Code <sup>5</sup>	Cause & Corrective Action to Prevent Recurrence
78-21	122578	F	13.8	A	1	78-050	CB	PIPEXX	Forced outage due to excessive reactor coolant leakage caused by a cracked weld on No. 21A Reactor coolant pump's upper seal pressure sensing line.

<sup>1</sup>  
 F: Forced  
 S: Scheduled

<sup>2</sup>  
 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)

<sup>3</sup>  
 Method:  
 1-Manual  
 2-Manual Scram.  
 3-Automatic Scram.  
 4-Other (Explain)

<sup>4</sup>  
 Exhibit G - Instructions  
 for Preparation of Data  
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 0161)

<sup>5</sup>  
 Exhibit I - Same Source



1/11/79

REFUELING INFORMATION REQUEST

1. Name of Facility

Calvert Cliffs Nuclear Power Plant, Unit No. 1

2. Scheduled date for next Refueling Shutdown

April 14, 1979

3. Scheduled date for restart following refueling

May 22, 1979

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, 1979 \*\*

6. Important licensing considerations associated with refueling.

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

Selected fuel assemblies will be modified by installation of sleeves in the Guide Tubes.

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

- (a) 217
- (b) 228\*

\* 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 which has changed since last monthly report.



1/11/79

REFUELING INFORMATION REQUEST

1. Name of Facility

Calvert Cliffs Nuclear Power Plant, Unit No. 2

2. Scheduled date for next Refueling Shutdown

October 6, 1979

3. Scheduled date for restart following refueling

November 8, 1979

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.

July 6, 1979

6. Important licensing considerations associated with refueling.

Reload fuel will be similar to that reload fuel inserted into the Cycle 3 of Unit 1.

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

- (a) 217
- (b) 228\*

\* 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



SUMMARY OF UNIT 1 OPERATING  
EXPERIENCE - DECEMBER 1978

- 12/1 At the beginning of this reporting period, Unit 1 was operating at 863 MWe with the reactor at 95% power. Reactor power being limited by the Environmental Technical Specification (ETS) 10°F limit on main condenser circulating water  $\Delta T$ . At 0255 reduced load to 737 MWe to investigate salt water leakage into the main condenser.
- 12/2 Increased load to 865 MWe at 0200 after plugging one tube. Reactor power was limited to 95% due to the ETS 10°F limit on main condenser circulating water  $\Delta T$ .
- 12/8 Reduced load to 730 MWe at 2155 to clean main condenser circulating water boxes.
- 12/9 Increased load to 860 MWe at 1000. Reactor power was limited to 95% due to the ETS 10°F limit on main condenser circulating water  $\Delta T$ .
- 12/13 The unit tripped at 0117 due to low steam generator water level after the feed pumps tripped on low suction pressure when 11 precoat filter drain valve was inadvertently opened. At 0552 the reactor was brought critical. The reactor was manually shutdown at 0615 when the shift supervisor recalled that Technical Specification action statements 3.7.3.1 and 3.7.5.1 were in effect (LER 78-054/01T describes this event). The reactor was brought critical at 1145 and the unit paralleled at 1345.



- 12/14 Resumed full load operation (857 MWe) at 1030. Reactor power was limited to 95% due to the ETS 10°F limit on main condenser circulating water  $\Delta T$ .
- 12/15 At 1242 decreased load to 752 MWe to investigate salt water leakage into the main condenser. Resumed full load operation (880 MWe) at 2400 after the leak disappeared. Reactor power remained limited to 97% due to the ETS 10°F limit on main condenser circulating water  $\Delta T$ .
- 12/17 At 1645 began decreasing power to investigate salt water leakage into the main condenser. The unit tripped at 1856 due to main turbine high vibration.
- 12/18 At 0217 the reactor was brought critical.
- 12/20 At 1030 the reactor was shut down after attempts to rebalance the main turbine failed.
- 12/31 At the end of this reporting period the reactor was shutdown and cooled down. Repairs to correct vibration problem on main turbine high pressure turbine were in progress.



SUMMARY OF UNIT 2 OPERATING  
EXPERIENCE - DECEMBER 1978

- 12/1 At the beginning of this reporting period Unit 2 was performing cycle 2 escalation to power physics testing. The unit was operating at 890 MWe with reactor power limited to 98% by the Environmental Technical Specification (ETS) 10°F limit on main condenser circulating water  $\Delta T$ .
- 12/2 Decreased power to 633 MWe at 2118 for an ASME heat rate test.
- 12/3 Resumed full load operation (871 MWe) at 1900. Reactor power was limited to 97% due to the ETS 10°F limit on main condenser circulating water  $\Delta T$ .
- 12/9 At 2200 decreased power to 650 MWe to conduct on ASME heat rate test.
- 12/10 Resumed full load operation (884 MWe) at 1430. Reactor power was limited to 98% due to the ETS 10°F limit on main condenser circulating water  $\Delta T$ .
- 12/17 Completed cycle 2 escalation to power physics testing.
- 12/25 The unit was taken off line at 0904 to locate the source of reactor coolant system leakage in excess of Technical Specification limits. The reactor was maintained critical. While increasing power to parallel the unit after isolating a cracked weld on 21A reactor coolant pump, the reactor tripped due to spurious high startup rate signals. The reactor was brought critical at 2000. The unit was paralleled at 2249.



- 12/26 Full load operation (855 MWe) resumed at 0500. Reactor power contained to be limited to 98% due to the ETS 10°F limit on main condenser circulating water  $\Delta T$ .
- 12/31 At the end of the reporting period Unit 2 was operating at 887 MWe with the reactor at 100% power.



## SAFETY-RELATED MAINTENANCE

UNIT 1GROUP ELECTRICAL & I&CMONTH DECEMBER YEAR 1978

SYSTEM OR COMPONENT	MR NO. - DATE	MALFUNCTION		CORRECTIVE ACTION
		CAUSE	RESULT	
Main Steam Isolation Valve #11 High Pressure Oil Pump Unloader 1-MV-9626	0-78-3250 10/12/78	Coil shorted	#12 High pressure oil pump wouldn't start	Replaced solenoid valve coil.
1-HS-5463 Containment Normal Sump Drain Valve Control Switch	0-78-3807 11/13/78	Defective handswitch	1-MOV-5463 wouldn't open	Replaced handswitch.



## SAFETY-RELATED MAINTENANCE

UNIT 2GROUP ELECTRICAL & I&CMONTH DECEMBER YEAR 1978

SYSTEM OR COMPONENT	MR NO. - DATE	MALFUNCTION		CORRECTIVE ACTION
		CAUSE	RESULT	
Main Steam Isolation Valve #21 Solenoid Valves 2-SV-4042 2-SV-4043	E-78-200 10/27/78	Solenoid valves occasionally stuck when energized	Erratic valve performance upon closure signal	Replaced solenoid valve coils with higher wattage types
Steam Generator #22 Bottom Blowdown Control Valve 2-CV-4013	0-78-3770 11/10/78	Ruptured moisture seal on valve position switch	Ground on 125 volt D.C. Buss	Replaced position switch
Reactor Trip Switch Gear Circuit Breaker TCB-21	0-78-3873 11/19/78	Open winding in circuit breaker under voltage coil	Circuit breaker tripped	Replaced under voltage coil