

Plant name:

Calvert Cliffs Nuclear Power Plant, Unit 1

Docket Number:

50-317

1

The minimum financial assurance (MFA) estimate pursuant to 10 CFR 50.75(b) & (c):

\$439,553,000

Did the licensee identify the amount of estimated radiological funds? (Y/N)

Y

2

The total amount of dollars accumulated at the end of the appropriate year: (see below)

Licensee:	% Owned:	Category:	Amount in Trust Fund:
Constellation Energy Nuclear Group	100.00%	2	\$209,177,000

Total Trust Fund Balance

\$209,177,000

3

Schedule of the annual amounts remaining to be collected: (provided/none)

None

4

Assumptions used in determining rates of escalation in decommissioning costs, rates of earnings on decommissioning funds, and rates of other factors used in funding projections: (see below)

Rate of Return on Earnings	Escalation Rate	Rate(s) of Other Factors	Real Rate of Return	PUC Verified (Y/N)	Allowed through Decom (Y/N)	RAI Needed (Y/N)	Post-RAI		
							PUC Verified (Y/N)	Allowed through Decom (Y/N)	Rates Determined (Y/N)
6.00%	4.00%		2.00%	N	Y	Y	N	Y	Y

5

Any contracts upon which the licensee is relying? (Y/N)

N

6

Any modifications to a licensee's method of providing decommissioning funding assurance? (Y/N)

Y<sup>1</sup>

7

Any material changes to trust agreements? (Y/N)

N

If a change has occurred, the reviewer will document on this sheet that a change has occurred and identify the reviewer who will evaluate the change: (see below)

<sup>1</sup> CENG has decided to start using a site-specific cost estimate

Plant name:

Calvert Cliffs Nuclear Power Plant, Unit 1

Docket Number:

50-317

Date of Operation:

Month: 12

Day: 31

Year: 2010

Termination of Operations:

7

31

2034

BWR/PWR	MWth	1986\$	ECI	Base Lx		Lx	Px	Latest Month Px	Base Px	Fx	Latest Month Fx	Base Fx		Ex		Bx
PWR	2737	\$99,085,600	112.8	1.98	0.65	2.23	1.676	191.4	114.2	3.049	250.0	82.0	0.13	2.253	0.22	12.28

NRC Minimum:

\$440,551,456

Site Specific:

\$602,303,000

Licensee:	% Owned:	Category	Amount of NRC Minimum/Site Specific:	Amount in Trust Fund:
Constellation Energy Nuclear Group	100.00%	2	\$602,303,000	\$209,177,000
			Total Fund Balance:	\$209,177,000

Step 1:  
Earnings Credit:

Trust Fund Balance:	Real Rate of Return per year	Years Left in License	Total Earnings:	Does Licensee Pass:
\$209,177,000	2%	23.58	\$333,683,435	NO

Step 2:  
Accumulation:

Value of Annuity per year (amount/See Annuity Sheet)	Real Rate of Return per year	Number of Annual Payments:	Total Annuity:
	2%		\$0
Total Annuity	Real Rate of Return per year	Years remaining after annuity	Total Step 2:
\$0	2%	23.58	\$0

Total Step 1 + Step 2	Does Licensee Pass:
\$333,683,435	NO

Step 3:  
Decom Period:

Total Earnings:	Real Rate of Return per year	Decom Period:	Total Earnings for Decom:
\$333,683,435	2%	7	\$24,806,972

Total of Steps 1 thru 3:	Does Licensee Pass:	Shortfall:
\$358,490,407	NO	(\$243,812,593)

Plant name:

Calvert Cliffs Nuclear Power Plant, Unit 1

Docket Number:

50-317

Date of Operation:

Month:12

Day:31

Year:2010

Termination of Operations:

7

31

2034

If licensee is granted greater than 2% RRR

Step 4:  
Earnings Credit:

Trust Fund Balance:	Real Rate of Return per year	Years Left in License	Total Earnings:	Does Licensee Pass:
\$209,177,000	2.00%	23.58	\$333,683,435	NO

Step 5:  
Accumulation:

Value of Annuity per year	Real Rate of Return per year	Number of Annual Payments:	Total Annuity:
\$0	2.00%	0	\$0

Total Annuity	Real Rate of Return per year	Years remaining after annuity	Total Step 5
\$0	2.00%	23.58	\$0

Total Step 4 + Step 5	Does Licensee Pass:
\$333,683,435	NO

Step 6:  
Decom Period:

Total Earnings:	Real Rate of Return per year	Decom Period:	Total Earnings for Decom:
\$333,683,435	2.00%	7	\$24,806,972

Total of Steps 4 thru 6:	Does Licensee Pass:	Shortfall:
\$358,490,407	NO	(\$243,812,593)

Signature: Michael Purdie and JoAnn Simpson  
Date: 06/29/2011  
Signature: Aaron L. Szabo  
Date: 7/11/2011

Spreadsheet created by: Aaron Szabo, Shawn Harwell  
Formulas verified by: Clayton Pittiglio

# SAFSTOR ANALYSIS

**Name of Unit:** Calvert Cliffs Nuclear Power Plant, Unit 1  
**Name of Licensee:** Constellation Energy Nuclear Group  
**Operations Termination Date:** 7 31 2034  
**End of Operations Balance:** \$333,683,435  
**Real Rate of Return:** 2.00%

Year	Beginning Trust Fund Balance	Expense Per Year		Real Rate of Return	End of Year Trust Fund Balance
		Plant	Spent Fuel		
2034	\$333,683,435	\$5,413,000	N/A	2.00%	\$334,889,974
2035	\$334,889,974	\$7,680,000	N/A	2.00%	\$333,830,973
2036	\$333,830,973	\$27,216,000	N/A	2.00%	\$313,019,433
2037	\$313,019,433	\$40,935,000	N/A	2.00%	\$277,935,471
2038	\$277,935,471	\$3,616,000	N/A	2.00%	\$279,842,021
2039	\$279,842,021	\$3,616,000	N/A	2.00%	\$281,786,701
2040	\$281,786,701	\$3,616,000	N/A	2.00%	\$283,770,275
2041	\$283,770,275	\$9,248,000	N/A	2.00%	\$280,105,201
2042	\$280,105,201	\$11,053,000	N/A	2.00%	\$274,543,775
2043	\$274,543,775	\$2,570,000	N/A	2.00%	\$277,438,950
2044	\$277,438,950	\$2,570,000	N/A	2.00%	\$280,392,029
2045	\$280,392,029	\$2,570,000	N/A	2.00%	\$283,404,170
2046	\$283,404,170	\$2,570,000	N/A	2.00%	\$286,476,553
2047	\$286,476,553	\$2,570,000	N/A	2.00%	\$289,610,384
2048	\$289,610,384	\$2,570,000	N/A	2.00%	\$292,806,892
2049	\$292,806,892	\$2,570,000	N/A	2.00%	\$296,067,330
2050	\$296,067,330	\$2,570,000	N/A	2.00%	\$299,392,976
2051	\$299,392,976	\$2,570,000	N/A	2.00%	\$302,785,136
2052	\$302,785,136	\$2,570,000	N/A	2.00%	\$306,245,139
2053	\$306,245,139	\$2,570,000	N/A	2.00%	\$309,774,341
2054	\$309,774,341	\$2,570,000	N/A	2.00%	\$313,374,128
2055	\$313,374,128	\$2,570,000	N/A	2.00%	\$317,045,911
2056	\$317,045,911	\$3,061,000	N/A	2.00%	\$320,295,219
2057	\$320,295,219	\$2,570,000	N/A	2.00%	\$324,105,423
2058	\$324,105,423	\$2,570,000	N/A	2.00%	\$327,991,832
2059	\$327,991,832	\$2,570,000	N/A	2.00%	\$331,955,968

Signature: Michael Purdie and JoAnn Simpson

Date: 06/29/2011

Signature: Aaron L. Szabo

Date: 7/11/2011

2060	\$331,955,968	\$2,570,000	N/A	2.00%	\$335,999,388
2061	\$335,999,388	\$2,570,000	N/A	2.00%	\$340,123,676
2062	\$340,123,676	\$2,570,000	N/A	2.00%	\$344,330,449
2063	\$344,330,449	\$2,570,000	N/A	2.00%	\$348,621,358
2064	\$348,621,358	\$2,570,000	N/A	2.00%	\$352,998,085
2065	\$352,998,085	\$2,904,000	N/A	2.00%	\$357,125,007
2066	\$357,125,007	\$2,990,000	N/A	2.00%	\$361,247,607
2067	\$361,247,607	\$2,990,000	N/A	2.00%	\$365,452,659
2068	\$365,452,659	\$2,990,000	N/A	2.00%	\$369,741,812
2069	\$369,741,812	\$2,990,000	N/A	2.00%	\$374,116,749
2070	\$374,116,749	\$2,990,000	N/A	2.00%	\$378,579,184
2071	\$378,579,184	\$2,990,000	N/A	2.00%	\$383,130,867
2072	\$383,130,867	\$2,990,000	N/A	2.00%	\$387,773,585
2073	\$387,773,585	\$2,990,000	N/A	2.00%	\$392,509,156
2074	\$392,509,156	\$2,990,000	N/A	2.00%	\$397,339,439
2075	\$397,339,439	\$2,990,000	N/A	2.00%	\$402,266,328
2076	\$402,266,328	\$3,481,000	N/A	2.00%	\$406,795,845
2077	\$406,795,845	\$6,429,000	N/A	2.00%	\$408,438,472
2078	\$408,438,472	\$19,038,000	N/A	2.00%	\$397,378,861
2079	\$397,378,861	\$85,437,000	N/A	2.00%	\$319,035,068
2080	\$319,035,068	\$120,232,000	N/A	2.00%	\$203,981,450
2081	\$203,981,450	\$74,913,000	N/A	2.00%	\$132,398,949
2082	\$132,398,949	\$51,620,000	N/A	2.00%	\$82,910,728
2083	\$82,910,728	\$38,836,000	N/A	2.00%	\$45,344,582
2084	\$45,344,582	\$87,000	N/A	2.00%	\$45,831,043

Signature: Michael Purdie and JoAnn Simpson

Date: 06/29/2011

Signature: Aaron L. Szabo

Date: 7/11/2011