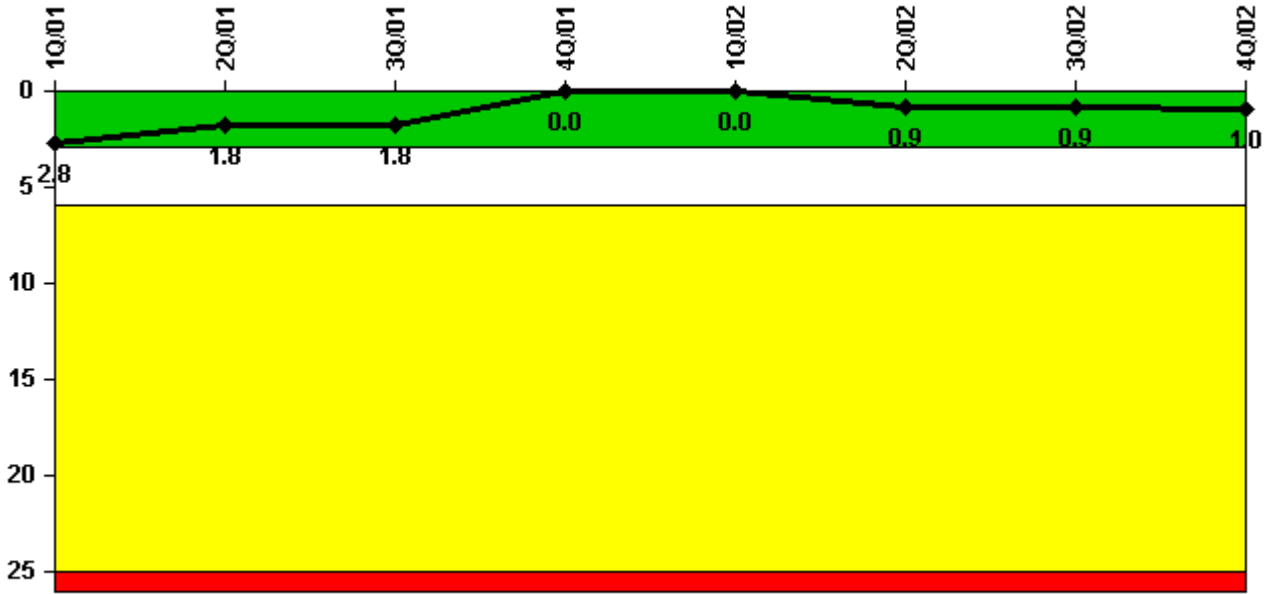


# Diablo Canyon 1

## 4Q/2002 Performance Indicators

Licensee's General Comments: none

### Unplanned Scrams per 7000 Critical Hrs



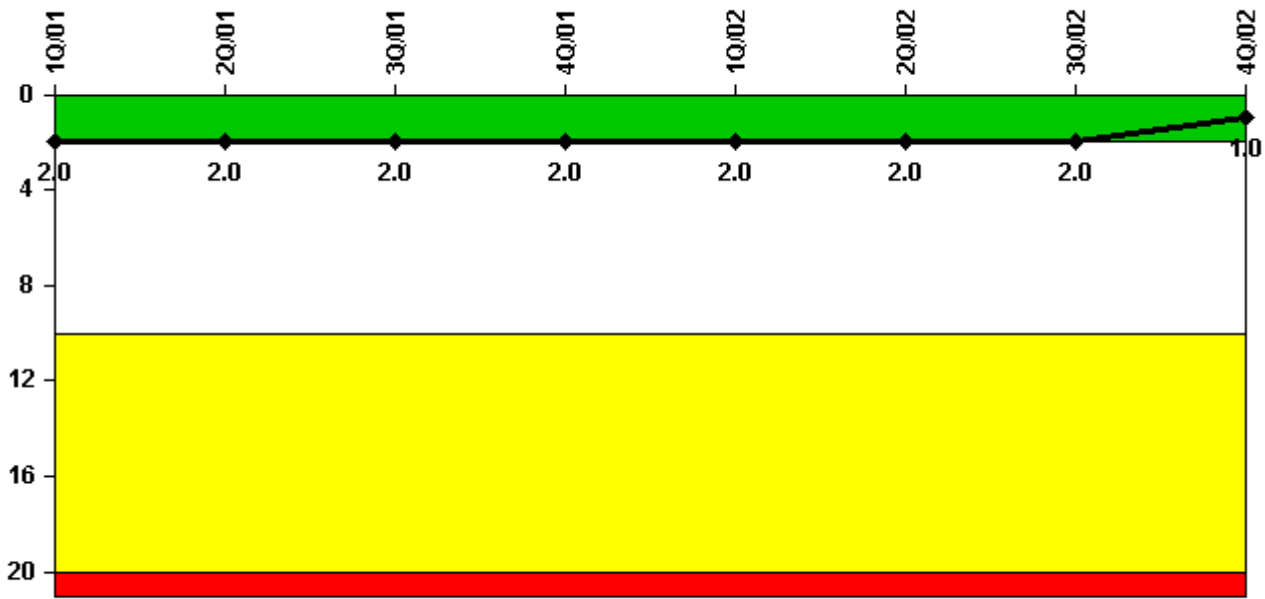
Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

### Notes

Unplanned Scrams per 7000 Critical Hrs	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02
Unplanned scrams	0	0	0	0	0	1.0	0	0
Critical hours	2160.0	2183.0	2208.0	2209.0	2160.0	1467.5	2208.0	971.3
Indicator value	2.8	1.8	1.8	0	0	0.9	0.9	1.0

Licensee Comments: none

### Scrams with Loss of Normal Heat Removal



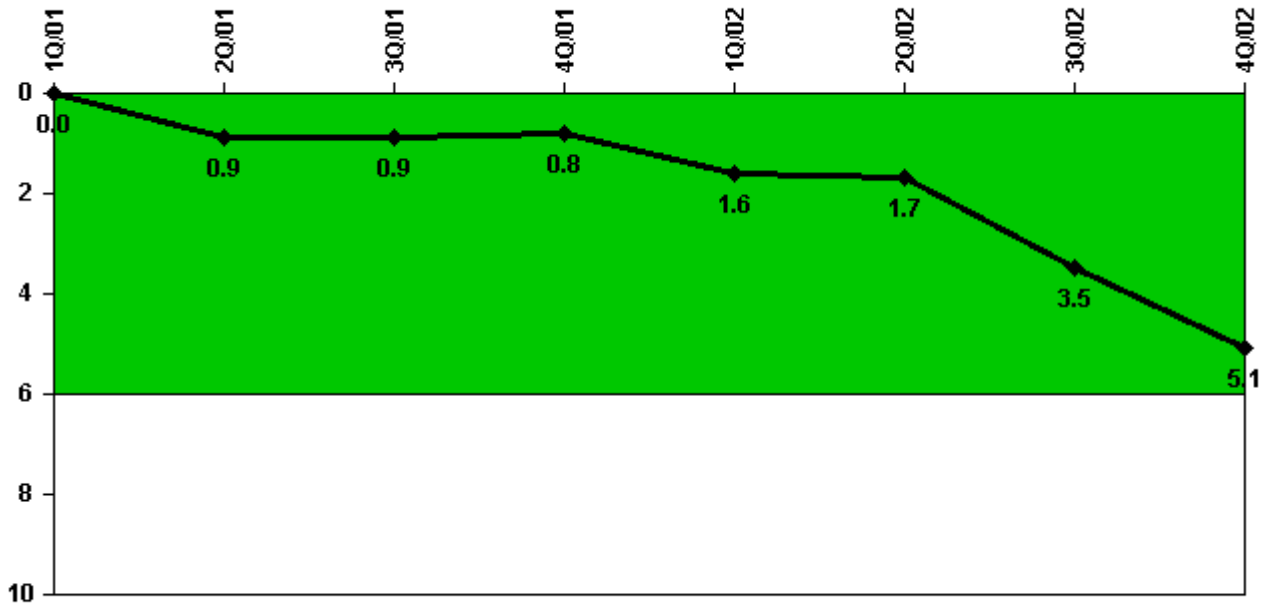
Thresholds: White > 2.0 Yellow > 10.0 Red > 20.0

#### Notes

Scrams with Loss of Normal Heat Removal	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02
Scrams	0	0	0	0	0	0	0	0
Indicator value	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.0

Licensee Comments: none

### Unplanned Power Changes per 7000 Critical Hrs



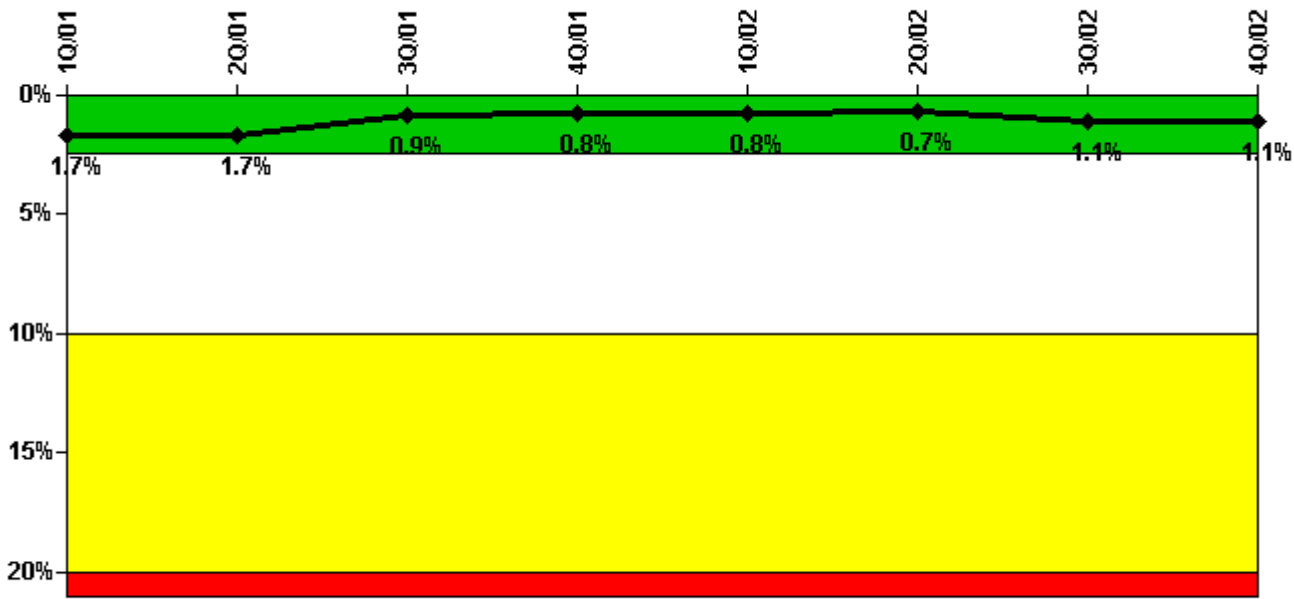
Thresholds: White > 6.0

#### Notes

Unplanned Power Changes per 7000 Critical Hrs	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02
Unplanned power changes	0	1.0	0	0	1.0	1.0	2.0	1.0
Critical hours	2160.0	2183.0	2208.0	2209.0	2160.0	1467.5	2208.0	971.3
Indicator value	0	0.9	0.9	0.8	1.6	1.7	3.5	5.1

Licensee Comments: none

### Safety System Unavailability, Emergency AC Power, >2EDG



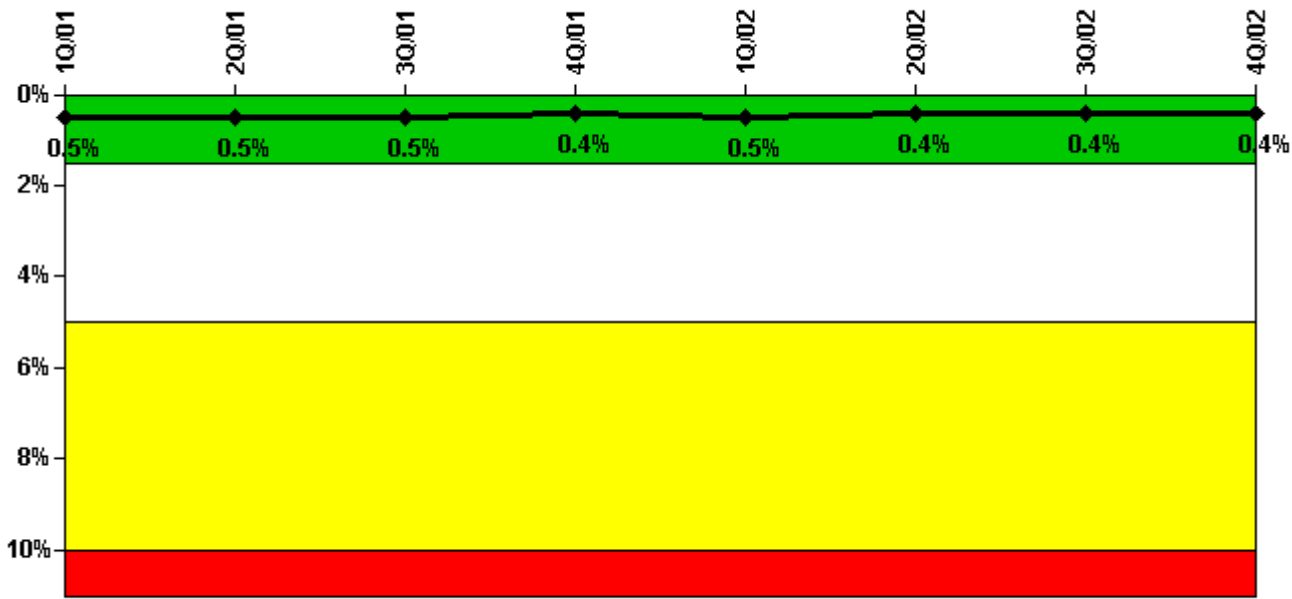
Thresholds: White > 2.5% Yellow > 10.0% Red > 20.0%

#### Notes

Safety System Unavailability, Emergency AC Power, >2EDG	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02
<b>Train 1</b>								
Planned unavailable hours	0.80	2.30	16.90	0.10	0	4.40	0	13.20
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	2160.00	2183.00	2208.00	2209.00	2160.00	2183.00	2208.00	2209.00
<b>Train 2</b>								
Planned unavailable hours	0.50	1.40	32.20	0.10	0.10	2.20	0	18.00
Unplanned unavailable hours	50.90	0	0	0	0	11.90	0.10	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
<b>Train 3</b>								
Planned unavailable hours	0.90	26.60	0.10	0.20	19.90	5.20	0	0
Unplanned unavailable hours	14.40	0	0	0	0	2.40	79.00	0
Fault exposure hours	0	0	0	0	0	0	331.00	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>Indicator value</b>	<b>1.7%</b>	<b>1.7%</b>	<b>0.9%</b>	<b>0.8%</b>	<b>0.8%</b>	<b>0.7%</b>	<b>1.1%</b>	<b>1.1%</b>

Licensee Comments: none

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



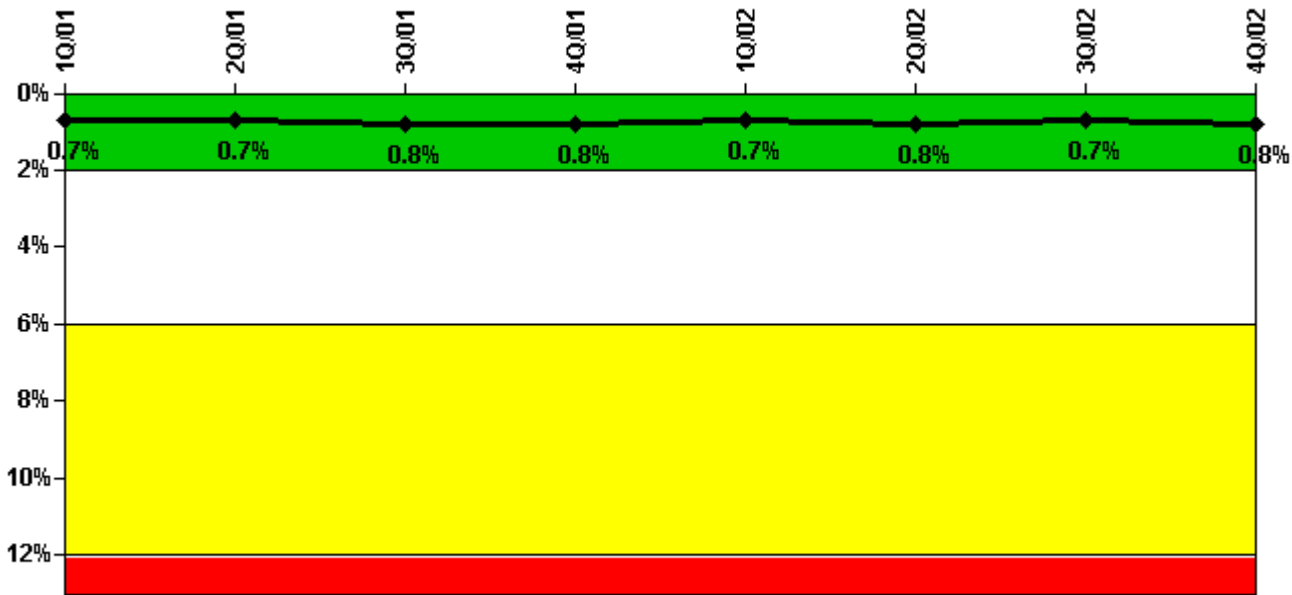
Thresholds: White > 1.5% Yellow > 5.0% Red > 10.0%

#### Notes

Safety System Unavailability, High Pressure Injection System (HPSI)	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02
<b>Train 1</b>								
Planned unavailable hours	13.40	43.70	0	0	60.30	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	2160.00	2183.00	2208.00	2209.00	2160.00	1509.60	2208.00	971.30
<b>Train 2</b>								
Planned unavailable hours	24.90	0	0	18.30	0	0	19.00	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	2160.00	2183.00	2208.00	2209.00	2160.00	1509.60	2208.00	971.30
<b>Train 3</b>								
Planned unavailable hours	1.20	9.82	0.10	0.60	14.71	0.44	19.50	0.20
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	2160.00	2183.00	2208.00	2209.00	2160.00	1509.60	2208.00	971.30
<b>Train 4</b>								
Planned unavailable hours	1.20	0.10	12.00	0.30	13.50	0.10	0	0.10
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	2160.00	2183.00	2208.00	2209.00	2160.00	1509.60	2208.00	971.30
<b>Indicator value</b>	<b>0.5%</b>	<b>0.5%</b>	<b>0.5%</b>	<b>0.4%</b>	<b>0.5%</b>	<b>0.4%</b>	<b>0.4%</b>	<b>0.4%</b>

Licensee Comments: none

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



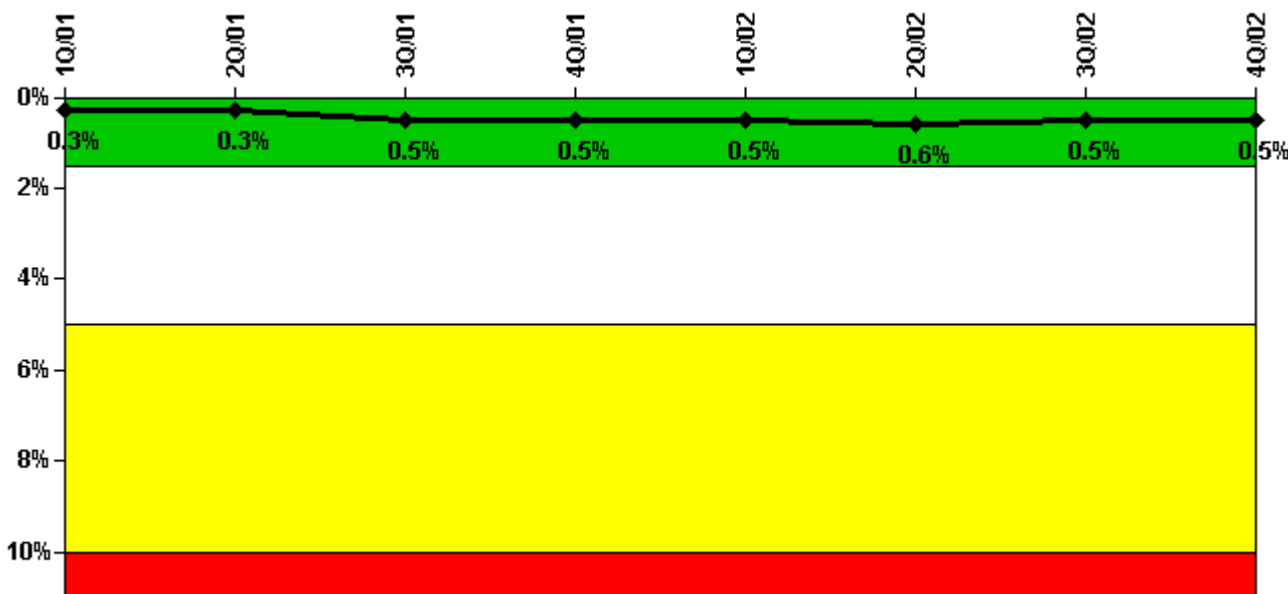
Thresholds: White > 2.0% Yellow > 6.0% Red > 12.0%

#### Notes

Safety System Unavailability, Heat Removal System (AFW)	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02
<b>Train 1</b>								
Planned unavailable hours	2.50	19.20	7.60	18.50	2.20	33.10	2.90	22.10
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	2160.00	2183.00	2208.00	2209.00	2160.00	1509.60	2208.00	971.30
<b>Train 2</b>								
Planned unavailable hours	2.40	4.60	32.20	1.30	1.90	24.20	17.30	19.10
Unplanned unavailable hours	0	0.40	16.20	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	1509.60	2208.00	971.30
<b>Train 3</b>								
Planned unavailable hours	15.40	0	26.30	1.20	6.00	20.00	16.10	0
Unplanned unavailable hours	0	3.20	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	1509.60	2208.00	971.30
<b>Indicator value</b>	<b>0.7%</b>	<b>0.7%</b>	<b>0.8%</b>	<b>0.8%</b>	<b>0.7%</b>	<b>0.8%</b>	<b>0.7%</b>	<b>0.8%</b>

Licensee Comments: none

### Safety System Unavailability, Residual Heat Removal System



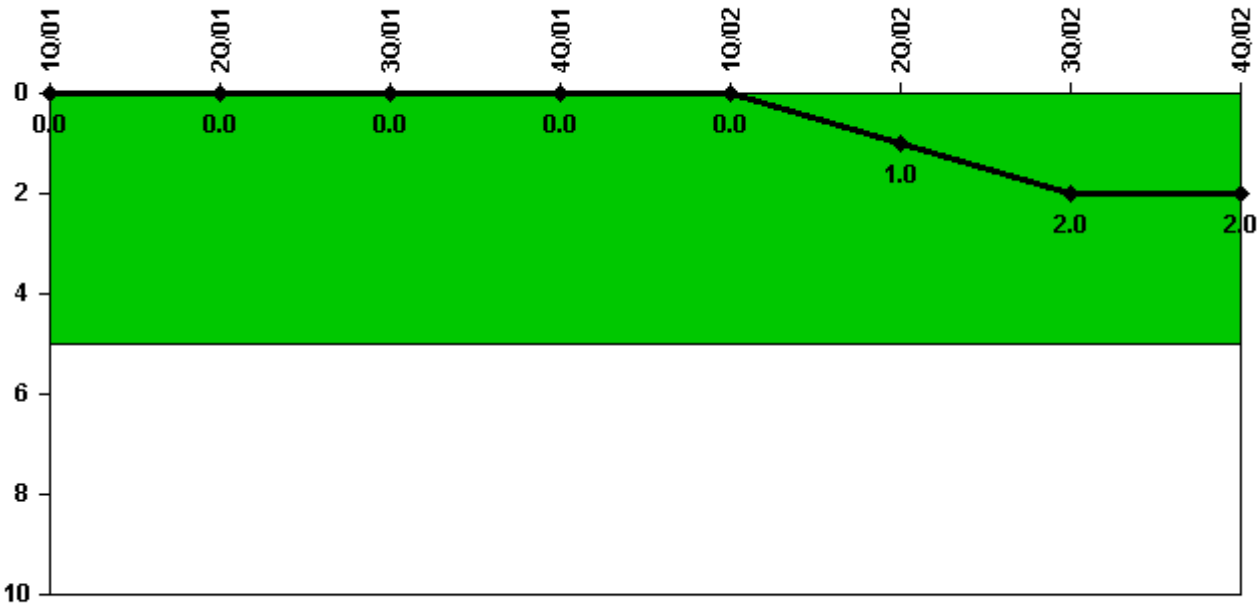
Thresholds: White > 1.5% Yellow > 5.0% Red > 10.0%

Notes

Safety System Unavailability, Residual Heat Removal System	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02
<b>Train 1</b>								
Planned unavailable hours	0.90	0.30	11.60	0.90	1.00	47.00	0.60	0.70
Unplanned unavailable hours	0	0	6.70	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
<b>Train 2</b>								
Planned unavailable hours	10.40	0.60	72.10	22.20	13.40	0.20	0.20	0
Unplanned unavailable hours	0	0	9.50	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	0.3%	0.3%	0.5%	0.5%	0.5%	0.6%	0.5%	0.5%

Licensee Comments: none

### Safety System Functional Failures (PWR)



Thresholds: White > 5.0

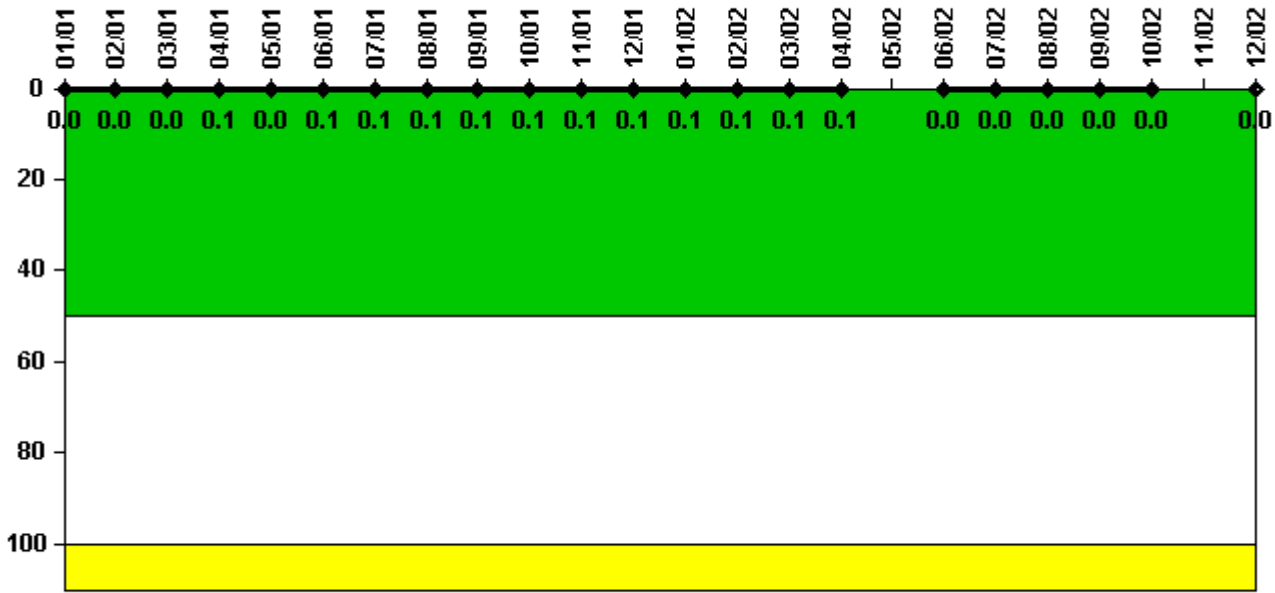
#### Notes

Safety System Functional Failures (PWR)	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02
Safety System Functional Failures	0	0	0	0	0	1	1	0
Indicator value	0	0	0	0	0	1	2	2

Licensee Comments: none



### Reactor Coolant System Activity



Thresholds: White > 50.0 Yellow > 100.0

#### Notes

Reactor Coolant System Activity	1/01	2/01	3/01	4/01	5/01	6/01	7/01	8/01	9/01	10/01	11/01	12/01
Maximum activity	0.000265	0.000285	0.000350	0.000368	0.000340	0.000414	0.000476	0.000631	0.000407	0.000374	0.000445	0.000424
Technical specification limit	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
Indicator value	0	0	0	0.1	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1

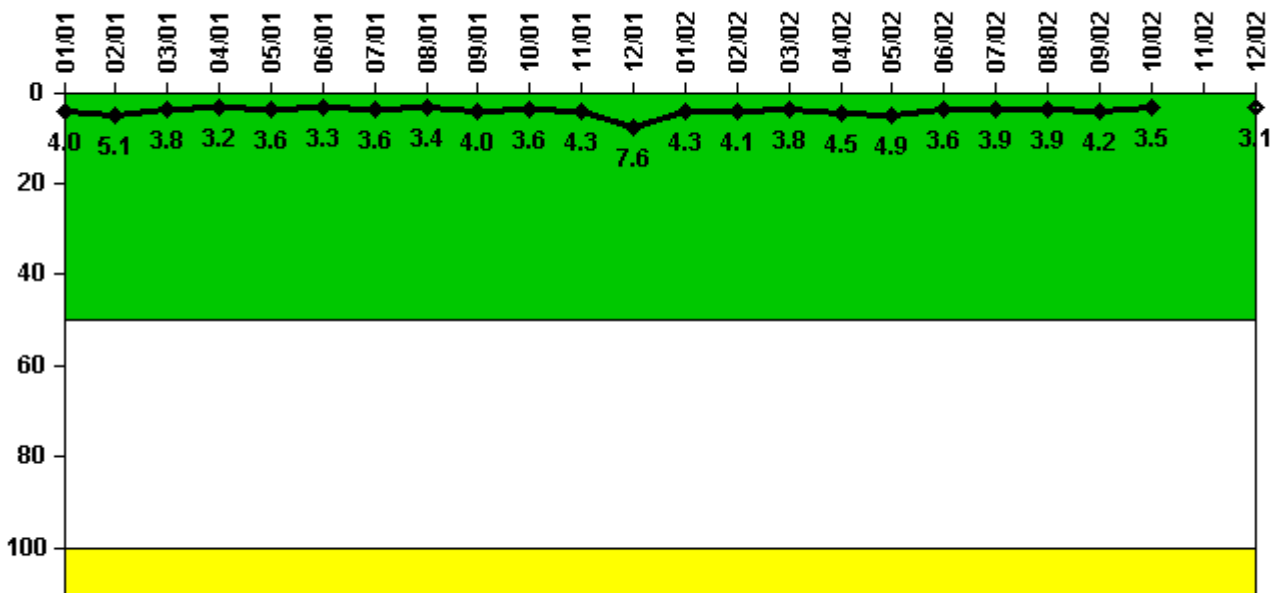
  

Reactor Coolant System Activity	1/02	2/02	3/02	4/02	5/02	6/02	7/02	8/02	9/02	10/02	11/02	12/02
Maximum activity	0.000380	0.000407	0.000480	0.000481	N/A	0.000189	0.000249	0.000230	0.000232	0.000321	N/A	0.000229
Technical specification limit	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
Indicator value	0.1	0.1	0.1	0.1	N/A	0	0	0	0	0	N/A	0

#### Licensee Comments:

12/02: Unit 1 was shutdown the entire month of November 2002. The limits for RCS dose equivalent I-131 specific activity are being administratively controlled at lower values (varies based on RCS letdown flow rate) than the Technical Specification limit of 1.0 micro Curies per gram. The reduced limits are to compensate for non-conservatism identified in a vendor's calculation for iodine appearance rates utilized in accident dose analysis. The reduced limits will remain in effect until affected analyses are revised.

### Reactor Coolant System Leakage



Thresholds: White > 50.0 Yellow > 100.0

#### Notes

Reactor Coolant System Leakage	1/01	2/01	3/01	4/01	5/01	6/01	7/01	8/01	9/01	10/01	11/01	12/01
Maximum leakage	0.398	0.509	0.379	0.317	0.360	0.327	0.357	0.339	0.395	0.364	0.432	0.755
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	4.0	5.1	3.8	3.2	3.6	3.3	3.6	3.4	4.0	3.6	4.3	7.6

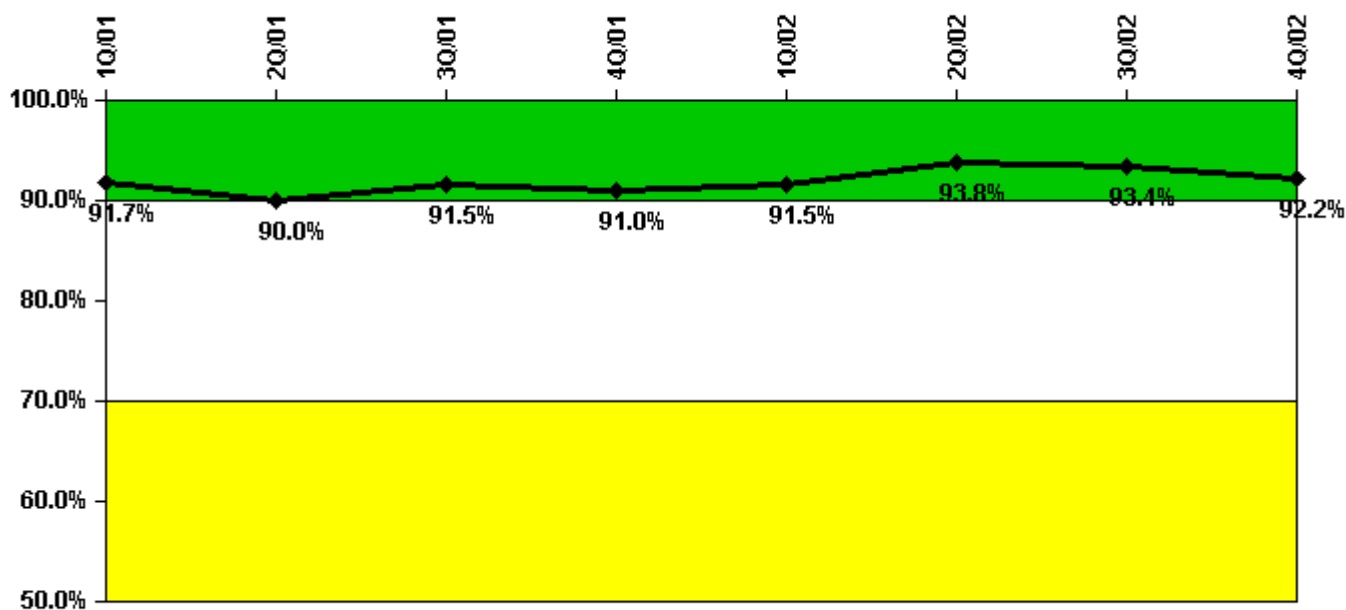
  

Reactor Coolant System Leakage	1/02	2/02	3/02	4/02	5/02	6/02	7/02	8/02	9/02	10/02	11/02	12/02
Maximum leakage	0.428	0.405	0.375	0.450	0.487	0.360	0.390	0.391	0.420	0.348		0.305
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	4.3	4.1	3.8	4.5	4.9	3.6	3.9	3.9	4.2	3.5		3.1

Licensee Comments:

12/02: No tests run in November due to Main Generator Outage (1G12)

### Drill/Exercise Performance



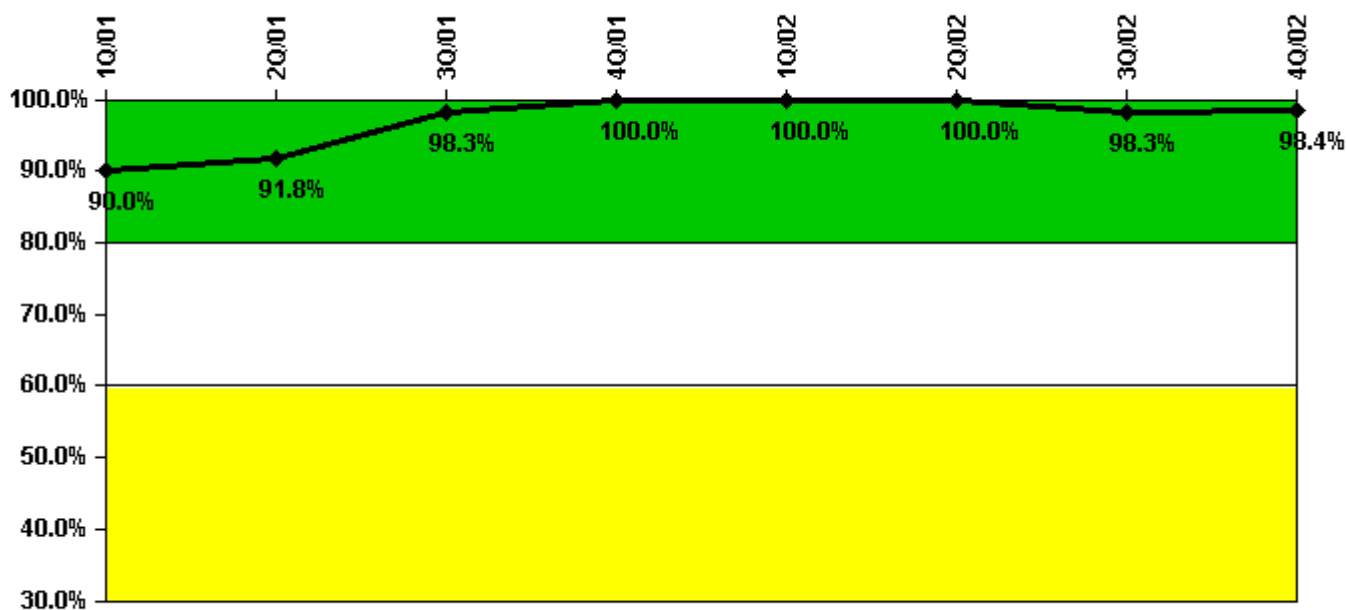
Thresholds: White < 90.0% Yellow < 70.0%

#### Notes

Drill/Exercise Performance	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02
Successful opportunities	36.0	21.0	23.0	9.0	36.0	25.0	9.0	19.0
Total opportunities	40.0	23.0	23.0	10.0	39.0	25.0	11.0	22.0
Indicator value	91.7%	90.0%	91.5%	91.0%	91.5%	93.8%	93.4%	92.2%

Licensee Comments: none

### ERO Drill Participation



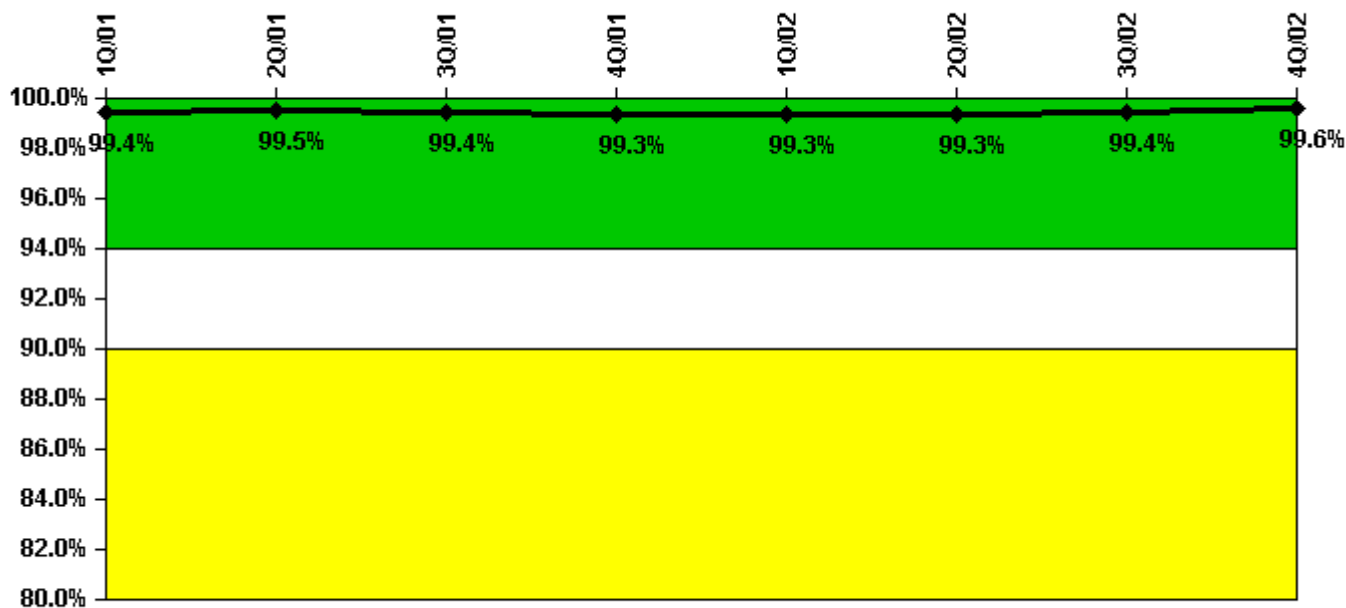
Thresholds: White < 80.0% Yellow < 60.0%

#### Notes

ERO Drill Participation	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02
Participating Key personnel	54.0	56.0	59.0	61.0	63.0	61.0	59.0	60.0
Total Key personnel	60.0	61.0	60.0	61.0	63.0	61.0	60.0	61.0
Indicator value	90.0%	91.8%	98.3%	100.0%	100.0%	100.0%	98.3%	98.4%

Licensee Comments: none

### Alert & Notification System



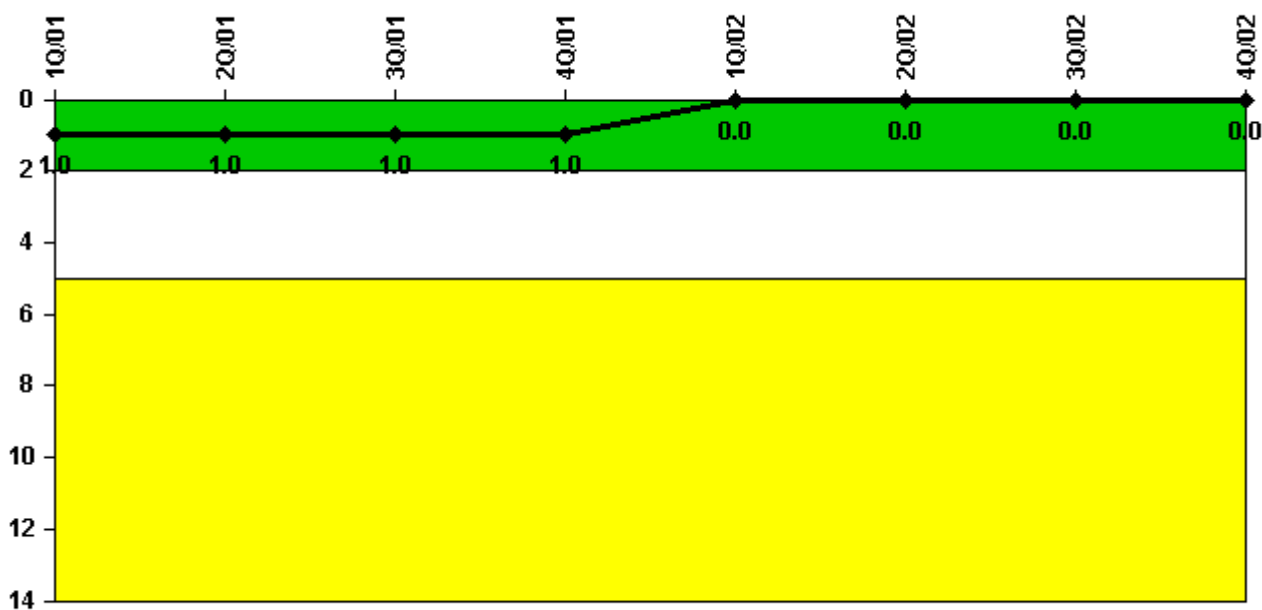
Thresholds: White < 94.0% Yellow < 90.0%

#### Notes

Alert & Notification System	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02
Successful siren-tests	909	1043	1171	1039	911	1042	1045	1047
Total sirens-tests	917	1048	1179	1048	917	1048	1048	1048
Indicator value	99.4%	99.5%	99.4%	99.3%	99.3%	99.3%	99.4%	99.6%

Licensee Comments: none

### Occupational Exposure Control Effectiveness



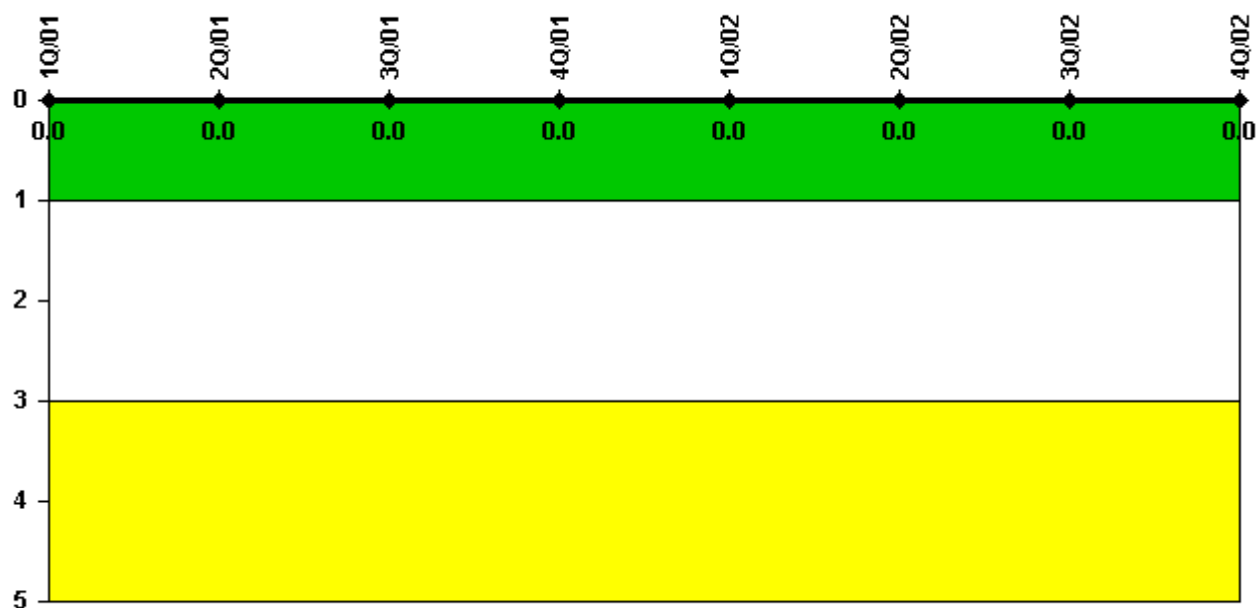
Thresholds: White > 2.0 Yellow > 5.0

#### Notes

Occupational Exposure Control Effectiveness	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02
High radiation area occurrences	1	0	0	0	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
Indicator value	1	1	1	1	0	0	0	0

Licensee Comments: none

### RETS/ODCM Radiological Effluent



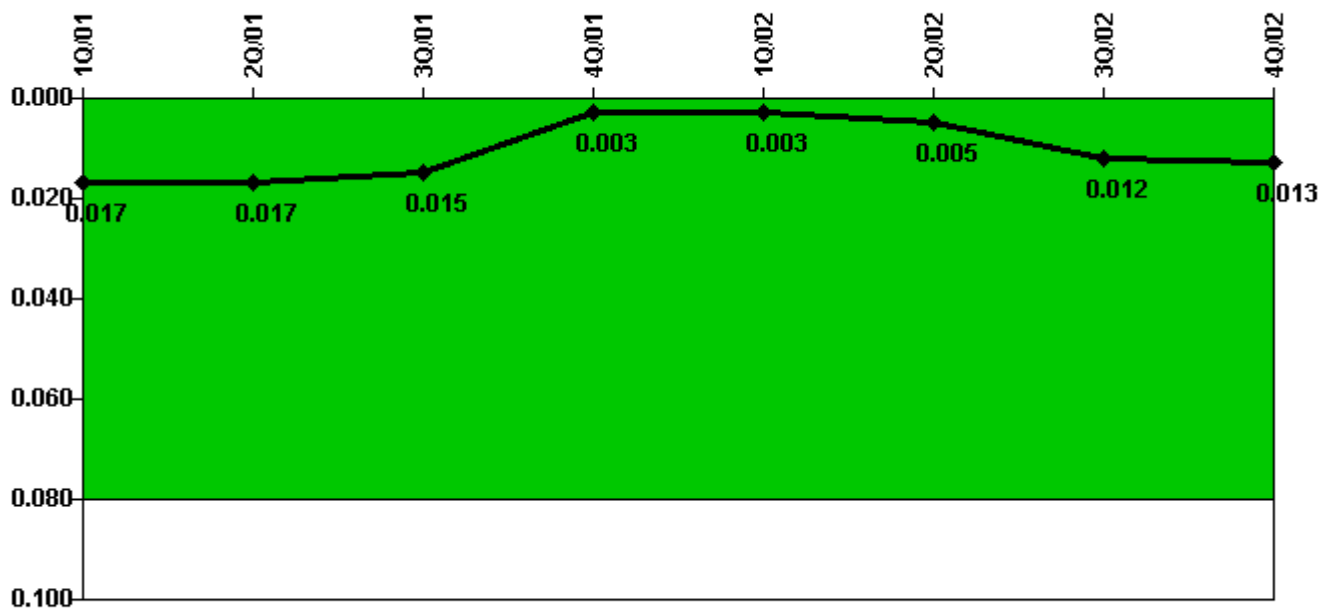
Thresholds: White > 1.0 Yellow > 3.0

**Notes**

RETS/ODCM Radiological Effluent	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02
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

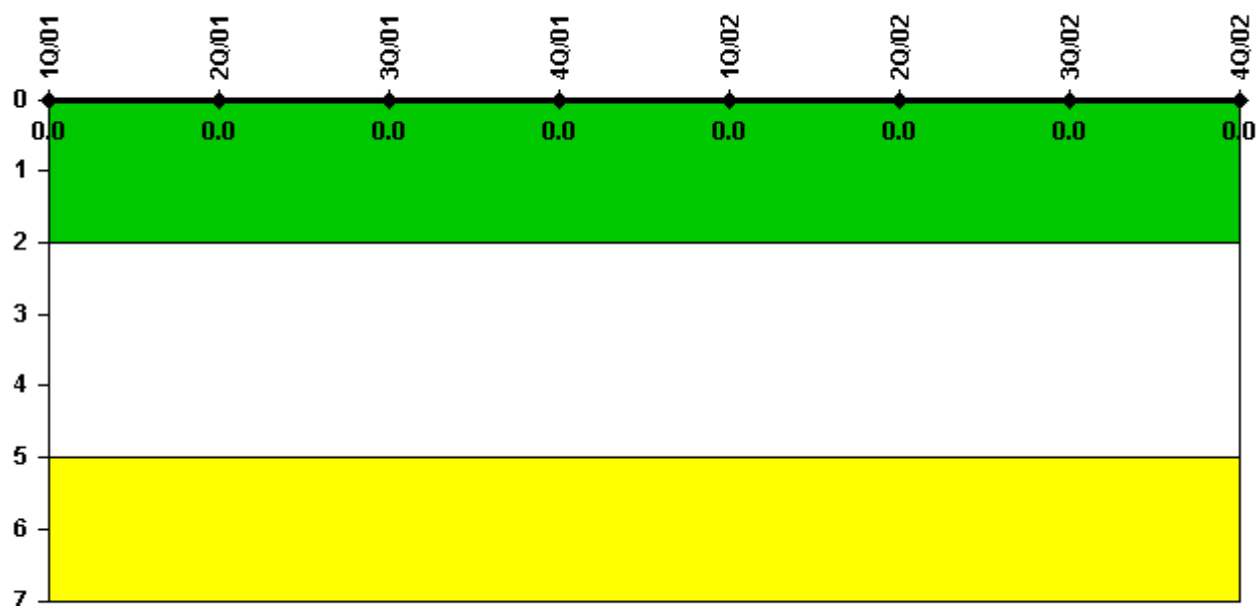
#### Notes

Protected Area Security Performance Index	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02
IDS compensatory hours	3.87	15.33	24.48	5.90	51.03	79.82	83.58	24.92
CCTV compensatory hours	22.4	2.6	1.8	15.5	0.5	14.2	106.6	32.7
IDS normalization factor	2.30	2.30	2.30	2.30	2.30	2.30	2.30	2.30
CCTV normalization factor	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
<b>Index Value</b>	<b>0.017</b>	<b>0.017</b>	<b>0.015</b>	<b>0.003</b>	<b>0.003</b>	<b>0.005</b>	<b>0.012</b>	<b>0.013</b>

Licensee Comments: none



### Personnel Screening Program



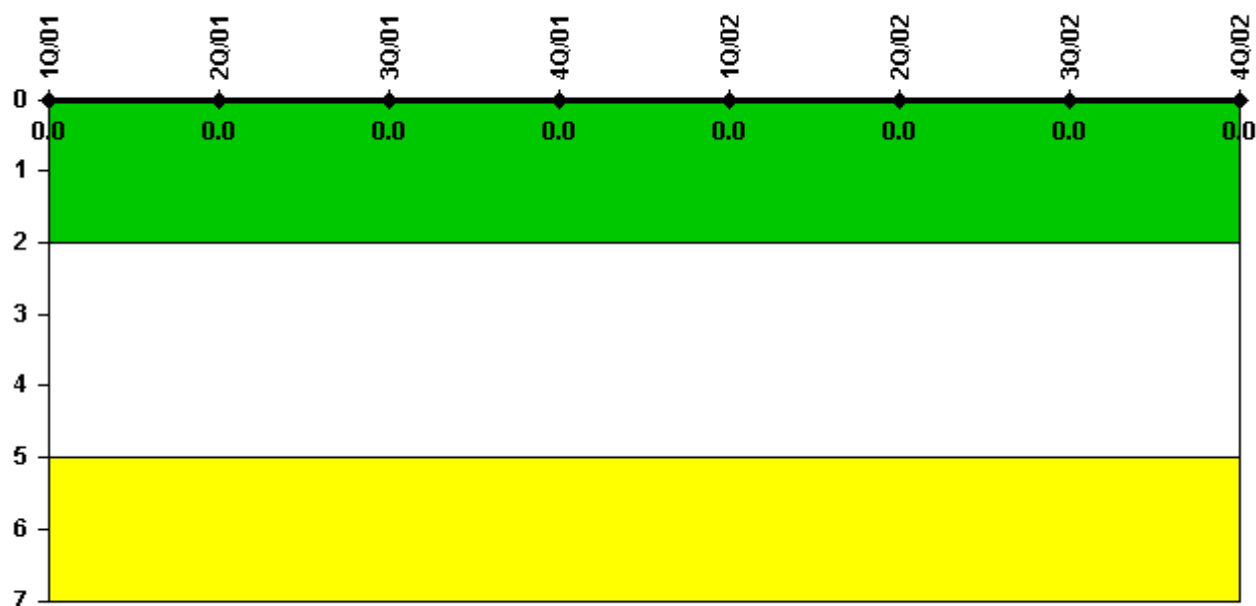
Thresholds: White > 2.0 Yellow > 5.0

#### Notes

Personnel Screening Program	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02
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/01	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02
Program Failures	0	0	0	0	0	0	0	0
Indicator value	0	0	0	0	0	0	0	0

Licensee Comments: none

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

Last Modified: January 30, 2003