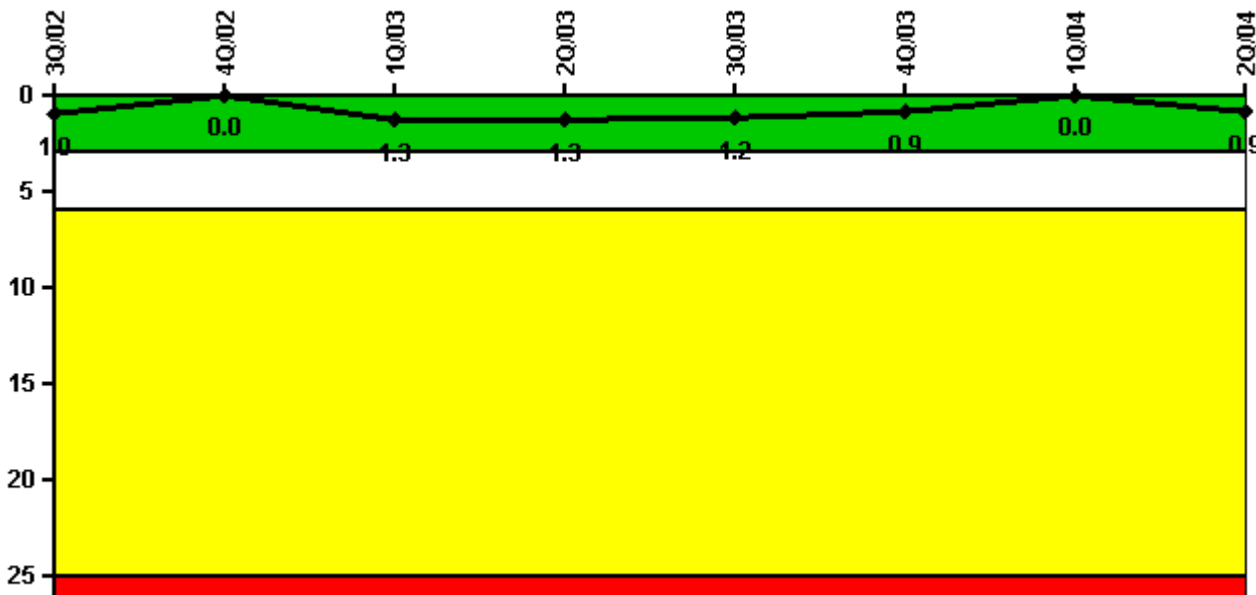


## North Anna 2

### 2Q/2004 Performance Indicators

Licensee's General Comments: none

#### Unplanned Scrams per 7000 Critical Hrs



**Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0**

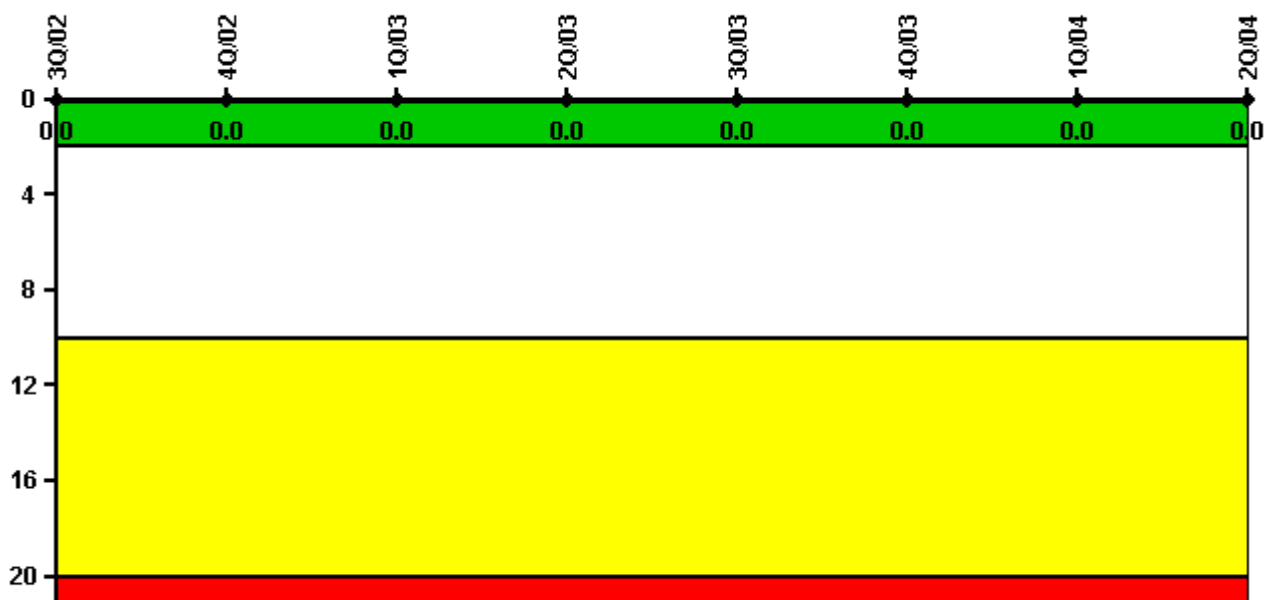
#### Notes

Unplanned Scrams per 7000 Critical Hrs	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04
Unplanned scrams	0	0	1.0	0	0	0	0	1.0
Critical hours	1657.7	0	1434.3	2180.8	2208.0	2209.0	2184.0	1494.4
Indicator value	1.0	0	1.3	1.3	1.2	0.9	0	0.9

Licensee Comments:

2Q/04: 06-10-04 Scram occurred during a Train 'A' Reactor Protection and ESF Logic Actuation Logic Test due to an incorrect 'A' Bypass Reactor Trip Breaker cell switch contact configuration. (LER 2004-004-00)

### Scrams with Loss of Normal Heat Removal



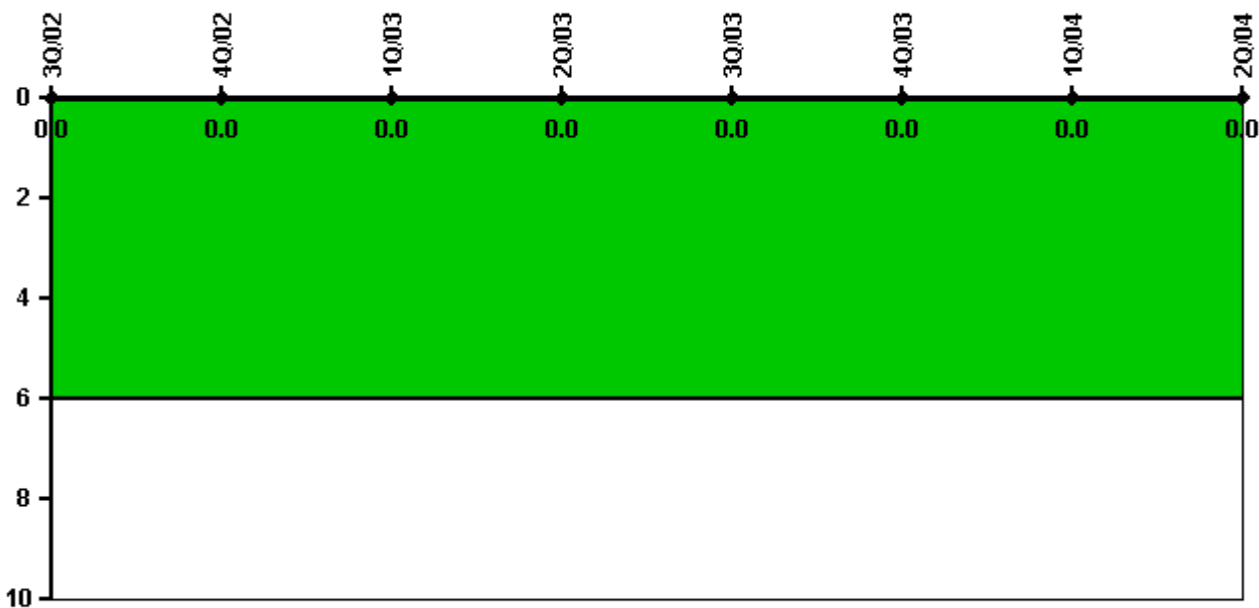
Thresholds: White > 2.0 Yellow > 10.0 Red > 20.0

#### Notes

Scrams with Loss of Normal Heat Removal	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/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



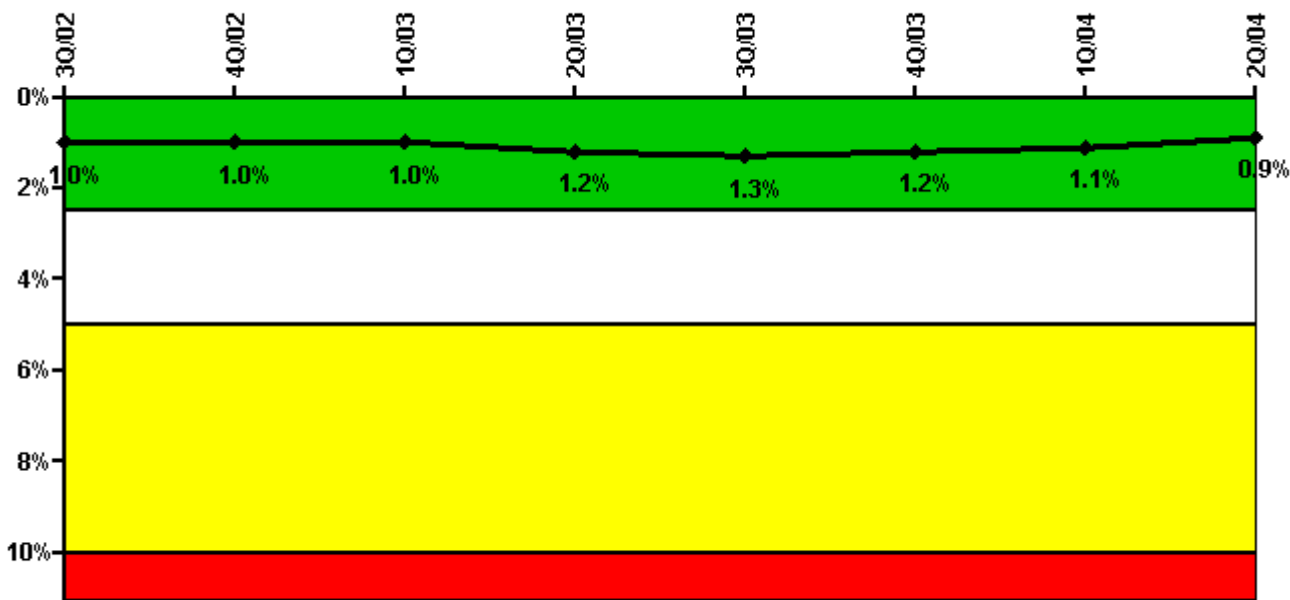
Thresholds: White > 6.0

#### Notes

Unplanned Power Changes per 7000 Critical Hrs	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04
Unplanned power changes	0	0	0	0	0	0	0	0
Critical hours	1657.7	0	1434.3	2180.8	2208.0	2209.0	2184.0	1494.4
Indicator value	0	0	0	0	0	0	0	0

Licensee Comments: none

### Safety System Unavailability, Emergency AC Power



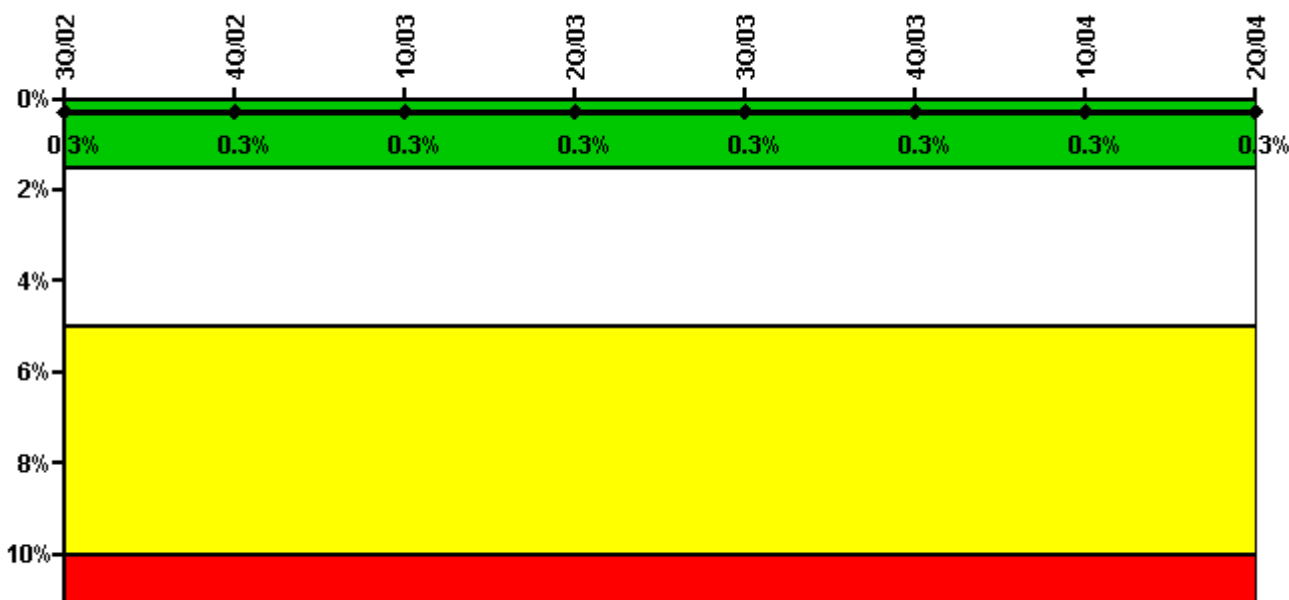
Thresholds: White > 2.5% Yellow > 5.0% Red > 10.0%

#### Notes

Safety System Unavailability, Emergency AC Power	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04
<b>Train 1</b>								
Planned unavailable hours	9.14	0	9.13	36.01	30.54	9.80	10.16	5.49
Unplanned unavailable hours	0	0	0	0	14.10	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	1939.19	861.00	1819.64	2183.00	2208.00	2209.00	2184.00	1874.18
<b>Train 2</b>								
Planned unavailable hours	12.30	0	5.74	60.32	34.65	9.91	8.81	6.96
Unplanned unavailable hours	15.35	0	0	0	10.73	0	0	1.77
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	1939.19	1348.00	1819.64	2183.00	2208.00	2209.00	2184.00	1874.18
<b>Indicator value</b>	<b>1.0%</b>	<b>1.0%</b>	<b>1.0%</b>	<b>1.2%</b>	<b>1.3%</b>	<b>1.2%</b>	<b>1.1%</b>	<b>0.9%</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)	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04
<b>Train 1</b>								
Planned unavailable hours	13.68	0	3.22	2.40	6.17	7.50	3.10	4.44
Unplanned unavailable hours	0	0	8.92	0	0.55	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	1668.50	0	1474.13	2183.00	2208.00	2209.00	2184.00	1557.59
<b>Train 2</b>								
Planned unavailable hours	2.74	0	2.92	7.66	2.50	2.30	4.36	4.32
Unplanned unavailable hours	10.90	0	8.92	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	1668.50	0	1474.13	2183.00	2208.00	2209.00	2184.00	1557.59
<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:

1Q/04: Revised to incorporate 3.46 planned, unavailable hrs. accrued during SSPS Testing. (FAQ 290) This change had no affect on the color of the indicator.

4Q/03: Revised to incorporate 4.18 planned, unavailable hrs. accrued during SSPS Testing. (FAQ 290) This change had no affect on the color of the indicator.

3Q/03: Revised to incorporate 5.38 planned, unavailable hrs. accrued during SSPS Testing. (FAQ 290) This change had no affect on the color of the indicator.

2Q/03: Revised to incorporate 7.74 planned, unavailable hrs. accrued during SSPS Testing. (FAQ 290) This change had no affect on the color of the indicator.

1Q/03: Revised to incorporate 2.89 planned, unavailable hrs. accrued during SSPS Testing. (FAQ 290) This change had no affect on the color of the indicator.

3Q/02: Revised to incorporate 3.35 planned, unavailable hrs. accrued during SSPS Testing. (FAQ 290) This change had no affect on



Planned unavailable hours	12.12	0	7.61	1.43	5.12	5.20	13.81	3.22
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	1666.63	0	1468.98	2183.00	2208.00	2209.00	2184.00	1549.82
<b>Indicator value</b>	<b>0.2%</b>	<b>0.2%</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:

1Q/04: Revised to incorporate 3.46 planned, unavailable hrs. accrued during SSPS Testing. (FAQ 290) This change had no affect on the color of the indicator.

4Q/03: Revised to incorporate 4.18 planned, unavailable hrs. accrued during SSPS Testing. (FAQ 290) This change had no affect on the color of the indicator.

3Q/03: Revised to incorporate 5.39 planned, unavailable hrs. accrued during SSPS Testing. (FAQ 290) This change had no affect on the color of the indicator.

2Q/03: Revised to incorporate 7.74 planned, unavailable hrs. accrued during SSPS Testing. (FAQ 290) This change had no affect on the color of the indicator.

1Q/03: Revised to incorporate 2.88 planned, unavailable hrs. accrued during SSPS Testing. (FAQ 290) This change had no affect on the color of the indicator.

3Q/02: Revised to incorporate 3.35 planned, unavailable hrs. accrued during SSPS Testing. (FAQ 290) This change had no affect on the color of the indicator.

2Q/02: Revised to incorporate 2.54 planned, unavailable hrs. accrued during SSPS Testing. (FAQ 290)

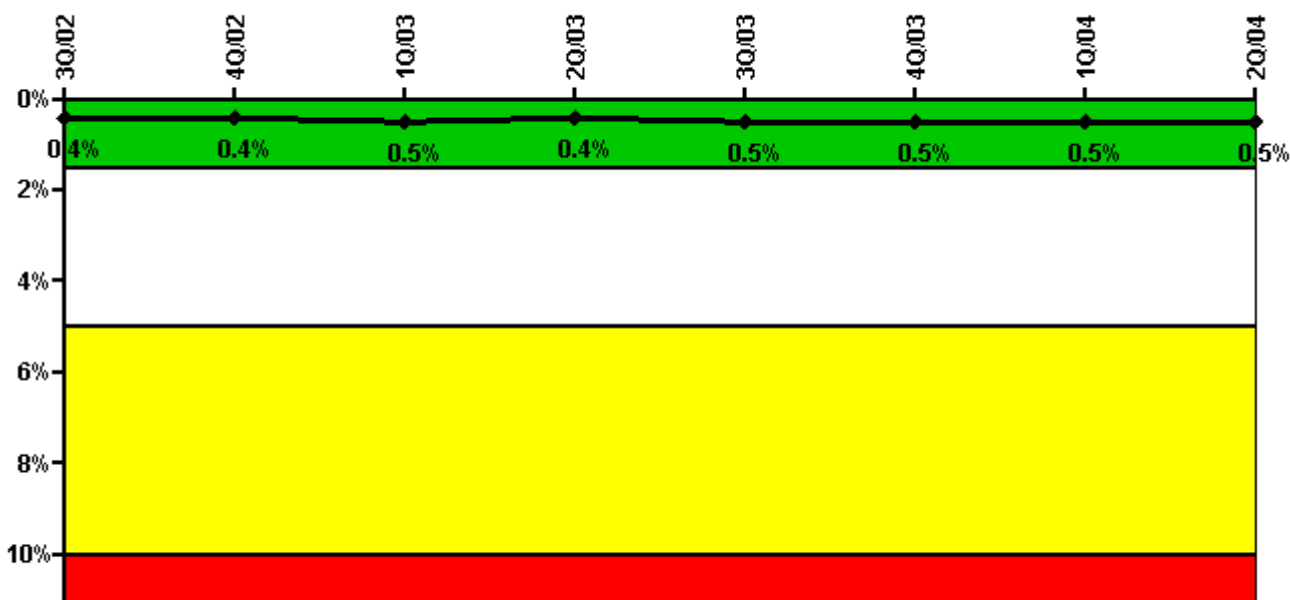
1Q/02: Revised to incorporate 7.15 planned, unavailable hrs. accrued during SSPS Testing. (FAQ 290)

4Q/01: North Anna Unit 2 was shutdown for reactor head inspection during November 2001. Revised to incorporate 4.74 planned, unavailable hrs. accrued during SSPS Testing. (FAQ 290)

3Q/01: Revised to incorporate 3.70 planned, unavailable hrs. accrued during SSPS Testing. (FAQ 290)

2Q/01: Revised to incorporate 1.45 planned, unavailable hrs. accrued during SSPS Testing. (FAQ 290)

### 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	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04
<b>Train 1</b>								
Planned unavailable hours	33.44	0	3.36	5.02	42.66	7.19	47.88	3.85
Unplanned unavailable hours	0	0	0	28.90	0	0	1.32	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	1670.37	0	1479.28	2183.00	2208.00	2209.00	2184.00	1557.59
<b>Train 2</b>								
Planned unavailable hours	35.19	0	4.13	8.40	7.14	9.02	55.41	7.30
Unplanned unavailable hours	1.98	0	0	0	0	8.26	2.23	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	1670.37	0	1479.28	2183.00	2208.00	2209.00	2184.00	1557.59
<b>Train 3</b>								
Planned unavailable hours	2.32	0	0	0	6.52	0	0	2.25
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	1816.60	0	1798.81	2183.00	2208.00	2209.00	2184.00	1876.15
<b>Train 4</b>								
Planned unavailable hours	1.08	0	0	0	11.33	0	0	1.52
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	1816.60	0	1798.81	2183.00	2208.00	2209.00	2184.00	1876.15
<b>Indicator value</b>	<b>0.4%</b>	<b>0.4%</b>	<b>0.5%</b>	<b>0.4%</b>	<b>0.5%</b>	<b>0.5%</b>	<b>0.5%</b>	<b>0.5%</b>

Licsee Comments:

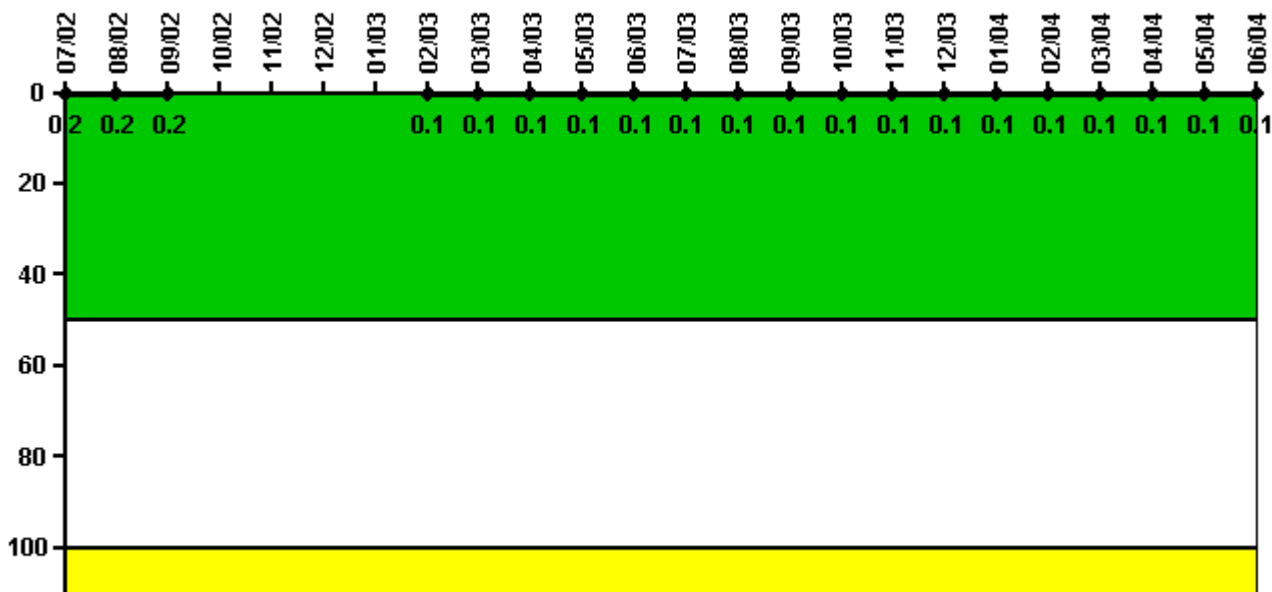




Indicator value	0	0	0	0	0	0	0	1
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Licensee Comments: none

### Reactor Coolant System Activity



Thresholds: White > 50.0 Yellow > 100.0

### Notes

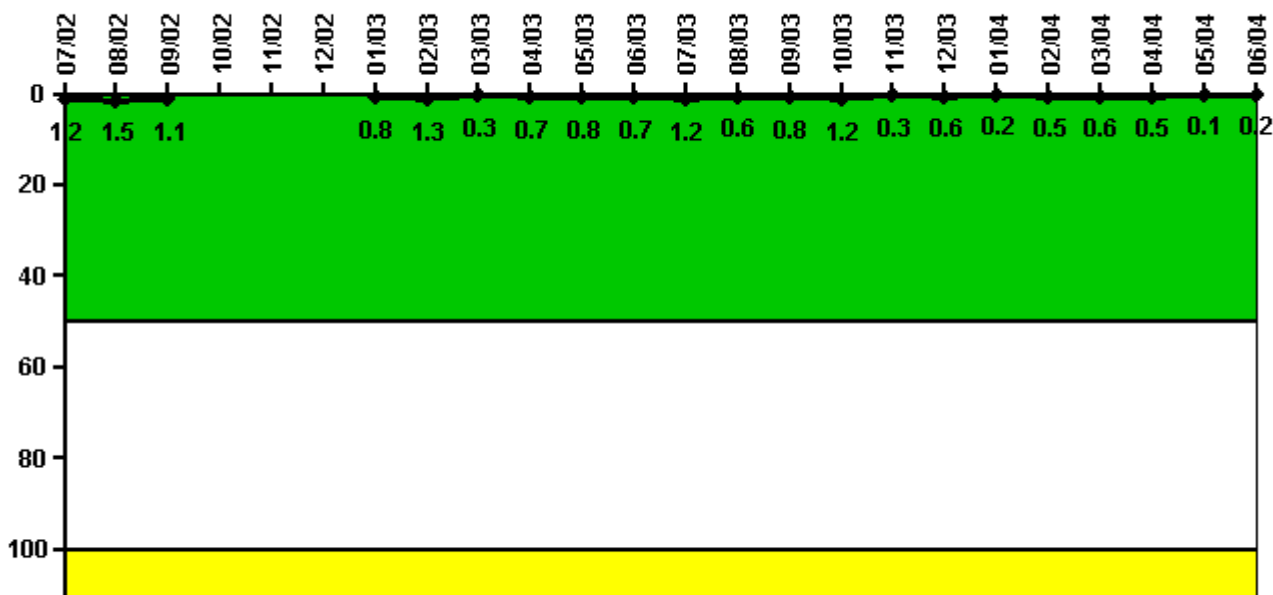
Reactor Coolant System Activity	7/02	8/02	9/02	10/02	11/02	12/02	1/03	2/03	3/03	4/03	5/03	6/03
Maximum activity	0.001510	0.001640	0.001540	N/A	N/A	N/A	N/A	0.000753	0.000682	0.000765	0.000792	0.000803
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	0.2	0.2	0.2	N/A	N/A	N/A	N/A	0.1	0.1	0.1	0.1	0.1

Reactor Coolant System Activity	7/03	8/03	9/03	10/03	11/03	12/03	1/04	2/04	3/04	4/04	5/04	6/04
Maximum activity	0.000868	0.000851	0.000887	0.000935	0.000996	0.000984	0.001020	0.001020	0.001040	0.001020	0.001030	0.000583
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

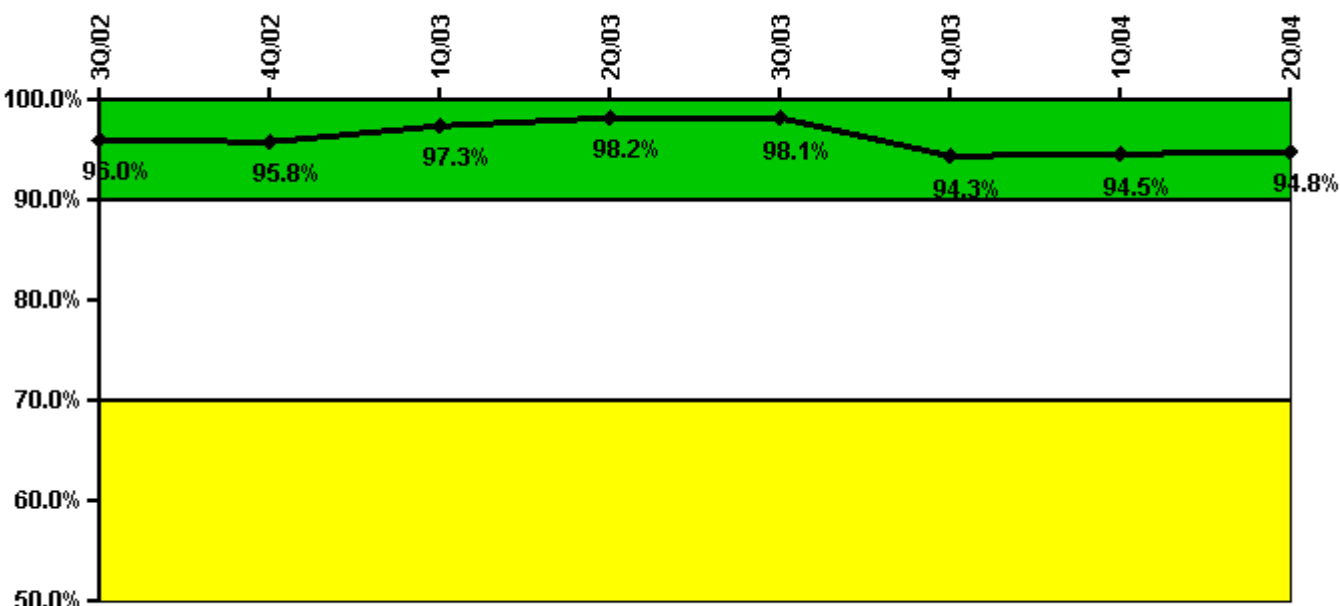
Reactor Coolant System Leakage	7/02	8/02	9/02	10/02	11/02	12/02	1/03	2/03	3/03	4/03	5/03	6/03
Maximum leakage	0.122	0.146	0.110	N/A	N/A	N/A	0.080	0.134	0.031	0.068	0.079	0.072
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	1.2	1.5	1.1	N/A	N/A	N/A	0.8	1.3	0.3	0.7	0.8	0.7

Reactor Coolant System Leakage	7/03	8/03	9/03	10/03	11/03	12/03	1/04	2/04	3/04	4/04	5/04	6/04
Maximum leakage	0.115	0.064	0.078	0.124	0.028	0.062	0.024	0.051	0.055	0.051	0.006	0.016
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	1.2	0.6	0.8	1.2	0.3	0.6	0.2	0.5	0.6	0.5	0.1	0.2

Licensee Comments: none

### Drill/Exercise Performance



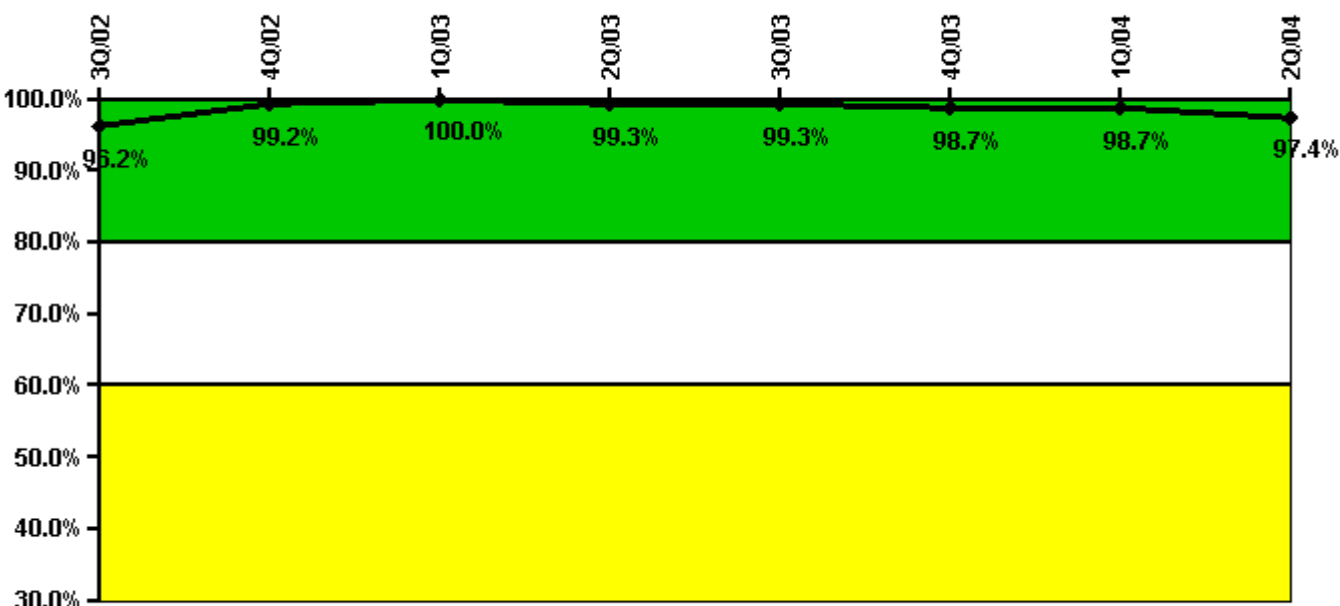
Thresholds: White < 90.0% Yellow < 70.0%

### Notes

Drill/Exercise Performance	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04
Successful opportunities	21.0	10.0	30.0	108.0	3.0	25.0	31.0	11.0
Total opportunities	21.0	10.0	32.0	108.0	3.0	35.0	32.0	11.0
Indicator value	96.0%	95.8%	97.3%	98.2%	98.1%	94.3%	94.5%	94.8%

Licensee Comments: none

### ERO Drill Participation



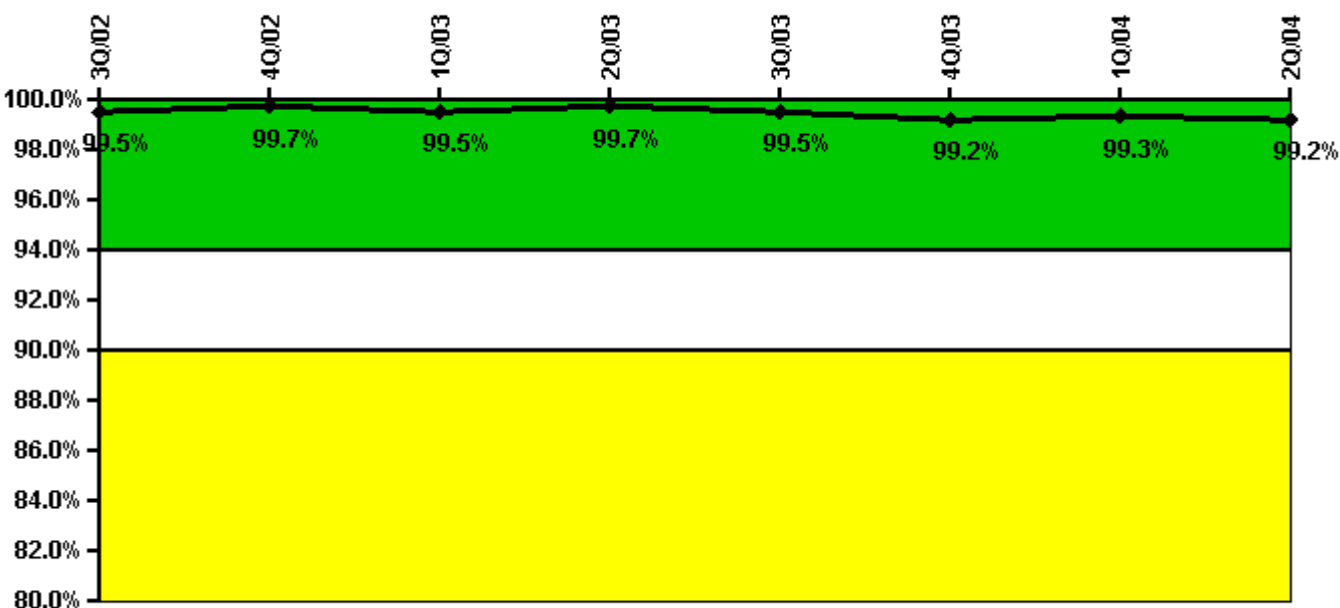
Thresholds: White < 80.0% Yellow < 60.0%

#### Notes

ERO Drill Participation	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04
Participating Key personnel	127.0	127.0	124.0	151.0	152.0	150.0	150.0	147.0
Total Key personnel	132.0	128.0	124.0	152.0	153.0	152.0	152.0	151.0
Indicator value	96.2%	99.2%	100.0%	99.3%	99.3%	98.7%	98.7%	97.4%

Licensee Comments: none

### Alert & Notification System



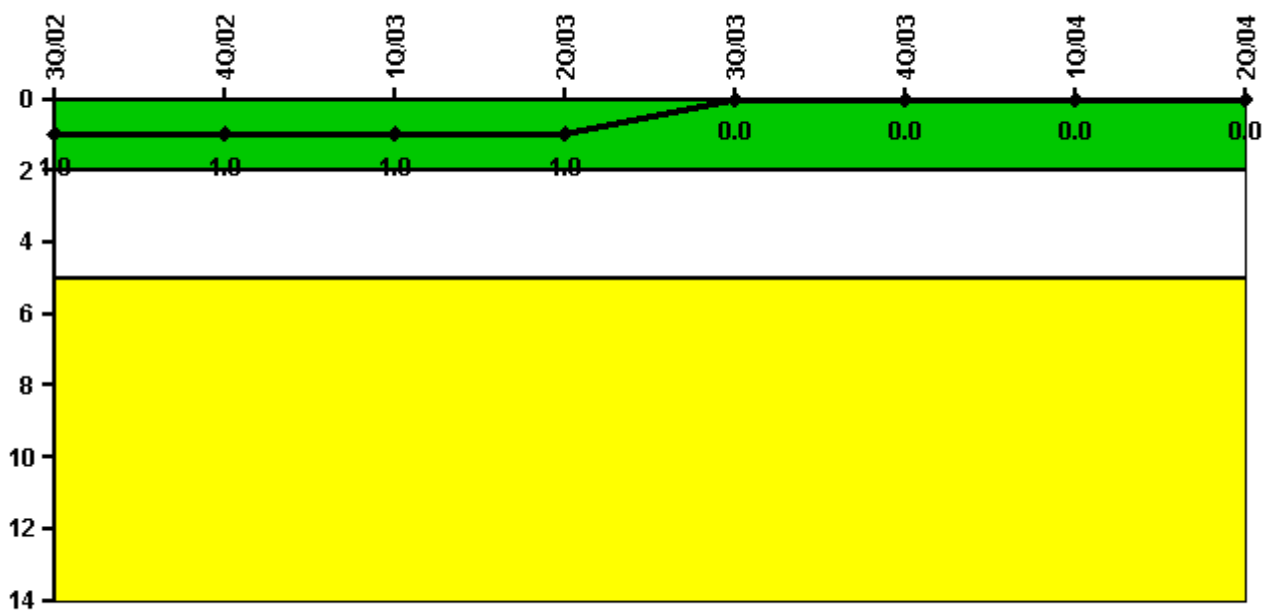
Thresholds: White < 94.0% Yellow < 90.0%

#### Notes

Alert & Notification System	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04
Successful siren-tests	431	434	431	436	436	435	440	441
Total sirens-tests	434	434	434	436	441	441	441	443
Indicator value	99.5%	99.7%	99.5%	99.7%	99.5%	99.2%	99.3%	99.2%

Licensee Comments: none

### Occupational Exposure Control Effectiveness



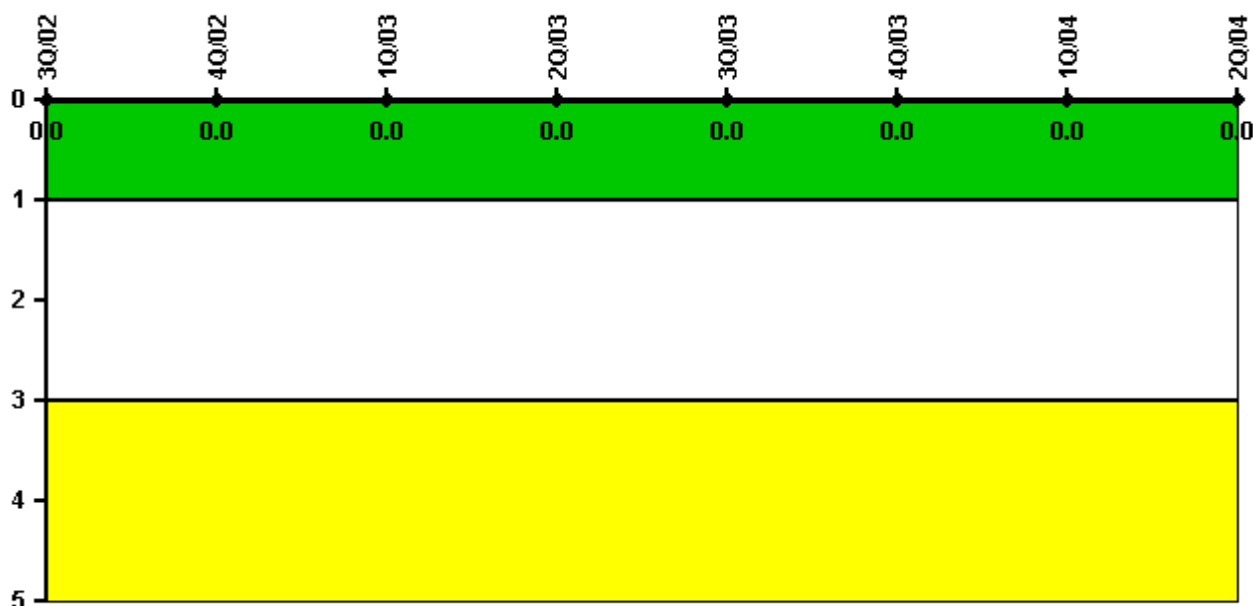
Thresholds: White > 2.0 Yellow > 5.0

#### Notes

Occupational Exposure Control Effectiveness	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04
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
<b>Indicator value</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</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	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/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: September 8, 2004