

# OPERATING DATA REPORT

DOCKET NO. 50-317  
 DATE 2/15/79  
 COMPLETED BY S. D. Merson  
 TELEPHONE 301-234-5240

## OPERATING STATUS

1. Unit Name: Calvert Cliffs No. 1
2. Reporting Period: January, 1979
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>744</u>	<u>32,749</u>
12. Number Of Hours Reactor Was Critical	<u>325.5</u>	<u>325.5</u>	<u>26,414.1</u>
13. Reactor Reserve Shutdown Hours	<u>122.7</u>	<u>122.7</u>	<u>1,016.3</u>
14. Hours Generator On-Line	<u>308.8</u>	<u>308.8</u>	<u>25,853.8</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>690,130</u>	<u>690,130</u>	<u>61,960,334.4</u>
17. Gross Electrical Energy Generated (MWH)	<u>216,728</u>	<u>216,728</u>	<u>20,603,063</u>
18. Net Electrical Energy Generated (MWH)	<u>203,174</u>	<u>203,174</u>	<u>19,658,162</u>
19. Unit Service Factor	<u>41.5</u>	<u>41.5</u>	<u>78.9</u>
20. Unit Availability Factor	<u>41.5</u>	<u>41.5</u>	<u>78.9</u>
21. Unit Capacity Factor (Using MDC Net)	<u>33.7</u>	<u>33.7</u>	<u>74.1</u>
22. Unit Capacity Factor (Using DER Net)	<u>32.3</u>	<u>32.3</u>	<u>71.0</u>
23. Unit Forced Outage Rate	<u>58.5</u>	<u>58.5</u>	<u>9.0</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: \_\_\_\_\_

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

Forecast

Achieved

INITIAL CRITICALITY  
 INITIAL ELECTRICITY  
 COMMERCIAL OPERATION

7902270397

# OPERATING DATA REPORT

DOCKET NO. 50-318  
 DATE 2/15/79  
 COMPLETED BY S. D. Merson  
 TELEPHONE 301-234-5240

## OPERATING STATUS

1. Unit Name: Calvert Cliffs No. 2
2. Reporting Period: January, 1979
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>744</u>	<u>16,104</u>
12. Number Of Hours Reactor Was Critical	<u>554.1</u>	<u>554.1</u>	<u>13,546.6</u>
13. Reactor Reserve Shutdown Hours	<u>0.0</u>	<u>0.0</u>	<u>219.4</u>
14. Hours Generator On-Line	<u>529.9</u>	<u>529.9</u>	<u>13,341.7</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>1,307,688</u>	<u>1,307,688</u>	<u>32,191,704.6</u>
17. Gross Electrical Energy Generated (MWH)	<u>441,924</u>	<u>441,924</u>	<u>10,695,996</u>
18. Net Electrical Energy Generated (MWH)	<u>420,021</u>	<u>420,021</u>	<u>10,188,050</u>
19. Unit Service Factor	<u>71.2</u>	<u>71.2</u>	<u>82.8</u>
20. Unit Availability Factor	<u>71.2</u>	<u>71.2</u>	<u>82.8</u>
21. Unit Capacity Factor (Using MDC Net)	<u>69.7</u>	<u>69.7</u>	<u>78.1</u>
22. Unit Capacity Factor (Using DER Net)	<u>66.8</u>	<u>66.8</u>	<u>74.9</u>
23. Unit Forced Outage Rate	<u>8.1</u>	<u>8.1</u>	<u>6.0</u>
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. 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 2/15/79

COMPLETED BY S. D. Merson

TELEPHONE 301-234-5240

MONTH January, 1979

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	-
2	-
3	-
4	-
5	-
6	-
7	-
8	-
9	-
10	-
11	-
12	-
13	-
14	-
15	-
16	-

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
17	-
18	-
19	321
20	727
21	699
22	380
23	356
24	578
25	782
26	797
27	797
28	714
29	803
30	805
31	807

## 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 2/15/79

COMPLETED BY S. D. Merson

TELEPHONE 301-234-5240

MONTH January, 1979

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	<u>850</u>
2	<u>851</u>
3	<u>851</u>
4	<u>851</u>
5	<u>851</u>
6	<u>403</u>
7	<u>267</u>
8	<u>716</u>
9	<u>749</u>
10	<u>766</u>
11	<u>771</u>
12	<u>783</u>
13	<u>804</u>
14	<u>805</u>
15	<u>801</u>
16	<u>790</u>

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
17	<u>806</u>
18	<u>804</u>
19	<u>806</u>
20	<u>33</u>
21	<u>-</u>
22	<u>-</u>
23	<u>-</u>
24	<u>-</u>
25	<u>-</u>
26	<u>-</u>
27	<u>-</u>
28	<u>680</u>
29	<u>835</u>
30	<u>839</u>
31	<u>849</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 January, 1979

DOCKET NO. 50-317  
 UNIT NAME Calvert Cliffs #1  
 DATE 2/15/79  
 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
78-19	781217	F	430.5	A	4	N/A	HA	ZZZZZZ	Forced outage due to vibration on the high-pressure turbine. Internal investigation revealed damage to the first stage high-pressure turbine blades.
79-1	790122	F	4.7	H	3	N/A	HH	ZZZZZZ	Forced outage due to a unit trip caused by high water level in #12B feed water heater.

<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 January, 1979

DOCKET NO. 50-318  
 UNIT NAME Calvert Cliffs #2  
 DATE 2/15/79  
 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
79-1	790106	F	22.6	A	1	79-001	CB	PIPEXX	Forced outage due to excessive reactor coolant system leakage caused by a cracked weld on #21A reactor coolant pump middle seal pressure sensing line.
72-2	790120	F	24.0	A	2	79-003	CB	PIPEXX	Forced outage due to high temperature on the lower seal of #22A reactor coolant pump. Inspection revealed a cracked weld on the lower seal pressure sensing line of #22A reactor coolant pump.
79-3	790121	S	167.5	B	4	N/A	ZZ	ZZZZZZ	Status changed from forced to scheduled to perform safety related testing and to replace the seals on #21B and 22A reactor coolant pumps.

<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)

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 Exhibit G - Instructions  
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 0161)

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



2/15/79

REFUELING INFORMATION REQUEST

1. Name of Facility

Calvert Cliffs Nuclear Power Plant, Unit No. 1

2. Scheduled date for next Refueling Shutdown

April 21, 1979 \*\*

3. Scheduled date for restart following refueling

May 29, 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 has changed since last monthly report.

2/15/79

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 14, 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

\*\* Information has changed since last monthly report.



## SUMMARY OF UNIT 1 OPERATING EXPERIENCE

JANUARY 1979

- 1/1 At the beginning of this reporting period, Unit 1 was shutdown and the reactor cooled down for removal of damaged main turbine first stage high pressure turbine blades.
- 1/17 Reactor coolant system heatup commenced at 0205.
- 1/18 The reactor was brought critical at 0850 and the unit was paralleled at 2144.
- 1/19 The main turbine was taken off line at 0244 to conduct a turbine overspeed trip test. The unit was reparalleled at 0327.
- 1/20 Load was increased to 830 MWe.
- 1/21 Load was reduced to 735 MWe at 0005 due to a steam leak on the high pressure turbine casing.
- 1/22 At 0957 the reactor tripped on loss of load when the main turbine tripped due to a high water level in 12B feed water heater. The reactor was brought critical at 1136 and the unit paralleled 1139. Load was limited to 258 MWe due to steam leakage from main turbine high pressure casing.
- 1/23 Load was increased to 660 MWe at 1800 after reducing the steam leak.
- 1/24 Load was reduced to 400 MWe at 1400 to accommodate repairs to the main turbine high pressure casing.
- 1/25 Load was increased to 830 MWe at 1600 after completing temporary repairs to the main turbine high pressure casing. Reactor power was limited to 95% by the Environmental Technical Specification 10°F limit on main condenser circulating water  $\Delta T$ .
- 1/28 Load was decreased to 700 MWe at 0305 to investigate salt water leakage into the main condenser.
- 1/29 Load was increased to 840 MWe at 0030 after the salt water leak disappeared.
- 1/31 At the end of this reporting period, Unit 1 was operating at 843 MWe with the reactor at 97% power, reactor power being limited by the Environmental Technical Specification 10°F limit on main condenser circulating water  $\Delta T$ .

## SUMMARY OF UNIT 2 OPERATING EXPERIENCE

JANUARY 1979

- 1/1 At the beginning of this reporting period, Unit 2 was operating at 887 MWe with the reactor at 100% power.
- 1/6 The unit was taken off line at 1342 to locate the source of reactor coolant system leakage in excess of Technical Specification limits. The reactor was maintained critical. The source of the reactor coolant system leakage was determined to be a cracked weld on 21A reactor coolant pump middle seal pressure sensing line. The cracked weld was isolated at 1448.
- 1/7 While starting up the main turbine it was discovered that main turbine governor valve #4 was binding and would not stroke properly. After failing to correct the binding problem it was decided to place the unit back in service with governor valve #4 shut. The unit was paralleled at 1218.
- 1/8 Load was increased to 775 MWe.
- 1/12 Load was increased to 837 MWe.
- 1/20 The reactor was manually tripped at 0143 due to a high temperature alarm on 22A reactor coolant pump lower seal. Cool down of the reactor coolant system to replace 22A reactor coolant pump seal commenced at 2015.
- 1/26 Reactor coolant system heatup commenced at 1349.
- 1/27 The reactor was brought critical at 2340.
- 1/28 The unit was paralleled at 0115 and began increasing load to 868 MWe.
- 1/30 Increased load to 885 MWe.
- 1/31 At the end of the reporting period Unit 2 was operating at 894 MWe with the reactor at 100% power.

## SAFETY-RELATED MAINTENANCE

Page 1 of 2UNIT 1GROUP MECHANICALMONTH JANUARY YEAR 1979

SYSTEM OR COMPONENT	MR NO. - DATE	MALFUNCTION		CORRECTIVE ACTION
		CAUSE	RESULT	
12 Switchgear Room A/C Compressor	0-77-2131 5/14/78	Malfunctioning solenoid valve 1-SV-5427	Compressor shut down on low suction pressure	Replaced defective solenoid
12 Charging Pump	0-78-3131 10/7/78	Normal end of life (packing)	Secondary packing leak	Replaced packing and plungers
12 Charging Pump	0-78-3276 10/19/78	Normal end of life (packing)	Primary packing leak	Replaced packing and plungers
12 Charging Pump	0-78-3016 9/24/78	Broken seal water line	Loss of seal water level	Repacked pump and replaced seal water line
11 MSIV Hydraulic Package - H.P. Oil Pump	0-78-3251 10/17/78	Discharge relief valve lifting at 2900 psi.	Pump discharge pressure only reached 2900 psi	Rebuilt discharge relief valve

MONTH JANUARY YEAR 1979

SYSTEM OR COMPONENT	MR NO. - DATE	MALFUNCTION		CORRECTIVE ACTION
		CAUSE	RESULT	
1-RV-150 12 Boric Acid Storage Tank Recirc Relief	0-78-1791 6/1/78	Boric acid had corroded the valve severely	Valve body/bonnet leakage	Replaced with a new valve

UNIT 2GROUP MECHANICALMONTH JANUARY YEAR 1979

SYSTEM OR COMPONENT	MR NO. - DATE	MALFUNCTION		CORRECTIVE ACTION
		CAUSE	RESULT	
21B Reactor Coolant Pump	M-78-3167 7/5/78	Vibration fatigue	Cracked weld on seal pressure sensing line	Performed weld repairs
21 Charging Pump Suction Line	0-78-303 1/23/78	Vibration fatigue	Cracked weld on suction relief valve piping	Performed weld repairs
21 Charging Pump Desurger	0-78-3367 10/24/78	Failed Bladder	Bladder would not maintain charge	Replace bladder and associated O-rings
21 Charging Pump	0-78-4091 12/11/78	Stuffing box wear	Primary packing leak	Replaced stuffing box and packing
23 Charging Pump Desurger	0-78-3833 11/16/78	Broken charging fitting	Could not recharge bladder	Installed bladder with redesigned fitting.



## SAFETY-RELATED MAINTENANCE

Page 2 of 3UNIT 2GROUP MECHANICAL (CONT'D)MONTH JANUARY YEAR 1979

SYSTEM OR COMPONENT	MR NO. - DATE	MALFUNCTION		CORRECTIVE ACTION
		CAUSE	RESULT	
Unit II Containment Emergency Air-Lock	2-IC-78-159 10/20/78	Worn teflon seats	Equalizing ball valve leaking by	Replaced valve seals
22 Charging Pump Suction Header	0-78-2062 6/25/78	Vibration fatigue	Weld failure on Y section of suction piping	Performed weld repairs
Unit II Containment Personnel Hatch	M-78-2451 10/6/78	Sheared cam follower	Door would not open correctly	Replaced cam follower
22 Charging Pump	0-78-4039 12/6/78	End of natural life (Packing)	Primary packing leak	Repacked pump
21 Charging Pump	0-78-4038 12/6/78	End of natural life (Packing)	Primary packing leak	Repacked pump and replaced one scored plunger.

## SAFETY-RELATED MAINTENANCE

Page 3 of 3

UNIT 2

GROUP MECHANICAL (CONT'D)

MONTH JANUARY YEAR 1979

SYSTEM OR COMPONENT	MR NO. - DATE	MALFUNCTION		CORRECTIVE ACTION
		CAUSE	RESULT	
21 Switchgear A/C Unit Compressor	0-78-1698 5/24/78	Hole in compressor equalizing line	Freon leak	Vendor replaced section of line and recharged system

## SAFETY-RELATED MAINTENANCE

UNIT 1&2GROUP ELECTRICALMONTH JANUARY YEAR 1979

SYSTEM OR COMPONENT	MR NO. - DATE	MALFUNCTION		CORRECTIVE ACTION
		CAUSE	RESULT	
#11 Main Steam Isolation Valve Hydraulic Unit/ #12 High Pressure Pump Unloader Valve 1-SV-9626	0-78-4194 12/20/78	1-SV-9126 coil grounded causing control fuse to blow	#12 High Pressure Pump wouldn't start	Replaced solenoid valve coil.
Bus #21 DC (125 Volt Vital)	0-78-4273 12/30/78	Solv. valve 1-SV-4485 coil lead chaffed and grounded/ Level switch #1-LS-9800 leads grounded	Positive ground on Bus 21	Repaired leads on 1-SV-4485 and 1-LS-9800

## SAFETY-RELATED MAINTENANCE

UNIT 1&2GROUP I&CMONTH JANUARYYEAR 1979

SYSTEM OR COMPONENT	MR NO. - DATE	MALFUNCTION		CORRECTIVE ACTION
		CAUSE	RESULT	
Safety Injection System, Refueling Water Tank Level Current Relay 2-LY-4142	0-78-2237 7/11/78	2-LY-4142 defective	Oscillating current signal, spurious alarms at 2C08	Replaced 2-LY-4142
#21 Pressurizer Pres- sure Voltage Relay 2-E/E 102C	0-78-3909 11/24/78	2-E/E 102C defective	ESFAS channel ZF pres- surizer pressure signal low	Replaced 2-E/E 102C
#21 Steam Generator Pressure Voltage Relay 2-E/E 1013A	0-78-3811 11/13/78	2-E/E-1013A defective	ESFAS channel ZD generator pressure signal low	Replaced 2-E/E-1013A