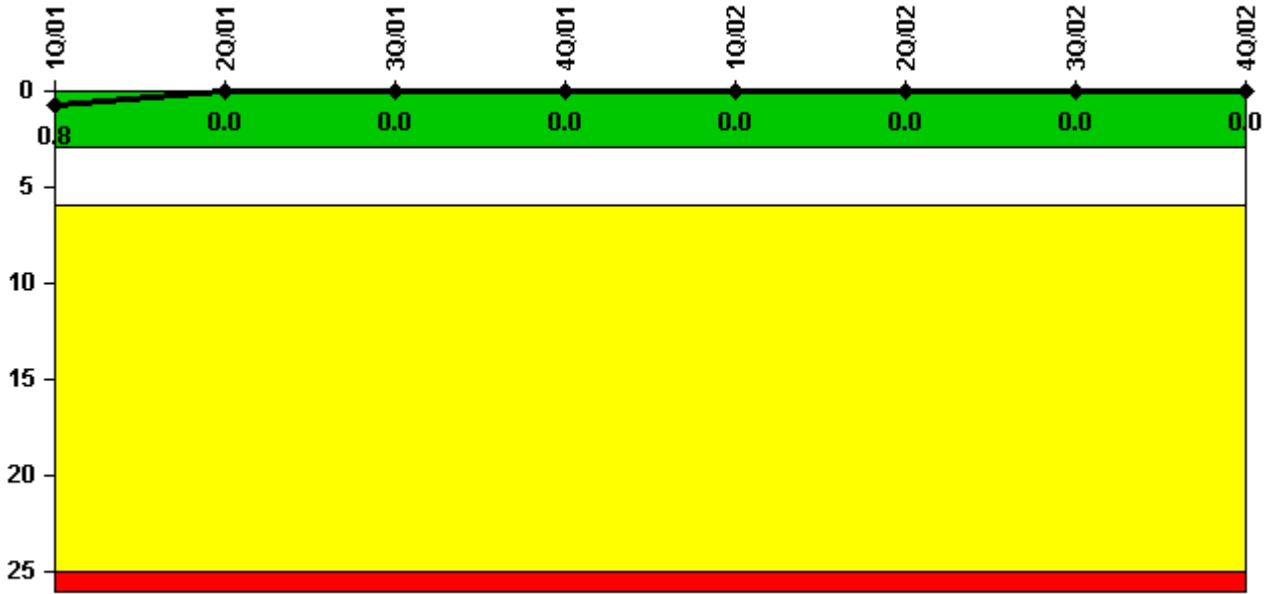


# North Anna 1

## 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	0	0	0
Critical hours	2160.0	2183.0	1681.6	2003.8	2160.0	2183.0	2208.0	2209.0
Indicator value	0.8	0	0	0	0	0	0	0

Licensee Comments: none

### Scrams with Loss of Normal Heat Removal



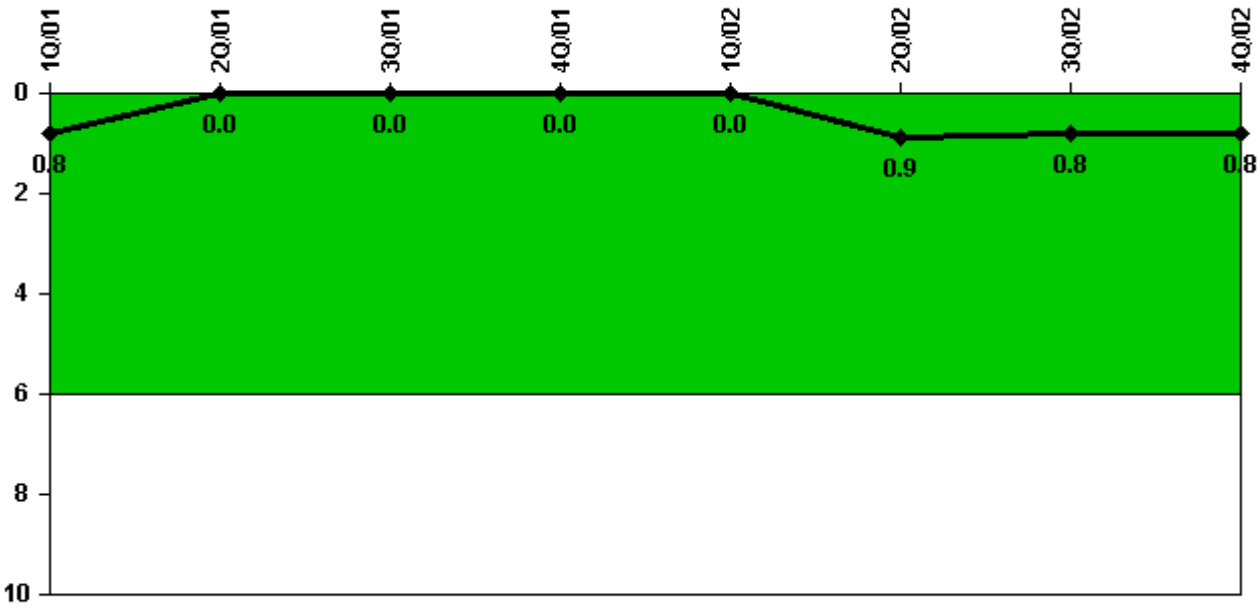
Thresholds: White > 2.0 Yellow > 10.0 Red > 20.0

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

Licensee Comments: none

### Unplanned Power Changes per 7000 Critical Hrs



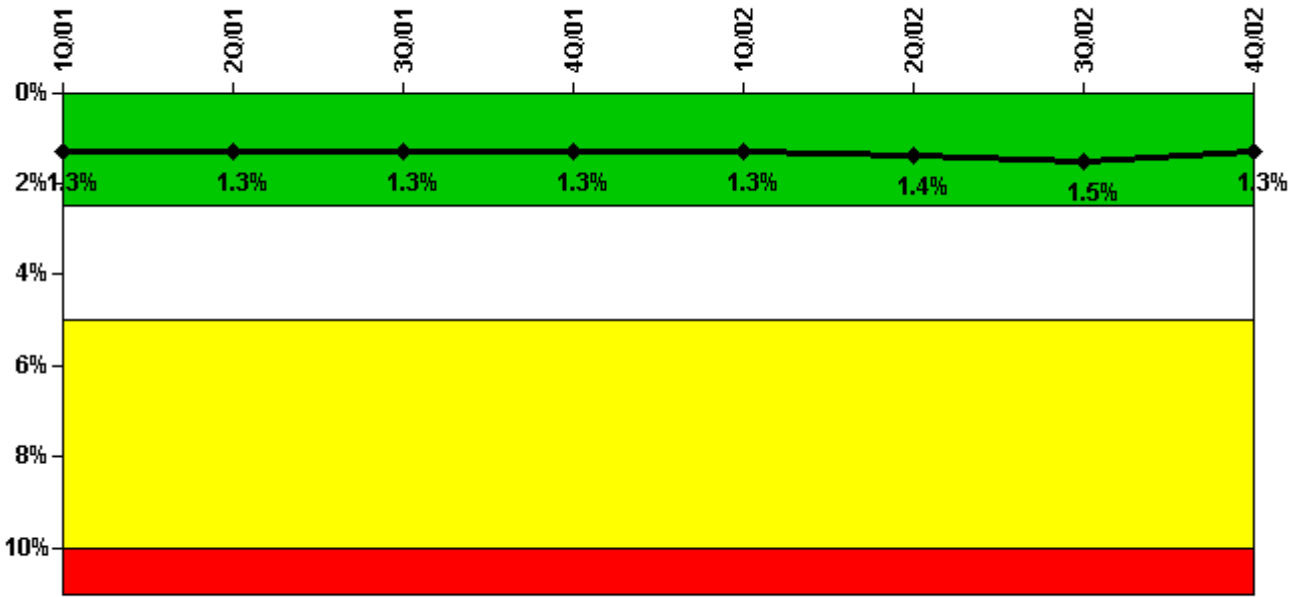
Thresholds: White > 6.0

#### Notes

Unplanned Power Changes per 7000 Critical Hrs	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02
Unplanned power changes	0	0	0	0	0	1.0	0	0
Critical hours	2160.0	2183.0	1681.6	2003.8	2160.0	2183.0	2208.0	2209.0
Indicator value	0.8	0	0	0	0	0.9	0.8	0.8

Licensee Comments: none

### Safety System Unavailability, Emergency AC Power



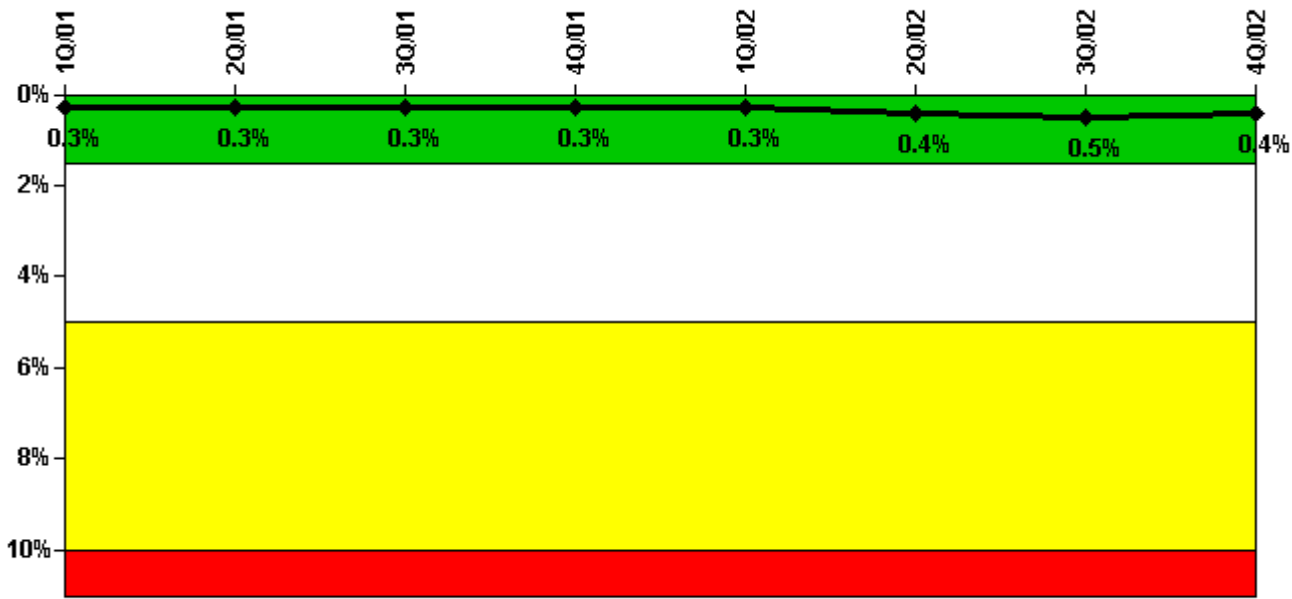
Thresholds: White > 2.5% Yellow > 5.0% Red > 10.0%

#### Notes

Safety System Unavailability, Emergency AC Power	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02
<b>Train 1</b>								
Planned unavailable hours	8.10	60.71	12.97	7.19	5.81	37.82	25.48	7.36
Unplanned unavailable hours	0	5.33	0	0	4.13	0	0	9.67
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	1952.00	2119.13	2160.00	2183.00	2208.00	2209.00
<b>Train 2</b>								
Planned unavailable hours	6.32	10.40	9.01	11.94	20.06	53.49	29.59	10.60
Unplanned unavailable hours	34.00	0	0	0	0	0	0	11.80
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	1952.00	2119.13	2160.00	2183.00	2208.00	2209.00
<b>Indicator value</b>	<b>1.3%</b>	<b>1.3%</b>	<b>1.3%</b>	<b>1.3%</b>	<b>1.3%</b>	<b>1.4%</b>	<b>1.5%</b>	<b>1.3%</b>

Licensee Comments: none

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



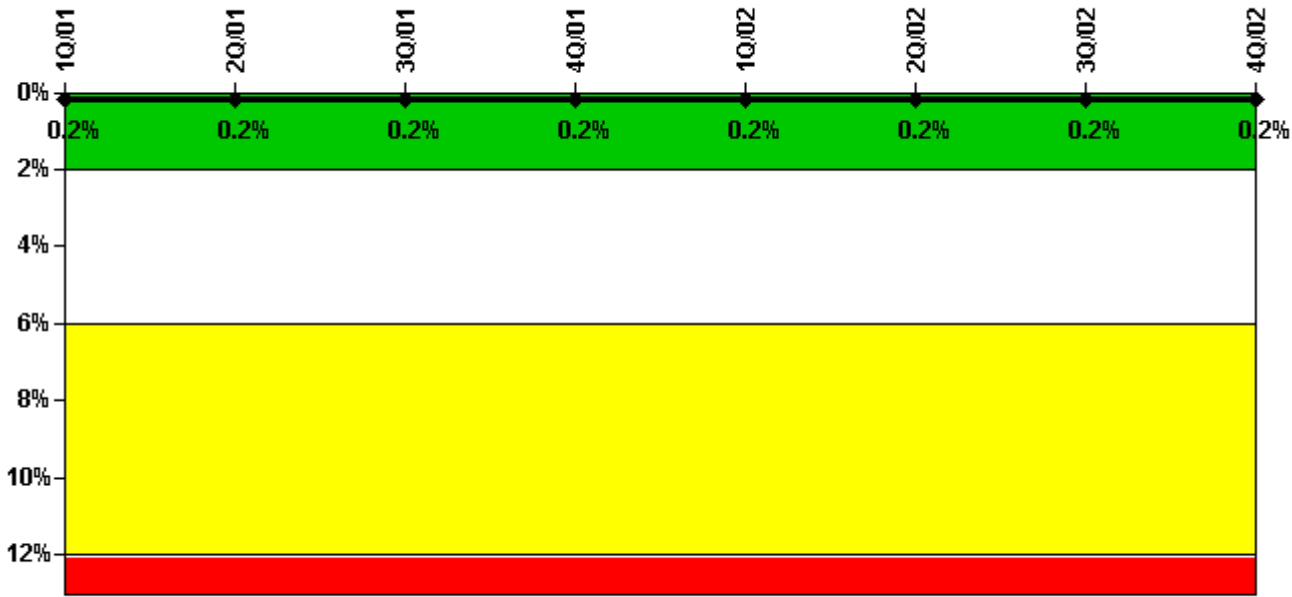
Thresholds: White > 1.5% Yellow > 5.0% Red > 10.0%

#### 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	0.93	0.79	3.53	0	3.27	0.73	0.87	4.29
Unplanned unavailable hours	0	0	0	0	0	42.98	0	0.65
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	1693.25	2027.23	2160.00	2183.00	2208.00	2209.00
<b>Train 2</b>								
Planned unavailable hours	0.12	3.22	1.30	0.37	0.75	2.83	3.22	2.15
Unplanned unavailable hours	0	0	0	0	0	42.98	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	1693.25	2027.23	2160.00	2183.00	2208.00	2209.00
Indicator value	0.3%	0.3%	0.3%	0.3%	0.3%	0.4%	0.5%	0.4%

Licensee Comments: none

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



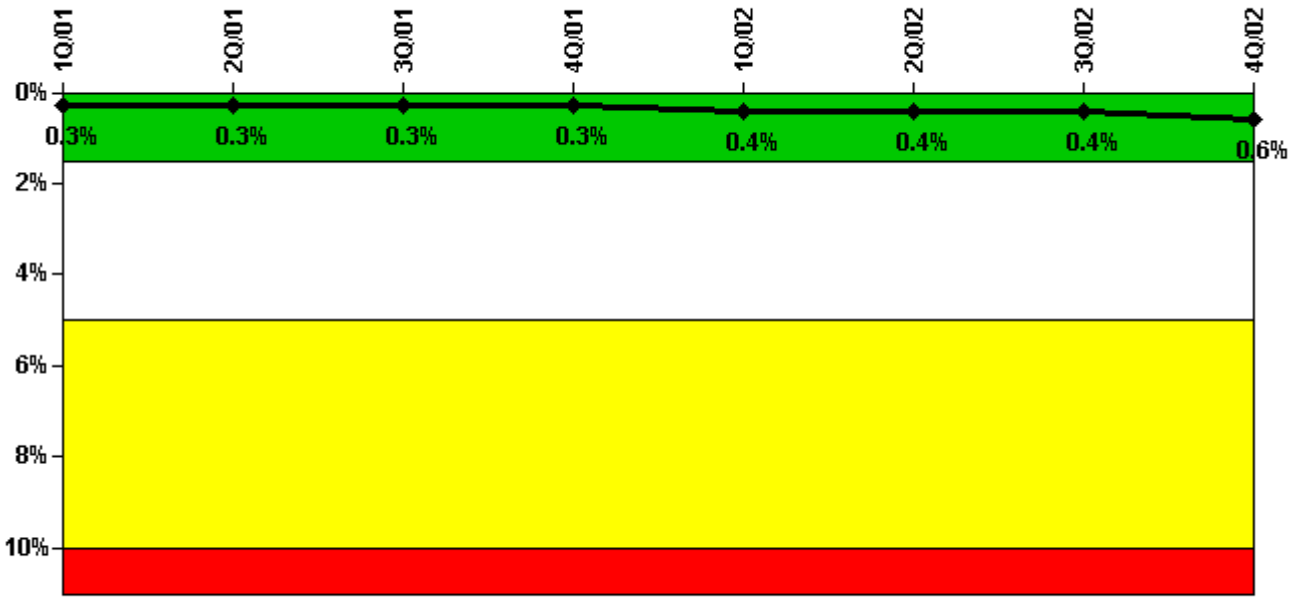
Thresholds: White > 2.0% Yellow > 6.0% Red > 12.0%

#### 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	14.02	2.28	1.12	1.25	6.95	1.17	3.20	7.57
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	1690.82	2023.73	2160.00	2183.00	2208.00	2209.00
<b>Train 2</b>								
Planned unavailable hours	0.48	1.58	0	6.45	4.75	0.83	6.05	2.28
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	1690.82	2023.73	2160.00	2183.00	2208.00	2209.00
<b>Train 3</b>								
Planned unavailable hours	3.97	4.18	2.93	20.41	4.43	5.15	4.28	4.80
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	1690.82	2023.73	2160.00	2183.00	2208.00	2209.00
<b>Indicator value</b>	<b>0.2%</b>	<b>0.2%</b>	<b>0.2%</b>	<b>0.2%</b>	<b>0.2%</b>	<b>0.2%</b>	<b>0.2%</b>	<b>0.2%</b>

Licensee Comments: none

### Safety System Unavailability, Residual Heat Removal System



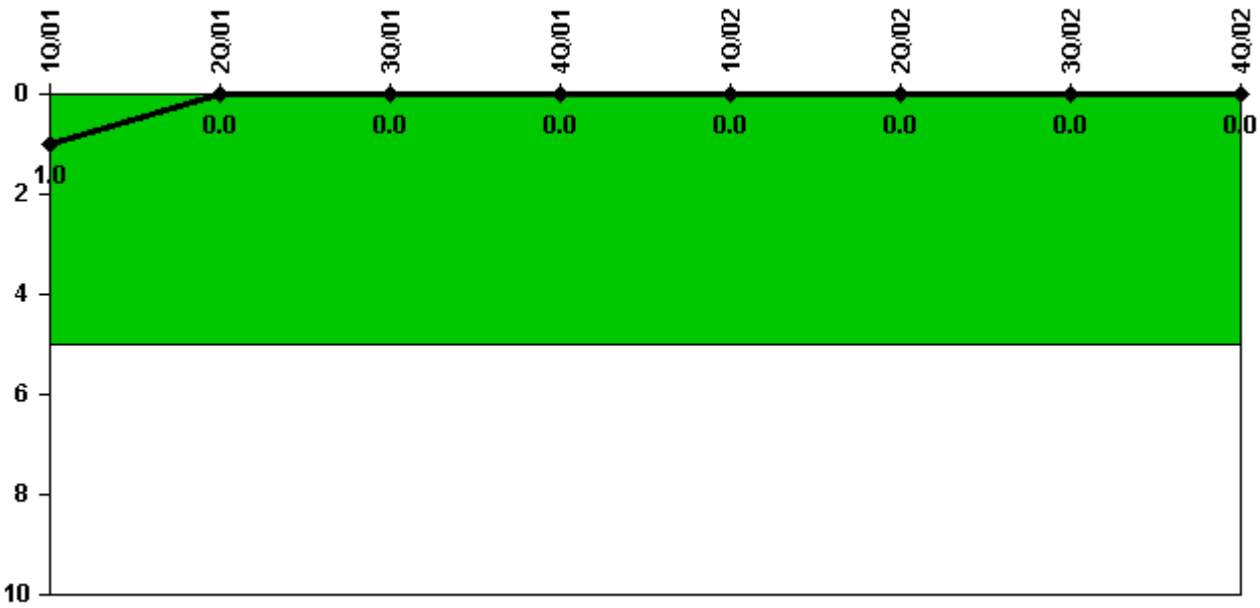
Thresholds: White > 1.5% Yellow > 5.0% Red > 10.0%

#### 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	4.72	14.69	15.00	12.50	21.96	15.32	19.39	2.75
Unplanned unavailable hours	0	1.40	0	0	0	0	0	52.33
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	1695.67	2027.23	2160.00	2183.00	2208.00	2209.00
<b>Train 2</b>								
Planned unavailable hours	9.24	4.07	0.63	3.87	37.47	17.60	10.86	10.03
Unplanned unavailable hours	5.62	0	0	0	33.18	0	0	57.50
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	2183.00	1695.67	2027.23	2160.00	2183.00	2208.00	2209.00
<b>Train 3</b>								
Planned unavailable hours	0	8.50	1.67	0	0	0	0	37.17
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	2022.20	2209.00	2160.00	2183.00	2208.00	2209.00
<b>Train 4</b>								
Planned unavailable hours	0	14.08	1.58	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	2160.00	2183.00	2022.20	2209.00	2160.00	2183.00	2208.00	2209.00
<b>Indicator value</b>	<b>0.3%</b>	<b>0.3%</b>	<b>0.3%</b>	<b>0.3%</b>	<b>0.4%</b>	<b>0.4%</b>	<b>0.4%</b>	<b>0.6%</b>

Licensee Comments: none

### Safety System Functional Failures (PWR)



Thresholds: White > 5.0

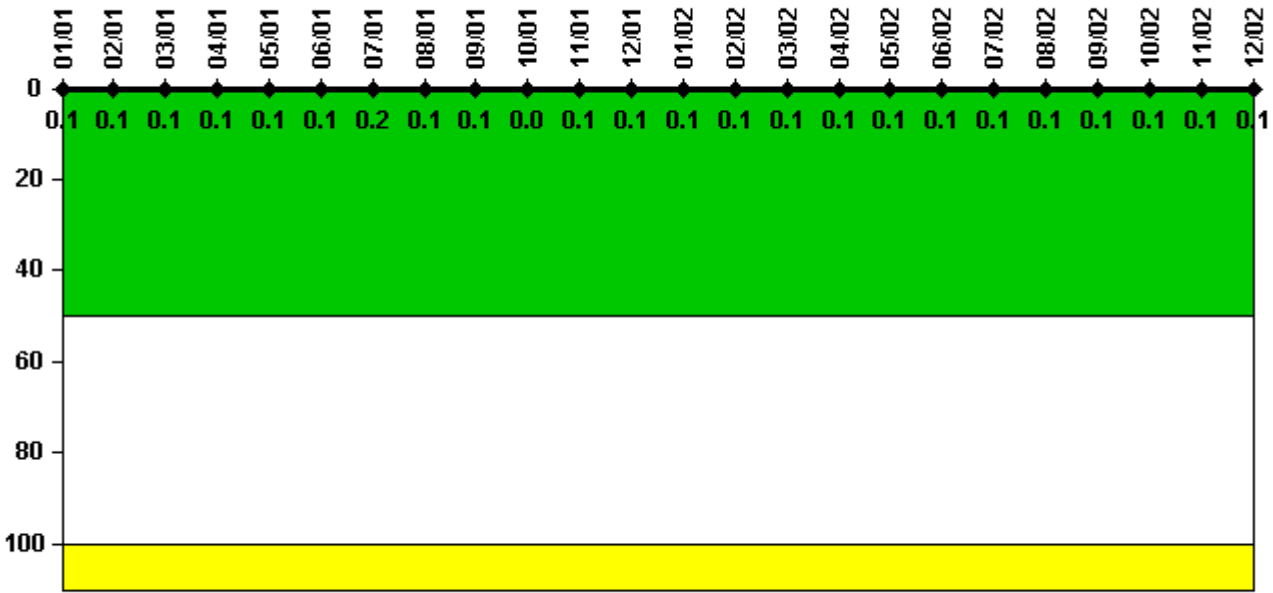
#### Notes

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	0	0	0
Indicator value	1	0	0	0	0	0	0	0

Licensee Comments: none



### Reactor Coolant System Activity



Thresholds: White > 50.0 Yellow > 100.0

#### Notes

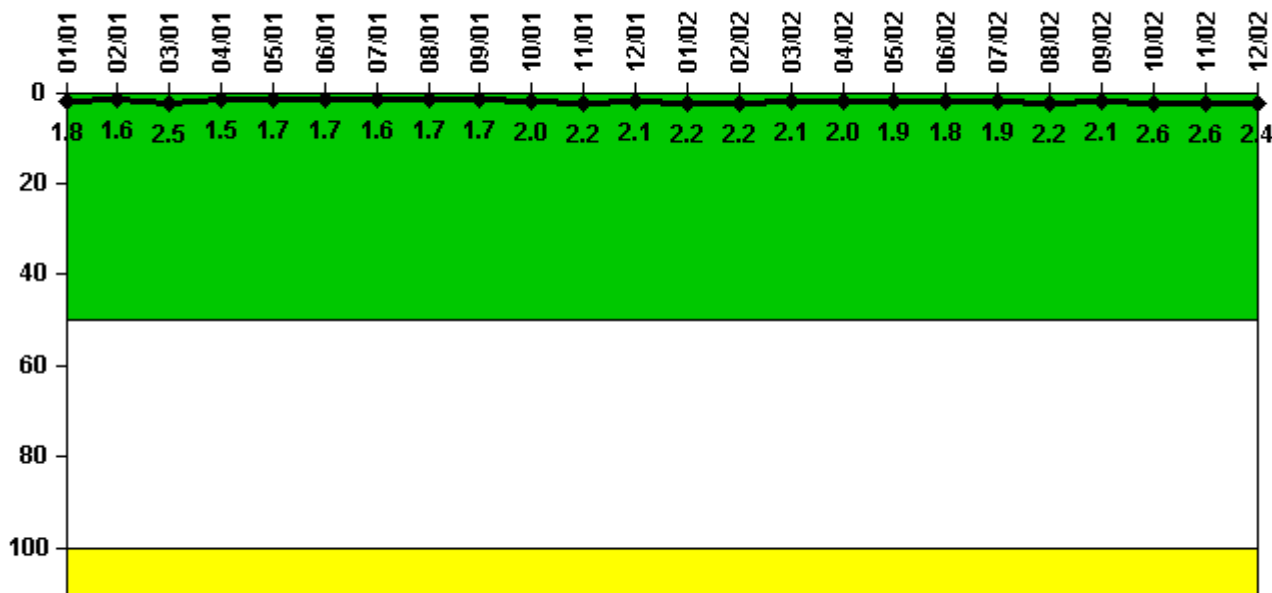
Reactor Coolant System Activity	1/01	2/01	3/01	4/01	5/01	6/01	7/01	8/01	9/01	10/01	11/01	12/01
Maximum activity	0.000854	0.000880	0.000999	0.001170	0.001150	0.001410	0.001580	0.001250	0.001380	0.000480	0.000526	0.000507
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0	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	0.000582	0.000582	0.000584	0.000660	0.000684	0.000637	0.000684	0.000769	0.000872	0.000815	0.000797	0.000852
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	0.1	0.1	0.1	0.1	0.1	0.1	0.1

Licensee Comments: none

### Reactor Coolant System Leakage



Thresholds: White > 50.0 Yellow > 100.0

#### Notes

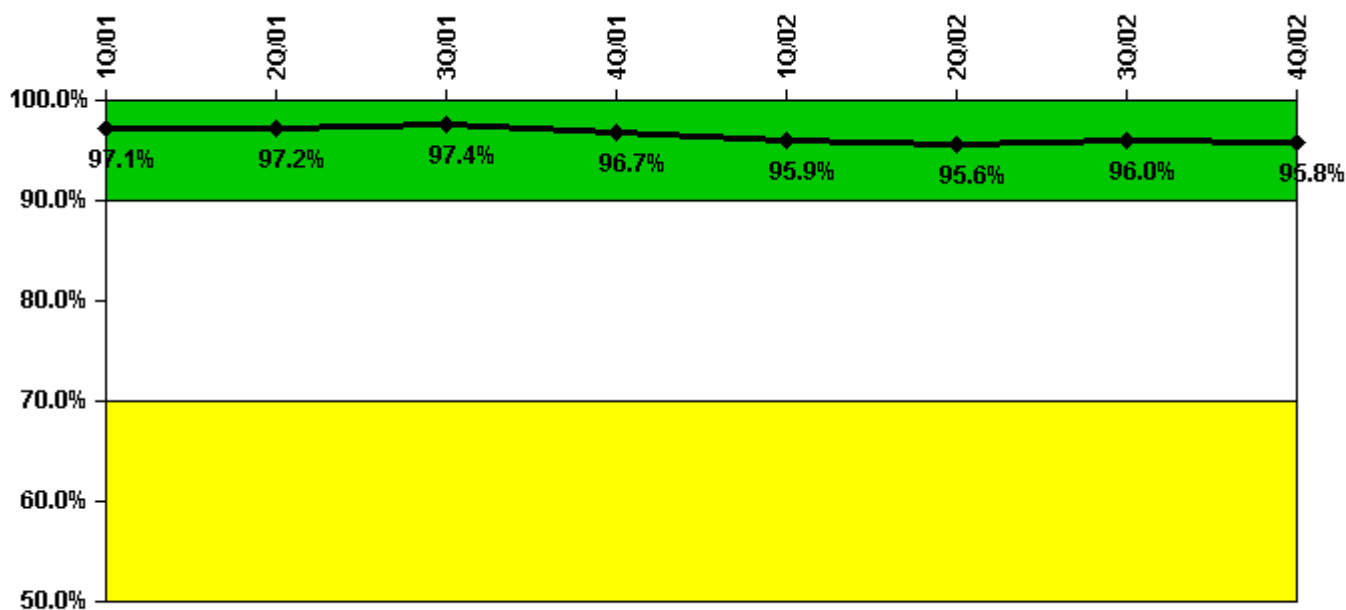
Reactor Coolant System Leakage	1/01	2/01	3/01	4/01	5/01	6/01	7/01	8/01	9/01	10/01	11/01	12/01
Maximum leakage	0.179	0.159	0.246	0.145	0.169	0.165	0.163	0.169	0.171	0.205	0.220	0.211
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	1.8	1.6	2.5	1.5	1.7	1.7	1.6	1.7	1.7	2.0	2.2	2.1

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	0.222	0.222	0.213	0.201	0.191	0.175	0.192	0.215	0.207	0.263	0.257	0.235
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	2.2	2.2	2.1	2.0	1.9	1.8	1.9	2.2	2.1	2.6	2.6	2.4

Licensee Comments: none

### Drill/Exercise Performance



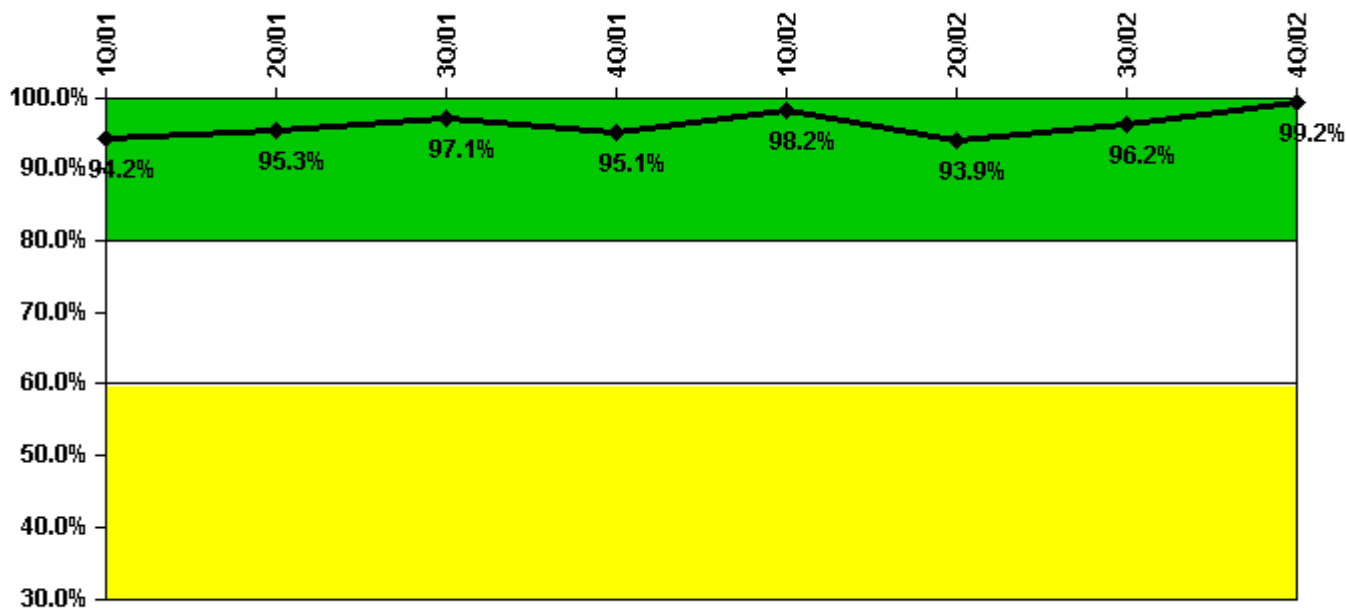
Thresholds: White < 90.0% Yellow < 70.0%

### Notes

Drill/Exercise Performance	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02
Successful opportunities	30.0	18.0	16.0	35.0	39.0	14.0	21.0	10.0
Total opportunities	35.0	18.0	16.0	35.0	41.0	15.0	21.0	10.0
Indicator value	97.1%	97.2%	97.4%	96.7%	95.9%	95.6%	96.0%	95.8%

Licensee Comments: none

### ERO Drill Participation



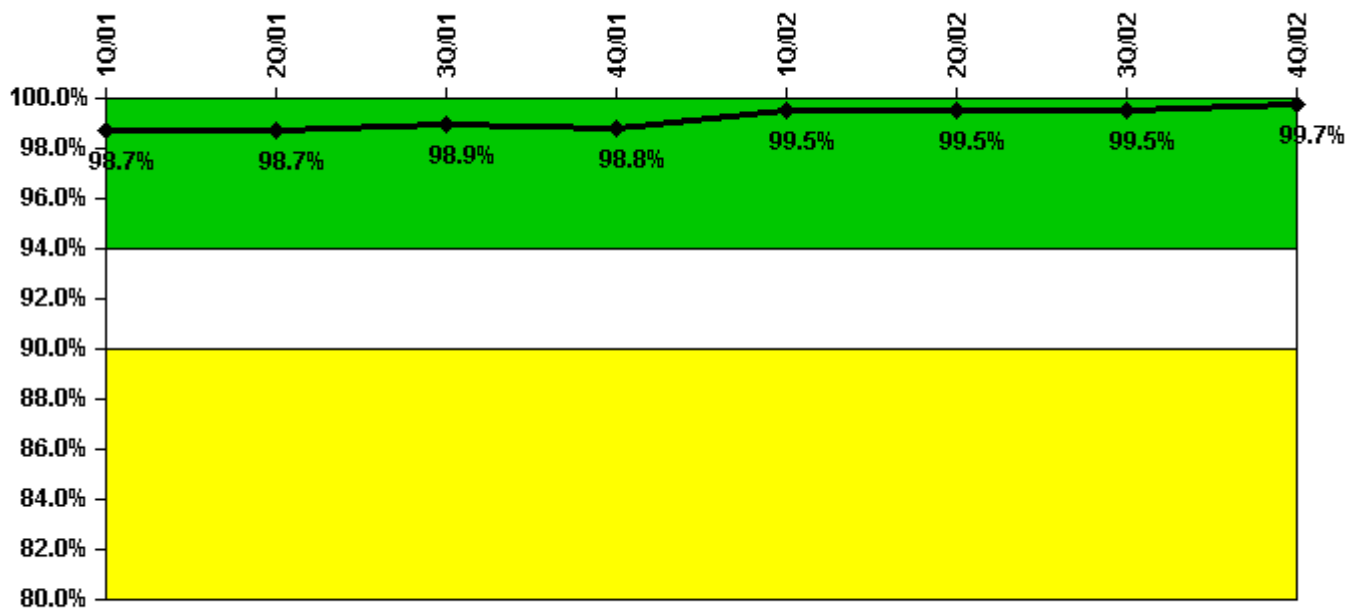
Thresholds: White < 80.0% Yellow < 60.0%

#### Notes

ERO Drill Participation	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02
Participating Key personnel	98.0	101.0	101.0	98.0	112.0	123.0	127.0	127.0
Total Key personnel	104.0	106.0	104.0	103.0	114.0	131.0	132.0	128.0
Indicator value	94.2%	95.3%	97.1%	95.1%	98.2%	93.9%	96.2%	99.2%

Licensee Comments: none

### Alert & Notification System



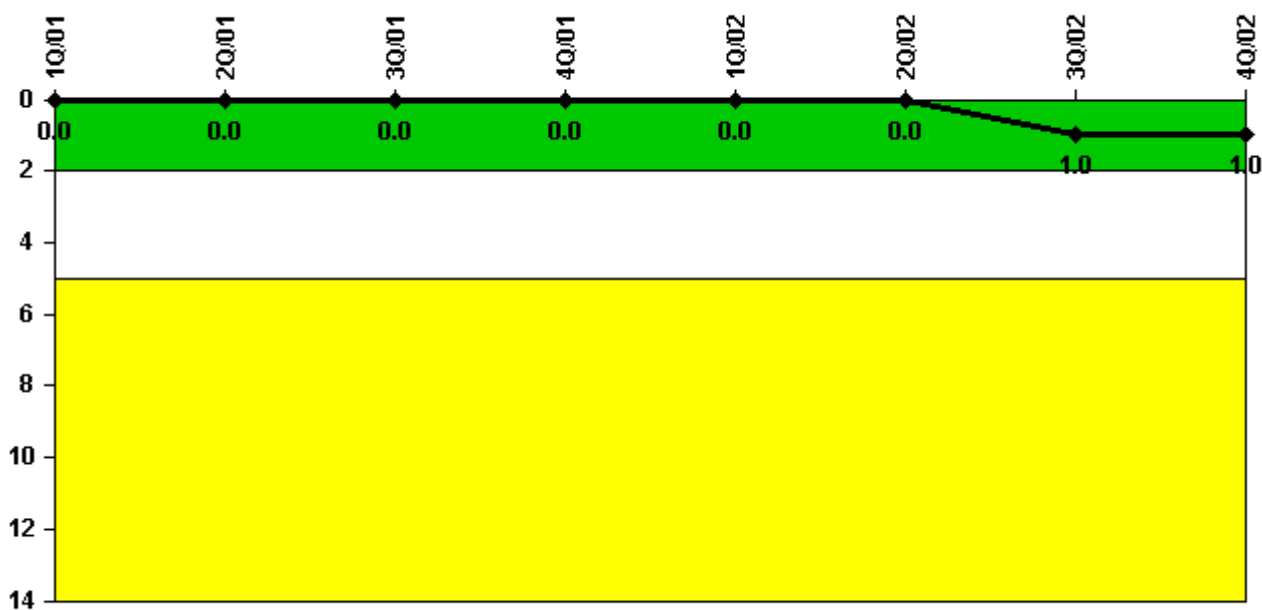
Thresholds: White < 94.0% Yellow < 90.0%

#### Notes

Alert & Notification System	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02
Successful siren-tests	414	427	431	431	434	432	431	434
Total sirens-tests	427	429	434	434	434	434	434	434
Indicator value	98.7%	98.7%	98.9%	98.8%	99.5%	99.5%	99.5%	99.7%

Licensee Comments: none

### Occupational Exposure Control Effectiveness



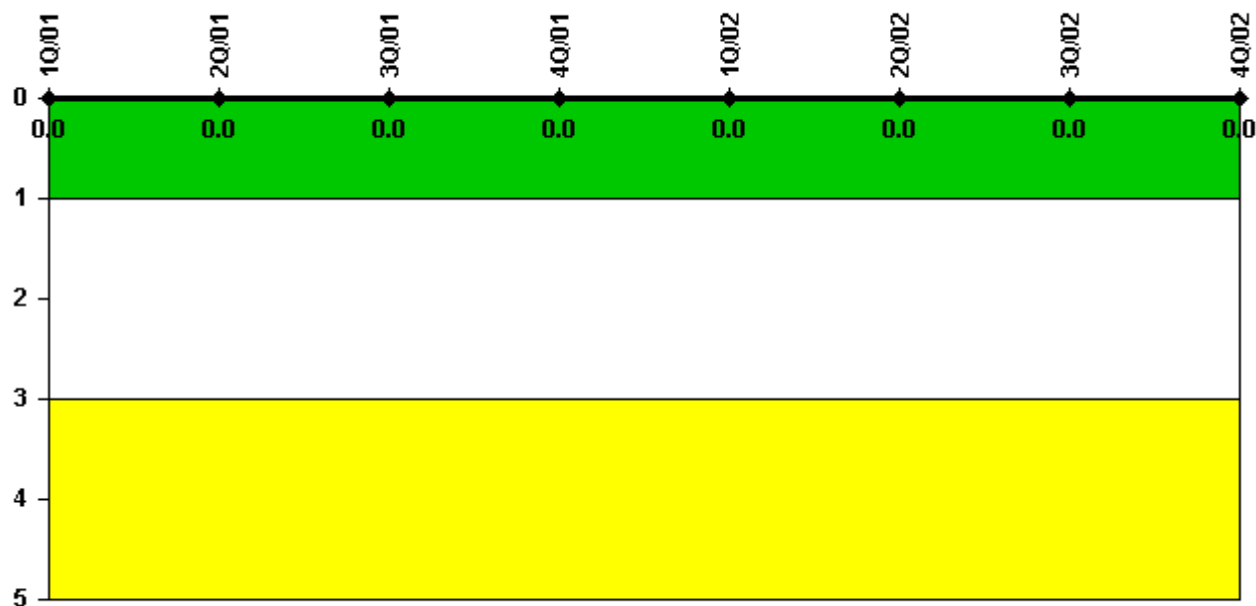
Thresholds: White > 2.0 Yellow > 5.0

#### 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	0	0	0	0	0	0	1	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	1	1

Licensee Comments: none

### RETS/ODCM Radiological Effluent



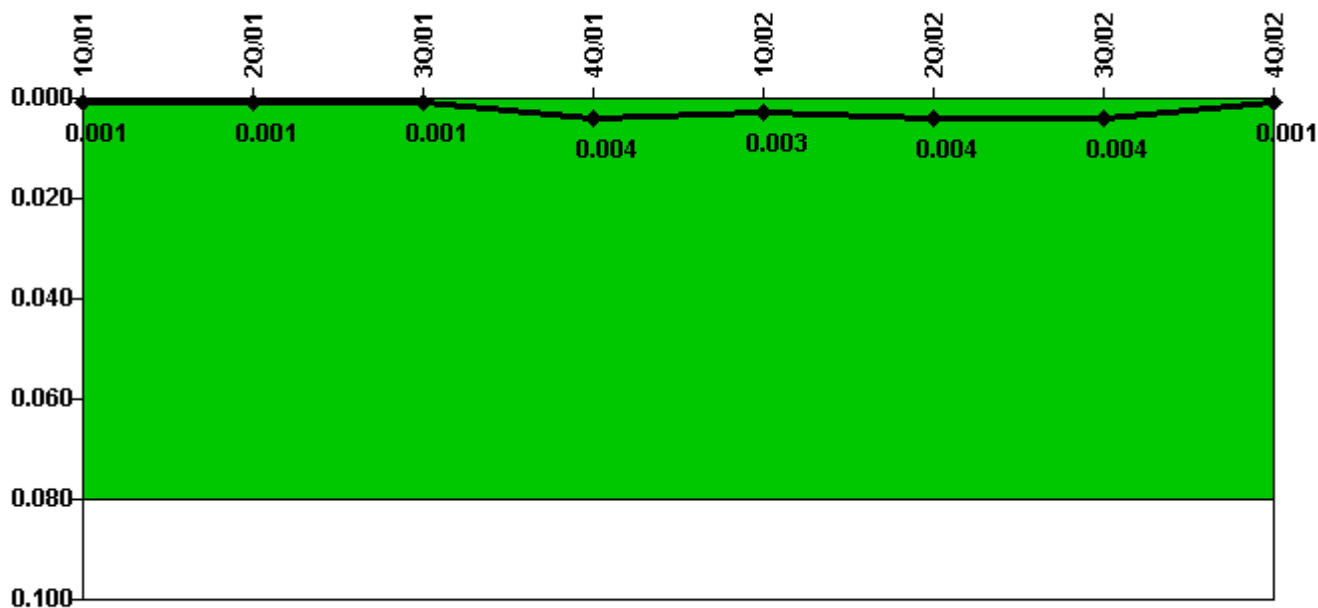
Thresholds: White > 1.0 Yellow > 3.0

**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

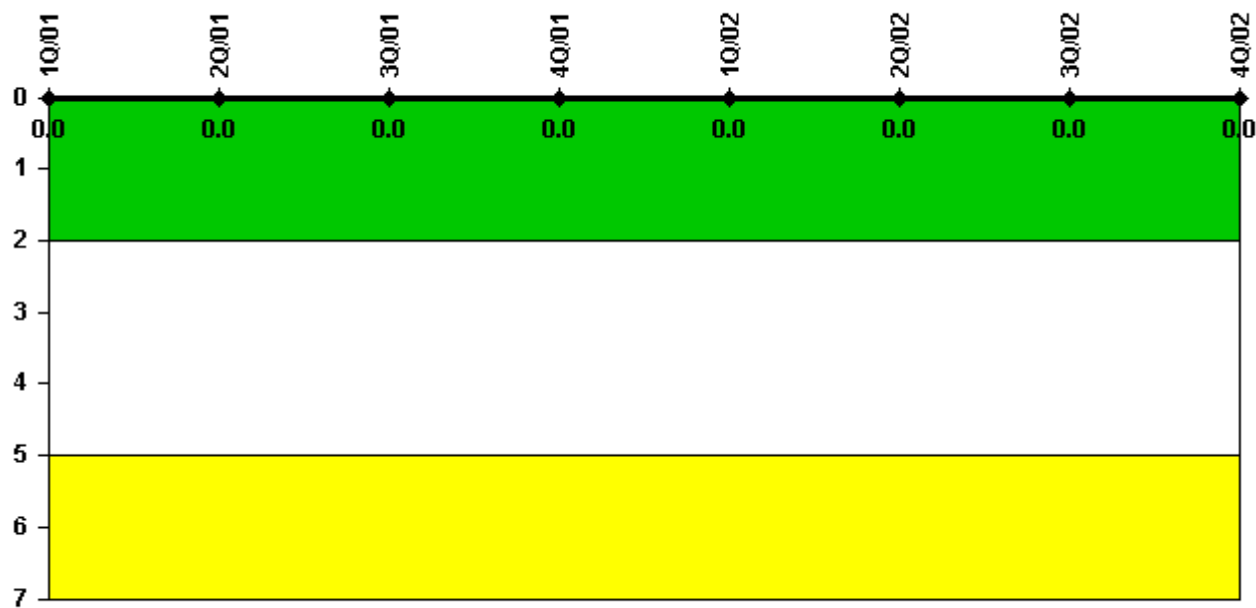
#### Notes

Protected Area Security Performance Index	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02
IDS compensatory hours	6.10	0	5.20	53.40	0	4.90	1.90	2.50
CCTV compensatory hours	0	0	0	0	0	0	10.2	0
IDS normalization factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
CCTV normalization factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
<b>Index Value</b>	<b>0.001</b>	<b>0.001</b>	<b>0.001</b>	<b>0.004</b>	<b>0.003</b>	<b>0.004</b>	<b>0.004</b>	<b>0.001</b>

Licensee Comments: none



### Personnel Screening Program



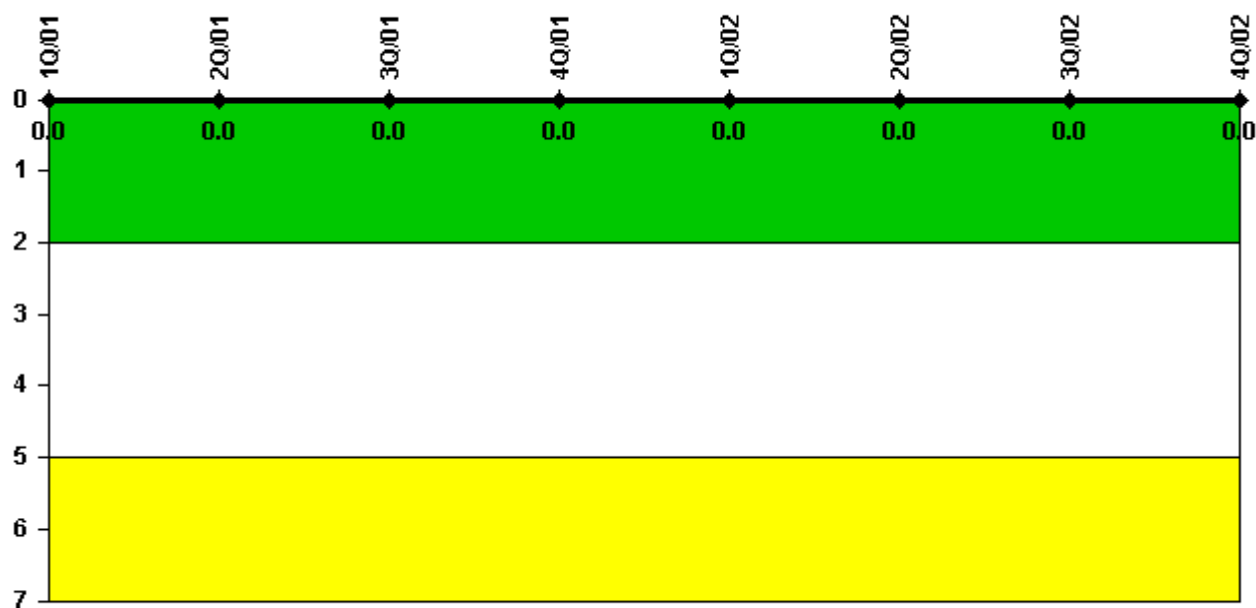
Thresholds: White > 2.0 Yellow > 5.0

#### 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