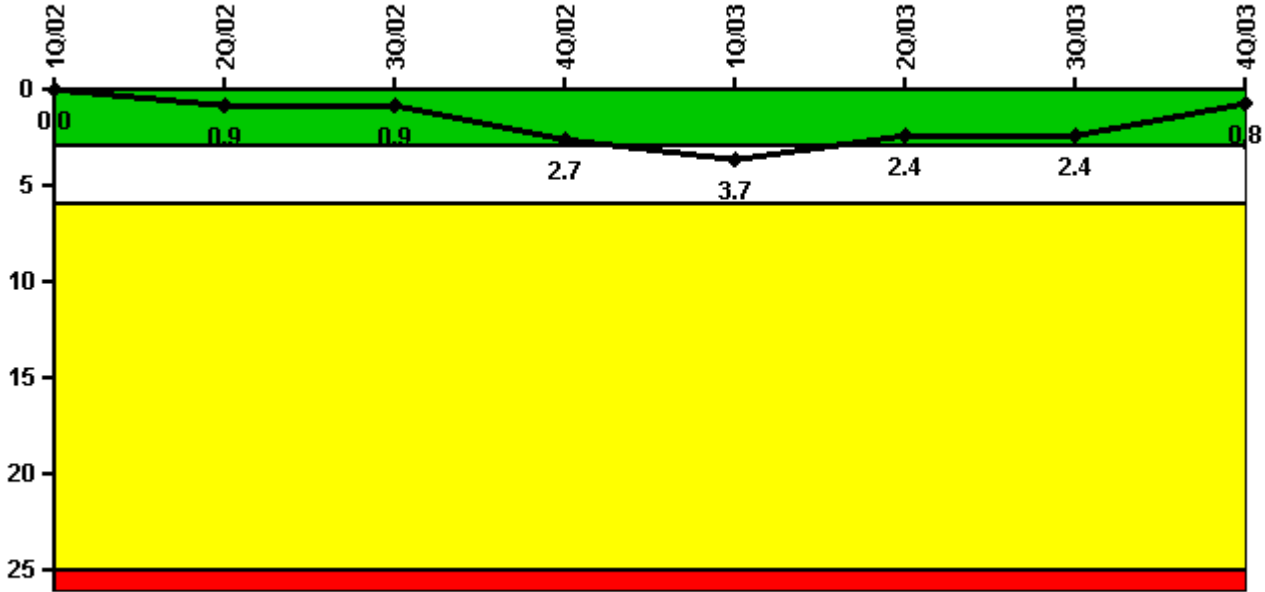


# San Onofre 2

## 4Q/2003 Performance Indicators

Licensee's General Comments: none

### Unplanned Scrams per 7000 Critical Hrs



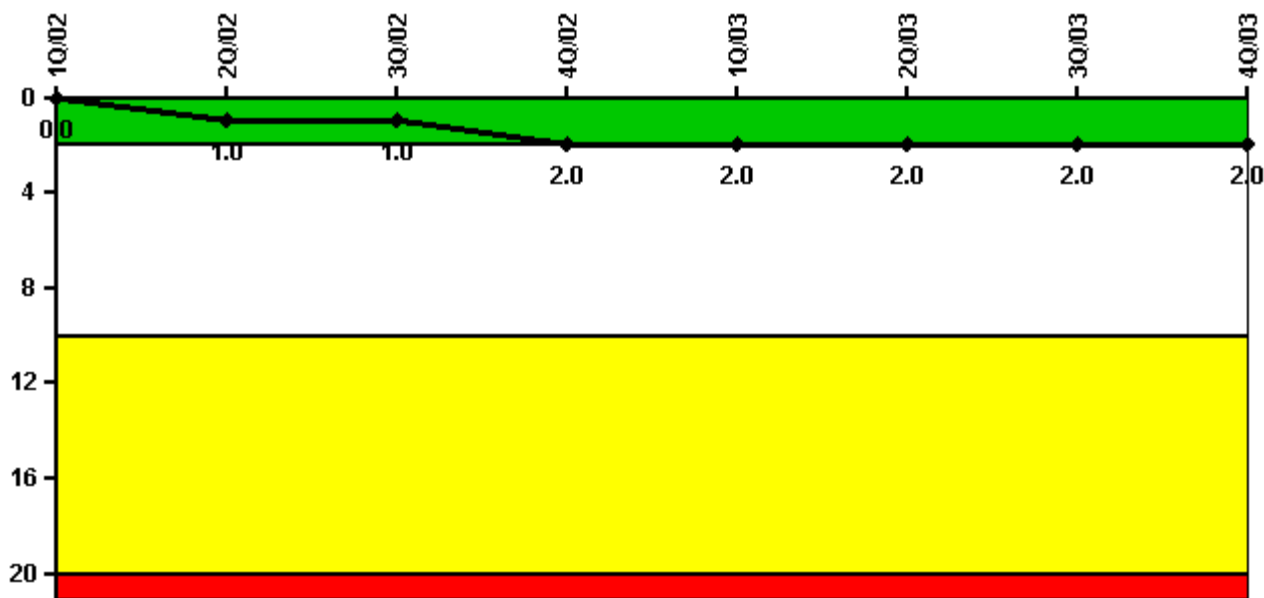
Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

### 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	1.0	0	2.0	1.0	0	0	0
Critical hours	2160.0	1206.2	2190.4	2124.1	2147.1	2139.7	2208.0	2209.0
Indicator value	0	0.9	0.9	2.7	3.7	2.4	2.4	0.8

Licensee Comments: none

### Scrams with Loss of Normal Heat Removal



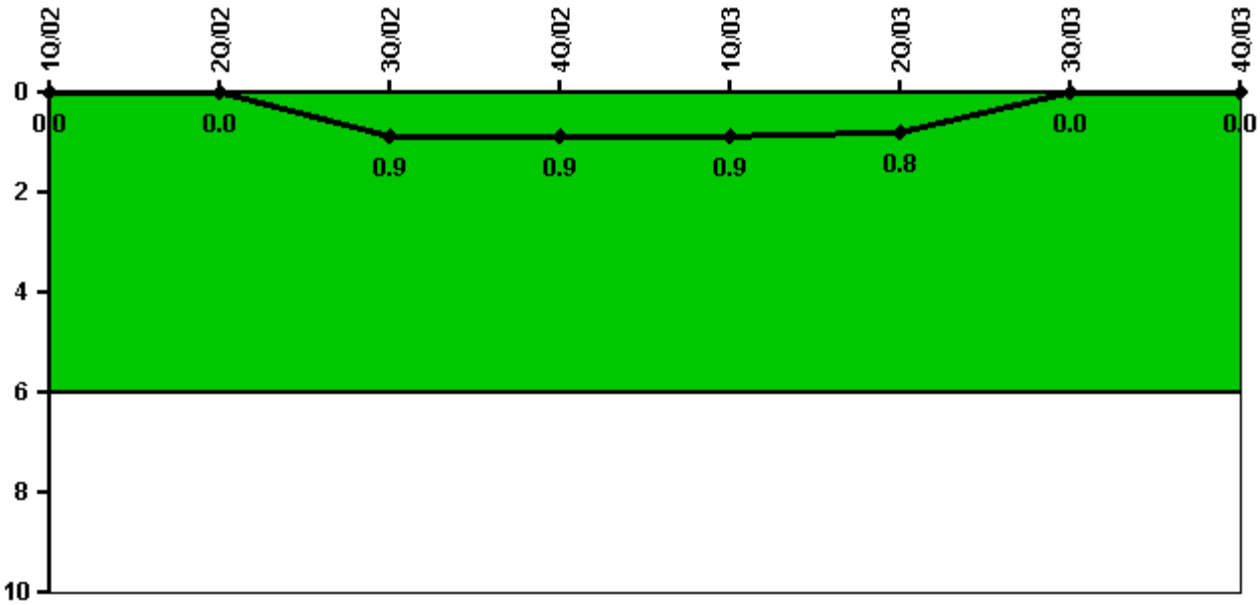
Thresholds: White > 2.0 Yellow > 10.0 Red > 20.0

#### Notes

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

Licensee Comments: none

### Unplanned Power Changes per 7000 Critical Hrs



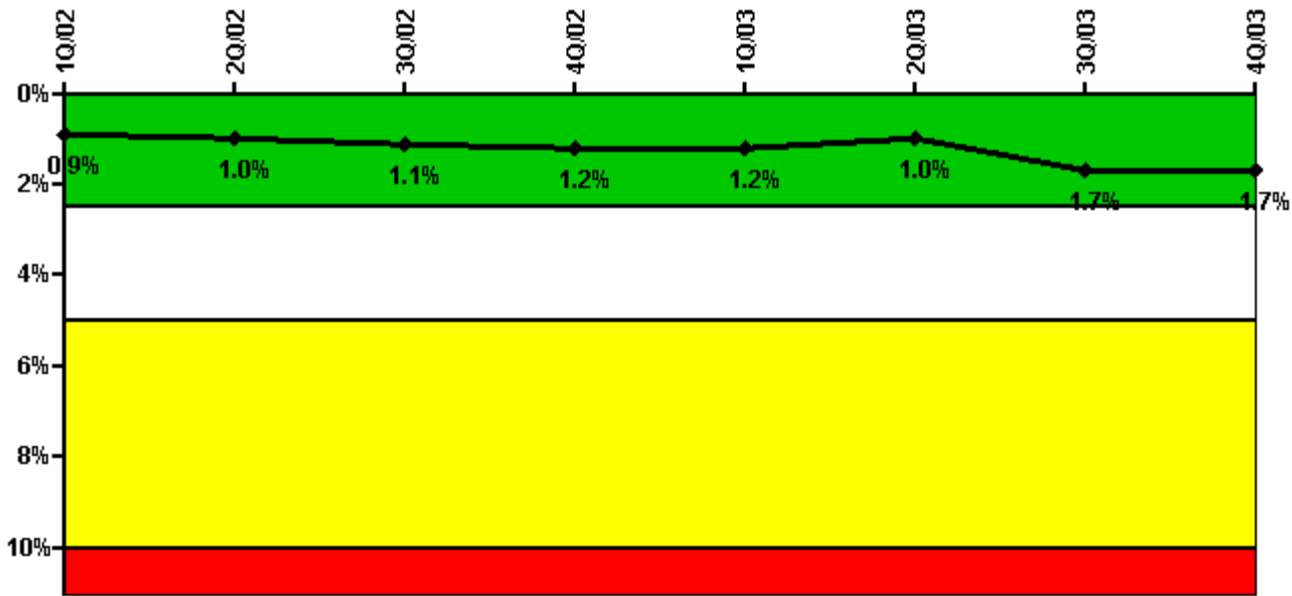
Thresholds: White > 6.0

#### 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	0	1.0	0	0	0	0	0
Critical hours	2160.0	1206.2	2190.4	2124.1	2147.1	2139.7	2208.0	2209.0
Indicator value	0	0	0.9	0.9	0.9	0.8	0	0

Licensee Comments: none

### Safety System Unavailability, Emergency AC Power



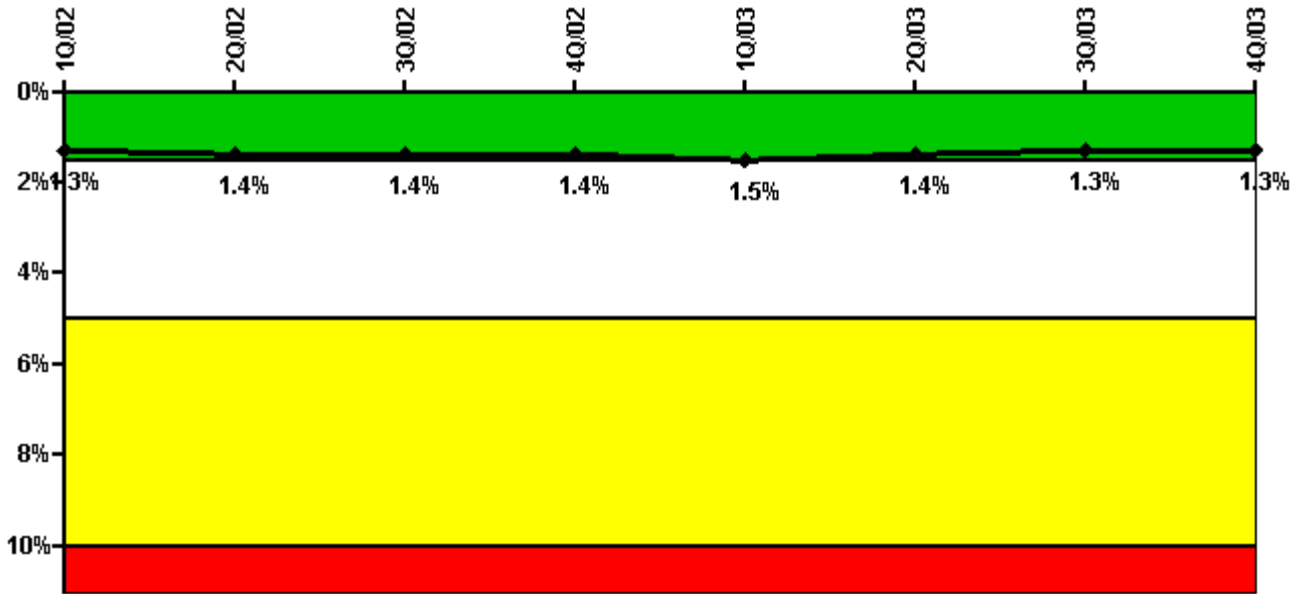
Thresholds: White > 2.5% Yellow > 5.0% Red > 10.0%

#### 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	62.90	1.28	79.08	27.82	1.72	2.22	177.12	25.38
Unplanned unavailable hours	0	3.75	0	0	0	0	83.65	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	2.30	40.85	1.32	51.80	2.35	1.02	162.57	64.04
Unplanned unavailable hours	0	0	0	0	0	0	35.58	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	0.9%	1.0%	1.1%	1.2%	1.2%	1.0%	1.7%	1.7%

Licensee Comments: none

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



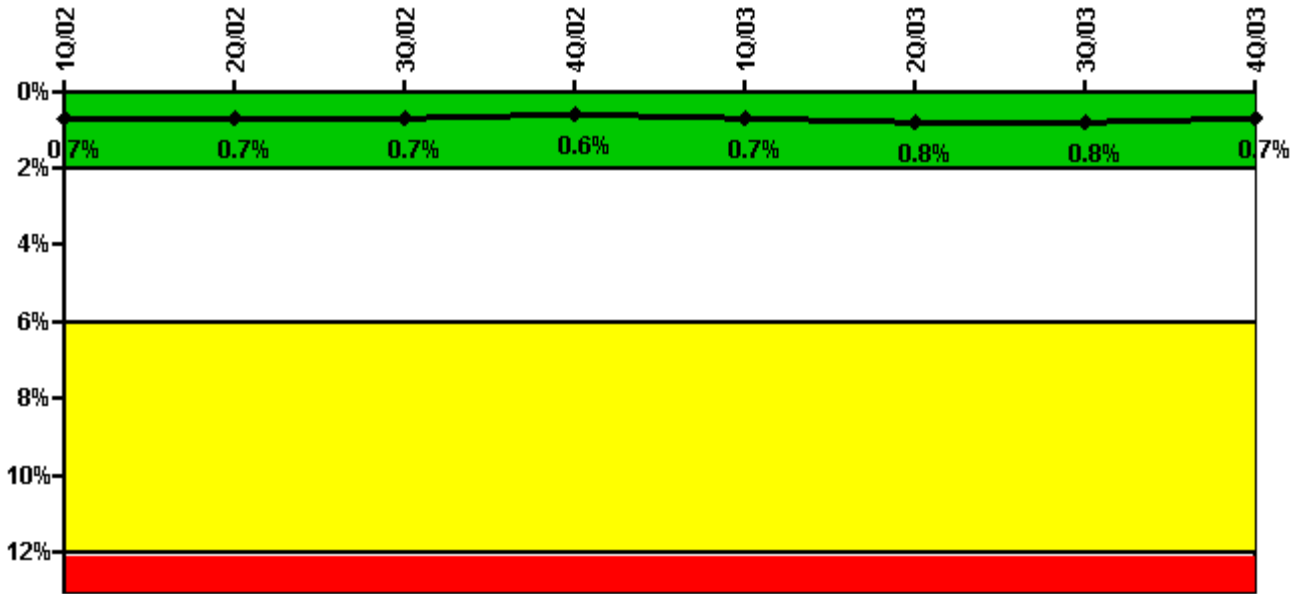
Thresholds: White > 1.5% Yellow > 5.0% Red > 10.0%

**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	0.40	17.62	13.43	10.38	0.25	28.48	0.30	2.35
Unplanned unavailable hours	21.90	0	0.93	0	16.85	0	0	3.50
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	1206.17	2190.43	2124.09	2147.08	2139.68	2208.00	2209.00
<b>Train 2</b>								
Planned unavailable hours	22.00	0	14.15	13.40	29.24	3.33	1.58	19.43
Unplanned unavailable hours	0	0	4.02	5.53	1.67	1.82	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	1206.17	2190.43	2124.09	2147.08	2139.68	2208.00	2209.00
<b>Indicator value</b>	1.3%	1.4%	1.4%	1.4%	1.5%	1.4%	1.3%	1.3%

Licensee Comments: none

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



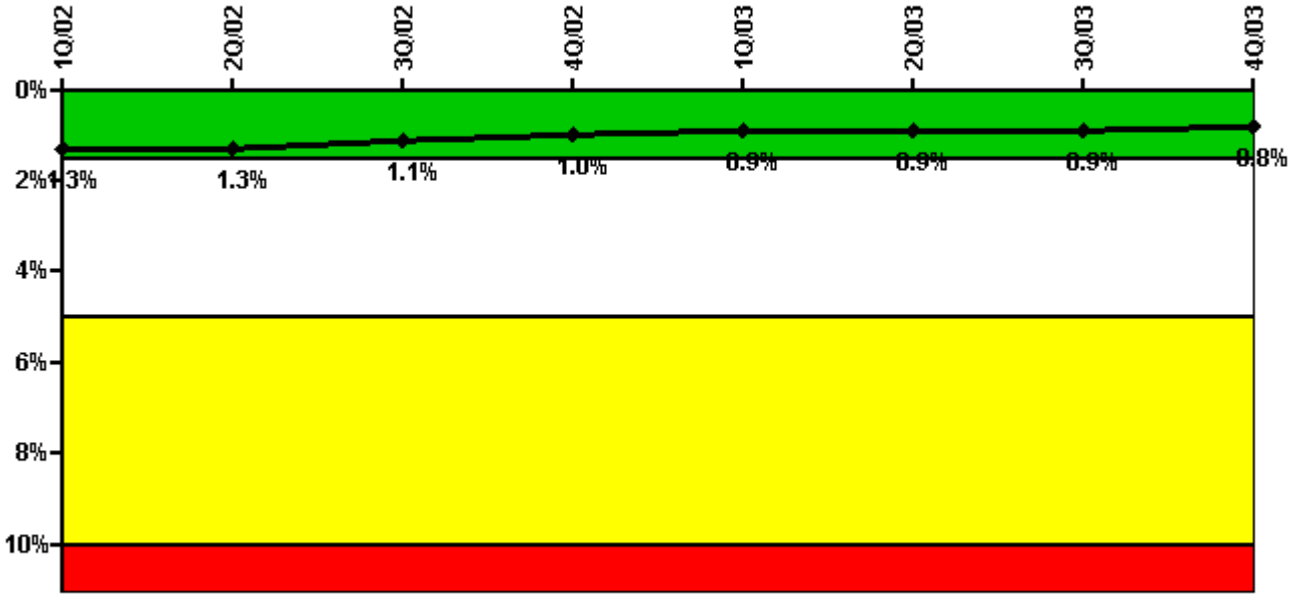
Thresholds: White > 2.0% Yellow > 6.0% Red > 12.0%

**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	0	0	45.43	1.42	0.50	30.00	13.58	0.70
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	1206.17	2190.43	2124.09	2147.08	2139.68	2208.00	2209.00
<b>Train 2</b>								
Planned unavailable hours	22.40	0	6.03	23.75	0	17.80	11.15	15.15
Unplanned unavailable hours	7.60	0	0	0	65.25	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	1206.17	2190.43	2124.09	2147.08	2139.68	2208.00	2209.00
<b>Train 3</b>								
Planned unavailable hours	40.40	0	16.77	0.25	0.77	37.92	17.07	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	1206.17	2190.43	2124.09	2147.08	2139.68	2208.00	2209.00
Indicator value	0.7%	0.7%	0.7%	0.6%	0.7%	0.8%	0.8%	0.7%

Licensee Comments: none

### Safety System Unavailability, Residual Heat Removal System



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

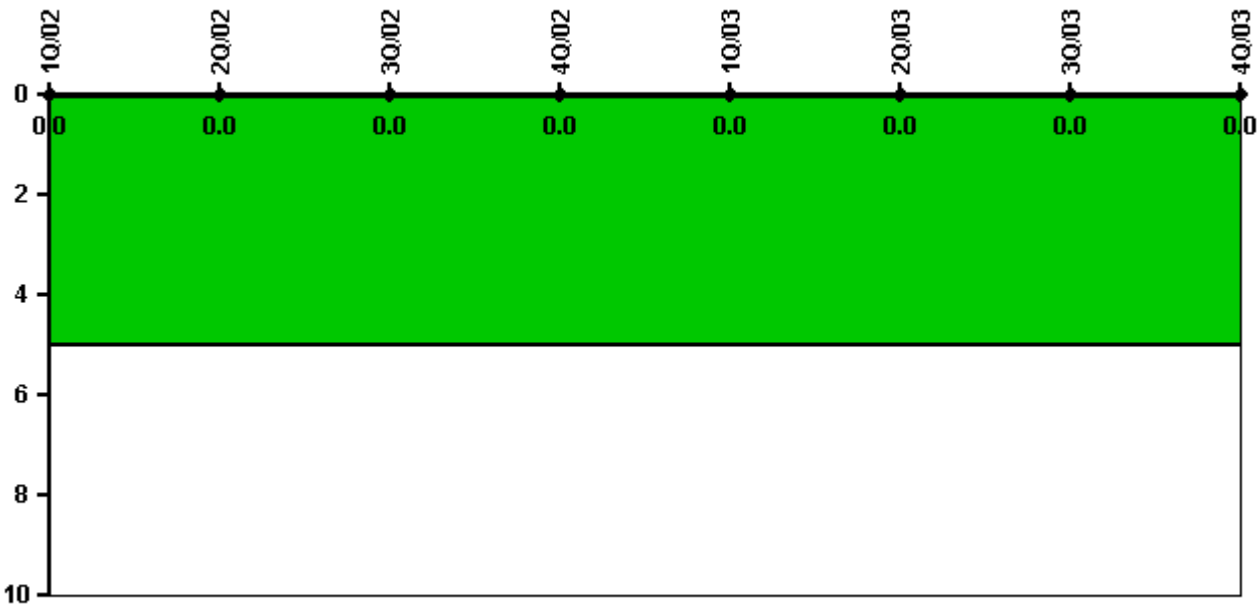
#### Notes

Safety System Unavailability, Residual Heat Removal System	1Q/02	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03
<b>Train 1</b>								
Planned unavailable hours	1.00	18.35	67.30	12.65	0.25	25.45	8.88	2.30
Unplanned unavailable hours	21.90	0	0.93	0	16.85	0	0	3.50
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	1269.38	2208.00	2209.00	2160.00	2157.05	2208.00	2209.00
<b>Train 2</b>								
Planned unavailable hours	2.50	25.00	44.43	3.35	38.47	20.77	19.20	19.43
Unplanned unavailable hours	0	0	4.02	4.78	1.67	1.82	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	1269.38	2208.00	2209.00	2160.00	2157.05	2208.00	2209.00
<b>Train 3</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	913.62	0	0	0	25.95	0	0
<b>Train 4</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	913.62	0	0	0	25.95	0	0
Indicator value	1.3%	1.3%	1.1%	1.0%	0.9%	0.9%	0.9%	0.8%

Licensee Comments: none

### Safety System Functional Failures (PWR)



Thresholds: White > 5.0

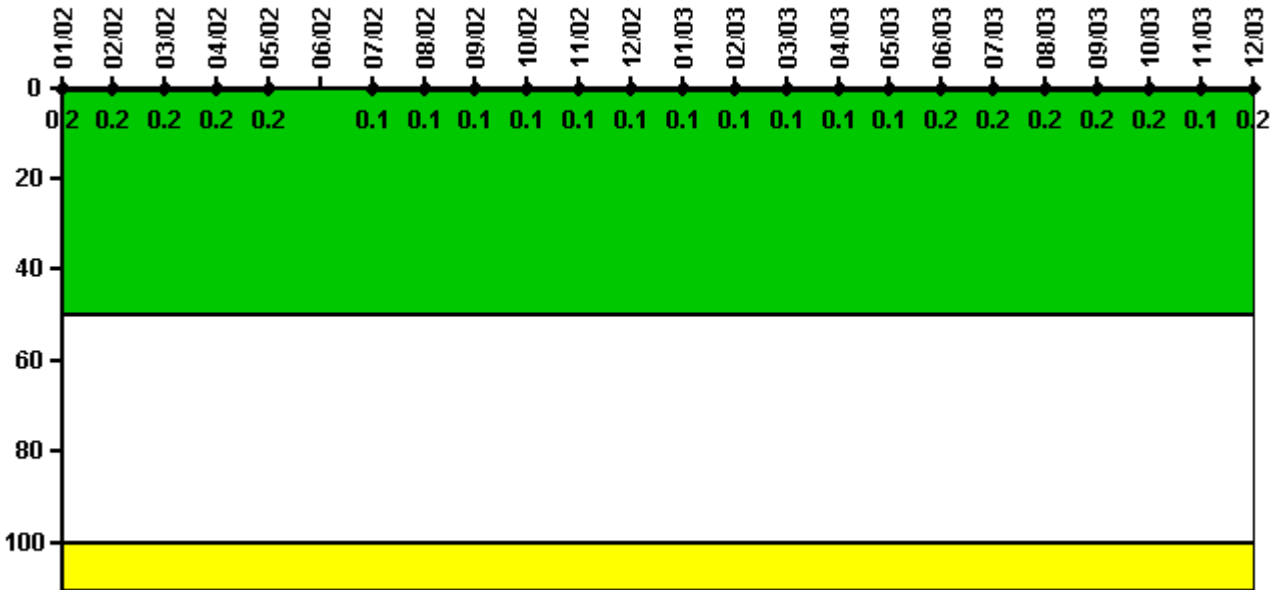
### Notes

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	0	0	0	0	0	0	0
Indicator value	0	0	0	0	0	0	0	0

Licensee Comments: none



### Reactor Coolant System Activity



Thresholds: White > 50.0 Yellow > 100.0

### Notes

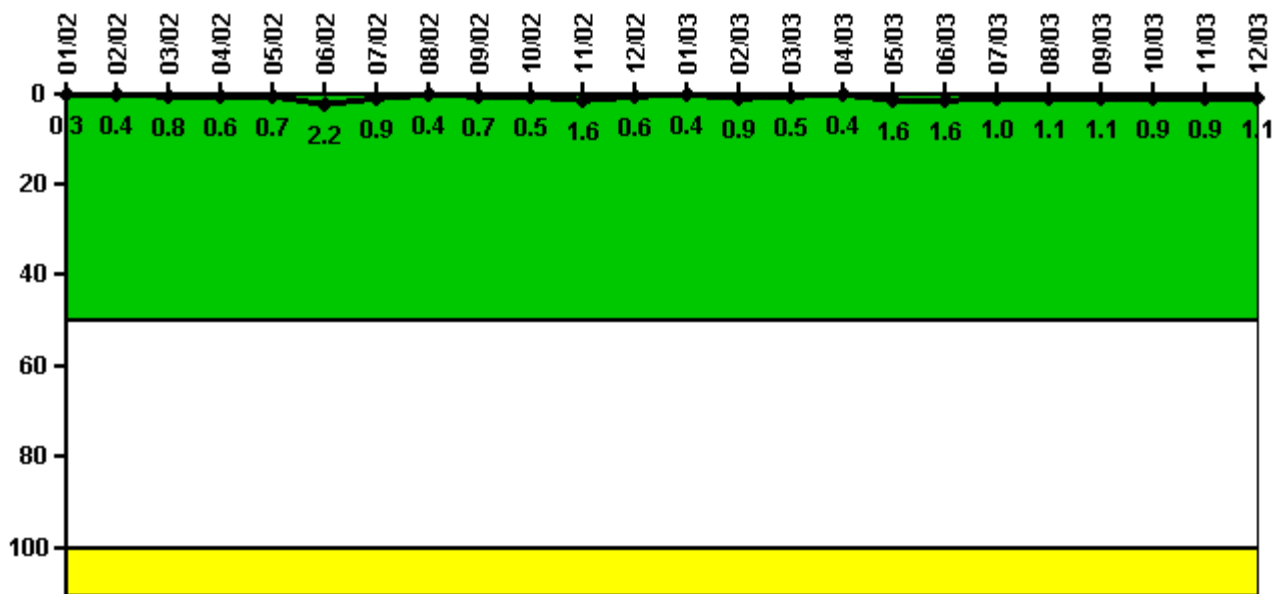
Reactor Coolant System Activity	1/02	2/02	3/02	4/02	5/02	6/02	7/02	8/02	9/02	10/02	11/02	12/02
Maximum activity	0.002000	0.002000	0.002000	0.002000	0.002000	N/A	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	0.2	0.2	0.2	0.2	0.2	N/A	0.1	0.1	0.1	0.1	0.1	0.1

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	0.001000	0.001000	0.001000	0.001000	0.001000	0.002000	0.002000	0.002000	0.002000	0.001500	0.001480	0.001500
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	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.2

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	0.030	0.040	0.080	0.060	0.070	0.220	0.090	0.040	0.070	0.050	0.160	0.060
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	0.3	0.4	0.8	0.6	0.7	2.2	0.9	0.4	0.7	0.5	1.6	0.6

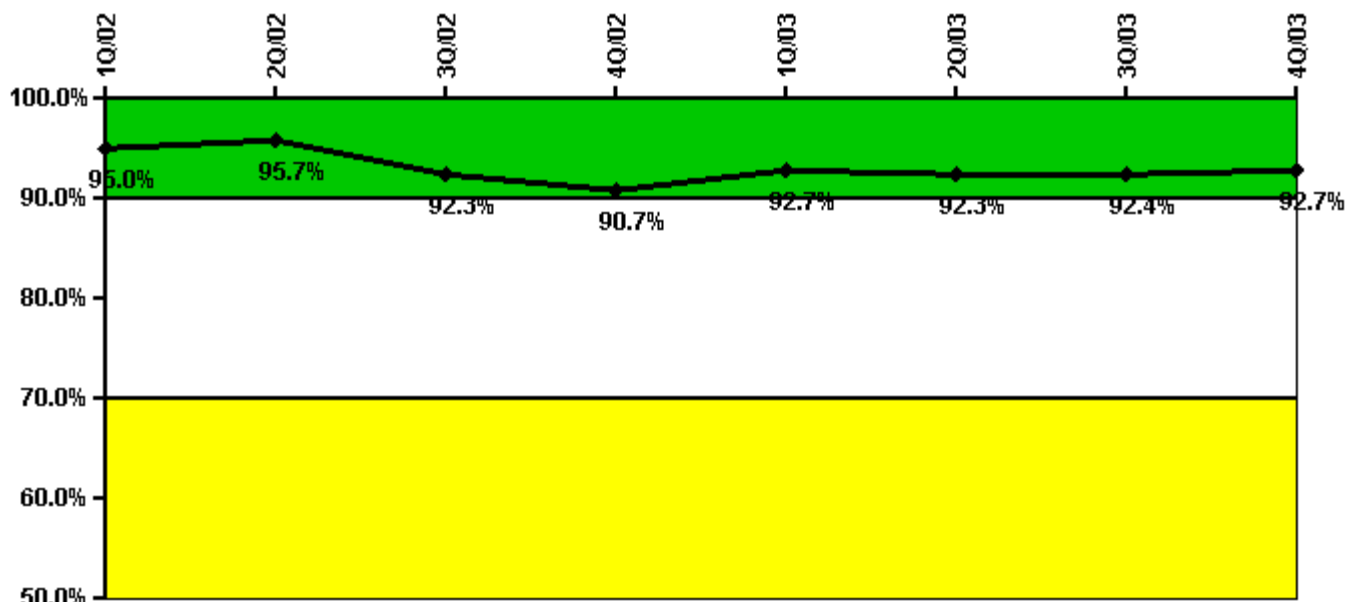
  

Reactor Coolant System Leakage	1/03	2/03	3/03	4/03	5/03	6/03	7/03	8/03	9/03	10/03	11/03	12/03
Maximum leakage	0.040	0.090	0.050	0.040	0.160	0.160	0.100	0.110	0.110	0.090	0.090	0.110
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	0.4	0.9	0.5	0.4	1.6	1.6	1.0	1.1	1.1	0.9	0.9	1.1

Licensee Comments:

12/03: Effective May 2003 the RCS Leakage being recorded is RCS TOTAL leakage versus RCS IDENTIFIED leakage. RCS Identified Leakage is generated only when RCS Total Leakage exceeds 1 GPM.

### Drill/Exercise Performance



Thresholds: White < 90.0% Yellow < 70.0%

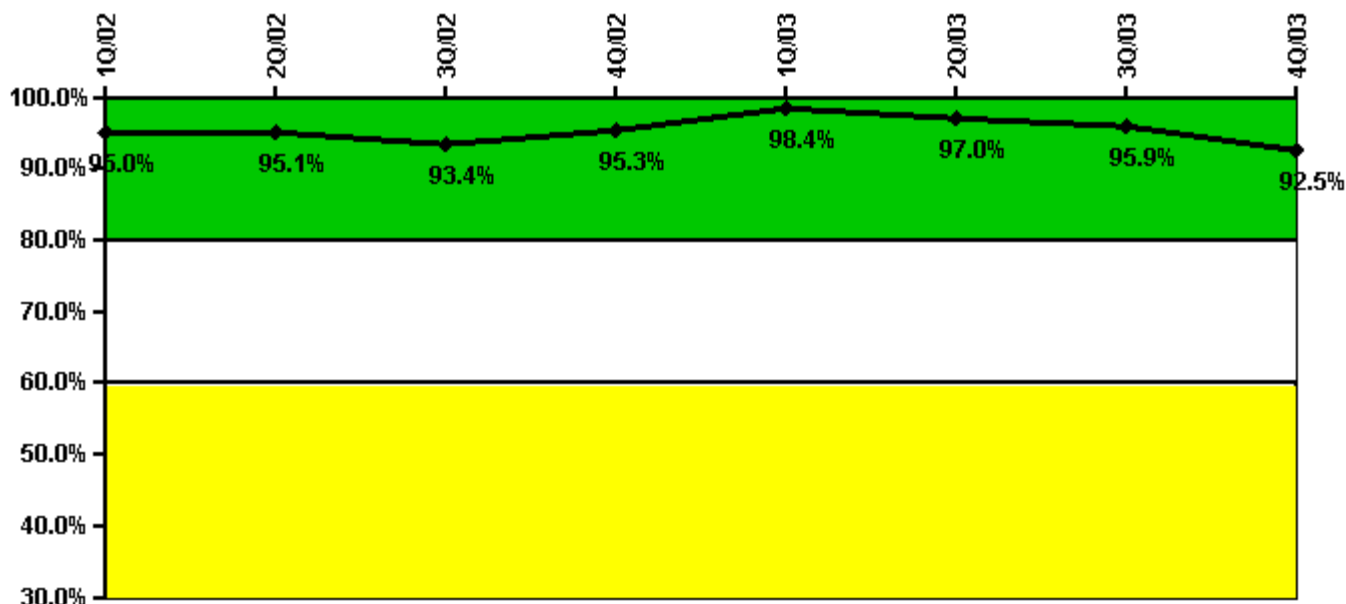
#### Notes

Drill/Exercise Performance	1Q/02	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03
Successful opportunities	1.0	0	39.0	11.0	48.0	49.0	22.0	9.0
Total opportunities	3.0	0	43.0	14.0	49.0	52.0	23.0	9.0
Indicator value	95.0%	95.7%	92.3%	90.7%	92.7%	92.3%	92.4%	92.7%

#### Licensee Comments:

1Q/03: Q103 data was incorrectly reported for Emergency Preparedness Drill/Exercise Performance Indicator. Eight opportunities for Protective Action Recommendation (PAR) and four associated PAR notifications had been erroneously credited. This change report corrects the previously submitted data for Q103. The change lowers the performance indicator value for Q103 from 93.2% to 92.7%; Q103 and subsequent quarters remain in the "GREEN" performance band. (This is in accordance with the guidance provided by NEI 99-02 for correcting previously submitted data.)

### ERO Drill Participation



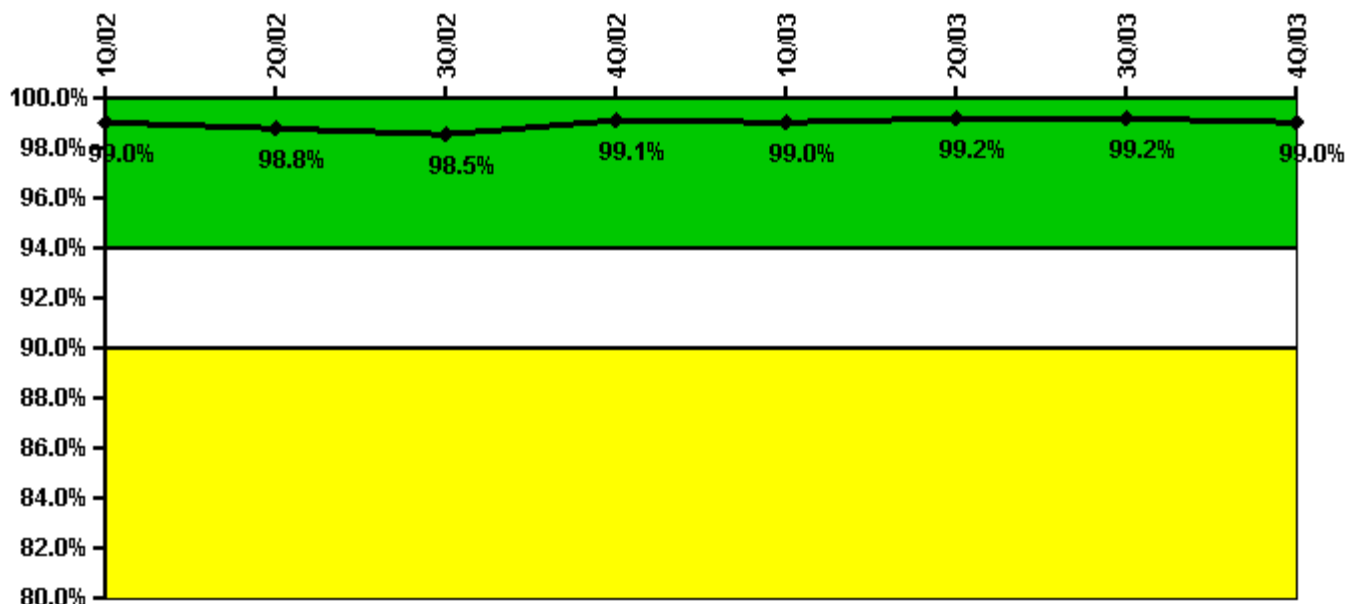
Thresholds: White < 80.0% Yellow < 60.0%

#### Notes

ERO Drill Participation	1Q/02	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03
Participating Key personnel	57.0	58.0	57.0	61.0	63.0	65.0	70.0	74.0
Total Key personnel	60.0	61.0	61.0	64.0	64.0	67.0	73.0	80.0
Indicator value	95.0%	95.1%	93.4%	95.3%	98.4%	97.0%	95.9%	92.5%

Licensee Comments: none

### Alert & Notification System



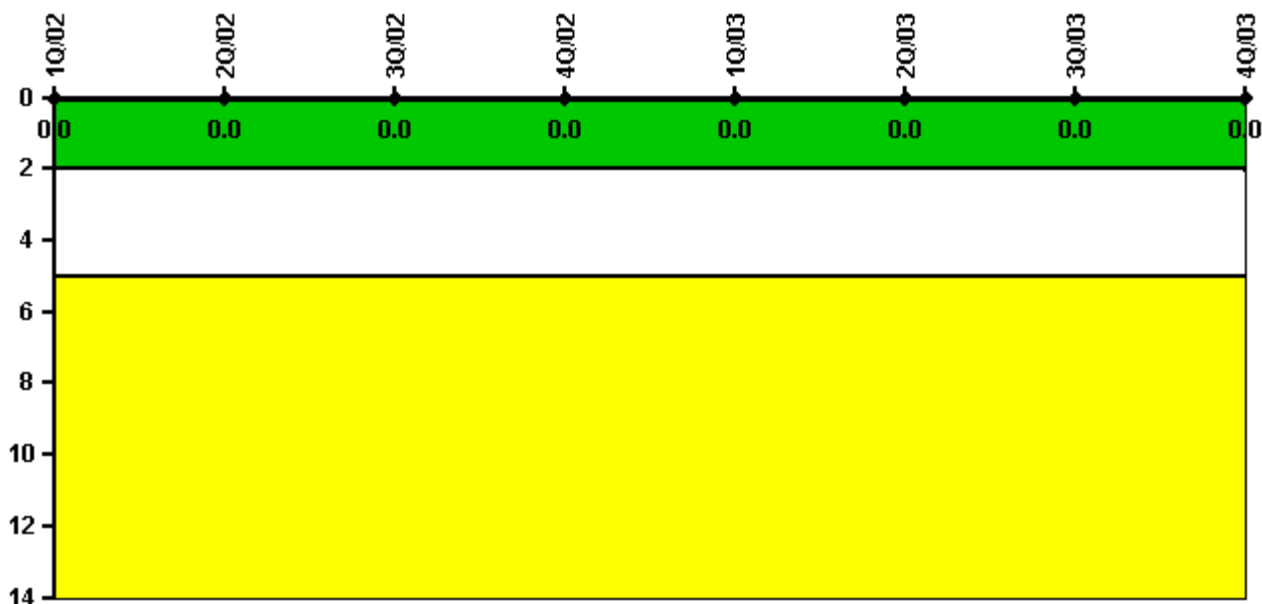
Thresholds: White < 94.0% Yellow < 90.0%

#### Notes

Alert & Notification System	1Q/02	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03
Successful siren-tests	390	338	386	488	340	341	386	486
Total sirens-tests	392	343	392	490	343	343	392	490
Indicator value	99.0%	98.8%	98.5%	99.1%	99.0%	99.2%	99.2%	99.0%

Licensee Comments: none

### Occupational Exposure Control Effectiveness



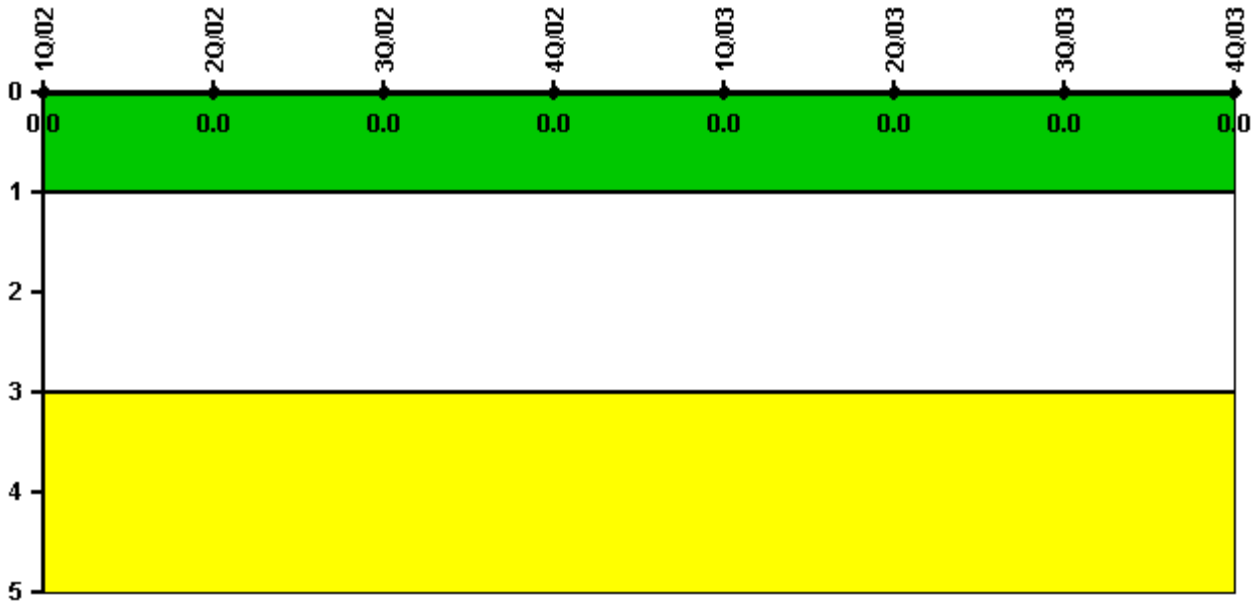
Thresholds: White > 2.0 Yellow > 5.0

#### 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	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	0	0	0	0	0	0	0	0

Licensee Comments: none

### RETS/ODCM Radiological Effluent



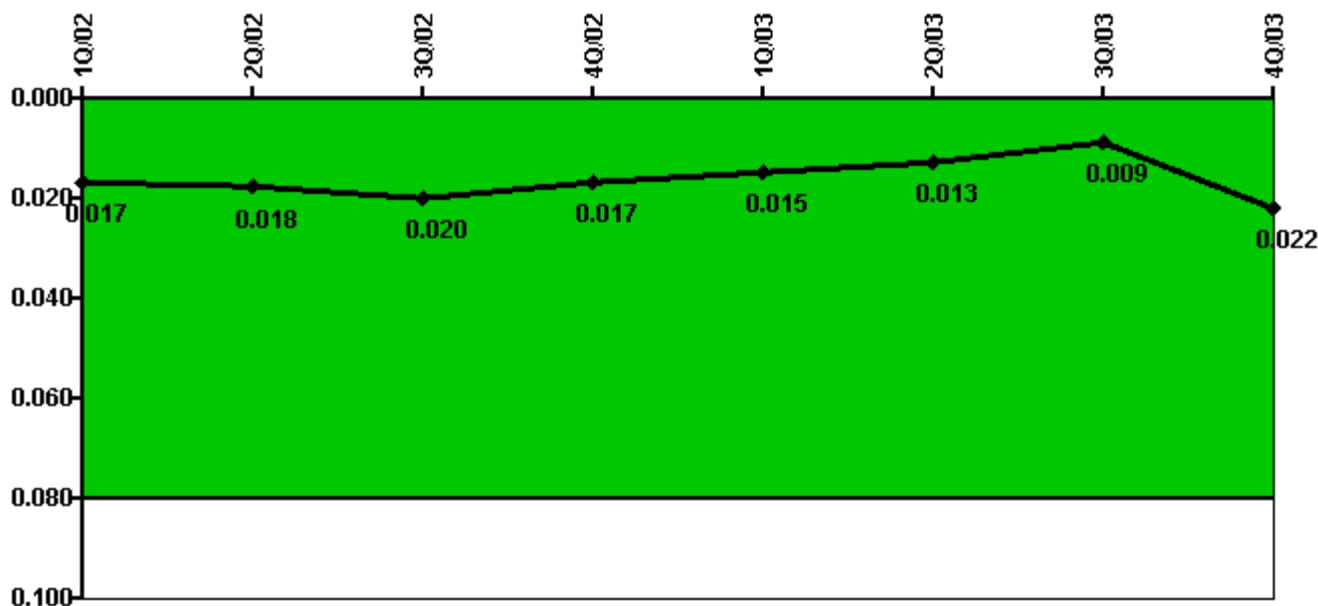
Thresholds: White > 1.0 Yellow > 3.0

#### 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

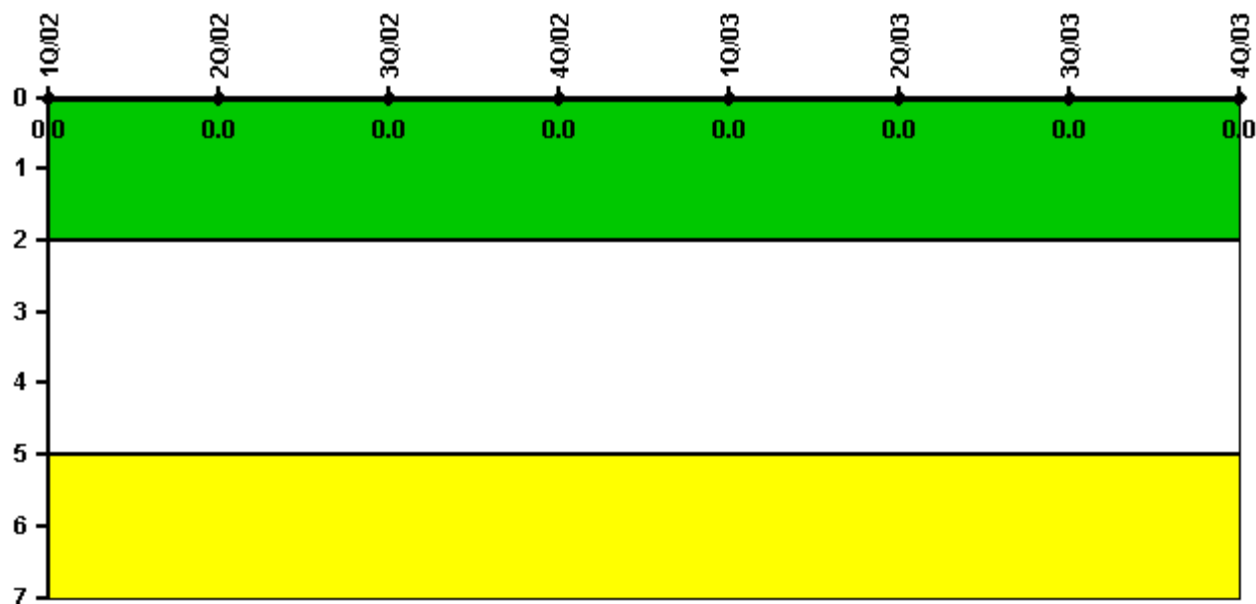
#### Notes

Protected Area Security Performance Index	1Q/02	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03
IDS compensatory hours	40.90	141.20	145.30	15.70	18.60	89.10	66.00	278.50
CCTV compensatory hours	4.5	1.2	0	1.8	0	0	0	0
IDS normalization factor	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20
CCTV normalization factor	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
Index Value	0.017	0.018	0.020	0.017	0.015	0.013	0.009	0.022

Licensee Comments: none



### Personnel Screening Program



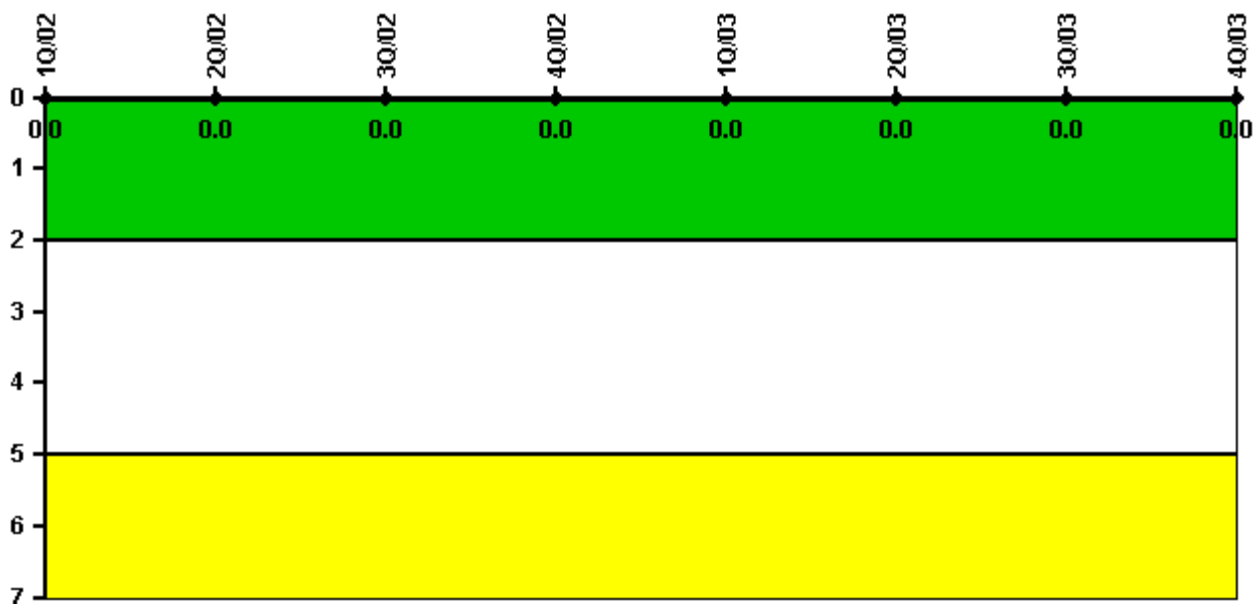
Thresholds: White > 2.0 Yellow > 5.0

#### 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	0	0	0	0	0	0	0	0

Licensee Comments: none

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Last Modified: January 23, 2004