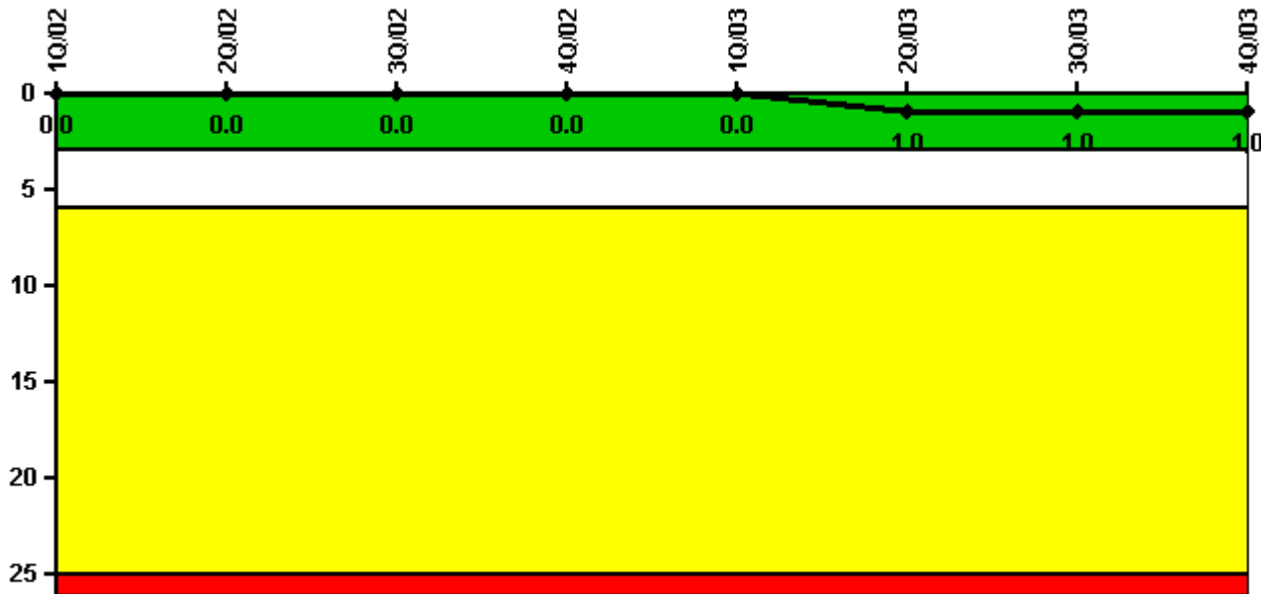


# Calvert Cliffs 2

## 4Q/2003 Performance Indicators

Licensee's General Comments: none

### Unplanned Scrams per 7000 Critical Hrs



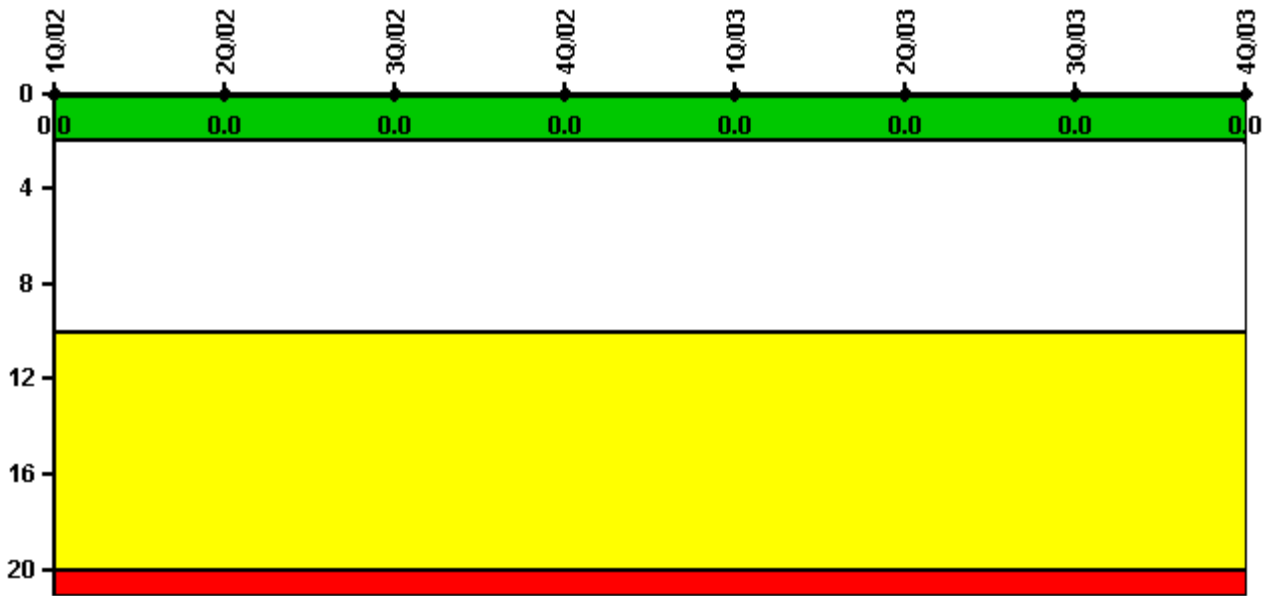
Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

### Notes

Unplanned Scrams per 7000 Critical Hrs	1Q/02	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03
Unplanned scrams	0	0	0	0	0	1.0	0	0
Critical hours	2160.0	2183.0	2208.0	2209.0	1079.4	1670.6	2208.0	2209.0
Indicator value	0	0	0	0	0	1.0	1.0	1.0

Licensee Comments: none

### Scrams with Loss of Normal Heat Removal



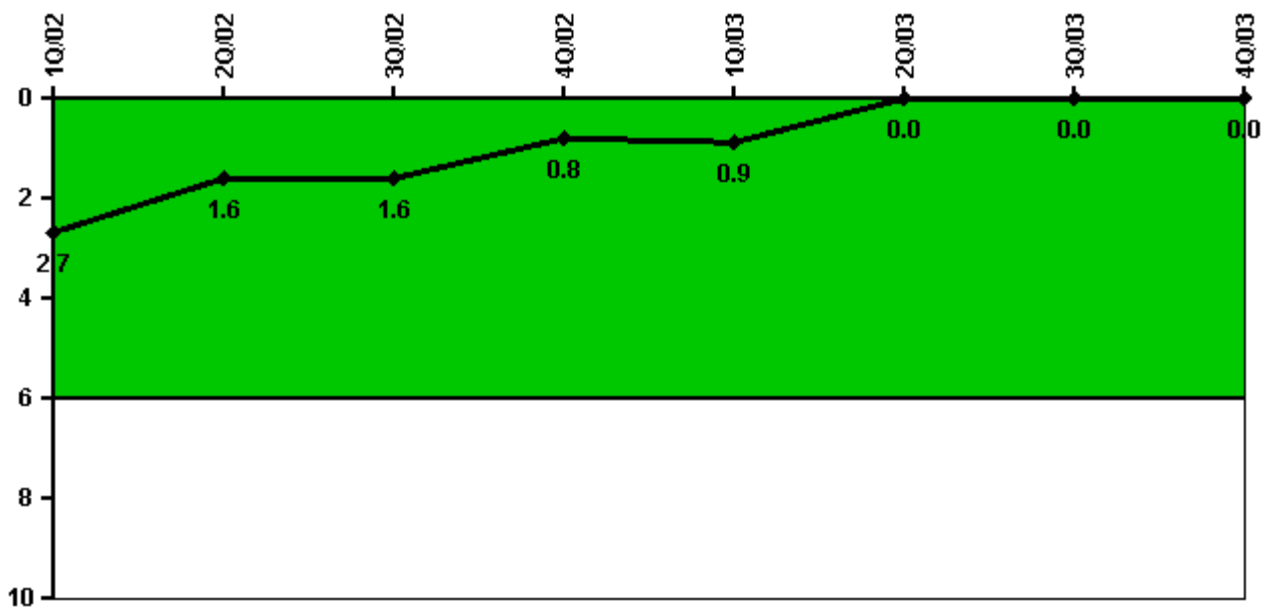
Thresholds: White > 2.0 Yellow > 10.0 Red > 20.0

#### Notes

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

Licensee Comments: none

### Unplanned Power Changes per 7000 Critical Hrs



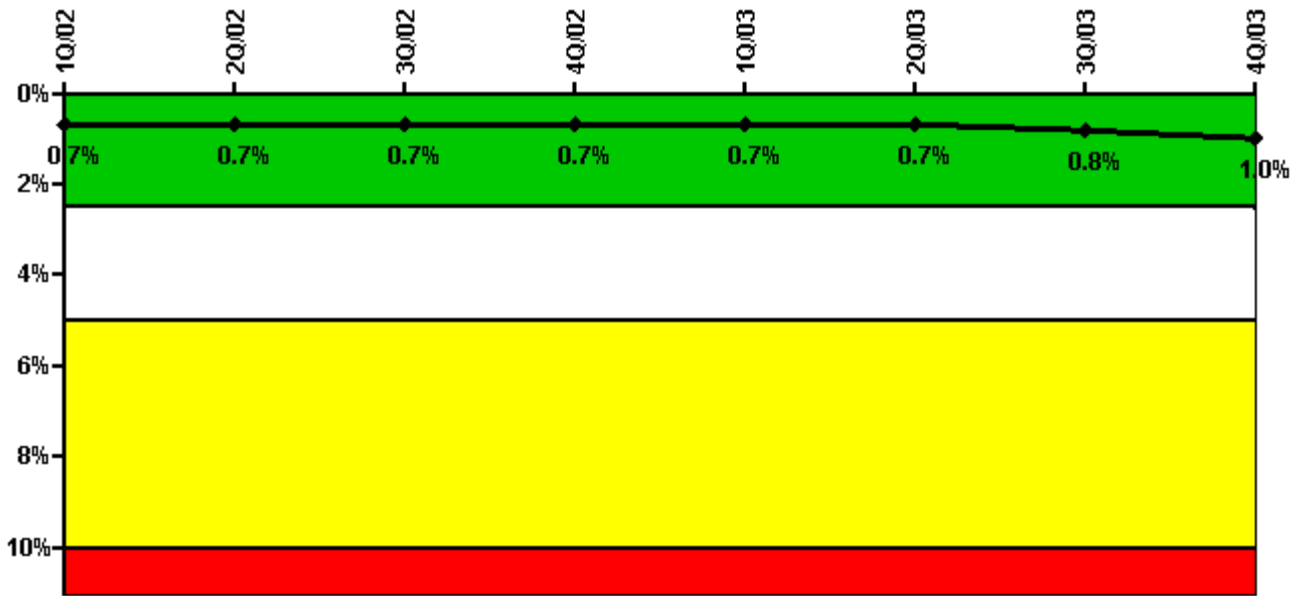
Thresholds: White > 6.0

#### Notes

Unplanned Power Changes per 7000 Critical Hrs	1Q/02	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03
Unplanned power changes	0	1.0	0	0	0	0	0	0
Critical hours	2160.0	2183.0	2208.0	2209.0	1079.4	1670.6	2208.0	2209.0
Indicator value	2.7	1.6	1.6	0.8	0.9	0	0	0

Licensee Comments: none

### Safety System Unavailability, Emergency AC Power



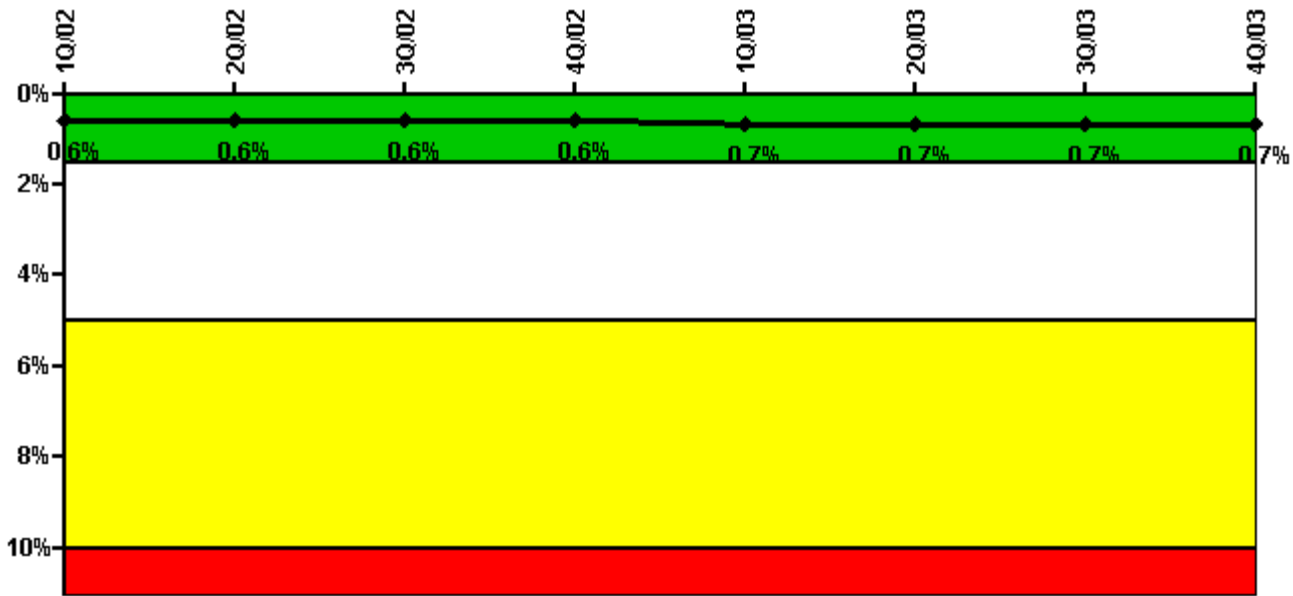
Thresholds: White > 2.5% Yellow > 5.0% Red > 10.0%

#### Notes

Safety System Unavailability, Emergency AC Power	1Q/02	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03
<b>Train 1</b>								
Planned unavailable hours	1.33	13.50	0	0	20.18	0	0	27.13
Unplanned unavailable hours	143.98	0	0	0	0	0	0	117.97
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2160.00	2183.00	2208.00	2209.00	2160.00	2183.00	2208.00	2209.00
<b>Train 2</b>								
Planned unavailable hours	0	2.70	13.27	6.30	34.39	1.05	32.42	8.68
Unplanned unavailable hours	12.25	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	2160.00	2183.00	2208.00	2209.00	2160.00	2183.00	2208.00	2209.00
Indicator value	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.8%	1.0%

Licensee Comments: none

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



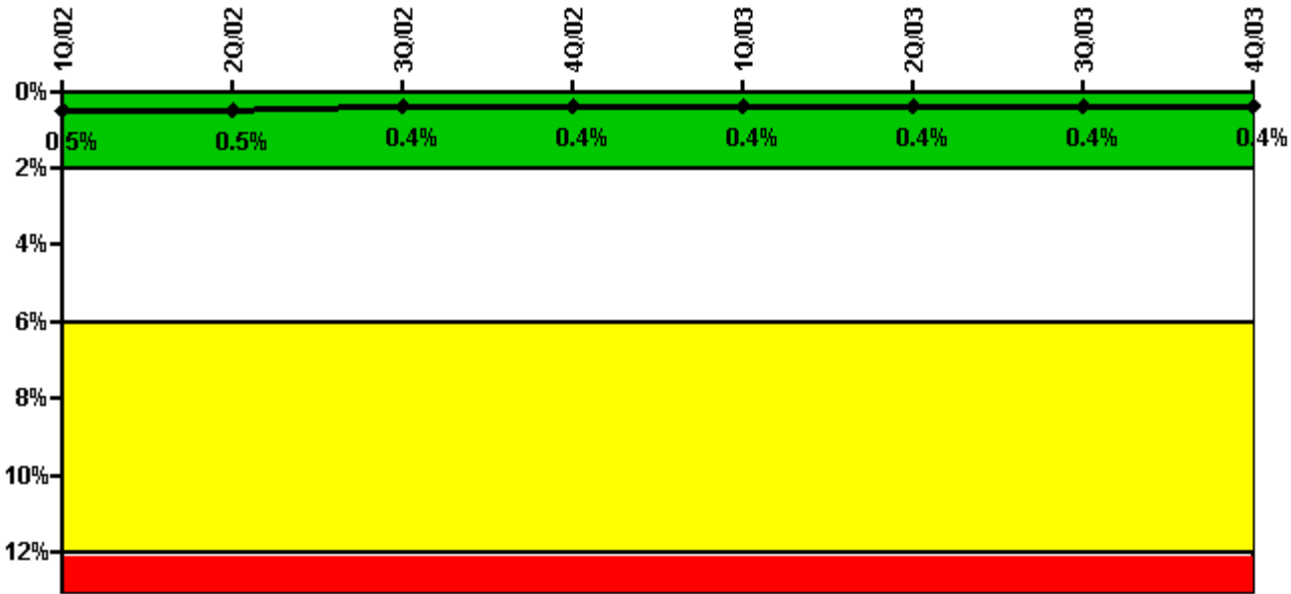
Thresholds: White > 1.5% Yellow > 5.0% Red > 10.0%

**Notes**

Safety System Unavailability, High Pressure Injection System (HPSI)	1Q/02	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03
<b>Train 1</b>								
Planned unavailable hours	20.17	0.30	2.42	25.99	18.68	2.11	2.58	29.17
Unplanned unavailable hours	0	11.70	0	0.77	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	2160.00	2183.00	2208.00	2209.00	1079.40	1670.60	2208.00	2209.00
<b>Train 2</b>								
Planned unavailable hours	17.45	0.30	34.49	1.23	33.78	3.98	35.00	2.04
Unplanned unavailable hours	0	0	0	0	3.40	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	2160.00	2183.00	2208.00	2209.00	1079.40	1670.60	2208.00	2209.00
<b>Indicator value</b>	<b>0.6%</b>	<b>0.6%</b>	<b>0.6%</b>	<b>0.6%</b>	<b>0.7%</b>	<b>0.7%</b>	<b>0.7%</b>	<b>0.7%</b>

Licensee Comments: none

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



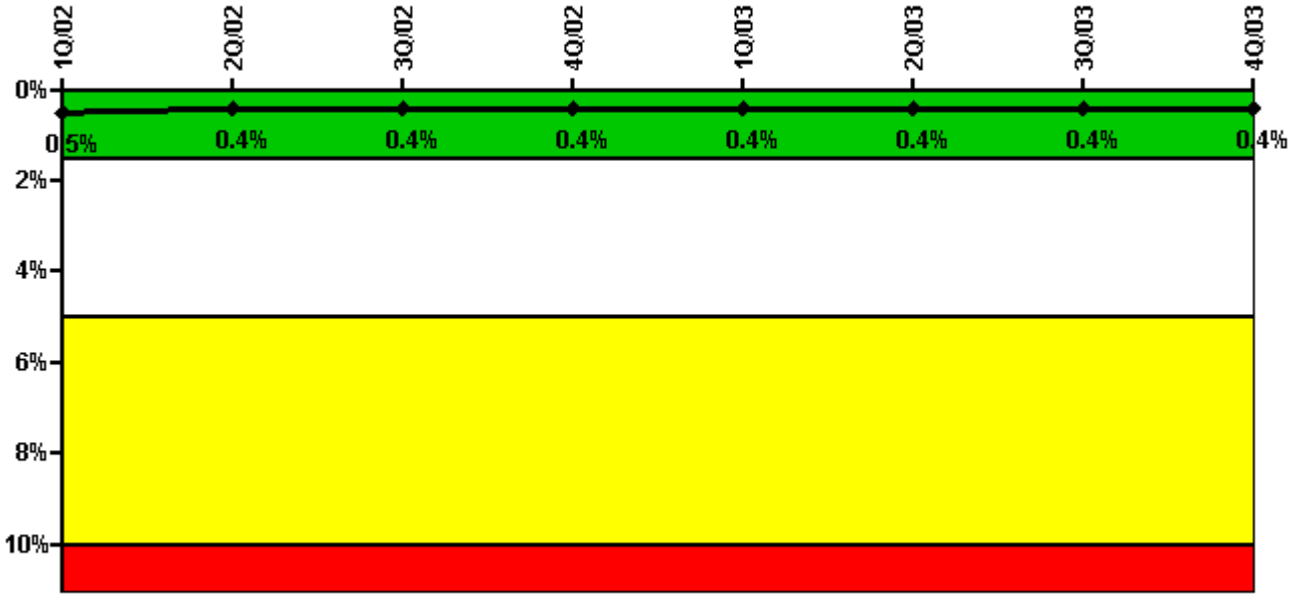
Thresholds: White > 2.0% Yellow > 6.0% Red > 12.0%

**Notes**

Safety System Unavailability, Heat Removal System (AFW)	1Q/02	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03
<b>Train 1</b>								
Planned unavailable hours	22.42	2.20	0	0.40	0	0.92	0	14.50
Unplanned unavailable hours	0	0	0	0.37	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	2160.00	2183.00	2208.00	2209.00	1079.40	1670.60	2208.00	2209.00
<b>Train 2</b>								
Planned unavailable hours	22.42	2.70	0.47	1.07	0	0.42	0.97	14.82
Unplanned unavailable hours	0	0	0	0.90	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	2160.00	2183.00	2208.00	2209.00	1079.40	1670.60	2208.00	2209.00
<b>Train 3</b>								
Planned unavailable hours	0	4.60	0	0	0.52	0	0	0
Unplanned unavailable hours	0	0	23.38	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	2160.00	2183.00	2208.00	2209.00	1079.40	1670.60	2208.00	2209.00
Indicator value	0.5%	0.5%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%

Licensee Comments: none

### Safety System Unavailability, Residual Heat Removal System



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

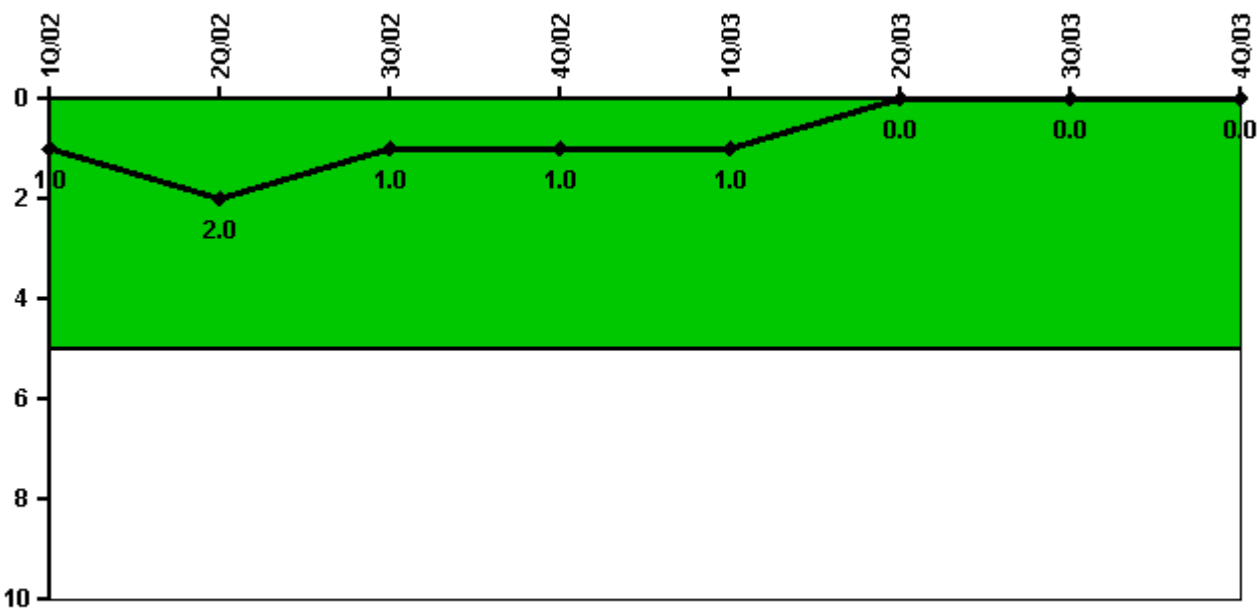
#### Notes

Safety System Unavailability, Residual Heat Removal System	10/02	20/02	30/02	40/02	10/03	20/03	30/03	40/03
<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	0	0	0	0	304.50	300.00	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	0	0	0	0	304.50	300.00	0	0
<b>Train 3</b>								
Planned unavailable hours	21.59	18.10	2.49	3.66	18.24	6.55	3.43	28.88
Unplanned unavailable hours	0	11.70	1.92	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	2160.00	2183.00	2208.00	2209.00	1090.30	1741.90	2208.00	2209.00
<b>Train 4</b>								
Planned unavailable hours	18.47	6.40	42.50	3.06	33.74	19.05	34.77	1.25

Unplanned unavailable hours	0	0	3.15	0	3.40	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	2160.00	2183.00	2208.00	2209.00	1090.30	1741.90	2208.00	2209.00
Indicator value	0.5%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%

Licensee Comments: none

### Safety System Functional Failures (PWR)



Thresholds: White > 5.0

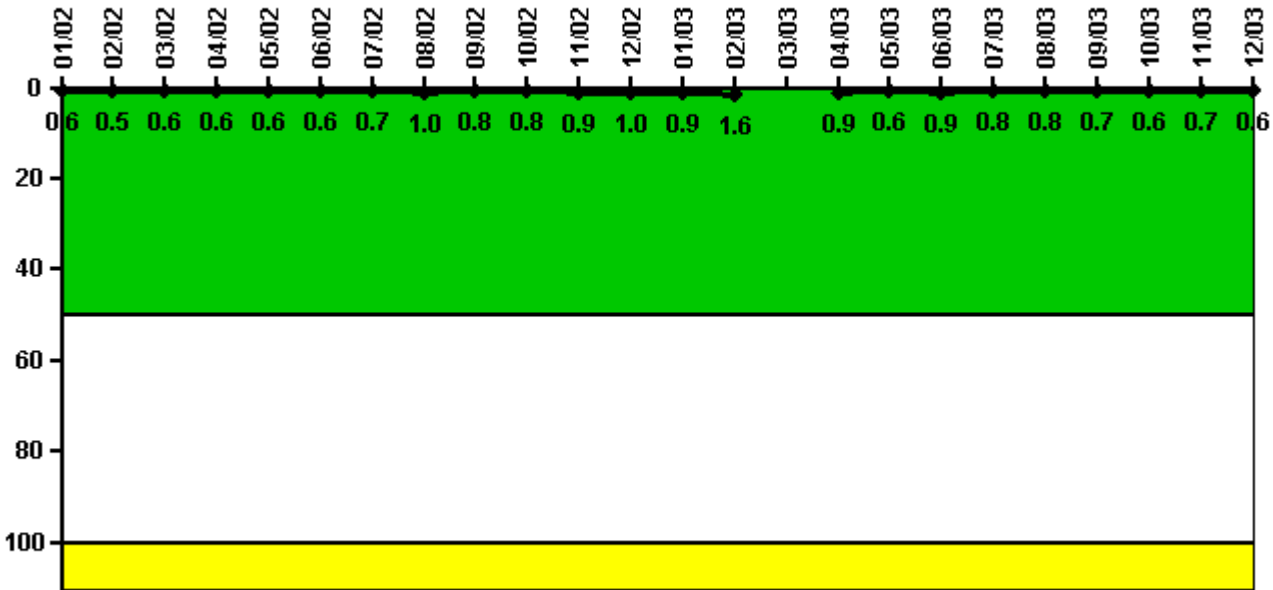
### Notes

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

Licensee Comments: none



### Reactor Coolant System Activity



Thresholds: White > 50.0 Yellow > 100.0

#### Notes

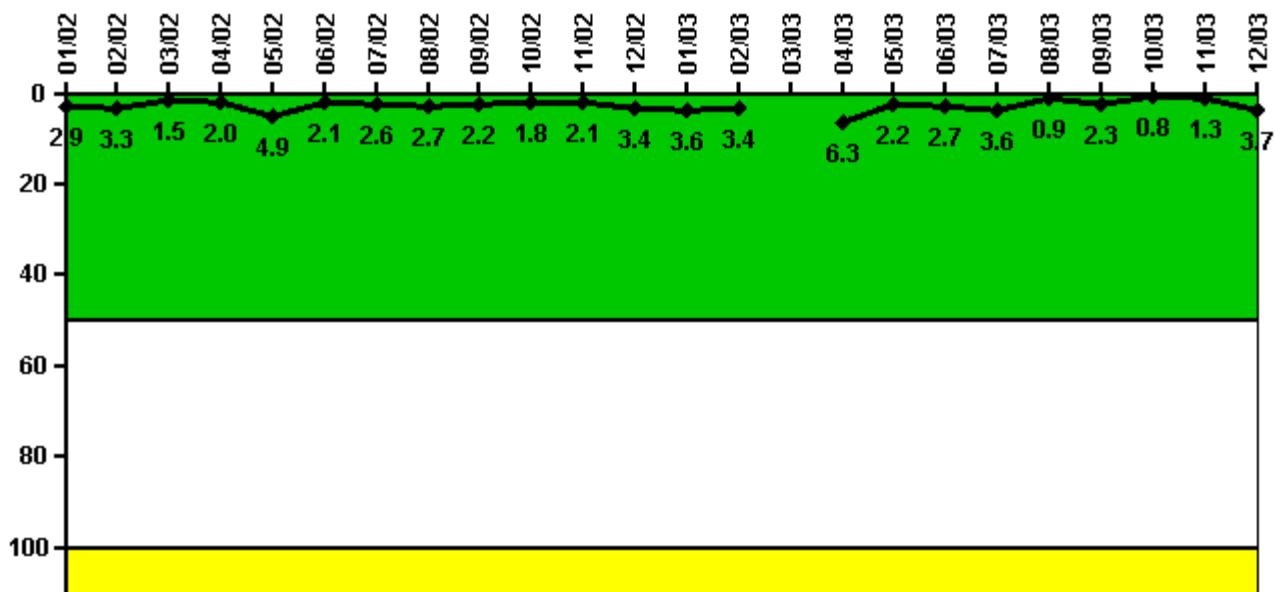
Reactor Coolant System Activity	1/02	2/02	3/02	4/02	5/02	6/02	7/02	8/02	9/02	10/02	11/02	12/02
Maximum activity	0.005730	0.005470	0.005600	0.005600	0.006010	0.006200	0.006550	0.009630	0.007900	0.007980	0.008700	0.009630
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	0.6	0.5	0.6	0.6	0.6	0.6	0.7	1.0	0.8	0.8	0.9	1.0

Reactor Coolant System Activity	1/03	2/03	3/03	4/03	5/03	6/03	7/03	8/03	9/03	10/03	11/03	12/03
Maximum activity	0.008560	0.015900	N/A	0.009480	0.005990	0.008670	0.007940	0.007550	0.006680	0.006480	0.006510	0.006060
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	0.9	1.6	N/A	0.9	0.6	0.9	0.8	0.8	0.7	0.6	0.7	0.6

Licensee Comments: none

### Reactor Coolant System Leakage



Thresholds: White > 50.0 Yellow > 100.0

**Notes**

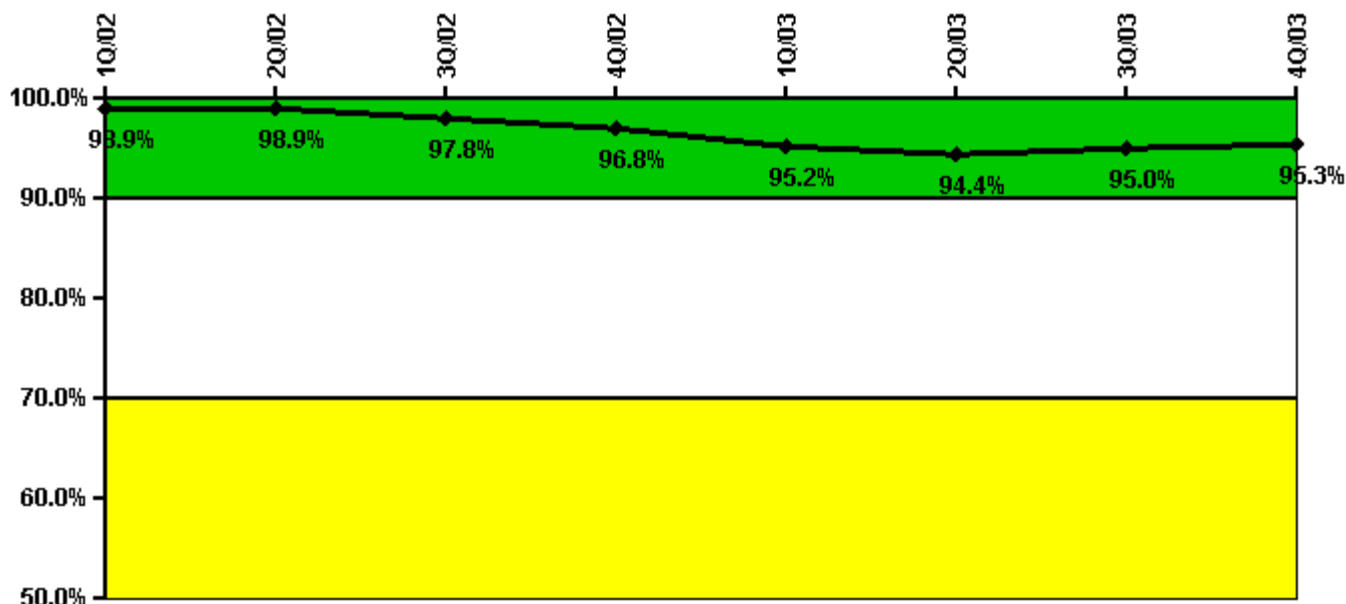
Reactor Coolant System Leakage	1/02	2/02	3/02	4/02	5/02	6/02	7/02	8/02	9/02	10/02	11/02	12/02
Maximum leakage	0.289	0.331	0.145	0.200	0.486	0.211	0.262	0.273	0.220	0.177	0.210	0.338
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	2.9	3.3	1.5	2.0	4.9	2.1	2.6	2.7	2.2	1.8	2.1	3.4

Reactor Coolant System Leakage	1/03	2/03	3/03	4/03	5/03	6/03	7/03	8/03	9/03	10/03	11/03	12/03
Maximum leakage	0.360	0.340	N/A	0.630	0.220	0.270	0.357	0.094	0.228	0.077	0.129	0.367
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	3.6	3.4	N/A	6.3	2.2	2.7	3.6	0.9	2.3	0.8	1.3	3.7

Licensee Comments: none

### Drill/Exercise Performance



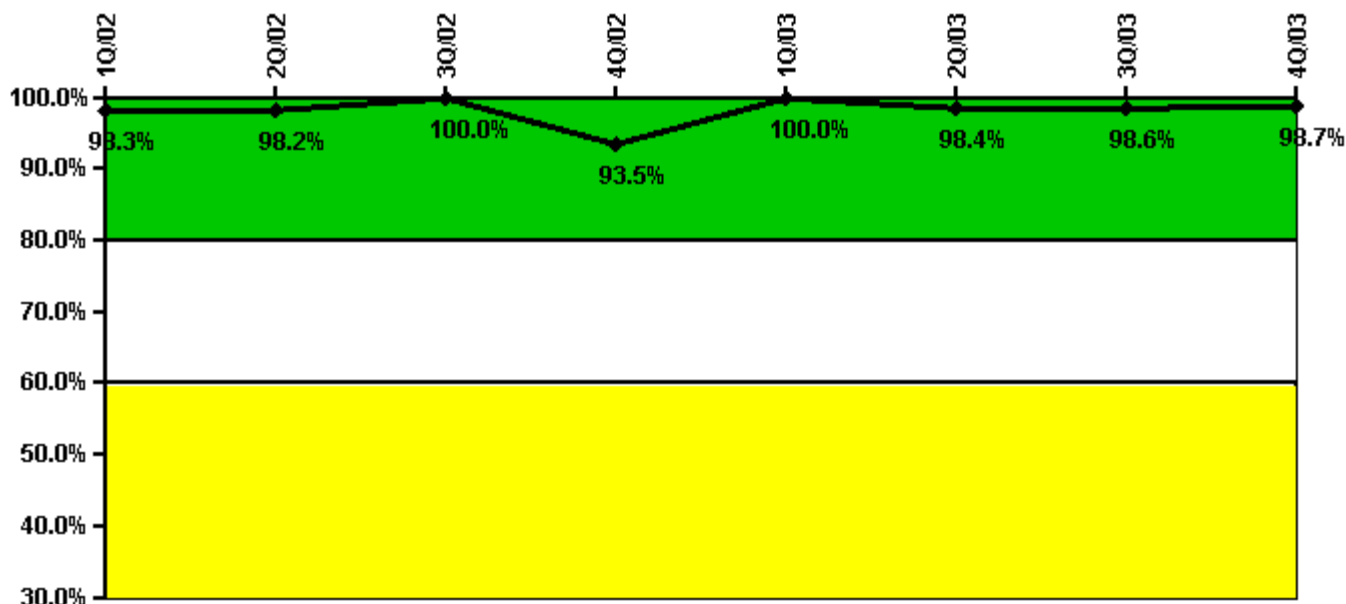
Thresholds: White < 90.0% Yellow < 70.0%

#### Notes

Drill/Exercise Performance	1Q/02	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03
Successful opportunities	14.0	8.0	34.0	39.0	9.0	14.0	29.0	56.0
Total opportunities	14.0	8.0	37.0	41.0	12.0	15.0	29.0	57.0
Indicator value	98.9%	98.9%	97.8%	96.8%	95.2%	94.4%	95.0%	95.3%

Licensee Comments: none

### ERO Drill Participation



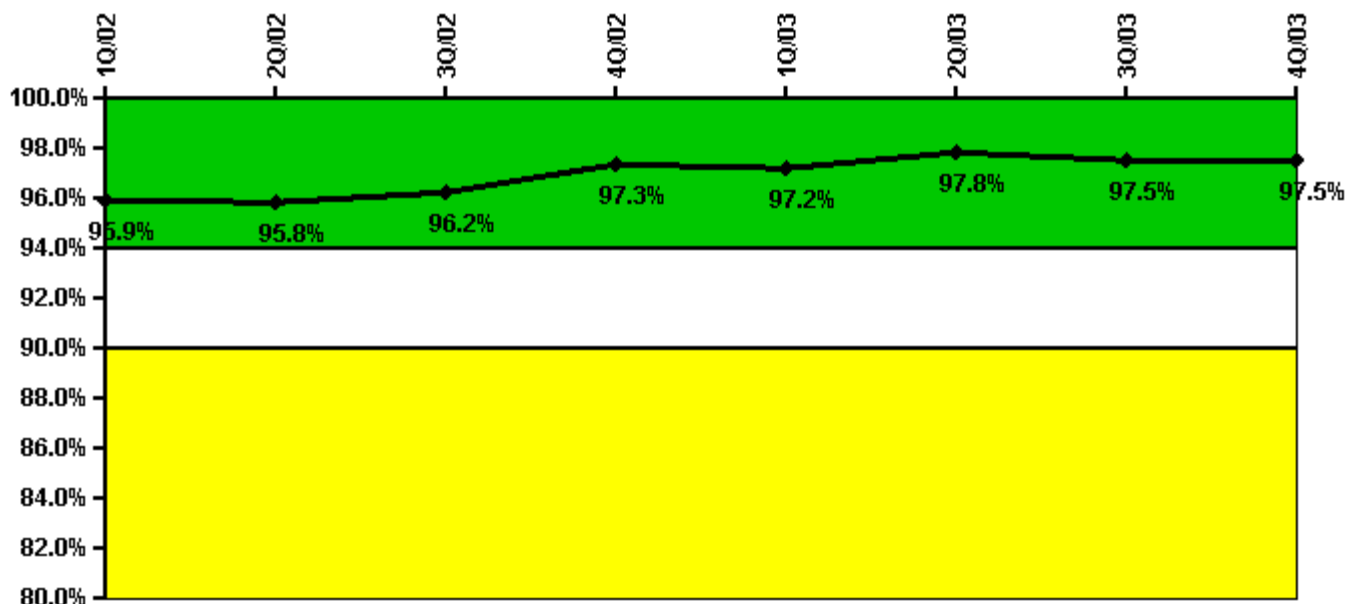
Thresholds: White < 80.0% Yellow < 60.0%

#### Notes

ERO Drill Participation	1Q/02	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03
Participating Key personnel	58.0	54.0	58.0	58.0	57.0	63.0	68.0	77.0
Total Key personnel	59.0	55.0	58.0	62.0	57.0	64.0	69.0	78.0
Indicator value	98.3%	98.2%	100.0%	93.5%	100.0%	98.4%	98.6%	98.7%

Licensee Comments: none

### Alert & Notification System



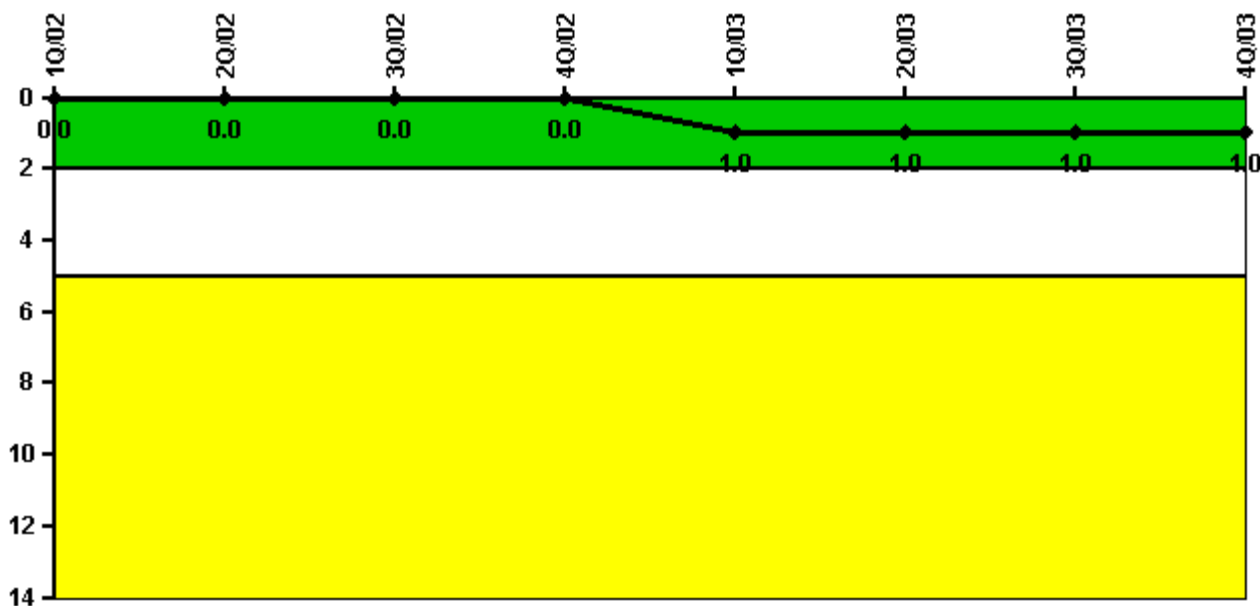
Thresholds: White < 94.0% Yellow < 90.0%

#### Notes

Alert & Notification System	1Q/02	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03
Successful siren-tests	918	956	1035	1007	914	1036	963	1007
Total sirens-tests	930	1019	1057	1019	930	1074	996	1019
Indicator value	95.9%	95.8%	96.2%	97.3%	97.2%	97.8%	97.5%	97.5%

Licensee Comments: none

### Occupational Exposure Control Effectiveness



Thresholds: White > 2.0 Yellow > 5.0

#### Notes

Occupational Exposure Control Effectiveness	1Q/02	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03
High radiation area occurrences	0	0	0	0	1	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
Indicator value	0	0	0	0	1	1	1	1

Licensee Comments: none

### RETS/ODCM Radiological Effluent



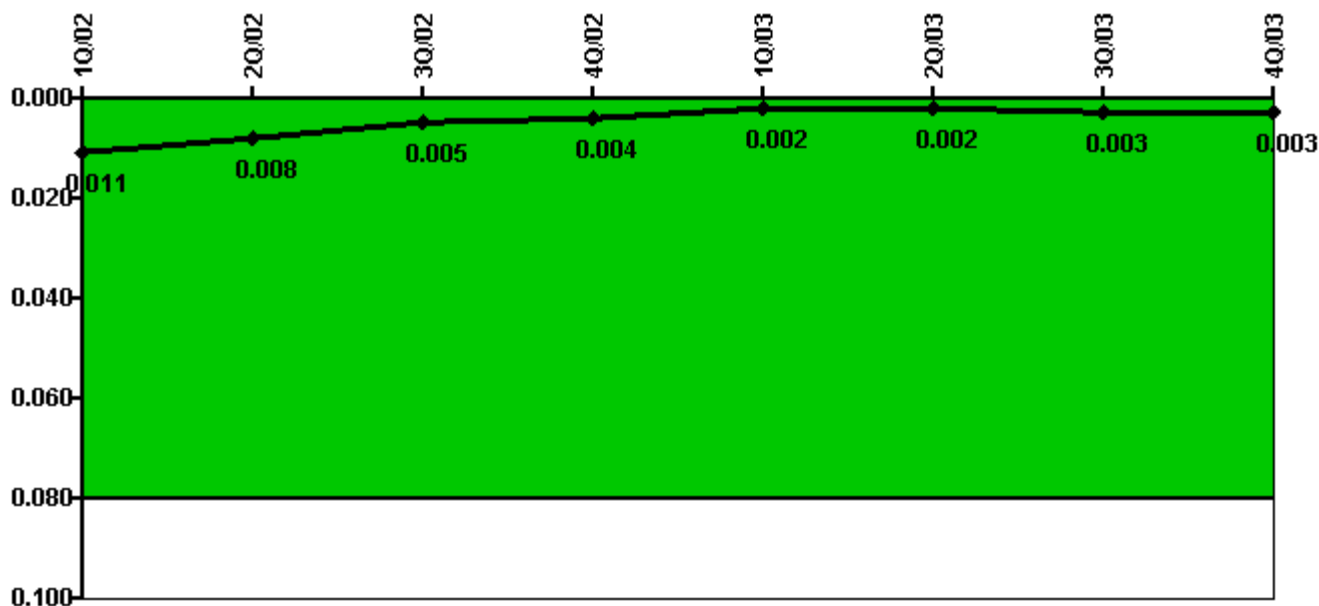
Thresholds: White > 1.0 Yellow > 3.0

#### Notes

RETS/ODCM Radiological Effluent	1Q/02	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03
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	1Q/02	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03
IDS compensatory hours	51.10	1.80	7.80	14.20	24.90	11.70	25.40	20.00
CCTV compensatory hours	19.5	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
Index Value	0.011	0.008	0.005	0.004	0.002	0.002	0.003	0.003

Licensee Comments: none



### Personnel Screening Program



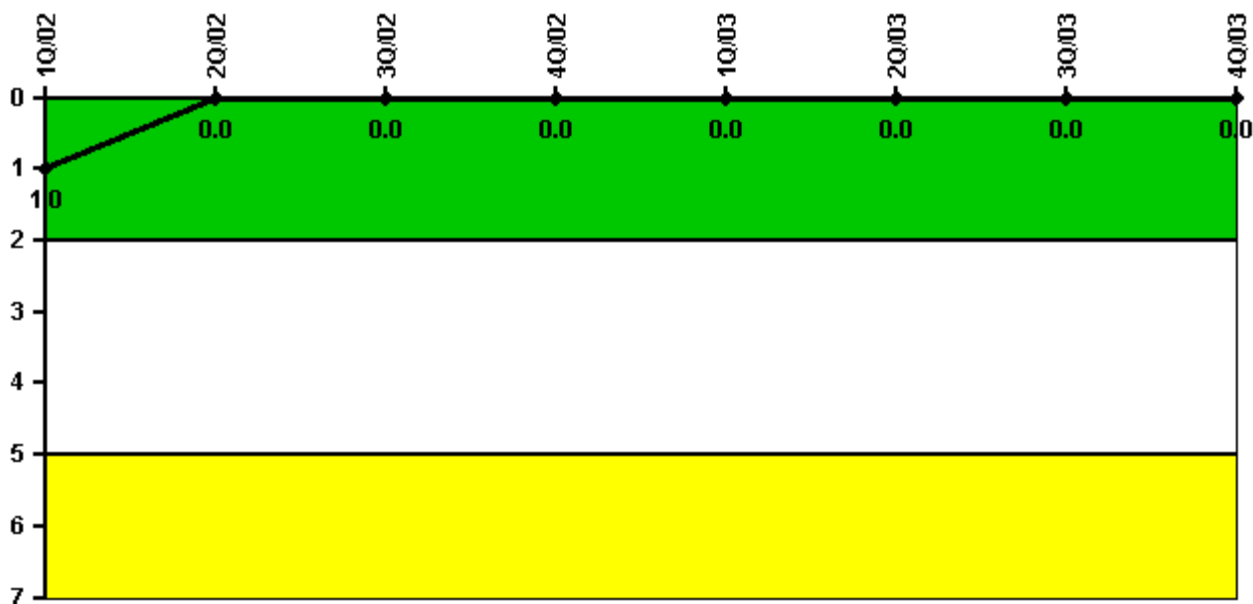
Thresholds: White > 2.0 Yellow > 5.0

#### Notes

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

Licensee Comments: none

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

Last Modified: January 23, 2004