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1650 Calvert Cliffs Parkway  
Lusby, Maryland 20657  
410 495-4101



April 15, 1996

U. S. Nuclear Regulatory Commission  
Washington, DC 20555

ATTENTION: Document Control Desk

SUBJECT: Calvert Cliffs Nuclear Power Plant  
Unit Nos. 1 & 2; Docket Nos. 50-317 & 50-318  
March 1996 Operating Data Reports

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The subject reports are being sent to you as required by Technical Specification 6.9.1.6.

Should you have any questions, please contact Mr. Bruce Mrowca at (410) 495-3989.

Very truly yours,

A handwritten signature in cursive script, appearing to read 'Peter Katz', is written over a horizontal line.

PEK/HOO/bjd

Attachments

cc: D. A. Brune, Esquire  
J. E. Silberg, Esquire  
L. B. Marsh, NRC  
D. G. McDonald, Jr., NRC  
T. T. Martin, NRC  
Resident Inspector, NRC

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R. A. Hartfield, NRC  
R. I. McLean, DNR  
J. H. Walter, PSC  
P. Lewis, INPO  
K. N. Larson, ANI

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UNIT 1

OPERATING DATA REPORT

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Docket No. 50-317  
April 15, 1996  
Prepared by Herman O. Olsen  
Telephone. (410)495-6734

OPERATING STATUS

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|                                         |                       |
|-----------------------------------------|-----------------------|
| 1. UNIT NAME                            | Calvert Cliffs Unit 1 |
| 2. REPORTING PERIOD                     | MARCH 1996            |
| 3. LICENSED THERMAL POWER (MWT)         | 2700                  |
| 4. NAMEPLATE RATING (GROSS MWe)         | 918                   |
| 5. DESIGN ELECTRICAL RATING (NET MWe)   | 845                   |
| 6. MAXIMUM DEPENDABLE CAP'Y (GROSS MWe) | 865                   |
| 7. MAXIMUM DEPENDABLE CAP'Y (NET MWe)   | 835                   |
| 8. CHANGE IN CAPACITY RATINGS           | NONE                  |
| 9. POWER LEVEL TO WHICH RESTRICTED      | N/A                   |
| 10. REASONS FOR RESTRICTIONS            | N/A                   |

|                                                                                | This month | Year-<br>to-Date | Cumulative<br>to Date |
|--------------------------------------------------------------------------------|------------|------------------|-----------------------|
|                                                                                | -----      | -----            | -----                 |
| 11. HOURS IN REPORTING PERIOD                                                  | 744        | 2,184            | 183,205               |
| 12. NUMBER OF HOURS REACTOR WAS CRITICAL                                       | 701.3      | 2,141.3          | 133,567.4             |
| 13. REACTOR RESERVE SHUTDOWN HOURS                                             | 0.0        | 0.0              | 3,019.4               |
| 14. HOURS GENERATOR ON LINE                                                    | 699.6      | 2,139.6          | 130,863.3             |
| 15. UNIT RESERVE SHUTDOWN HOURS                                                | 0.0        | 0.0              | 0.0                   |
| 16. GROSS THERMAL ENERGY GENERATED (MWH)                                       | 1,824,827  | 5,619,077        | 333,121,081           |
| 17. GROSS ELECTRICAL ENERGY GEN'TED (MWH)                                      | 611,373    | 1,879,636        | 110,591,336           |
| 18. NET ELECTRICAL ENERGY GENERATED (MWH)                                      | 585,229    | 1,802,618        | 105,327,111           |
| 19. UNIT SERVICE FACTOR                                                        | 94.0       | 98.0             | 71.4                  |
| 20. UNIT AVAILABILITY FACTOR                                                   | 94.0       | 98.0             | 71.4                  |
| 21. UNIT CAPACITY FACTOR (USING MDC NET)                                       | 94.2       | 98.8             | 69.6                  |
| 22. UNIT CAPACITY FACTOR (USING DER NET)                                       | 93.1       | 97.7             | 68.0                  |
| 23. UNIT FORCED OUTAGE RATE                                                    | 0.0        | 0.0              | 8.2                   |
| 24. SHUTDOWNS SCHEDULED OVER THE NEXT<br>SIX MONTHS (TYPE, DATE AND DURATION): |            |                  |                       |
| N/A                                                                            |            |                  |                       |

25. IF SHUTDOWN AT END OF REPORT PERIOD,  
ESTIMATED DATE OF START-UP:  
05/12/96

# UNIT SHUTDOWNS AND POWER REDUCTIONS

DOCKET NO. 50-317  
 UNIT NAME Calvert Cliffs-U1  
 DATE April 15, 1996  
 COMPLETED BY Herman O. Olsen  
 TELEPHONE (410) 495-6734

REPORT MONTH March 1996

| NO.   | DATE   | TYPE <sup>1</sup> | DURATION<br>(HOURS) | REASON <sup>2</sup> | METHOD OF<br>SHUTTING<br>DOWN<br>REACTOR <sup>3</sup> | LICENSEE<br>EVENT<br>REPORT # | SYSTEM<br>CODE <sup>4</sup> | COMPONENT<br>CODE <sup>5</sup> | CAUSE & CORRECTIVE<br>ACTION TO<br>PREVENT RECURRENCE                                                                                                                               |
|-------|--------|-------------------|---------------------|---------------------|-------------------------------------------------------|-------------------------------|-----------------------------|--------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 96002 | 033096 | S                 | 44.4                | C                   | 1                                                     | N/A                           | N/A                         | N/A                            | On 03/29/96 a reduction in power was commenced in preparation for the scheduled refueling outage. The outage commenced on 03/30/96 at 0335 when the unit was removed from the grid. |

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

<sup>2</sup> Reason:  
 A - Equipment Failure  
 B - Maintenance or Test  
 C - Refueling  
 D - Regulatory Restriction  
 E - Operator Training & License Examination  
 F - Administrative  
 G - Operational Error  
 H - Other

<sup>3</sup> Method:  
 1 - Manual  
 2 - Manual Scram.  
 3 - Automatic Scram.  
 4 - Continued  
 5 - Reduced Load  
 9 - Other

<sup>4</sup> IEEE Standard 805-1984  
  
<sup>5</sup> IEEE Standard 803A-1983

# AVERAGE DAILY UNIT POWER LEVEL

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Docket No. 50-317  
Calvert Cliffs Unit No. 1  
April 15, 1996  
Prepared by Herman O. Olsen  
Telephone: (410) 495-6734

MARCH 1996

\*\*\*\*\*

| Day | Average Daily Power Level<br>(MWe-Net) | Day | Average Daily Power Level<br>(MWe-Net) |
|-----|----------------------------------------|-----|----------------------------------------|
| 1   | 856                                    | 17  | 852                                    |
| 2   | 856                                    | 18  | 848                                    |
| 3   | 858                                    | 19  | 844                                    |
| 4   | 859                                    | 20  | 841                                    |
| 5   | 860                                    | 21  | 838                                    |
| 6   | 861                                    | 22  | 833                                    |
| 7   | 862                                    | 23  | 829                                    |
| 8   | 862                                    | 24  | 824                                    |
| 9   | 862                                    | 25  | 802                                    |
| 10  | 861                                    | 26  | 798                                    |
| 11  | 859                                    | 27  | 778                                    |
| 12  | 859                                    | 28  | 774                                    |
| 13  | 861                                    | 29  | 762                                    |
| 14  | 862                                    | 30  | 23                                     |
| 15  | 861                                    | 31  | -18                                    |
| 16  | 857                                    |     |                                        |

### REFUELING INFORMATION REQUEST

1. Name of facility: Calvert Cliffs Nuclear Power Plant, Unit No. 1.
2. Scheduled date for next refueling shutdown: Unit shutdown for refueling March 30, 1996 \*
3. Scheduled date for restart following refueling: May 12, 1996
4. Will refueling or resumption of operation thereafter require a Technical Specification change or other license amendment?  
  
Yes.
  - a. License amendment to allow installation of a new diesel generator.
  - b. License amendment to reflect the new electrical distribution system configuration.
  - c. An amendment and exemption to allow the use of four lead fuel assemblies with advanced cladding materials.
  - d. License amendment to extend some instrument surveillances to allow a delayed start of the refueling outage.
  - e. License amendment to extend the requirement to do an ILRT so that the test does not have to be performed this outage.
  - f. License amendment to modify the MTC limits to account for additional steam generator tubes plugged.
  - g. License amendment which would allow the sleeving of steam generator tubes as a repair method.
5. Scheduled date(s) for submitting proposed licensing action and supporting information.
  - a. October 2, 1995
  - b. November 1, 1995
  - c. July 13, 1995
  - d. October 20, 1995
  - e. January 16, 1996
  - f. March 28, 1996 \*
  - g. November 30, 1995
6. Important licensing considerations associated with the refueling.

Physical modifications required to bring Calvert Cliffs in compliance with the Station Blackout rule will be completed in the 1996 Unit 1 refueling outage.

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

(a) 217 (b) 1434 (Note 2)\*\*

Spent fuel pools are common to Units 1 and 2.

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

(a) 4710 (Note 1) (b) 0

9. The projected date of the last refueling that can be discharged to the Spent Fuel Pool assuming the present licensed capacity and maintaining space for one full core off-load.

March 2007

NOTE 1: 4710 total licensed site storage capacity.  
(1830 pool + 2880 ISFSI)

NOTE 2: 240 Spent Fuel Assemblies in the ISFSI.

\* Entry has changed since last reported.

\*\* There are 88 Batch 1R new fuel assemblies on site. They will be stored in the Unit 1 Spent Fuel Pool prior to refueling.

DOCKET NO. 50-317  
CALVERT CLIFFS - UNIT 1  
April 15, 1996

## SUMMARY OF OPERATING EXPERIENCE

### March 1996

The unit began the month at 100% power (860 MWe).

On 03/29/96 at 2255 the unit commenced shutting down for a planned refueling outage. The unit was removed from the grid on 03/30/96 at 0335. The unit ended the month in mode 5 (cold shutdown) preparing to refuel the reactor.



UNIT 2

# OPERATING DATA REPORT

Docket No. 50-318  
 April 15, 1996  
 Prepared by Herman O. Olsen  
 Telephone: (410) 495-6734

## OPERATING STATUS

|                                         |                       |
|-----------------------------------------|-----------------------|
| 1. UNIT NAME                            | Calvert Cliffs Unit 2 |
| 2. REPORTING PERIOD                     | MARCH 1996            |
| 3. LICENSED THERMAL POWER (MWT)         | 2700                  |
| 4. NAMEPLATE RATING (GROSS MWe)         | 911                   |
| 5. DESIGN ELECTRICAL RATING (NET MWe)   | 845                   |
| 6. MAXIMUM DEPENDABLE CAP'Y (GROSS MWe) | 870                   |
| 7. MAXIMUM DEPENDABLE CAP'Y (NET MWe)   | 840                   |
| 8. CHANGE IN CAPACITY RATINGS           | NONE                  |
| 9. POWER LEVEL TO WHICH RESTRICTED      | N/A                   |
| 10. REASONS FOR RESTRICTIONS            | N/A                   |

|                                                                                 | This month | Year-<br>to-Date | Cumulative<br>to Date |
|---------------------------------------------------------------------------------|------------|------------------|-----------------------|
| 11. HOURS IN REPORTING PERIOD                                                   | 744        | 2,184            | 166,560               |
| 12. NUMBER OF HOURS REACTOR WAS CRITICAL                                        | 672.2      | 2,057.3          | 123,300.1             |
| 13. REACTOR RESERVE SHUTDOWN HOURS                                              | 0.0        | 0.0              | 1,296.6               |
| 14. HOURS GENERATOR ON LINE                                                     | 644.1      | 2,029.2          | 121,602.6             |
| 15. UNIT RESERVE SHUTDOWN HOURS                                                 | 0.0        | 0.0              | 0.0                   |
| 16. GROSS THERMAL ENERGY GENERATED (MWH)                                        | 1,673,082  | 5,388,557        | 311,718,768           |
| 17. GROSS ELECTRICAL ENERGY GEN'TED (MWH)                                       | 561,501    | 1,801,064        | 102,990,592           |
| 18. NET ELECTRICAL ENERGY GENERATED (MWH)                                       | 537,316    | 1,726,495        | 98,455,939            |
| 19. UNIT SERVICE FACTOR                                                         | 86.6       | 92.9             | 73.0                  |
| 20. UNIT AVAILABILITY FACTOR                                                    | 86.6       | 92.9             | 73.0                  |
| 21. UNIT CAPACITY FACTOR (USING MDC NET)                                        | 86.0       | 94.1             | 71.5                  |
| 22. UNIT CAPACITY FACTOR (USING DER NET)                                        | 85.5       | 93.6             | 70.0                  |
| 23. UNIT FORCED OUTAGE RATE                                                     | 13.4       | 8.1              | 5.6                   |
| 24. SHUTDOWNS SCHEDULED OVER THE NEXT<br>SIX MONTHS (TYPE, DATE AND DURATION):  | N/A        |                  |                       |
| 25. IF UNIT IS SHUTDOWN AT END OF REPORT PERIOD,<br>ESTIMATED DATE OF START-UP: | N/A        |                  |                       |



# UNIT SHUTDOWNS AND POWER REDUCTIONS

DOCKET NO. 50-318  
 UNIT NAME Calvert Cliffs-U2  
 DATE April 15, 1996  
 COMPLETED BY Herman O. Olsen  
 TELEPHONE (410) 495-6734

REPORT MONTH March 1996

| NO.   | DATE   | TYPE <sup>1</sup> | DURATION<br>(HOURS) | REASON <sup>2</sup> | METHOD OF<br>SHUTTING<br>DOWN<br>REACTOR <sup>3</sup> | LICENSEE<br>EVENT<br>REPORT # | SYSTEM<br>CODE <sup>4</sup> | COMPONENT<br>CODE <sup>5</sup> | CAUSE & CORRECTIVE<br>ACTION TO<br>PREVENT RECURRENCE                                                                                                                                                                                                            |
|-------|--------|-------------------|---------------------|---------------------|-------------------------------------------------------|-------------------------------|-----------------------------|--------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 96001 | 022796 | F                 | 99.9                | G                   | 4                                                     | 318/96-001                    | N/A                         | N/A                            | The surface blow down line leak identified in the previous month was repaired on 03/01/96. The plant was heated up and a reactor startup was performed. The unit was paralleled to the grid on 03/05/96 at 0355. Power was returned to 100% on 03/06/96 at 1000. |

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

<sup>2</sup> Reason:  
 A - Equipment Failure  
 B - Maintenance or Test  
 C - Refueling  
 D - Regulatory Restriction  
 E - Operator Training & License Examination  
 F - Administrative  
 G - Operational Error  
 H - Other

<sup>3</sup> Method:  
 1 - Manual  
 2 - Manual Scram.  
 3 - Automatic Scram.  
 4 - Continued  
 5 - Reduced Load  
 9 - Other

<sup>4</sup> IEEE Standard 805-1984  
  
<sup>5</sup> IEEE Standard 803A-1983

### REFUELING INFORMATION REQUEST

1. Name of facility: Calvert Cliffs Nuclear Power Plant, Unit No. 2
2. Scheduled date for next refueling shutdown: March 14, 1997
3. Scheduled date for restart following refueling: April 23, 1997
4. Will refueling or resumption of operation thereafter require a Technical Specification change or other license amendment?

No.

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

None.

6. Important licensing considerations associated with the refueling.

None.

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

(a) 217

(b) 1434 (Note 2) \*\*

Spent fuel pools are common to Units 1 and 2.

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

(a) 4710 (Note 1)

(b) 0

9. The projected date of the last refueling that can be discharged to the Spent Fuel Pool assuming the present licensed capacity and maintaining space for one full core off-load.

March 2007

NOTE 1: 4710 total licensed site storage capacity.  
(1830 pool + 2880 ISFSI)

NOTE 2: 240 Spent Fuel Assemblies in the ISFSI.

\*\* There are 88 Batch 1R new fuel assemblies on site. They will be stored in the Unit 1 Spent Fuel Pool prior to refueling.

# AVERAGE DAILY UNIT POWER LEVEL

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Docket No. 50-318  
Calvert Cliffs Unit No. 2  
April 15, 1996  
Prepared by Herman O. Olsen  
Telephone: (410) 495-6734

MARCH 1996

\*\*\*\*\*

| Day | Average Daily Power Level<br>(MWe-Net) | Day | Average Daily Power Level<br>(MWe-Net) |
|-----|----------------------------------------|-----|----------------------------------------|
| 1   | -10                                    | 17  | 866                                    |
| 2   | -12                                    | 18  | 866                                    |
| 3   | -29                                    | 19  | 866                                    |
| 4   | -32                                    | 20  | 866                                    |
| 5   | 128                                    | 21  | 866                                    |
| 6   | 754                                    | 22  | 865                                    |
| 7   | 860                                    | 23  | 859                                    |
| 8   | 861                                    | 24  | 859                                    |
| 9   | 863                                    | 25  | 863                                    |
| 10  | 863                                    | 26  | 863                                    |
| 11  | 864                                    | 27  | 863                                    |
| 12  | 865                                    | 28  | 863                                    |
| 13  | 865                                    | 29  | 863                                    |
| 14  | 865                                    | 30  | 861                                    |
| 15  | 866                                    | 31  | 863                                    |
| 16  | 866                                    |     |                                        |

DOCKET NO. 50-318  
CALVERT CLIFFS - UNIT 2  
April 15, 1996

## SUMMARY OF OPERATING EXPERIENCE

### March 1996

The unit began the month in mode 5 cold shutdown. Repairs to the Steam Generator blowdown line were completed on 03/01/96 at 1800. A reactor plant heatup was commenced following the completion of a root cause analysis for the reactor trip. The reactor was taken critical on 03/03/96 at 2347. The unit was paralleled to the grid on 03/05/96 at 0355. Power was returned to 100% 03/06/96 at 1000.

The unit remained at 100% power for the remainder of the month.