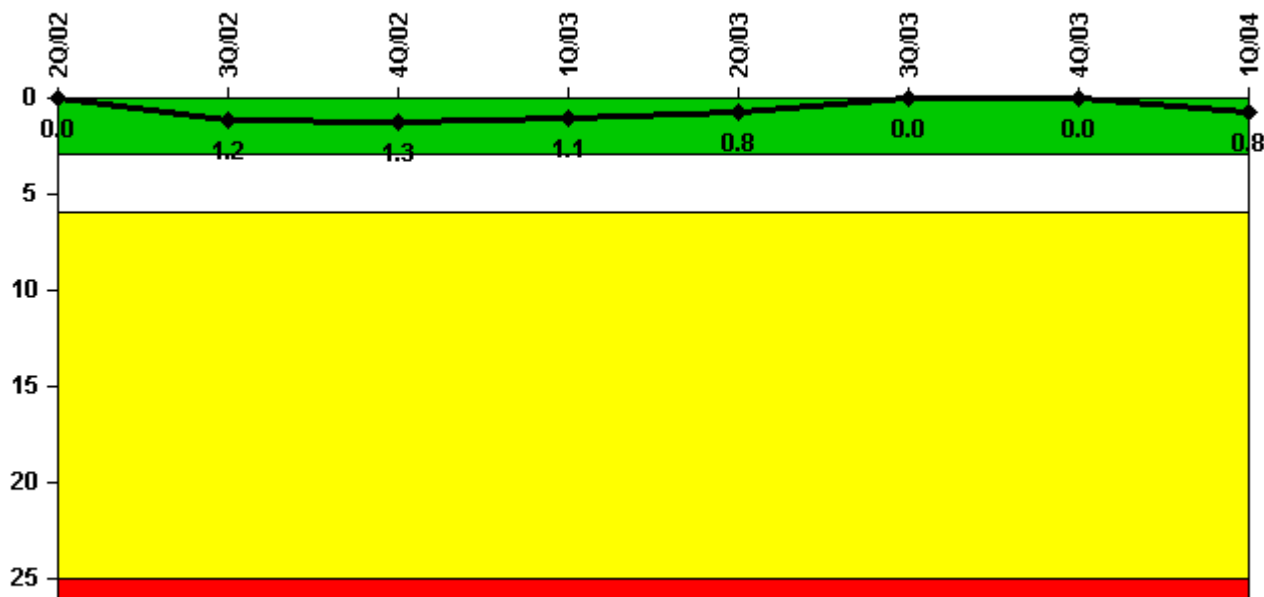


# Calvert Cliffs 1

## 1Q/2004 Performance Indicators

Licensee's General Comments: none

### Unplanned Scrams per 7000 Critical Hrs



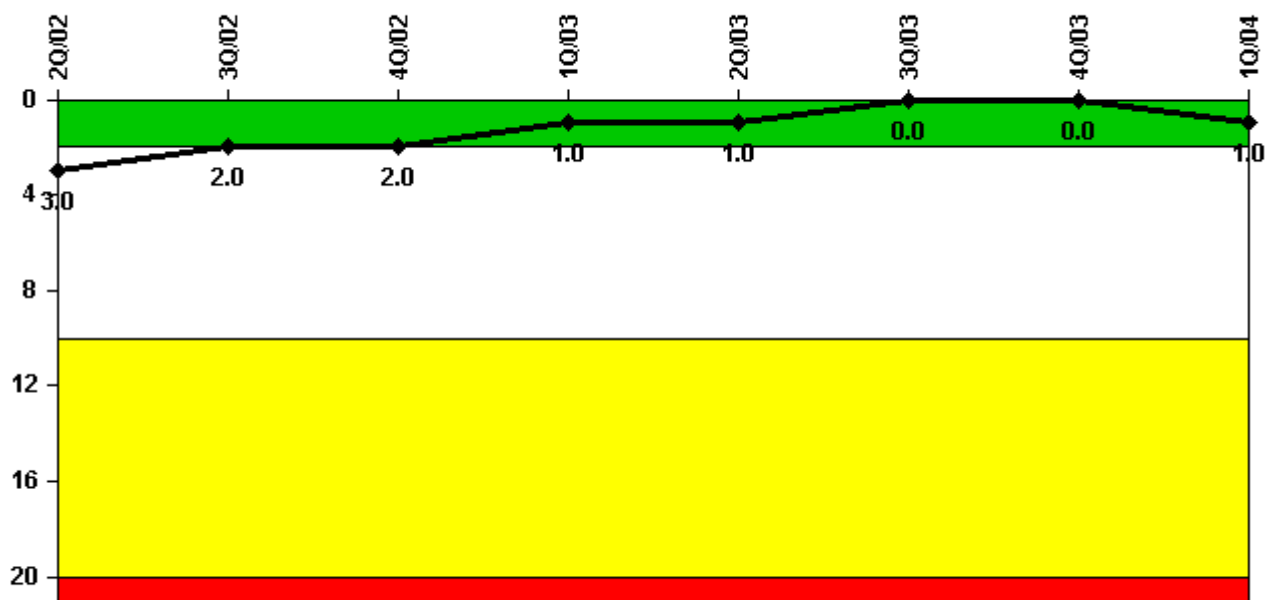
Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

### Notes

Unplanned Scrams per 7000 Critical Hrs	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04
Unplanned scrams	0	1.0	0	0	0	0	0	1.0
Critical hours	309.8	2107.9	2035.6	2160.0	2183.0	2208.0	2209.0	2157.0
Indicator value	0	1.2	1.3	1.1	0.8	0	0	0.8

Licensee Comments: none

### Scrams with Loss of Normal Heat Removal



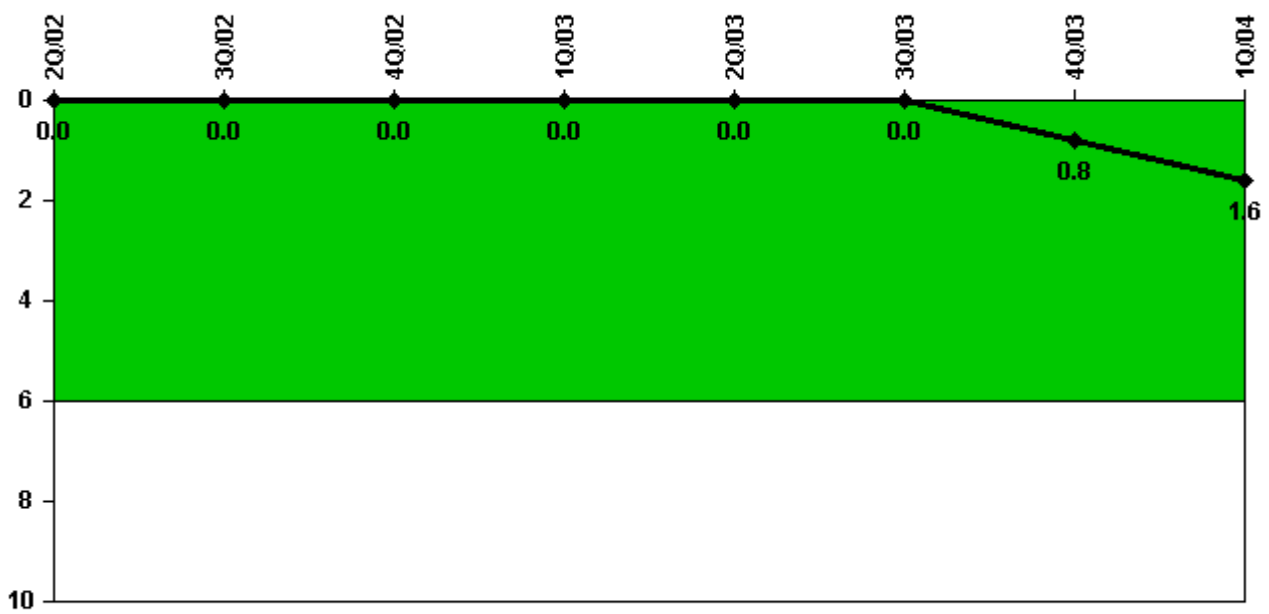
Thresholds: White > 2.0 Yellow > 10.0 Red > 20.0

#### Notes

Scrams with Loss of Normal Heat Removal	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04
Scrams	0	0	0	0	0	0	0	1.0
Indicator value	3.0	2.0	2.0	1.0	1.0	0	0	1.0

Licensee Comments: none

### Unplanned Power Changes per 7000 Critical Hrs



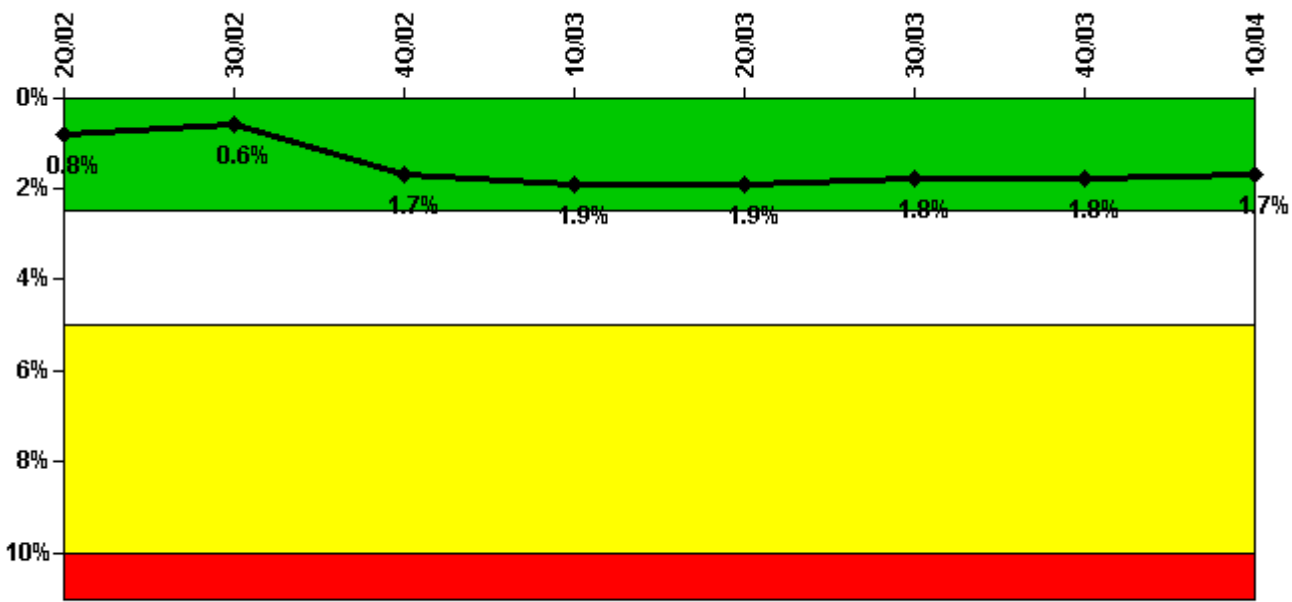
Thresholds: White > 6.0

#### Notes

Unplanned Power Changes per 7000 Critical Hrs	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04
Unplanned power changes	0	0	0	0	0	0	1.0	1.0
Critical hours	309.8	2107.9	2035.6	2160.0	2183.0	2208.0	2209.0	2157.0
Indicator value	0	0	0	0	0	0	0.8	1.6

Licensee Comments: none

### Safety System Unavailability, Emergency AC Power



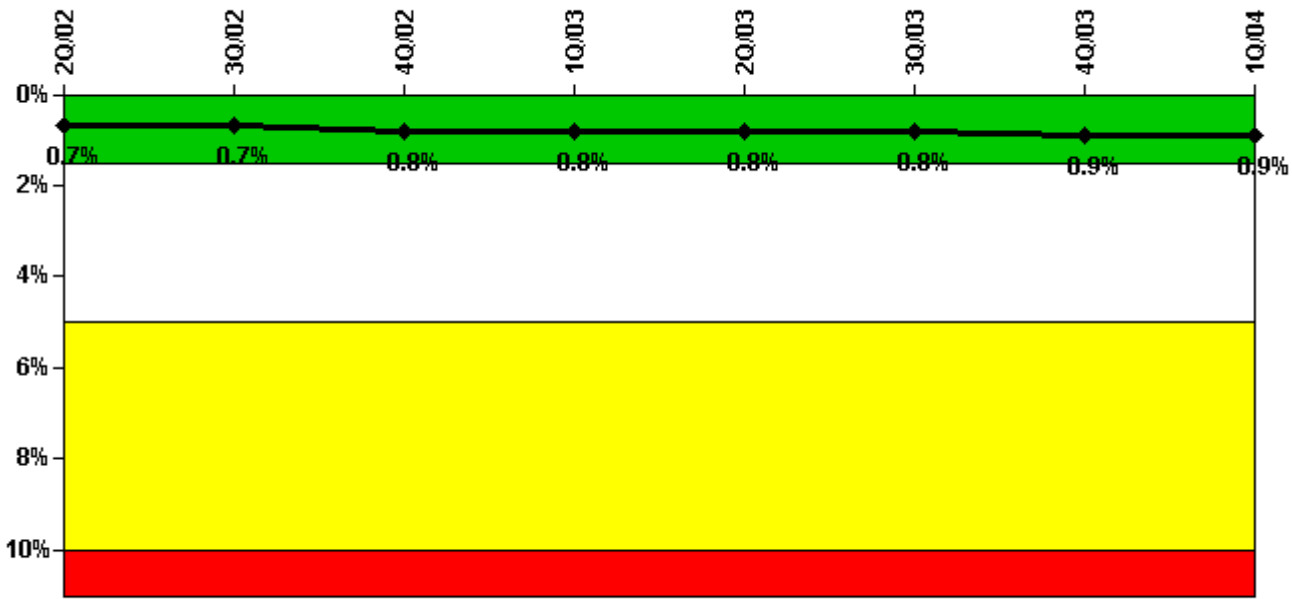
Thresholds: White > 2.5% Yellow > 5.0% Red > 10.0%

#### Notes

Safety System Unavailability, Emergency AC Power	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04
<b>Train 1</b>								
Planned unavailable hours	0	0	4.80	23.08	31.15	0	4.25	0
Unplanned unavailable hours	0	0	0	0	12.83	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2183.00	2208.00	2209.00	2160.00	2183.00	2208.00	2209.00	2184.00
<b>Train 2</b>								
Planned unavailable hours	0	7.48	24.65	0	0	0	40.05	31.90
Unplanned unavailable hours	0	2.00	0	15.63	5.32	0	0	0
Fault exposure hours	0	0	539.60	117.95	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2183.00	2208.00	2209.00	2160.00	2183.00	2208.00	2209.00	2184.00
<b>Indicator value</b>	<b>0.8%</b>	<b>0.6%</b>	<b>1.7%</b>	<b>1.9%</b>	<b>1.9%</b>	<b>1.8%</b>	<b>1.8%</b>	<b>1.7%</b>

Licensee Comments: none

### Safety System Unavailability, High Pressure Injection System (HPSI)



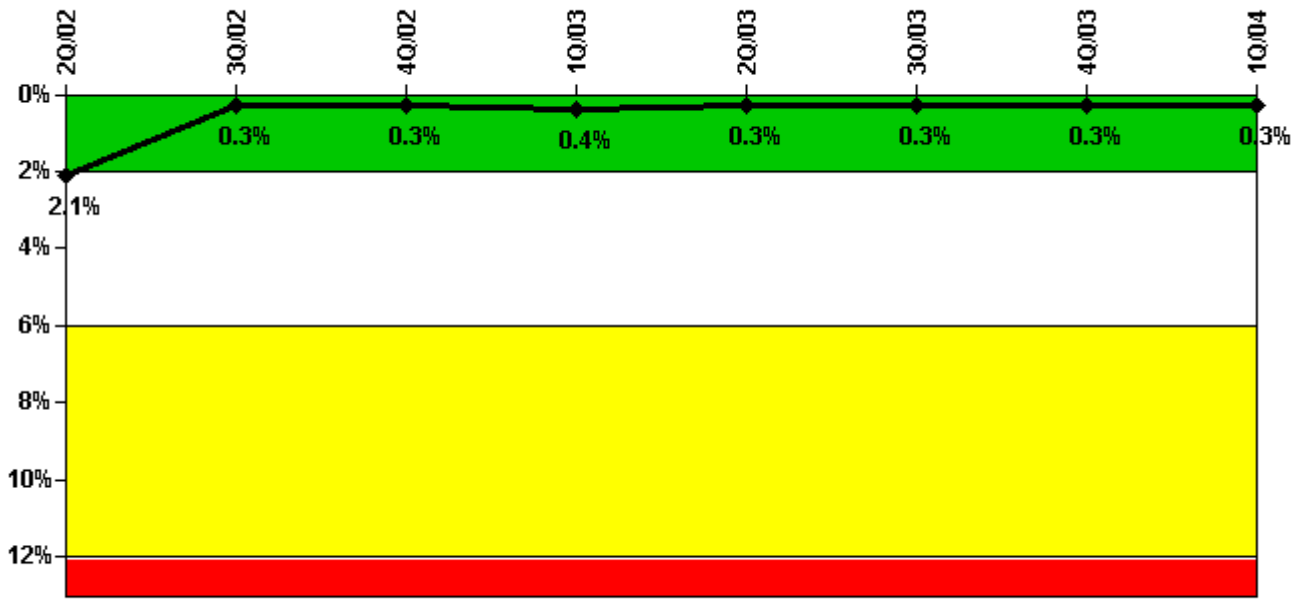
Thresholds: White > 1.5% Yellow > 5.0% Red > 10.0%

#### Notes

Safety System Unavailability, High Pressure Injection System (HPSI)	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04
<b>Train 1</b>								
Planned unavailable hours	0	22.15	45.07	17.59	1.64	2.25	26.06	20.43
Unplanned unavailable hours	0	0	10.38	5.75	11.73	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	309.80	2107.90	2035.60	2160.00	2183.00	2208.00	2209.00	2157.00
<b>Train 2</b>								
Planned unavailable hours	0	13.90	41.97	37.49	1.64	2.25	28.86	21.34
Unplanned unavailable hours	0	0	0	0	4.42	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	309.80	2107.90	2035.60	2160.00	2183.00	2208.00	2209.00	2157.00
<b>Indicator value</b>	<b>0.7%</b>	<b>0.7%</b>	<b>0.8%</b>	<b>0.8%</b>	<b>0.8%</b>	<b>0.8%</b>	<b>0.9%</b>	<b>0.9%</b>

Licensee Comments: none

### Safety System Unavailability, Heat Removal System (AFW)



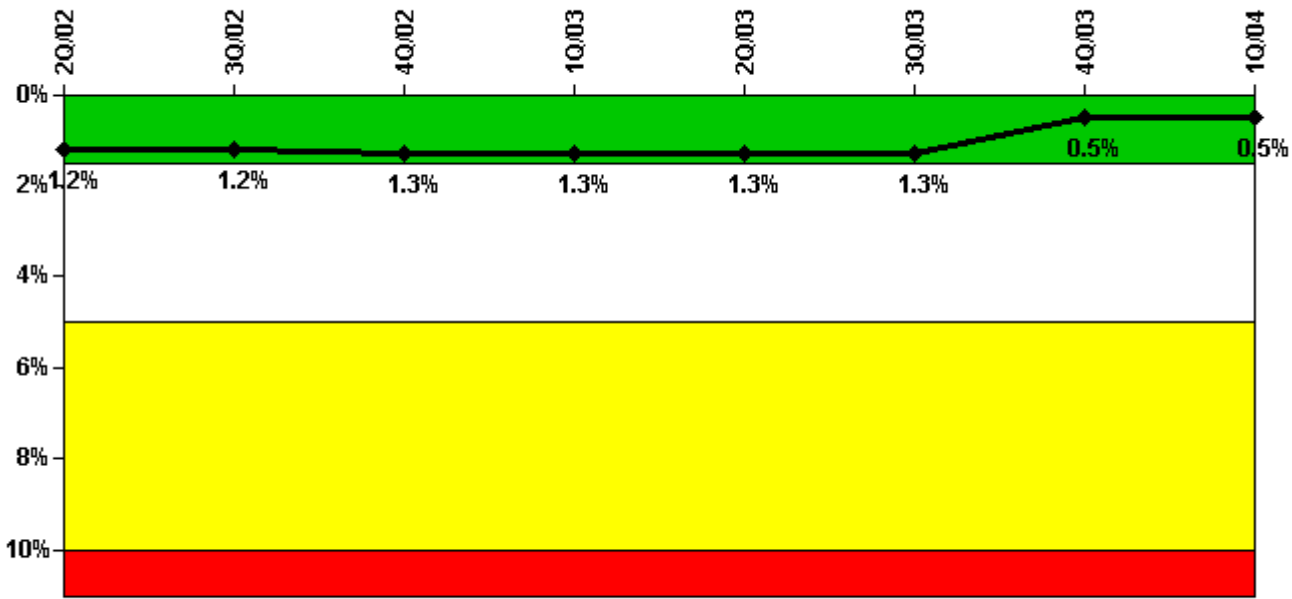
Thresholds: White > 2.0% Yellow > 6.0% Red > 12.0%

#### Notes

Safety System Unavailability, Heat Removal System (AFW)	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04
<b>Train 1</b>								
Planned unavailable hours	0	0.50	2.10	20.50	0.67	0.73	0.32	0.57
Unplanned unavailable hours	0	4.92	0	0	0	0	6.00	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	1173.78	0	0	0	0	0	0
Required hours	309.80	2107.90	2035.60	2160.00	2183.00	2208.00	2209.00	2157.00
<b>Train 2</b>								
Planned unavailable hours	0	0	0	20.00	0	0.35	0.40	0.52
Unplanned unavailable hours	0	4.92	0	38.65	0	0	6.00	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	309.80	2107.90	2035.60	2160.00	2183.00	2208.00	2209.00	2157.00
<b>Train 3</b>								
Planned unavailable hours	0	0	1.83	0	0	0	0	0
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	309.80	2107.90	2035.60	2160.00	2183.00	2208.00	2209.00	2157.00
<b>Indicator value</b>	<b>2.1%</b>	<b>0.3%</b>	<b>0.3%</b>	<b>0.4%</b>	<b>0.3%</b>	<b>0.3%</b>	<b>0.3%</b>	<b>0.3%</b>

Licensee Comments: none

### Safety System Unavailability, Residual Heat Removal System



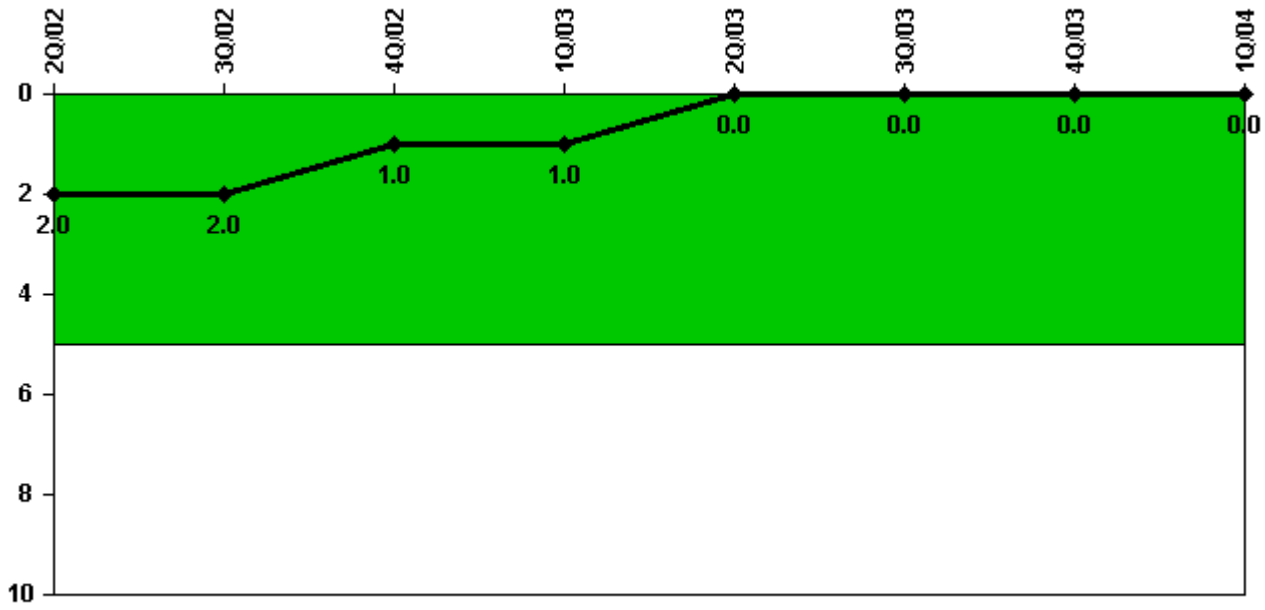
Thresholds: White > 1.5% Yellow > 5.0% Red > 10.0%

#### Notes

Safety System Unavailability, Residual Heat Removal System	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04
<b>Train 1</b>								
Planned unavailable hours	0	0	0	0	0	0	0	0
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	805.20	0	145.00	0	0	0	0	0
<b>Train 2</b>								
Planned unavailable hours	0	0	0	0	0	0	0	0
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	805.20	0	145.00	0	0	0	0	0
<b>Train 3</b>								
Planned unavailable hours	0	31.38	49.87	36.39	2.28	7.51	29.04	20.90
Unplanned unavailable hours	0	0	10.38	20.05	11.73	4.00	0	6.91
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	359.70	2208.00	2064.00	2160.00	2183.00	2208.00	2209.00	2184.00
<b>Train 4</b>								
Planned unavailable hours	0	13.37	46.50	28.71	2.15	1.00	27.63	22.53
Unplanned unavailable hours	0	2.68	0	0	4.42	2.67	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	359.70	2208.00	2064.00	2160.00	2183.00	2208.00	2209.00	2184.00
<b>Indicator value</b>	<b>1.2%</b>	<b>1.2%</b>	<b>1.3%</b>	<b>1.3%</b>	<b>1.3%</b>	<b>1.3%</b>	<b>0.5%</b>	<b>0.5%</b>

Licensee Comments: none

### Safety System Functional Failures (PWR)



Thresholds: White > 5.0

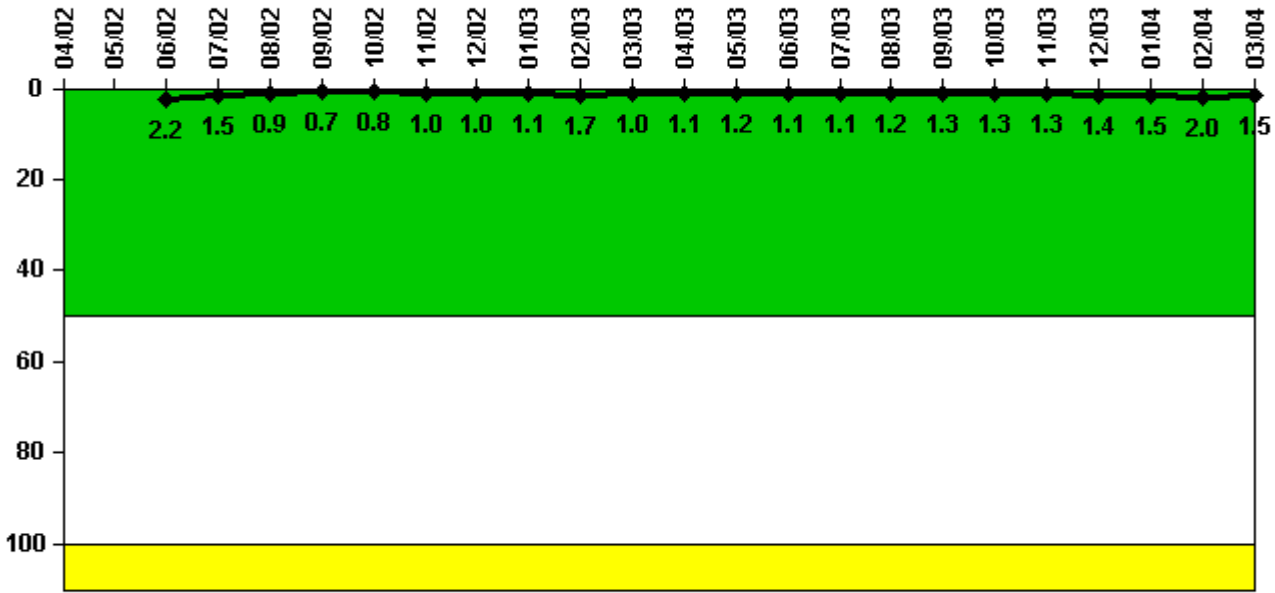
#### Notes

Safety System Functional Failures (PWR)	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04
Safety System Functional Failures	1	0	0	0	0	0	0	0
Indicator value	2	2	1	1	0	0	0	0

Licensee Comments: none



### Reactor Coolant System Activity



Thresholds: White > 50.0 Yellow > 100.0

### Notes

Reactor Coolant System Activity	4/02	5/02	6/02	7/02	8/02	9/02	10/02	11/02	12/02	1/03	2/03	3/03
Maximum activity	N/A	N/A	0.021800	0.015000	0.009490	0.007400	0.007870	0.010400	0.010100	0.010800	0.016800	0.010300
Technical specification limit	N/A	N/A	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	N/A	N/A	2.2	1.5	0.9	0.7	0.8	1.0	1.0	1.1	1.7	1.0

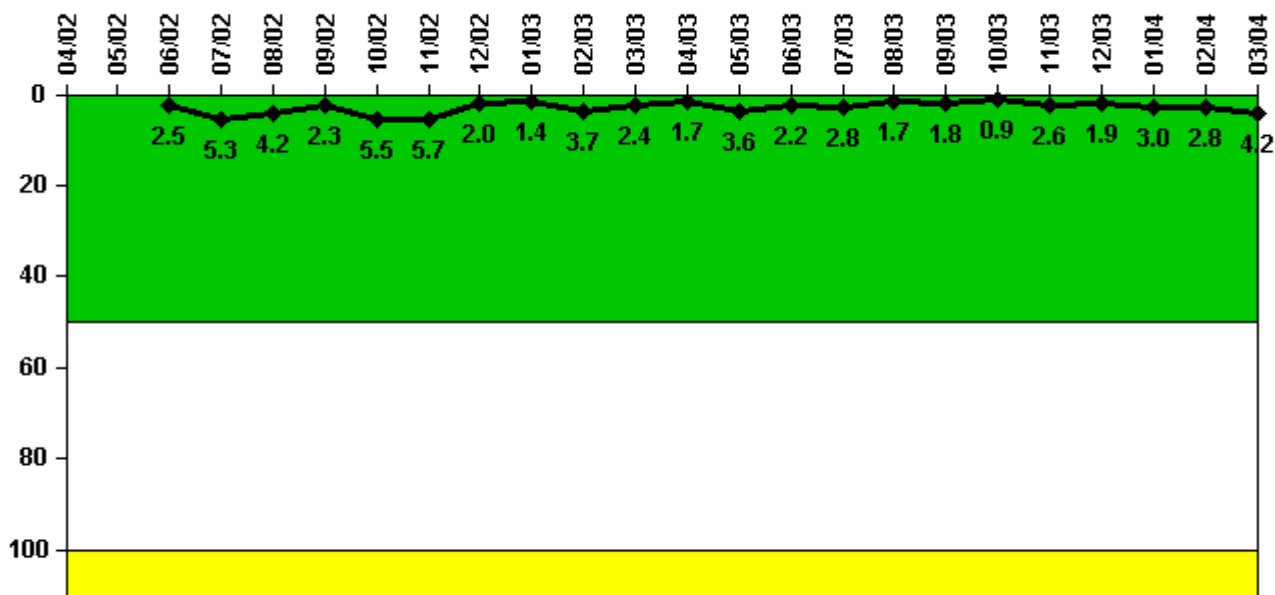
  

Reactor Coolant System Activity	4/03	5/03	6/03	7/03	8/03	9/03	10/03	11/03	12/03	1/04	2/04	3/04
Maximum activity	0.010700	0.011700	0.010800	0.011200	0.012200	0.012800	0.012800	0.013300	0.013500	0.014500	0.019800	0.014500
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	1.1	1.2	1.1	1.1	1.2	1.3	1.3	1.3	1.4	1.5	2.0	1.5

Licensee Comments:

3/04: Unit 1 downpowered to 67.5% on 01/30. It had no effect on the month's IDE values.

### Reactor Coolant System Leakage



Thresholds: White > 50.0 Yellow > 100.0

#### Notes

Reactor Coolant System Leakage	4/02	5/02	6/02	7/02	8/02	9/02	10/02	11/02	12/02	1/03	2/03	3/03
Maximum leakage	N/A	N/A	0.250	0.525	0.417	0.234	0.548	0.567	0.197	0.140	0.370	0.240
Technical specification limit	N/A	N/A	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	N/A	N/A	2.5	5.3	4.2	2.3	5.5	5.7	2.0	1.4	3.7	2.4

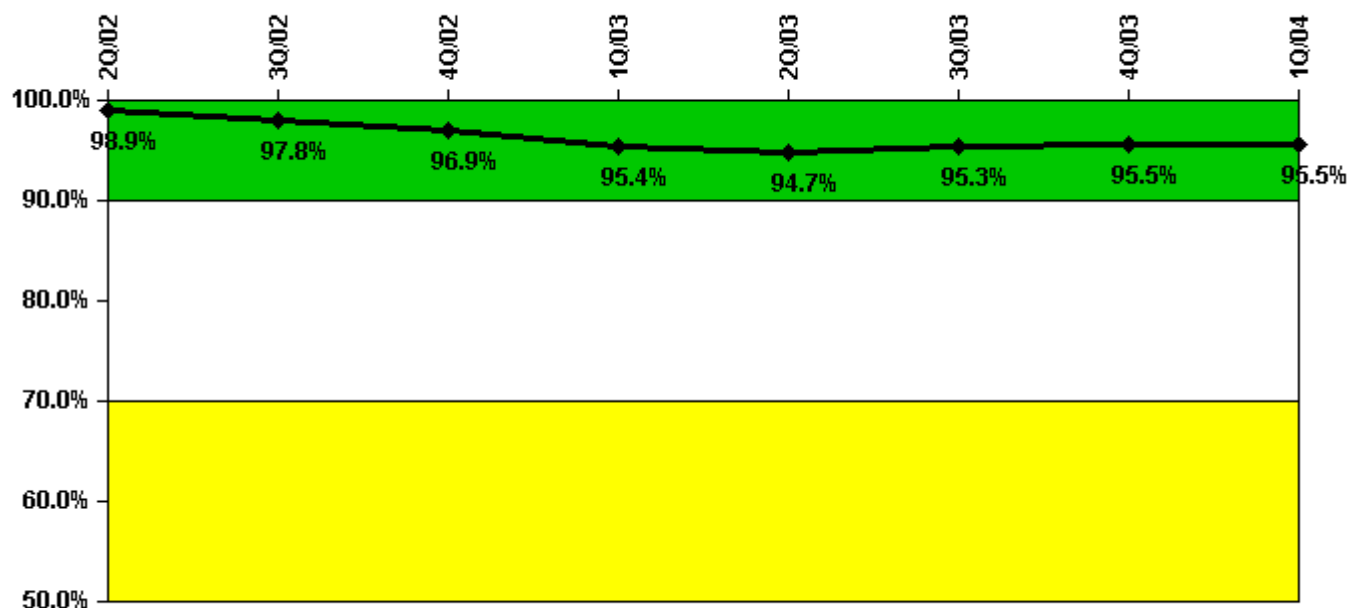
  

Reactor Coolant System Leakage	4/03	5/03	6/03	7/03	8/03	9/03	10/03	11/03	12/03	1/04	2/04	3/04
Maximum leakage	0.170	0.360	0.220	0.276	0.173	0.175	0.086	0.261	0.187	0.300	0.280	0.420
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	1.7	3.6	2.2	2.8	1.7	1.8	0.9	2.6	1.9	3.0	2.8	4.2

Licensee Comments:

3/04: Unit 2 tripped on 01/23. Considered 01/28/04 as date of steady state operation after trip.

### Drill/Exercise Performance



Thresholds: White < 90.0% Yellow < 70.0%

#### Notes

Drill/Exercise Performance	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04
Successful opportunities	8.0	35.0	45.0	9.0	14.0	29.0	56.0	18.0
Total opportunities	8.0	38.0	47.0	12.0	15.0	29.0	57.0	18.0
Indicator value	98.9%	97.8%	96.9%	95.4%	94.7%	95.3%	95.5%	95.5%

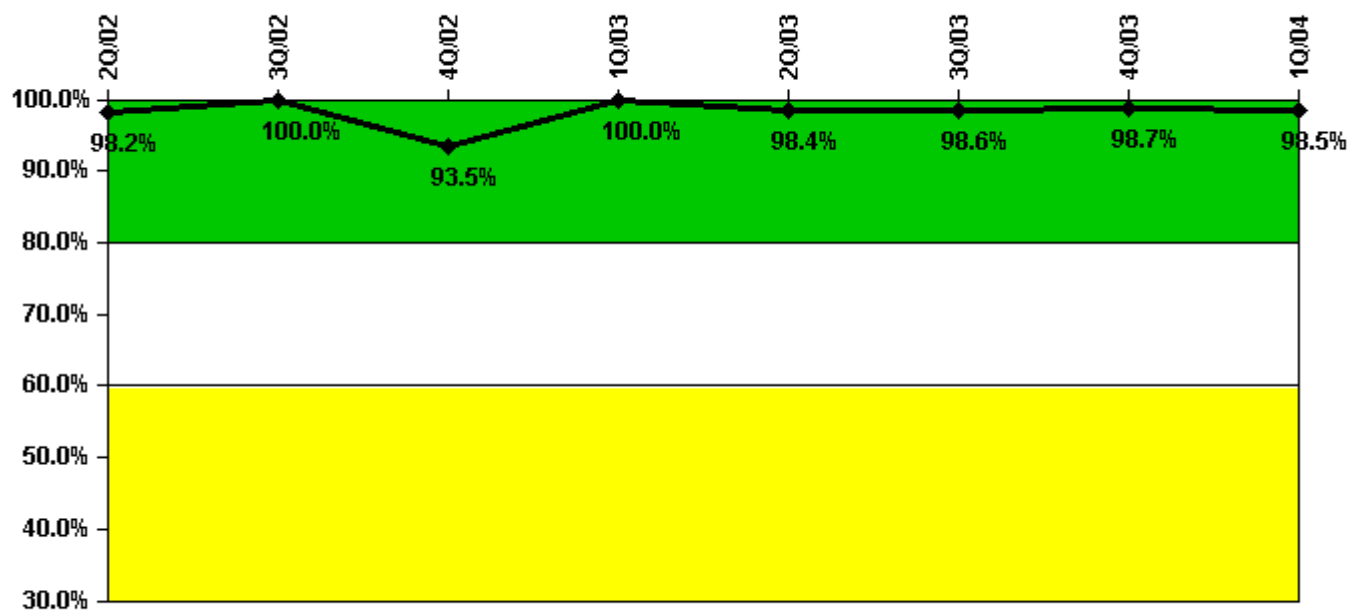
#### Licensee Comments:

4Q/02: Change Reports are being submitted for the Drill/Exercise Performance for the first, third and fourth quarters 2002 to correct data inputs. Changes in data reflect a change completed in August 2003 for the third quarter submittal, but the change was not correctly incorporated into other affected quarters. Fourth quarter data was also corrected to reflect two additional successful drill exercise opportunities. Drill/Exercise Performance remained within the green band.

3Q/02: Change Reports are being submitted for the Drill/Exercise Performance for the first, third and fourth quarters 2002 to correct data inputs. Changes in data reflect a change completed in August 2003 for the third quarter submittal, but the change was not correctly incorporated into other affected quarters. Drill/Exercise Performance remained within the green band.

1Q/02: Change Reports are being submitted for the Drill/Exercise Performance for the first, third and fourth quarters 2002 to correct data inputs. Changes in data reflect a change completed in August 2003 for the third quarter submittal, but the change was not correctly incorporated into other affected quarters. Drill/Exercise Performance remained within the green band.

### ERO Drill Participation



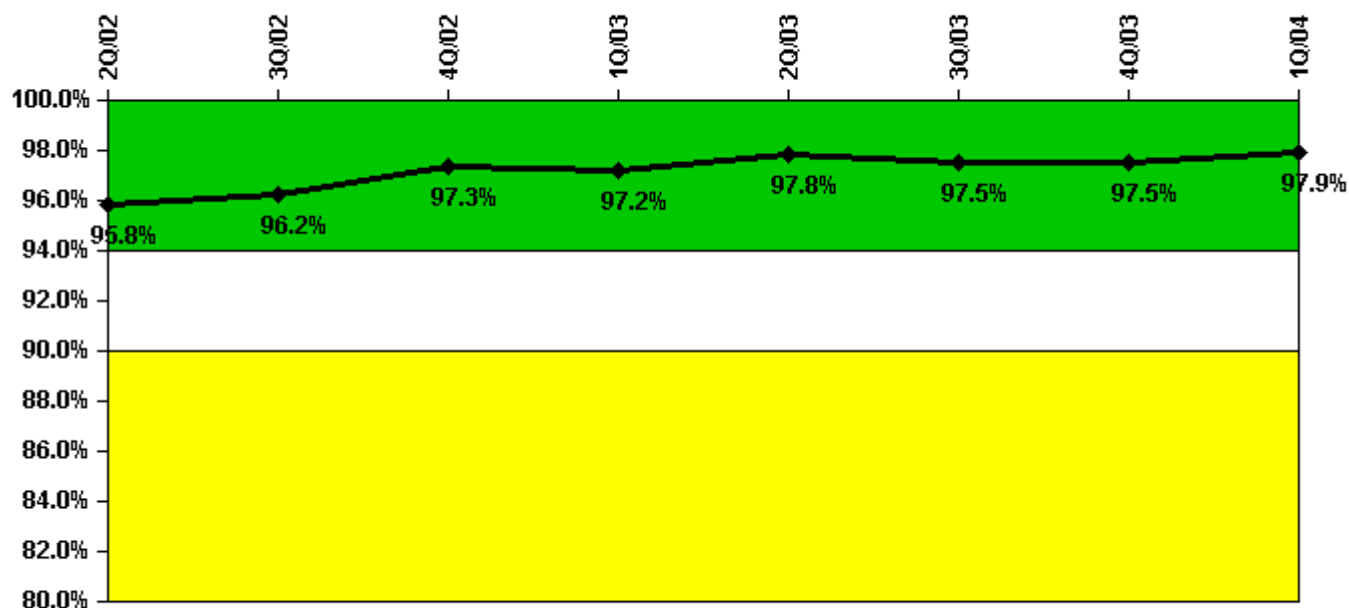
Thresholds: White < 80.0% Yellow < 60.0%

#### Notes

ERO Drill Participation	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04
Participating Key personnel	54.0	58.0	58.0	57.0	63.0	68.0	77.0	65.0
Total Key personnel	55.0	58.0	62.0	57.0	64.0	69.0	78.0	66.0
Indicator value	98.2%	100.0%	93.5%	100.0%	98.4%	98.6%	98.7%	98.5%

Licensee Comments: none

### Alert & Notification System



Thresholds: White < 94.0% Yellow < 90.0%

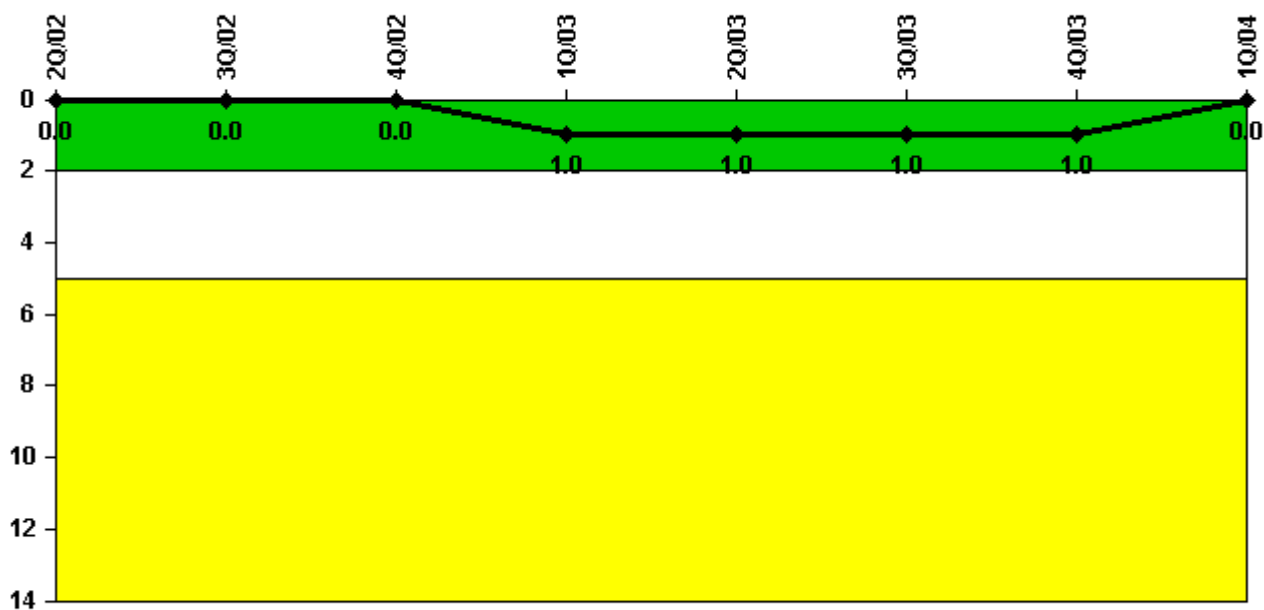
#### Notes

Alert & Notification System	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04
Successful siren-tests	956	1035	1007	914	1036	963	1007	935
Total sirens-tests	1019	1057	1019	930	1074	996	1019	936
Indicator value	95.8%	96.2%	97.3%	97.2%	97.8%	97.5%	97.5%	97.9%

#### Licensee Comments:

1Q/04: Calvert Cliffs Units 1 & 2 implemented a change in test/activation methodology affecting 2 of 3 Counties in the EPZ during 2Q/2001. This change increased the number of pushbutton actuations during testing and actual activations from one to three times to improve the reliability of the existing system. This change mimics the operation of newer, automated systems. Calvert Cliffs replaced the original PANS in 4Q/2003 with a new alert and notification system incorporating automatic polling to further enhance the reliability of this safety function.

### Occupational Exposure Control Effectiveness



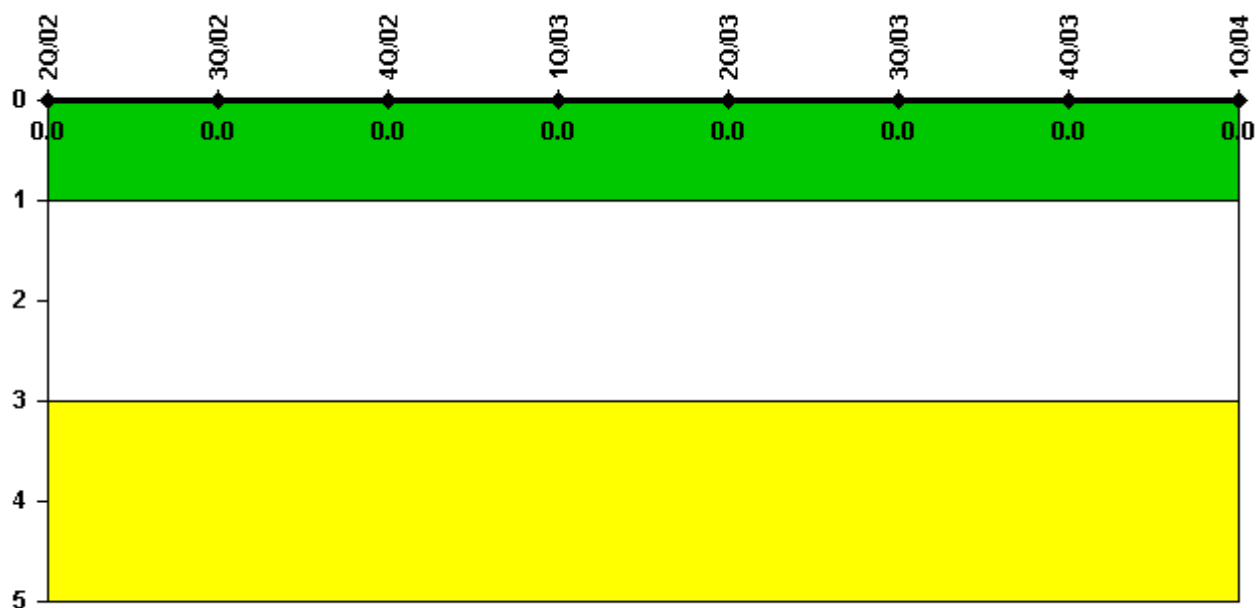
Thresholds: White > 2.0 Yellow > 5.0

#### Notes

Occupational Exposure Control Effectiveness	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04
High radiation area occurrences	0	0	0	1	0	0	0	0
Very high radiation area occurrences	0	0	0	0	0	0	0	0
Unintended exposure occurrences	0	0	0	0	0	0	0	0
<b>Indicator value</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>0</b>

Licensee Comments: none

### RETS/ODCM Radiological Effluent



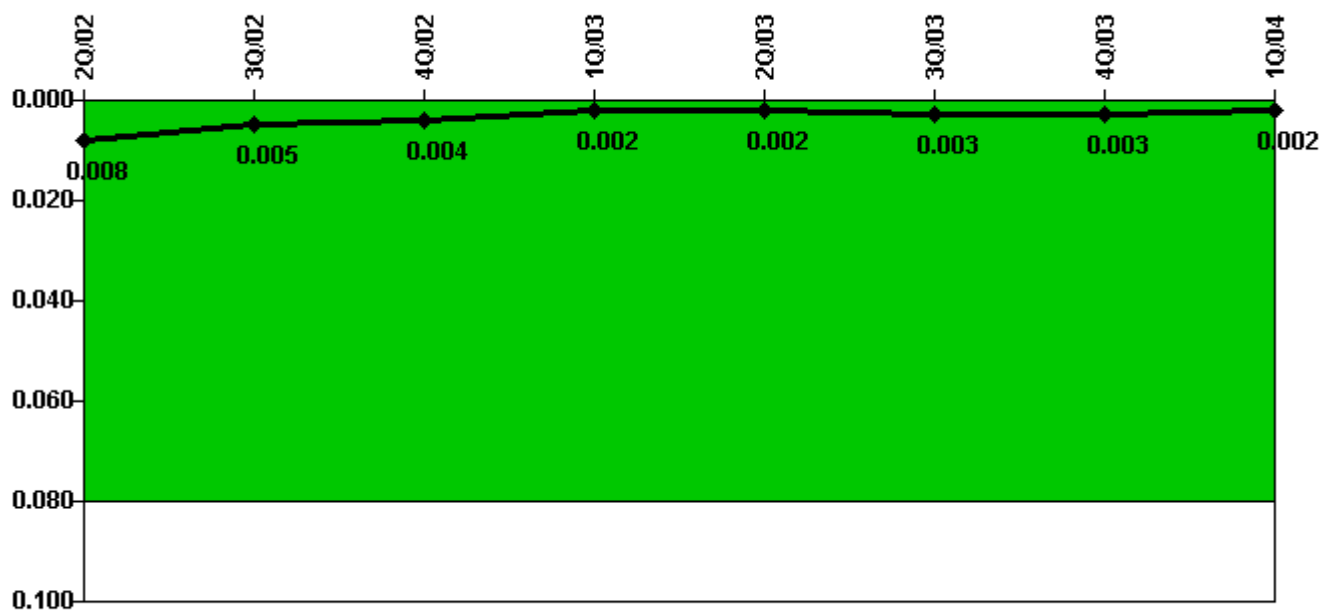
Thresholds: White > 1.0 Yellow > 3.0

#### Notes

RETS/ODCM Radiological Effluent	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04
RETS/ODCM occurrences	0	0	0	0	0	0	0	0
Indicator value	0	0	0	0	0	0	0	0

Licensee Comments: none

### Protected Area Security Performance Index



Thresholds: White > 0.080

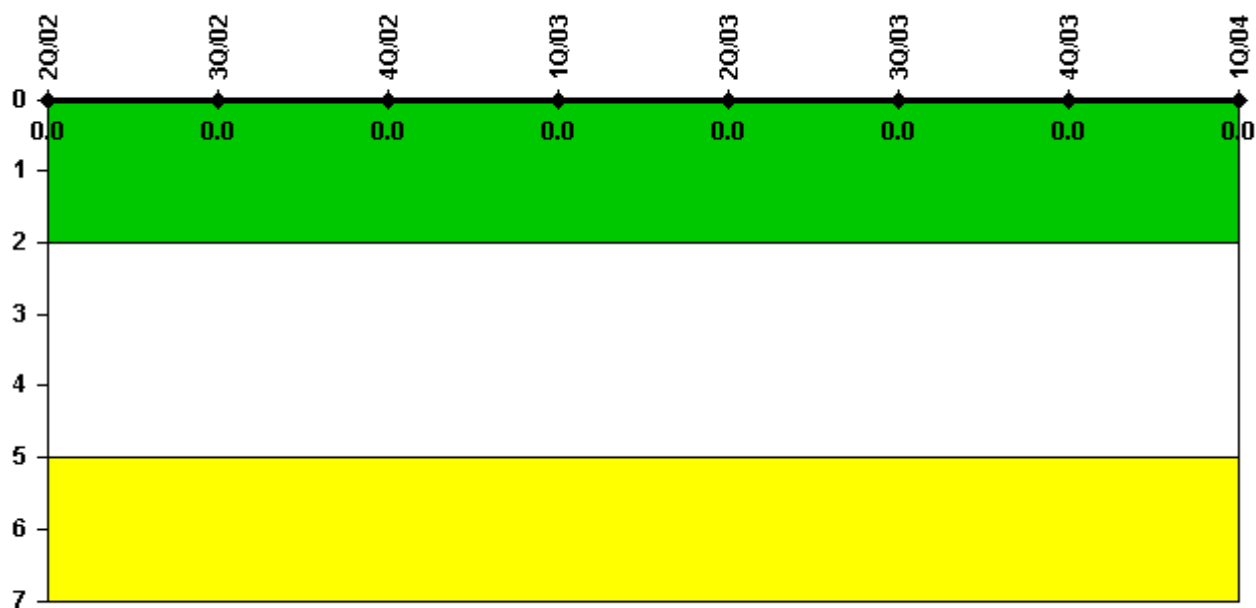
#### Notes

Protected Area Security Performance Index	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04
IDS compensatory hours	1.80	7.80	14.20	24.90	11.70	25.40	20.00	0
CCTV compensatory hours	0	0	0	0	0	0	0	0
IDS normalization factor	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40
CCTV normalization factor	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
<b>Index Value</b>	<b>0.008</b>	<b>0.005</b>	<b>0.004</b>	<b>0.002</b>	<b>0.002</b>	<b>0.003</b>	<b>0.003</b>	<b>0.002</b>

Licensee Comments: none



### Personnel Screening Program



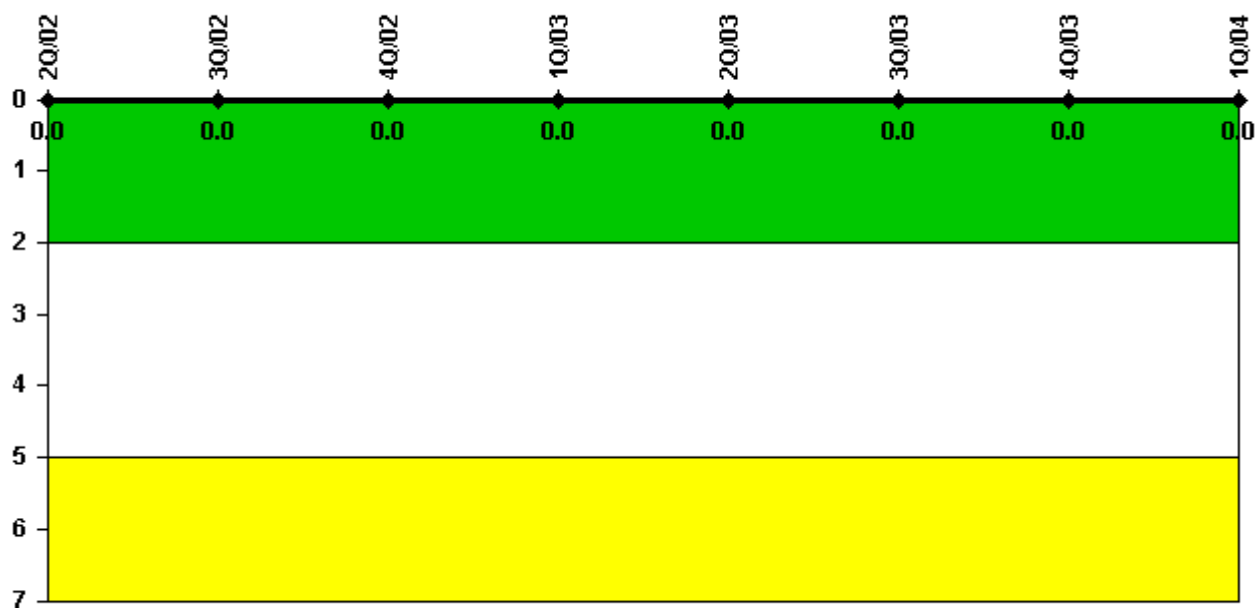
Thresholds: White > 2.0 Yellow > 5.0

#### Notes

Personnel Screening Program	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04
Program failures	0	0	0	0	0	0	0	0
Indicator value	0	0	0	0	0	0	0	0

Licensee Comments: none

### FFD/Personnel Reliability



Thresholds: White > 2.0 Yellow > 5.0

#### Notes

FFD/Personnel Reliability	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04
Program Failures	0	0	0	0	0	0	0	0
<b>Indicator value</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

Licensee Comments: none

▲ [PI Summary](#) | [Inspection Findings Summary](#) | [Reactor Oversight Process](#)

Last Modified: April 22, 2004