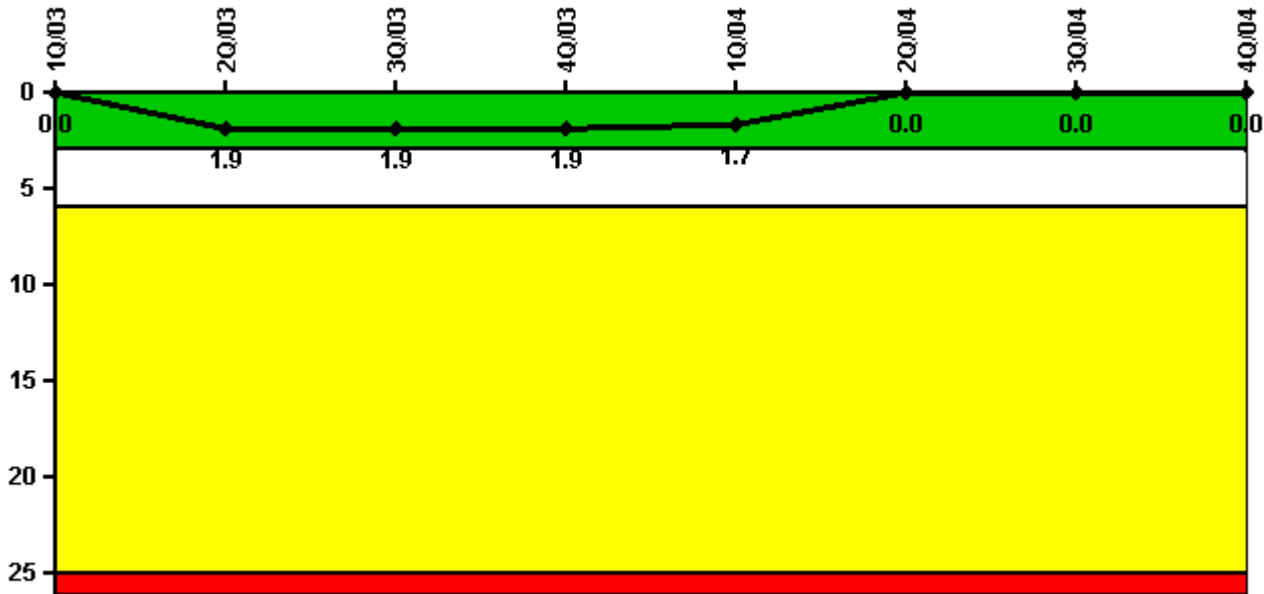


# North Anna 1

## 4Q/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	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04	3Q/04	4Q/04
Unplanned scrams	0	2.0	0	0	0	0	0	0
Critical hours	1273.7	1549.9	2208.0	2209.0	2051.8	2183.0	1753.2	2083.4
Indicator value	0	1.9	1.9	1.9	1.7	0	0	0

Licensee Comments: none

### Scrams with Loss of Normal Heat Removal



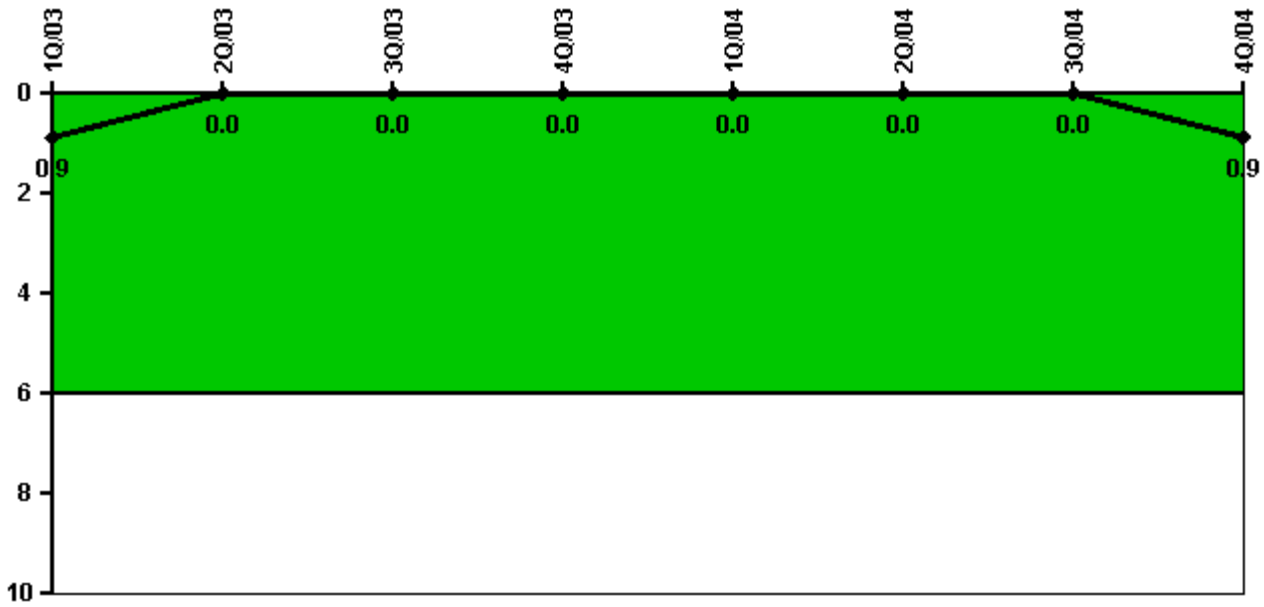
Thresholds: White > 2.0 Yellow > 10.0 Red > 20.0

#### Notes

Scrams with Loss of Normal Heat Removal	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04	3Q/04	4Q/04
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



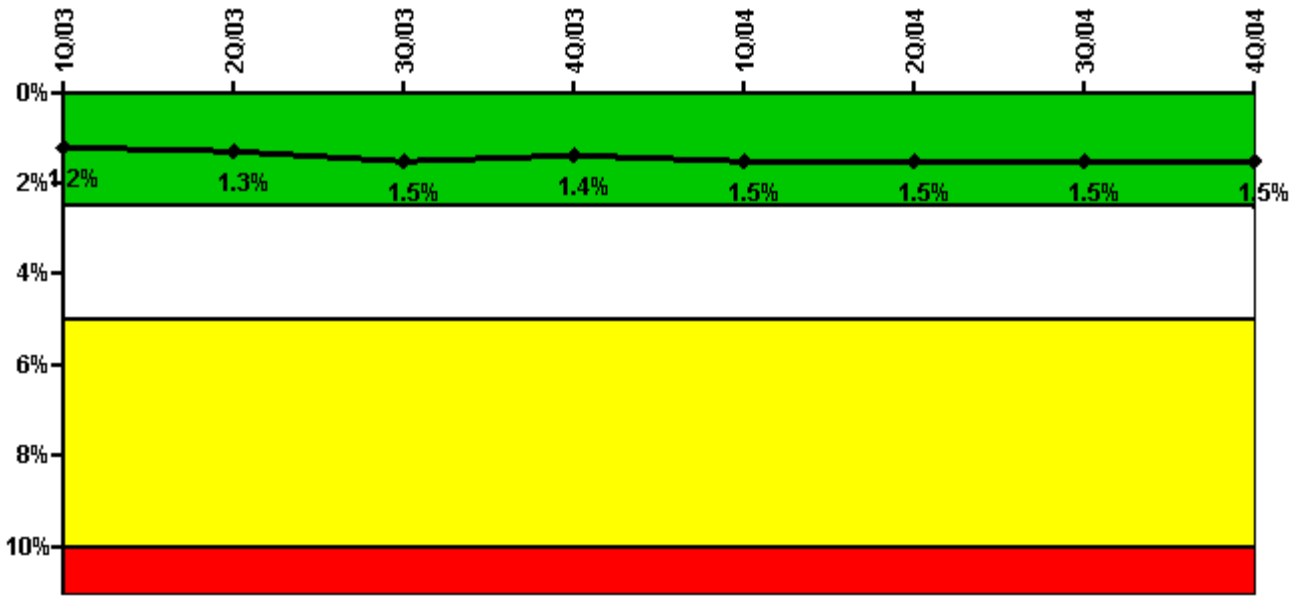
Thresholds: White > 6.0

#### Notes

Unplanned Power Changes per 7000 Critical Hrs	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04	3Q/04	4Q/04
Unplanned power changes	0	0	0	0	0	0	0	1.0
Critical hours	1273.7	1549.9	2208.0	2209.0	2051.8	2183.0	1753.2	2083.4
Indicator value	0.9	0	0	0	0	0	0	0.9

Licensee Comments: none

### Safety System Unavailability, Emergency AC Power



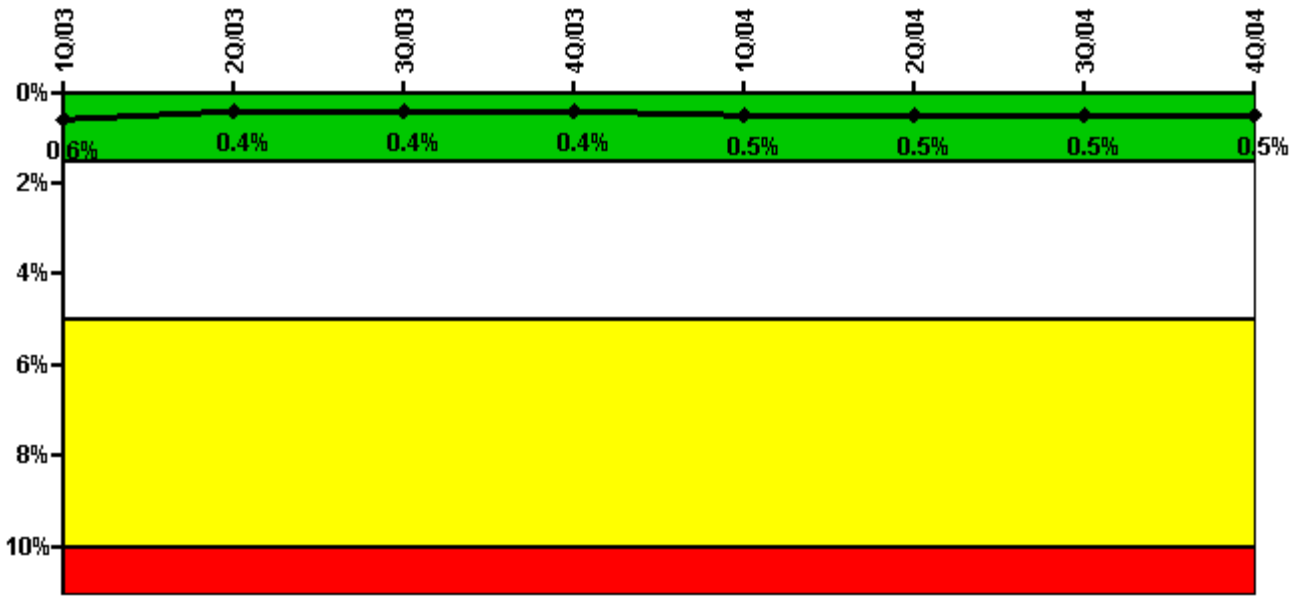
Thresholds: White > 2.5% Yellow > 5.0% Red > 10.0%

#### Notes

Safety System Unavailability, Emergency AC Power	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04	3Q/04	4Q/04
<b>Train 1</b>								
Planned unavailable hours	4.61	2.67	50.35	9.10	6.20	37.97	7.38	8.36
Unplanned unavailable hours	77.40	23.50	23.00	0	104.52	2.50	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	1723.64	1677.40	2208.00	2209.00	2184.00	2183.00	1987.51	2164.64
<b>Train 2</b>								
Planned unavailable hours	7.69	7.48	54.00	14.39	8.02	27.52	8.46	9.98
Unplanned unavailable hours	0	3.88	0	18.21	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	1723.64	1806.70	2208.00	2209.00	2184.00	2183.00	1987.51	2164.64
<b>Indicator value</b>	<b>1.2%</b>	<b>1.3%</b>	<b>1.5%</b>	<b>1.4%</b>	<b>1.5%</b>	<b>1.5%</b>	<b>1.5%</b>	<b>1.5%</b>

Licensee Comments: none

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



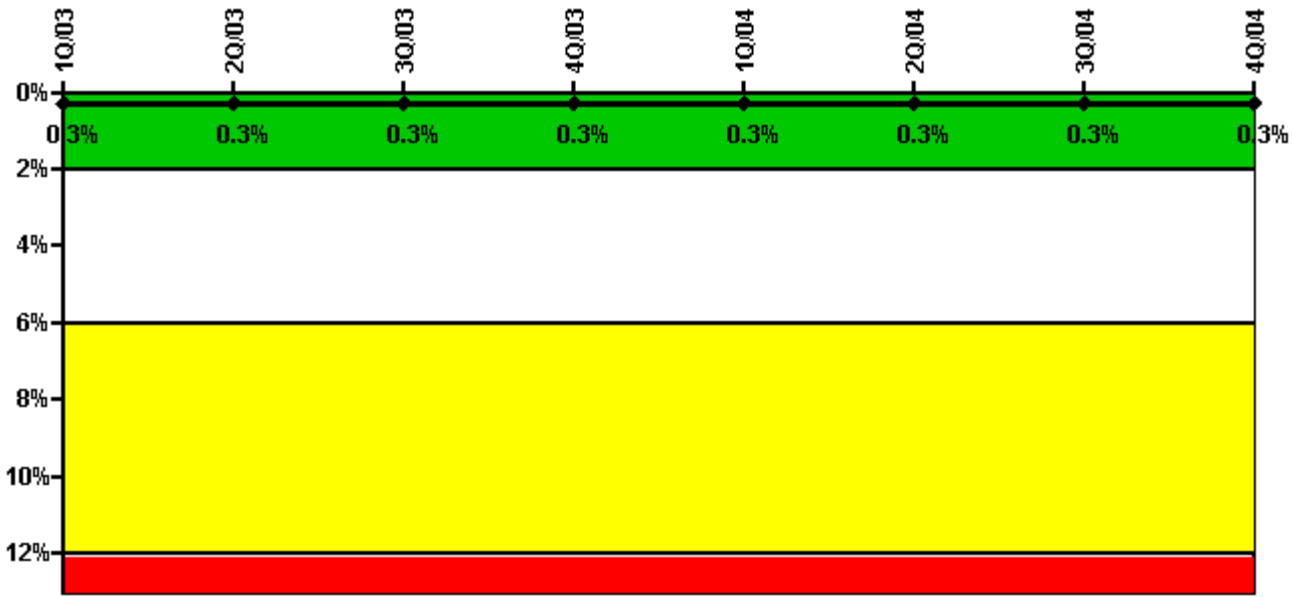
Thresholds: White > 1.5% Yellow > 5.0% Red > 10.0%

**Notes**

Safety System Unavailability, High Pressure Injection System (HPSI)	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04	3Q/04	4Q/04
<b>Train 1</b>								
Planned unavailable hours	1.15	5.65	5.51	2.38	5.95	4.08	6.15	4.39
Unplanned unavailable hours	3.08	0.12	0	0	0	0	3.30	2.73
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	1285.22	1836.99	2208.00	2209.00	2184.00	2183.00	1764.70	2115.35
<b>Train 2</b>								
Planned unavailable hours	19.77	5.02	5.79	5.04	3.12	5.05	4.46	3.39
Unplanned unavailable hours	6.45	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	1285.22	1836.99	2208.00	2209.00	2184.00	2183.00	1764.70	2115.35
<b>Indicator value</b>	<b>0.6%</b>	<b>0.4%</b>	<b>0.4%</b>	<b>0.4%</b>	<b>0.5%</b>	<b>0.5%</b>	<b>0.5%</b>	<b>0.5%</b>

Licensee Comments: none

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



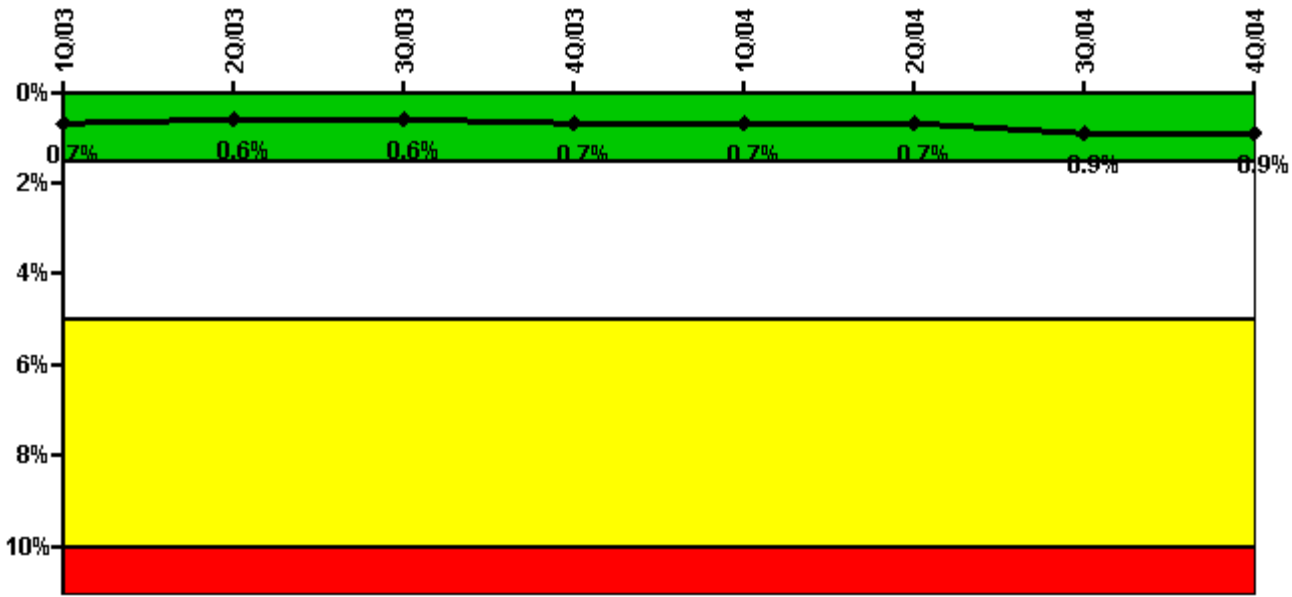
Thresholds: White > 2.0% Yellow > 6.0% Red > 12.0%

#### Notes

Safety System Unavailability, Heat Removal System (AFW)	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04	3Q/04	4Q/04
<b>Train 1</b>								
Planned unavailable hours	1.50	7.78	4.48	13.62	8.62	4.17	5.35	5.22
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	1285.22	1836.99	2208.00	2209.00	2184.00	2183.00	1762.57	2110.42
<b>Train 2</b>								
Planned unavailable hours	13.52	4.09	6.23	14.22	2.52	6.25	2.72	2.50
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	1285.22	1836.99	2208.00	2209.00	2184.00	2183.00	1762.57	2110.42
<b>Train 3</b>								
Planned unavailable hours	0.33	9.81	10.45	6.48	5.32	9.92	0	5.65
Unplanned unavailable hours	0	3.27	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	1283.17	1829.18	2208.00	2209.00	2184.00	2183.00	1762.57	2110.42
<b>Indicator value</b>	<b>0.3%</b>	<b>0.3%</b>	<b>0.3%</b>	<b>0.3%</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



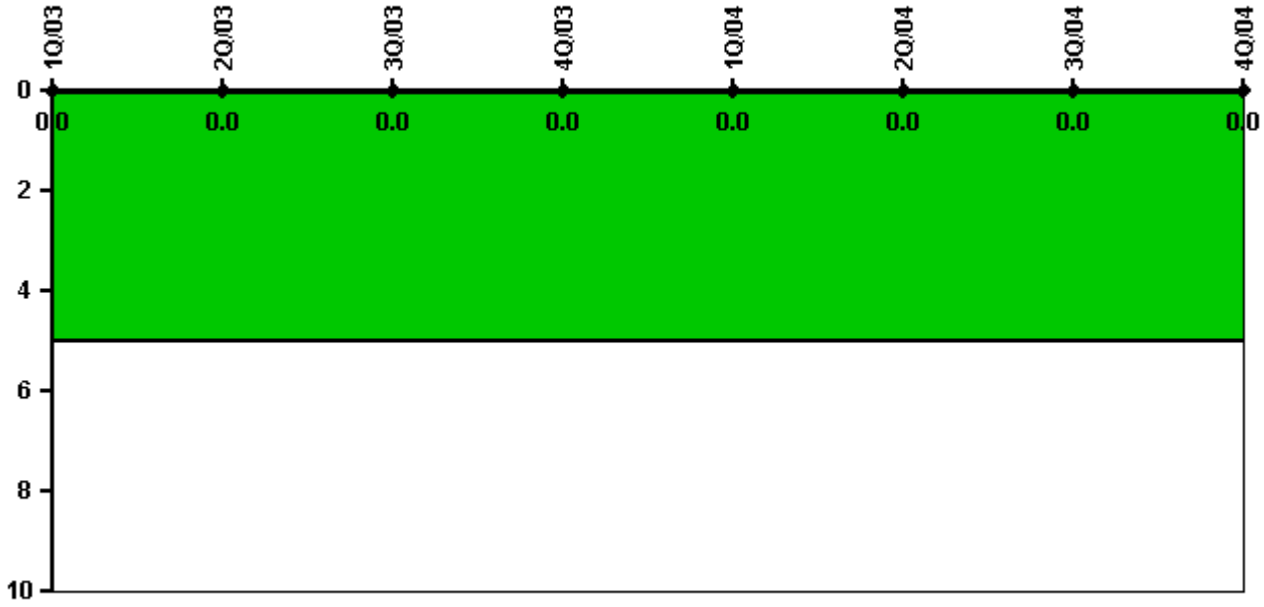
Thresholds: White > 1.5% Yellow > 5.0% Red > 10.0%

**Notes**

Safety System Unavailability, Residual Heat Removal System	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04	3Q/04	4Q/04
<b>Train 1</b>								
Planned unavailable hours	1.15	7.93	19.58	28.98	6.47	5.95	21.85	6.09
Unplanned unavailable hours	2.50	1.82	1.65	0	2.53	0	160.82	9.80
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	1287.27	1844.79	2208.00	2209.00	2184.00	2183.00	1764.70	2115.35
<b>Train 2</b>								
Planned unavailable hours	11.30	5.82	10.31	26.45	31.47	15.52	2.95	7.12
Unplanned unavailable hours	67.18	0	0	0	0	0	81.52	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	1287.27	1844.79	2208.00	2209.00	2184.00	2183.00	1764.70	2115.35
<b>Train 3</b>								
Planned unavailable hours	3.20	0	10.15	0	0	0	3.33	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	1414.64	2106.56	2208.00	2209.00	2184.00	2183.00	2029.98	2164.64
<b>Train 4</b>								
Planned unavailable hours	2.98	0	0	0	0	0	5.27	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	1414.64	2106.56	2208.00	2209.00	2184.00	2183.00	2029.98	2164.64
<b>Indicator value</b>	<b>0.7%</b>	<b>0.6%</b>	<b>0.6%</b>	<b>0.7%</b>	<b>0.7%</b>	<b>0.7%</b>	<b>0.9%</b>	<b>0.9%</b>

Licensee Comments: none

### Safety System Functional Failures (PWR)



Thresholds: White > 5.0

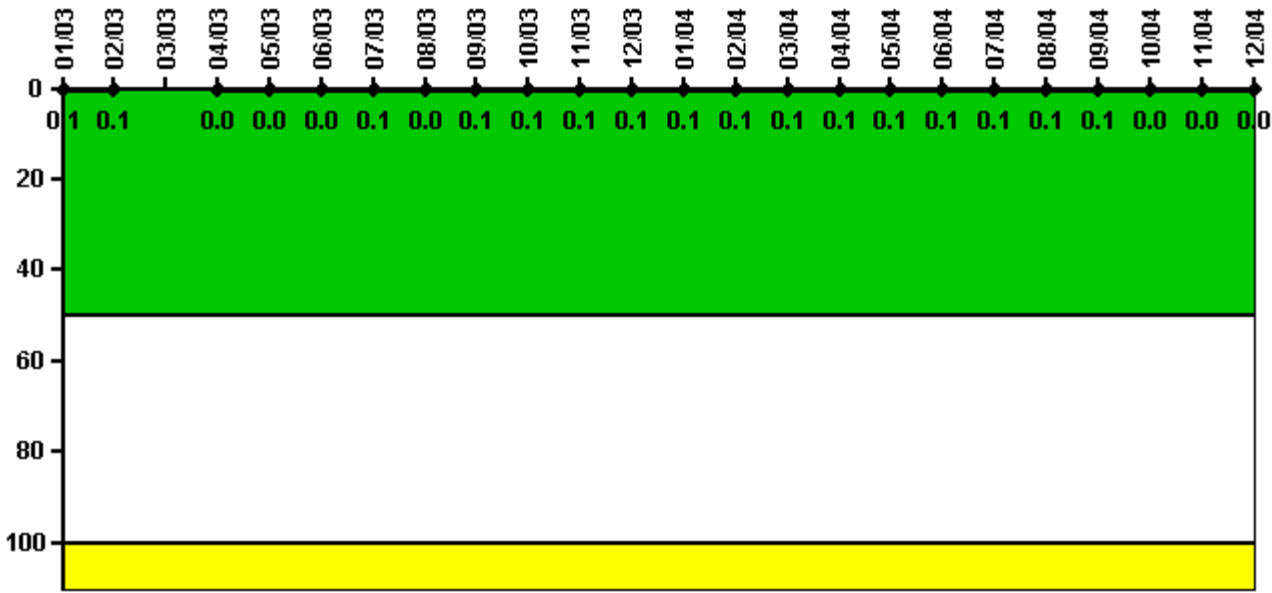
#### Notes

Safety System Functional Failures (PWR)	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04	3Q/04	4Q/04
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

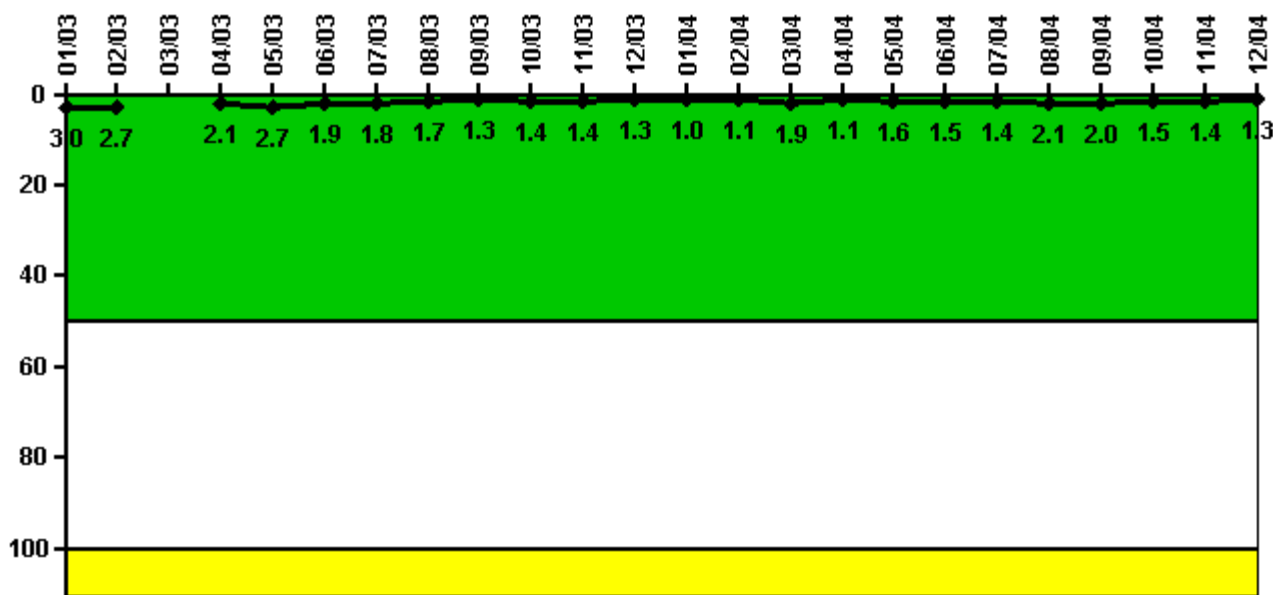
Reactor Coolant System Activity	1/03	2/03	3/03	4/03	5/03	6/03	7/03	8/03	9/03	10/03	11/03	12/03
Maximum activity	0.000809	0.000947	N/A	0.000412	0.000495	0.000410	0.000513	0.000458	0.000705	0.000527	0.000559	0.000534
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	0.1	0.1	N/A	0	0	0	0.1	0	0.1	0.1	0.1	0.1

Reactor Coolant System Activity	1/04	2/04	3/04	4/04	5/04	6/04	7/04	8/04	9/04	10/04	11/04	12/04
Maximum activity	0.000546	0.000561	0.000594	0.000595	0.000600	0.000633	0.000646	0.000676	0.000908	0.000360	0.000285	0.000389
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	0	0

Licensee Comments: none

### Reactor Coolant System Leakage



Thresholds: White > 50.0 Yellow > 100.0

#### Notes

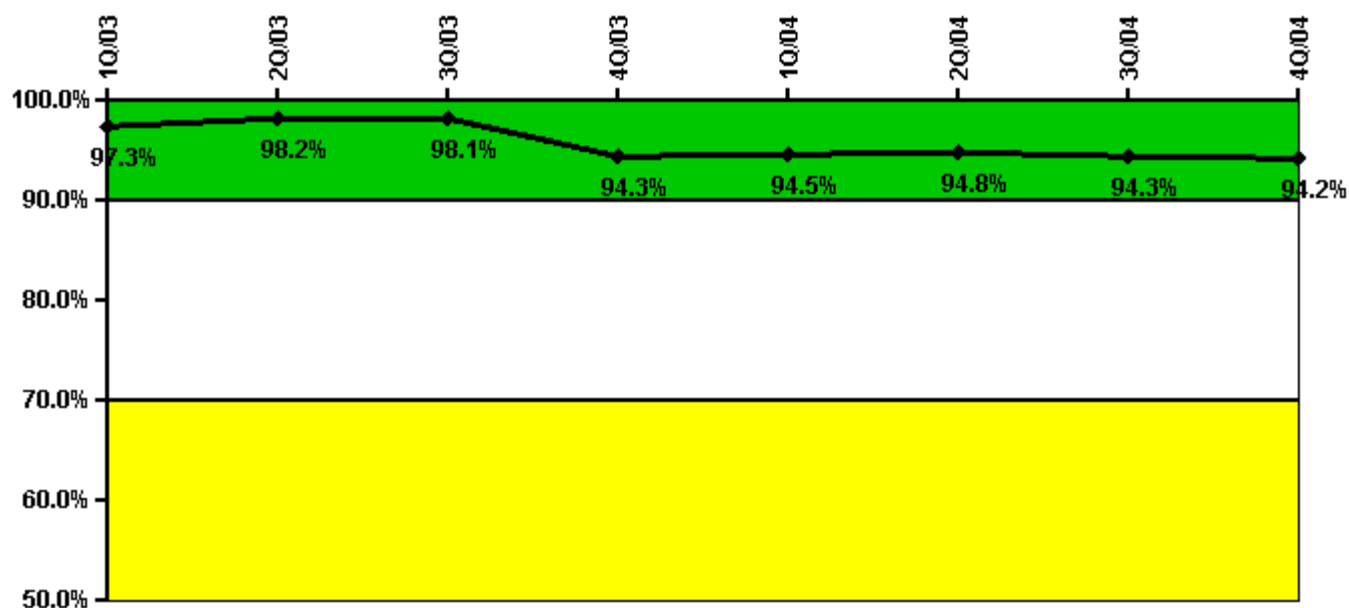
Reactor Coolant System Leakage	1/03	2/03	3/03	4/03	5/03	6/03	7/03	8/03	9/03	10/03	11/03	12/03
Maximum leakage	0.299	0.267	N/A	0.212	0.272	0.192	0.179	0.173	0.135	0.140	0.136	0.132
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	3.0	2.7	N/A	2.1	2.7	1.9	1.8	1.7	1.3	1.4	1.4	1.3

Reactor Coolant System Leakage	1/04	2/04	3/04	4/04	5/04	6/04	7/04	8/04	9/04	10/04	11/04	12/04
Maximum leakage	0.097	0.113	0.188	0.113	0.155	0.150	0.139	0.207	0.198	0.149	0.140	0.126
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	1.0	1.1	1.9	1.1	1.6	1.5	1.4	2.1	2.0	1.5	1.4	1.3

Licensee Comments: none

### Drill/Exercise Performance



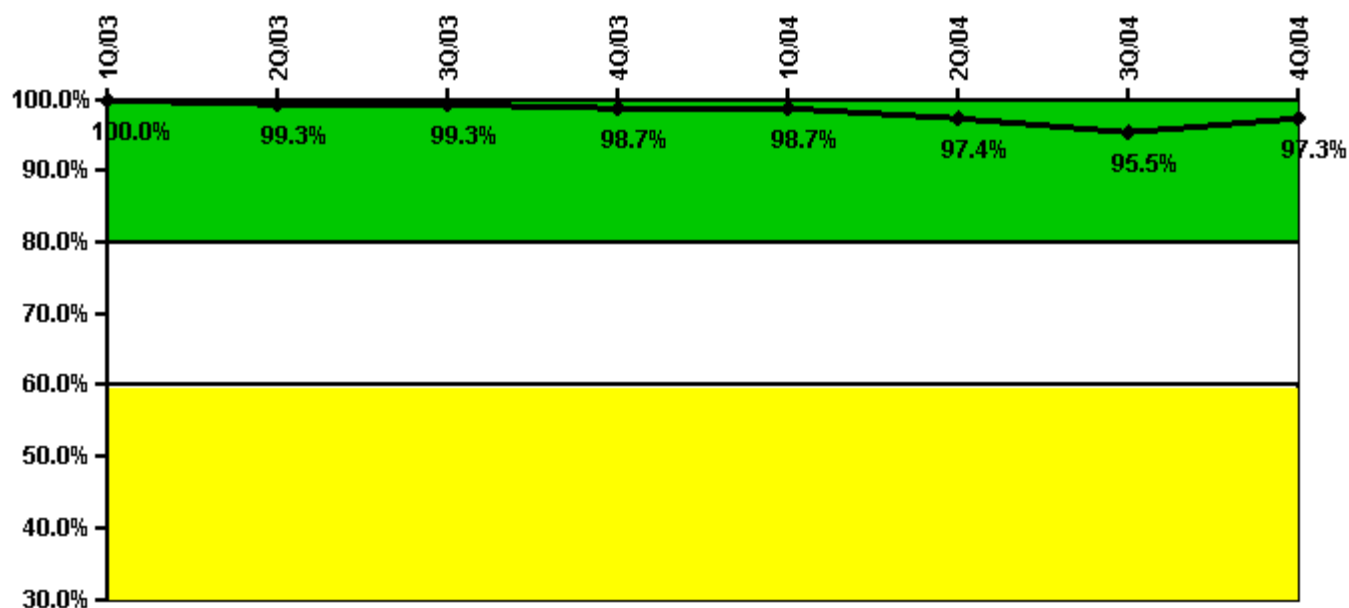
Thresholds: White < 90.0% Yellow < 70.0%

#### Notes

Drill/Exercise Performance	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04	3Q/04	4Q/04
Successful opportunities	30.0	108.0	3.0	25.0	31.0	11.0	13.0	6.0
Total opportunities	32.0	108.0	3.0	35.0	32.0	11.0	14.0	6.0
Indicator value	97.3%	98.2%	98.1%	94.3%	94.5%	94.8%	94.3%	94.2%

Licensee Comments: none

### ERO Drill Participation



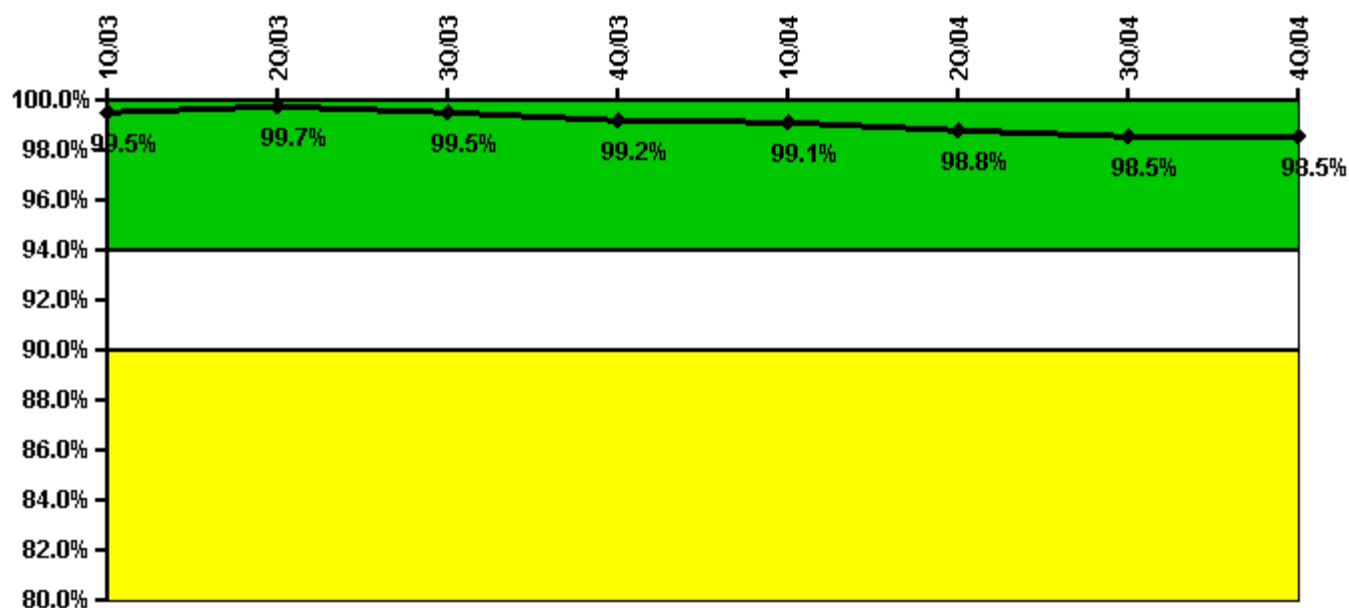
Thresholds: White < 80.0% Yellow < 60.0%

#### Notes

ERO Drill Participation	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04	3Q/04	4Q/04
Participating Key personnel	124.0	151.0	152.0	150.0	150.0	147.0	149.0	142.0
Total Key personnel	124.0	152.0	153.0	152.0	152.0	151.0	156.0	146.0
Indicator value	100.0%	99.3%	99.3%	98.7%	98.7%	97.4%	95.5%	97.3%

Licensee Comments: none

### Alert & Notification System



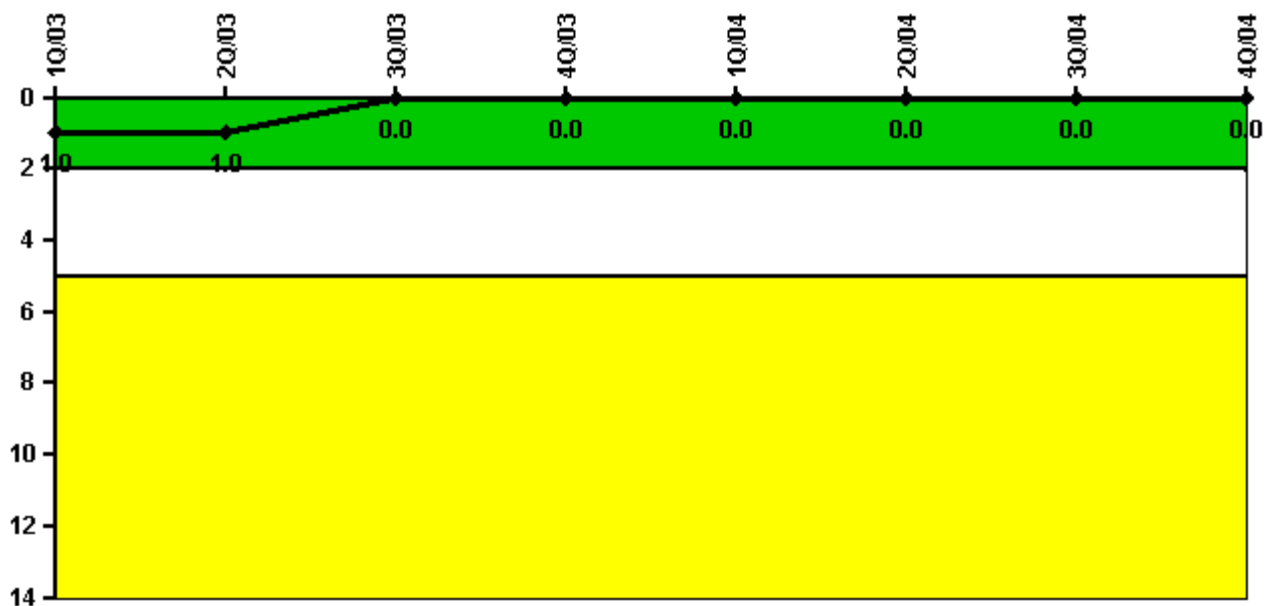
Thresholds: White < 94.0% Yellow < 90.0%

#### Notes

Alert & Notification System	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04	3Q/04	4Q/04
Successful siren-tests	431	436	436	435	437	436	450	461
Total sirens-tests	434	436	441	441	441	443	460	467
Indicator value	99.5%	99.7%	99.5%	99.2%	99.1%	98.8%	98.5%	98.5%

Licensee Comments: none

### Occupational Exposure Control Effectiveness



Thresholds: White > 2.0 Yellow > 5.0

#### Notes

Occupational Exposure Control Effectiveness	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04	3Q/04	4Q/04
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
<b>Indicator value</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

Licensee Comments: none

### RETS/ODCM Radiological Effluent



Thresholds: White > 1.0 Yellow > 3.0

#### Notes

RETS/ODCM Radiological Effluent	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04	3Q/04	4Q/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

[Physical Protection](#) information not publicly available.

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

Last Modified: March 9, 2005