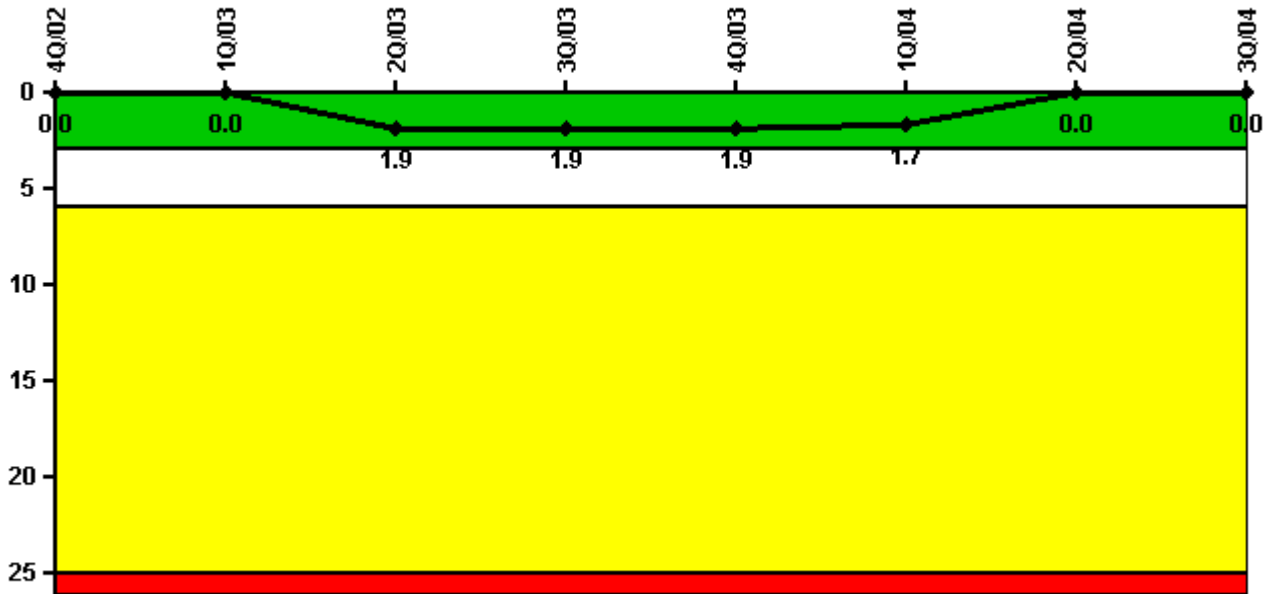


# North Anna 1

## 3Q/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 | 4Q/02  | 1Q/03  | 2Q/03  | 3Q/03  | 4Q/03  | 1Q/04  | 2Q/04  | 3Q/04  |
|--|--------|--------|--------|--------|--------|--------|--------|--------|
| Unplanned scrams                       | 0      | 0      | 2.0    | 0      | 0      | 0      | 0      | 0      |
| Critical hours                         | 2209.0 | 1273.7 | 1549.9 | 2208.0 | 2209.0 | 2051.8 | 2183.0 | 1753.2 |
| Indicator value                        | 0      | 0      | 1.9    | 1.9    | 1.9    | 1.7    | 0      | 0      |

Licensee Comments: none

### Scrams with Loss of Normal Heat Removal



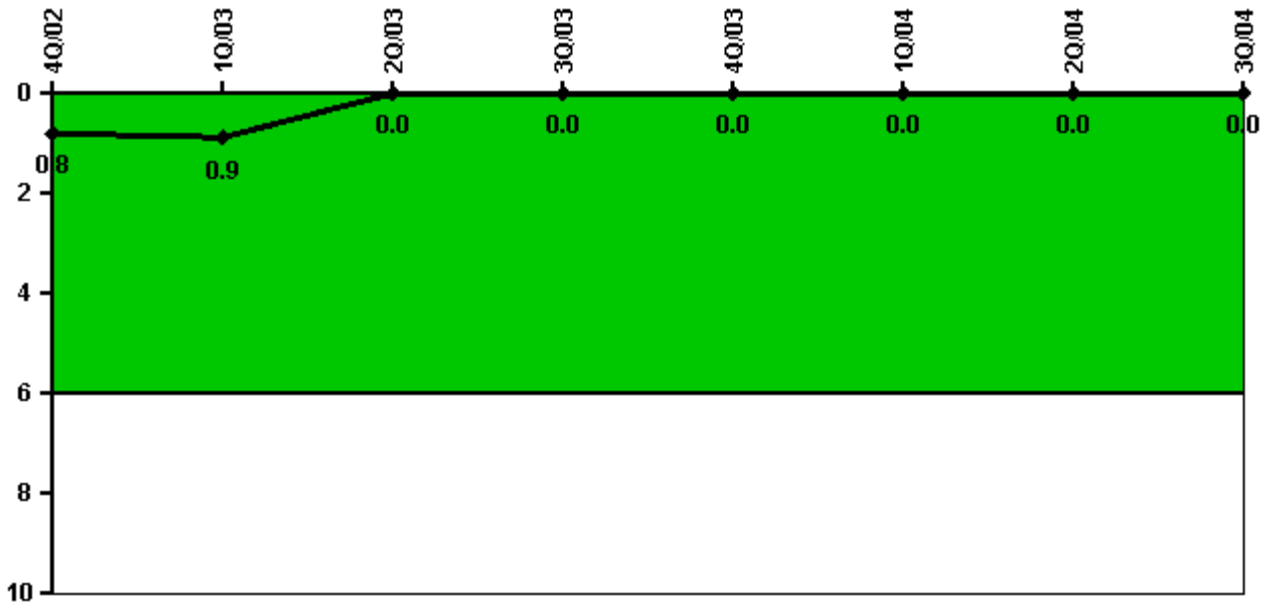
Thresholds: White > 2.0 Yellow > 10.0 Red > 20.0

#### Notes

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



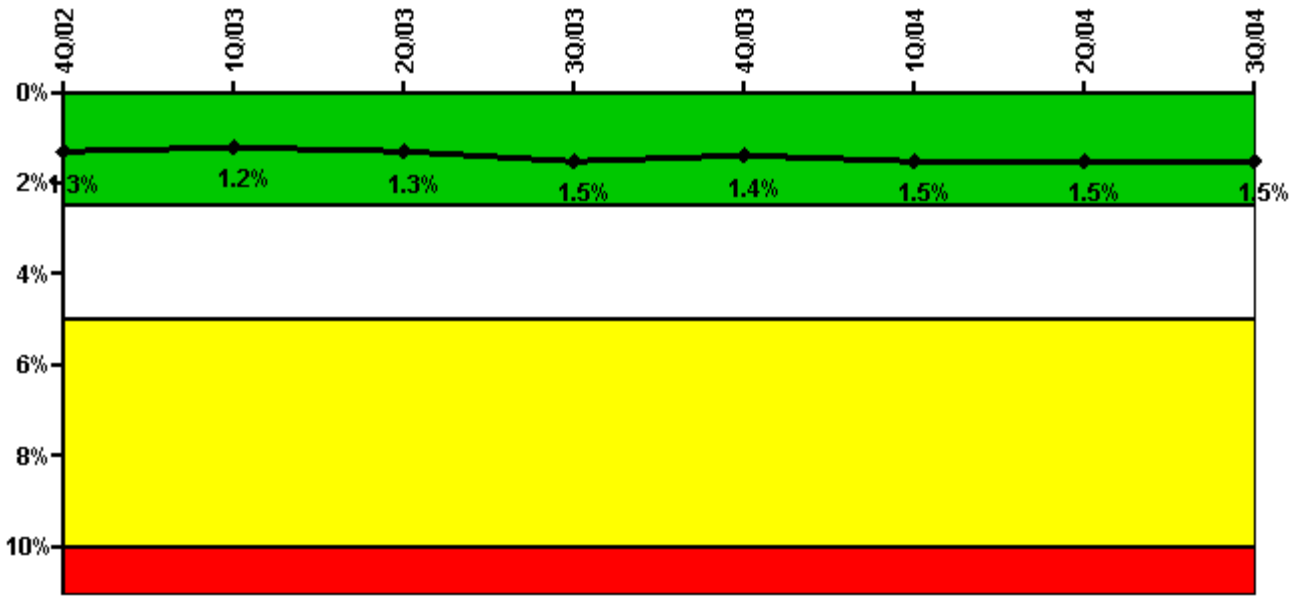
Thresholds: White > 6.0

#### Notes

| Unplanned Power Changes per 7000 Critical Hrs | 4Q/02      | 1Q/03      | 2Q/03    | 3Q/03    | 4Q/03    | 1Q/04    | 2Q/04    | 3Q/04    |
|---|------------|------------|----------|----------|----------|----------|----------|----------|
| Unplanned power changes                       | 0          | 0          | 0        | 0        | 0        | 0        | 0        | 0        |
| Critical hours                                | 2209.0     | 1273.7     | 1549.9   | 2208.0   | 2209.0   | 2051.8   | 2183.0   | 1753.2   |
| <b>Indicator value</b>                        | <b>0.8</b> | <b>0.9</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> |

Licensee Comments: none

### Safety System Unavailability, Emergency AC Power



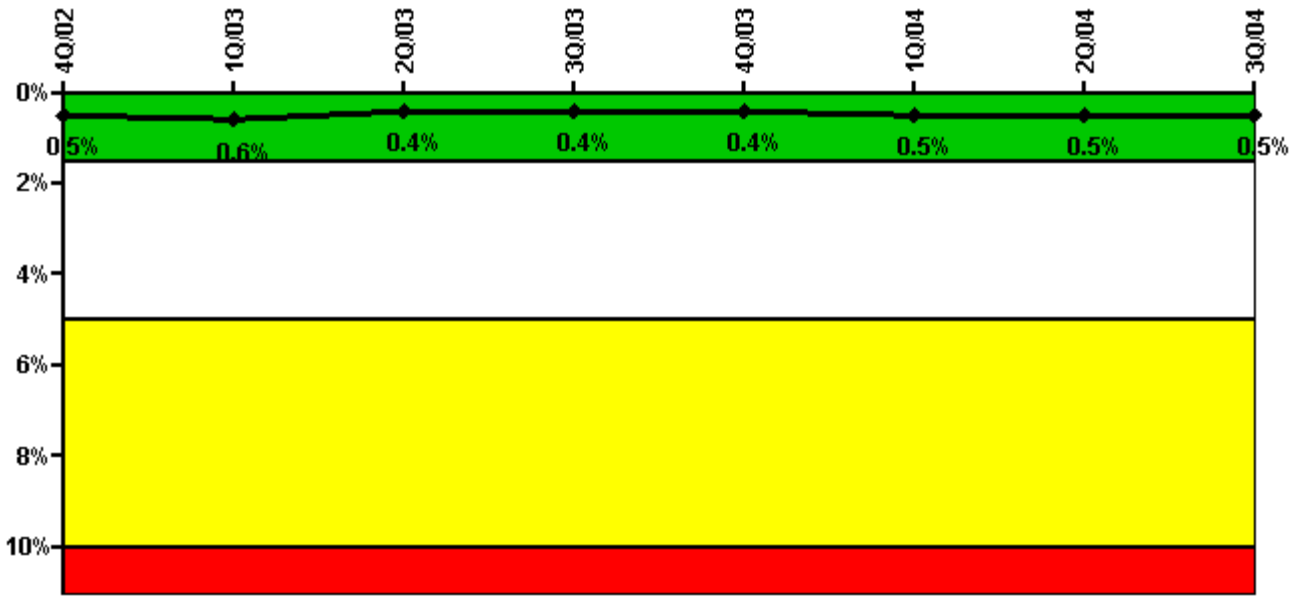
Thresholds: White > 2.5% Yellow > 5.0% Red > 10.0%

**Notes**

| Safety System Unavailability, Emergency AC Power | 4Q/02       | 1Q/03       | 2Q/03       | 3Q/03       | 4Q/03       | 1Q/04       | 2Q/04       | 3Q/04       |
|--|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| <b>Train 1</b>                                   |             |             |             |             |             |             |             |             |
| Planned unavailable hours                        | 7.36        | 4.61        | 2.67        | 50.35       | 9.10        | 6.20        | 37.97       | 7.38        |
| Unplanned unavailable hours                      | 9.67        | 77.40       | 23.50       | 23.00       | 0           | 104.52      | 2.50        | 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                                   | 2209.00     | 1723.64     | 1677.40     | 2208.00     | 2209.00     | 2184.00     | 2183.00     | 1987.51     |
| <b>Train 2</b>                                   |             |             |             |             |             |             |             |             |
| Planned unavailable hours                        | 10.60       | 7.69        | 7.48        | 54.00       | 14.39       | 8.02        | 27.52       | 8.46        |
| Unplanned unavailable hours                      | 11.80       | 0           | 3.88        | 0           | 18.21       | 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                                   | 2209.00     | 1723.64     | 1806.70     | 2208.00     | 2209.00     | 2184.00     | 2183.00     | 1987.51     |
| <b>Indicator value</b>                           | <b>1.3%</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> |

Licensee Comments: none

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



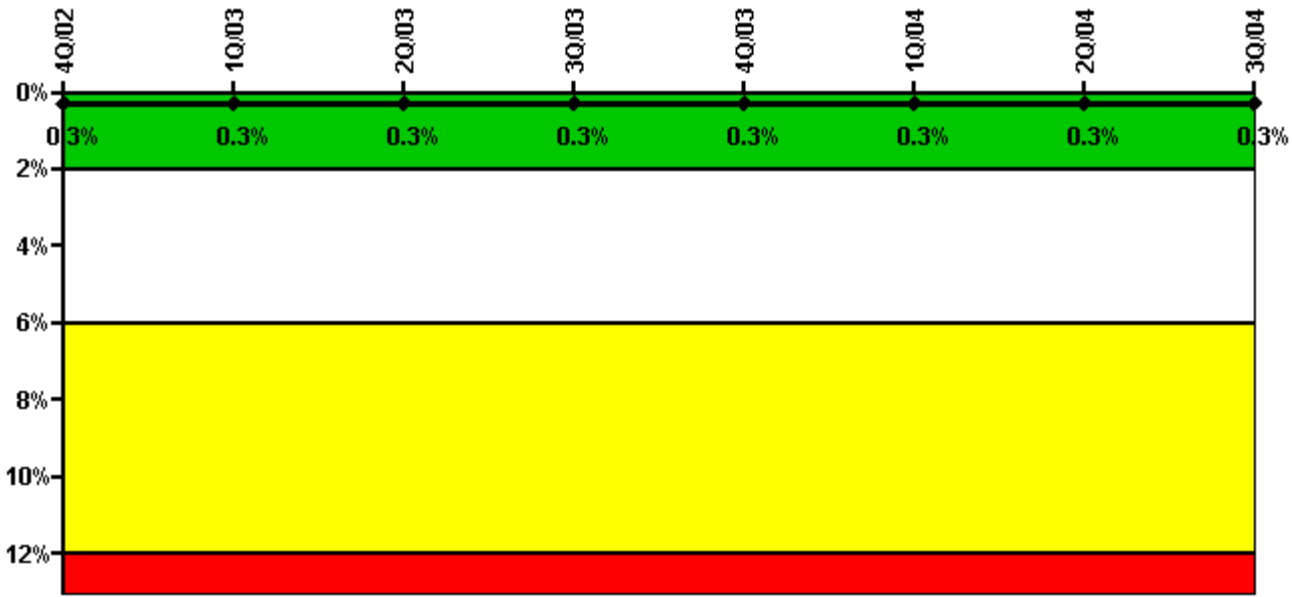
Thresholds: White > 1.5% Yellow > 5.0% Red > 10.0%

**Notes**

| Safety System Unavailability, High Pressure Injection System (HPSI) | 4Q/02       | 1Q/03       | 2Q/03       | 3Q/03       | 4Q/03       | 1Q/04       | 2Q/04       | 3Q/04       |
|---|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| <b>Train 1</b>  |             |             |             |             |             |             |             |             |
| Planned unavailable hours   | 7.14        | 1.15        | 5.65        | 5.51        | 2.38        | 5.95        | 4.08        | 6.15        |
| Unplanned unavailable hours   | 0.65        | 3.08        | 0.12        | 0           | 0           | 0           | 0           | 3.30        |
| Fault exposure hours  | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Effective Reset hours   | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Required hours  | 2209.00     | 1285.22     | 1836.99     | 2208.00     | 2209.00     | 2184.00     | 2183.00     | 1764.70     |
| <b>Train 2</b>  |             |             |             |             |             |             |             |             |
| Planned unavailable hours   | 3.90        | 19.77       | 5.02        | 5.79        | 5.04        | 3.12        | 5.05        | 4.46        |
| Unplanned unavailable hours   | 0           | 6.45        | 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  | 2209.00     | 1285.22     | 1836.99     | 2208.00     | 2209.00     | 2184.00     | 2183.00     | 1764.70     |
| <b>Indicator value</b>  | <b>0.5%</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> |

Licensee Comments: none

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



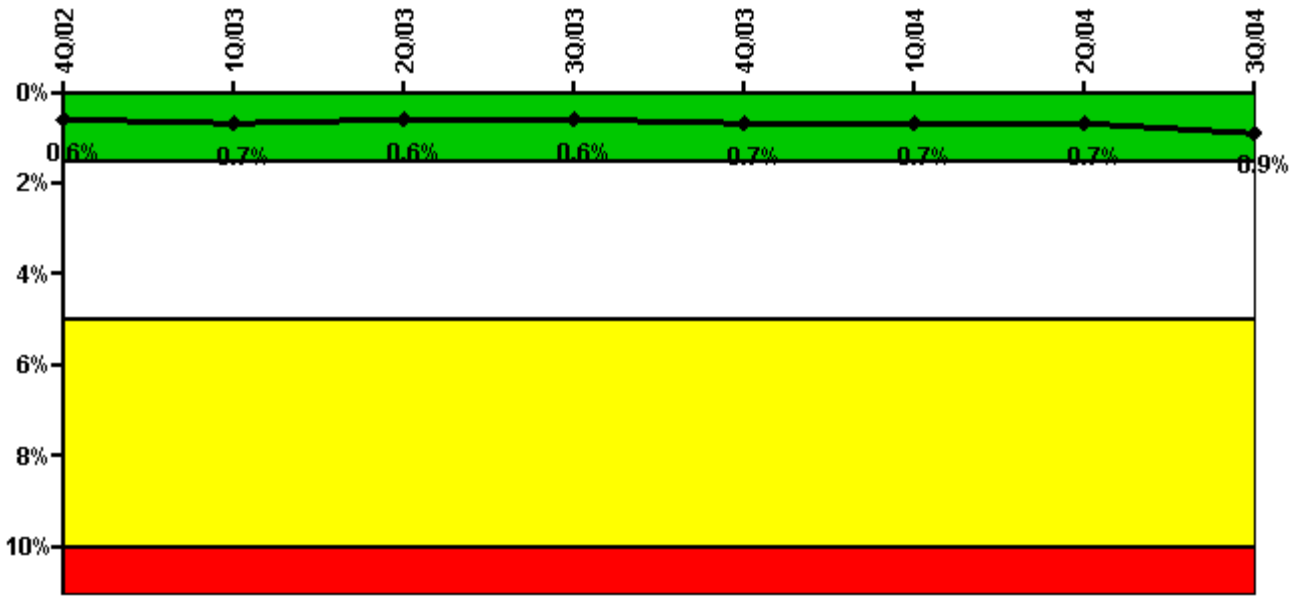
Thresholds: White > 2.0% Yellow > 6.0% Red > 12.0%

**Notes**

| Safety System Unavailability, Heat Removal System (AFW) | 4Q/02       | 1Q/03       | 2Q/03       | 3Q/03       | 4Q/03       | 1Q/04       | 2Q/04       | 3Q/04       |
|---|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| <b>Train 1</b>  |             |             |             |             |             |             |             |             |
| Planned unavailable hours                               | 10.42       | 1.50        | 7.78        | 4.48        | 13.62       | 8.62        | 4.17        | 5.35        |
| 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  | 2209.00     | 1285.22     | 1836.99     | 2208.00     | 2209.00     | 2184.00     | 2183.00     | 1762.57     |
| <b>Train 2</b>  |             |             |             |             |             |             |             |             |
| Planned unavailable hours                               | 4.03        | 13.52       | 4.09        | 6.23        | 14.22       | 2.52        | 6.25        | 2.72        |
| 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  | 2209.00     | 1285.22     | 1836.99     | 2208.00     | 2209.00     | 2184.00     | 2183.00     | 1762.57     |
| <b>Train 3</b>  |             |             |             |             |             |             |             |             |
| Planned unavailable hours                               | 4.80        | 0.33        | 9.81        | 10.45       | 6.48        | 5.32        | 9.92        | 0           |
| Unplanned unavailable hours                             | 0           | 0           | 3.27        | 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  | 2209.00     | 1283.17     | 1829.18     | 2208.00     | 2209.00     | 2184.00     | 2183.00     | 1762.57     |
| <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%

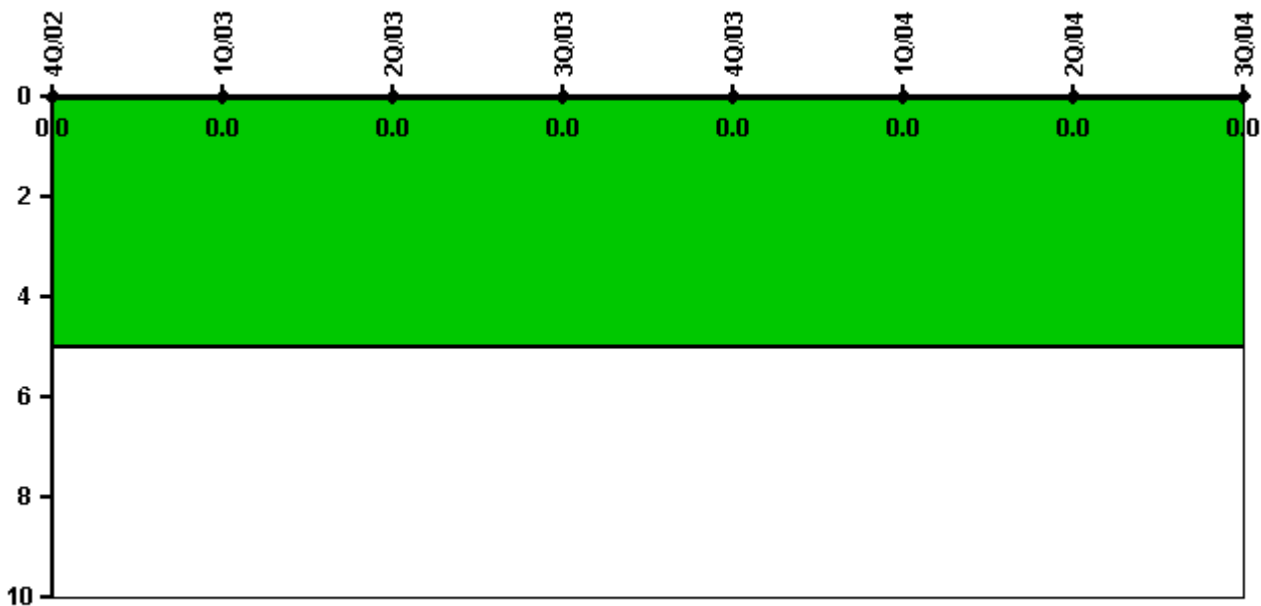
**Notes**

| Safety System Unavailability, Residual Heat Removal System | 4Q/02       | 1Q/03       | 2Q/03       | 3Q/03       | 4Q/03       | 1Q/04       | 2Q/04       | 3Q/04       |
|--|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| <b>Train 1</b>   |             |             |             |             |             |             |             |             |
| Planned unavailable hours                                  | 5.60        | 1.15        | 7.93        | 19.58       | 28.98       | 6.47        | 5.95        | 21.85       |
| Unplanned unavailable hours                                | 52.33       | 2.50        | 1.82        | 1.65        | 0           | 2.53        | 0           | 160.82      |
| Fault exposure hours                                       | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Effective Reset hours                                      | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Required hours   | 2209.00     | 1287.27     | 1844.79     | 2208.00     | 2209.00     | 2184.00     | 2183.00     | 1764.70     |
| <b>Train 2</b>   |             |             |             |             |             |             |             |             |
| Planned unavailable hours                                  | 11.78       | 11.30       | 5.82        | 10.31       | 26.45       | 31.47       | 15.52       | 2.95        |
| Unplanned unavailable hours                                | 57.50       | 67.18       | 0           | 0           | 0           | 0           | 0           | 81.52       |
| Fault exposure hours                                       | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Effective Reset hours                                      | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Required hours   | 2209.00     | 1287.27     | 1844.79     | 2208.00     | 2209.00     | 2184.00     | 2183.00     | 1764.70     |
| <b>Train 3</b>   |             |             |             |             |             |             |             |             |
| Planned unavailable hours                                  | 37.17       | 3.20        | 0           | 10.15       | 0           | 0           | 0           | 3.33        |
| 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   | 2209.00     | 1414.64     | 2106.56     | 2208.00     | 2209.00     | 2184.00     | 2183.00     | 2029.98     |
| <b>Train 4</b>   |             |             |             |             |             |             |             |             |
| Planned unavailable hours                                  | 0           | 2.98        | 0           | 0           | 0           | 0           | 0           | 5.27        |
| 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   | 2209.00     | 1414.64     | 2106.56     | 2208.00     | 2209.00     | 2184.00     | 2183.00     | 2029.98     |
| <b>Indicator value</b>                                     | <b>0.6%</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> |

Licensee Comments:

3Q/04: Unplanned unavailability / 475.49 T/2 Fault Exposure hrs. due to the repair of a piping leak adjacent to LHSI Pump 1-SI-P-1A.

### Safety System Functional Failures (PWR)



Thresholds: White > 5.0

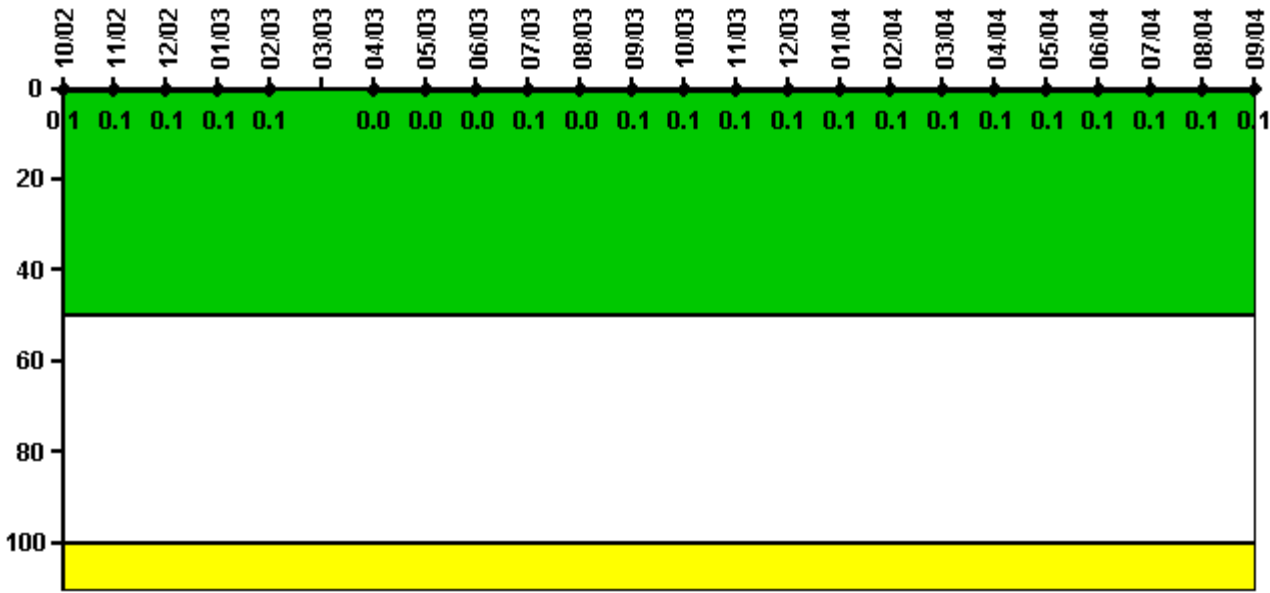
#### Notes

| Safety System Functional Failures (PWR) | 4Q/02 | 1Q/03 | 2Q/03 | 3Q/03 | 4Q/03 | 1Q/04 | 2Q/04 | 3Q/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**

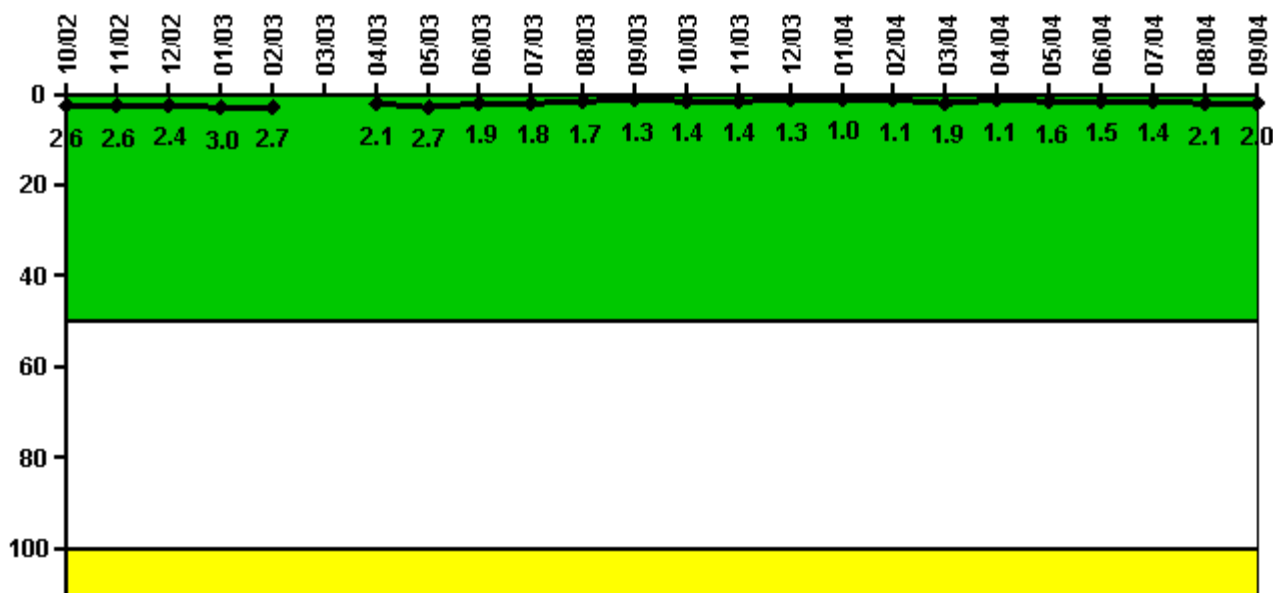
| Reactor Coolant System Activity | 10/02    | 11/02    | 12/02    | 1/03     | 2/03     | 3/03 | 4/03     | 5/03     | 6/03     | 7/03     | 8/03     | 9/03     |
|---------------------------------|----------|----------|----------|----------|----------|------|----------|----------|----------|----------|----------|----------|
| Maximum activity                | 0.000815 | 0.000797 | 0.000852 | 0.000809 | 0.000947 | N/A  | 0.000412 | 0.000495 | 0.000410 | 0.000513 | 0.000458 | 0.000705 |
| 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      | N/A  | 0        | 0        | 0        | 0.1      | 0        | 0.1      |

| Reactor Coolant System Activity | 10/03    | 11/03    | 12/03    | 1/04     | 2/04     | 3/04     | 4/04     | 5/04     | 6/04     | 7/04     | 8/04     | 9/04     |
|---------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Maximum activity                | 0.000527 | 0.000559 | 0.000534 | 0.000546 | 0.000561 | 0.000594 | 0.000595 | 0.000600 | 0.000633 | 0.000646 | 0.000676 | 0.000908 |
| 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

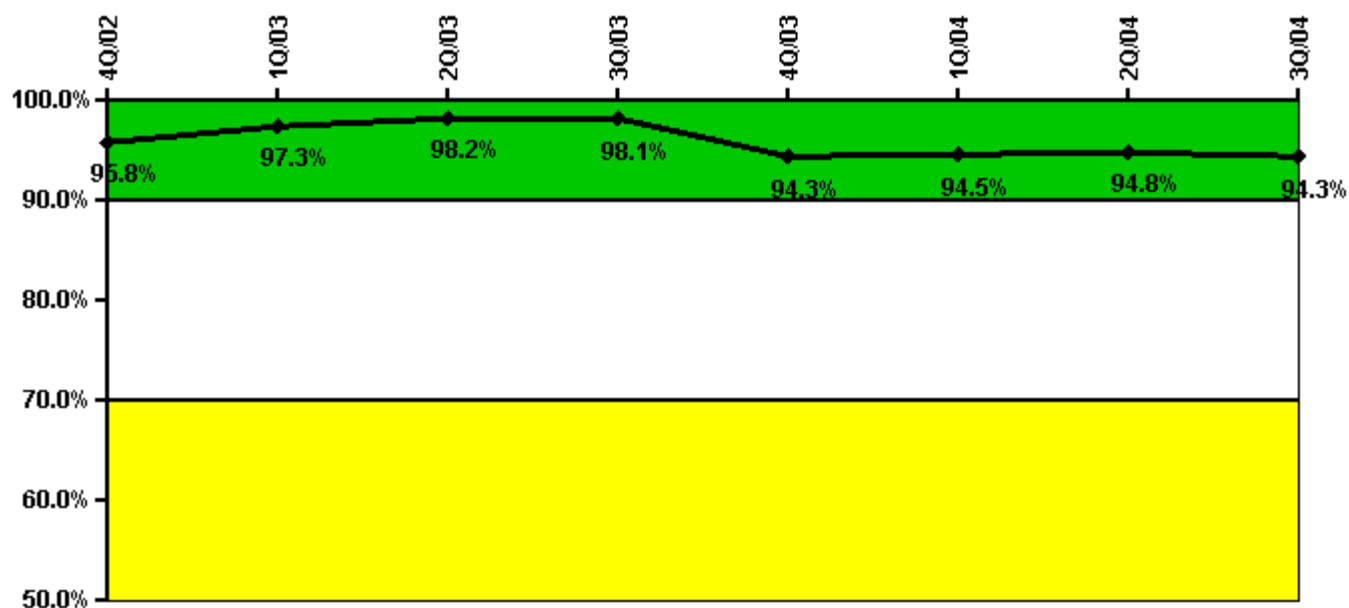
| Reactor Coolant System Leakage | 10/02 | 11/02 | 12/02 | 1/03  | 2/03  | 3/03 | 4/03  | 5/03  | 6/03  | 7/03  | 8/03  | 9/03  |
|--------------------------------|-------|-------|-------|-------|-------|------|-------|-------|-------|-------|-------|-------|
| Maximum leakage                | 0.263 | 0.257 | 0.235 | 0.299 | 0.267 | N/A  | 0.212 | 0.272 | 0.192 | 0.179 | 0.173 | 0.135 |
| 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                | 2.6   | 2.6   | 2.4   | 3.0   | 2.7   | N/A  | 2.1   | 2.7   | 1.9   | 1.8   | 1.7   | 1.3   |

| Reactor Coolant System Leakage | 10/03 | 11/03 | 12/03 | 1/04  | 2/04  | 3/04  | 4/04  | 5/04  | 6/04  | 7/04  | 8/04  | 9/04  |
|--------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Maximum leakage                | 0.140 | 0.136 | 0.132 | 0.097 | 0.113 | 0.188 | 0.113 | 0.155 | 0.150 | 0.139 | 0.207 | 0.198 |
| 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                | 1.4   | 1.4   | 1.3   | 1.0   | 1.1   | 1.9   | 1.1   | 1.6   | 1.5   | 1.4   | 2.1   | 2.0   |

Licensee Comments: none

### Drill/Exercise Performance



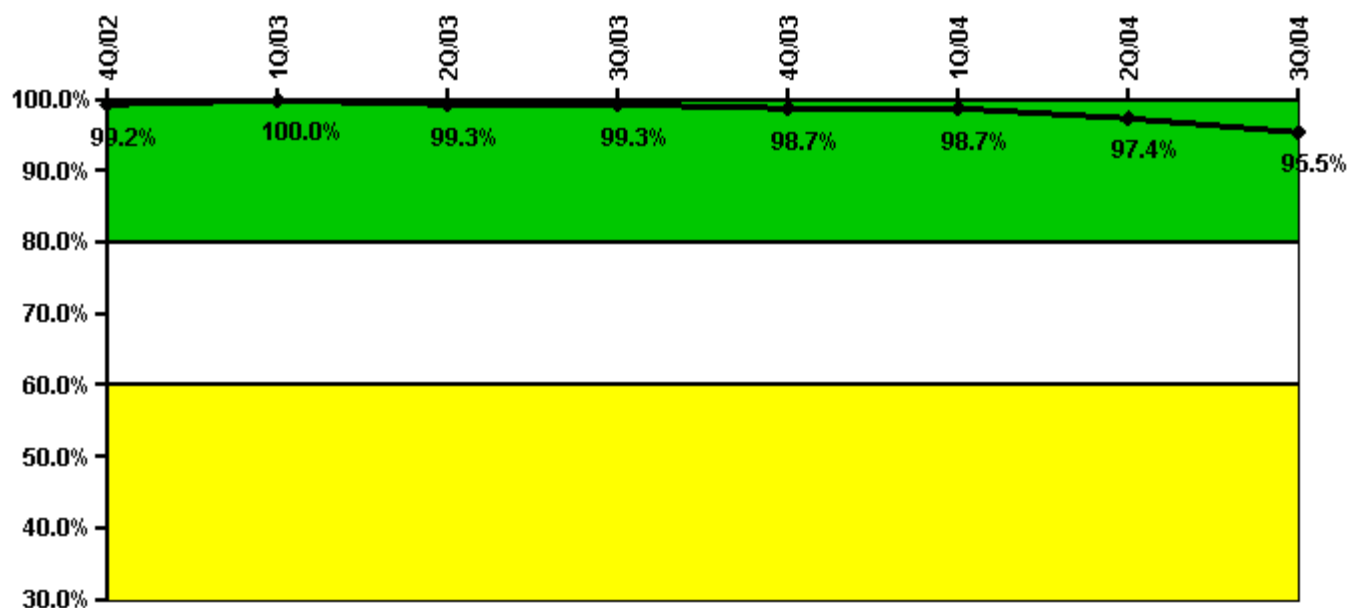
Thresholds: White < 90.0% Yellow < 70.0%

#### Notes

| Drill/Exercise Performance | 4Q/02 | 1Q/03 | 2Q/03 | 3Q/03 | 4Q/03 | 1Q/04 | 2Q/04 | 3Q/04 |
|----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| Successful opportunities   | 10.0  | 30.0  | 108.0 | 3.0   | 25.0  | 31.0  | 11.0  | 13.0  |
| Total opportunities        | 10.0  | 32.0  | 108.0 | 3.0   | 35.0  | 32.0  | 11.0  | 14.0  |
| Indicator value            | 95.8% | 97.3% | 98.2% | 98.1% | 94.3% | 94.5% | 94.8% | 94.3% |

Licensee Comments: none

### ERO Drill Participation



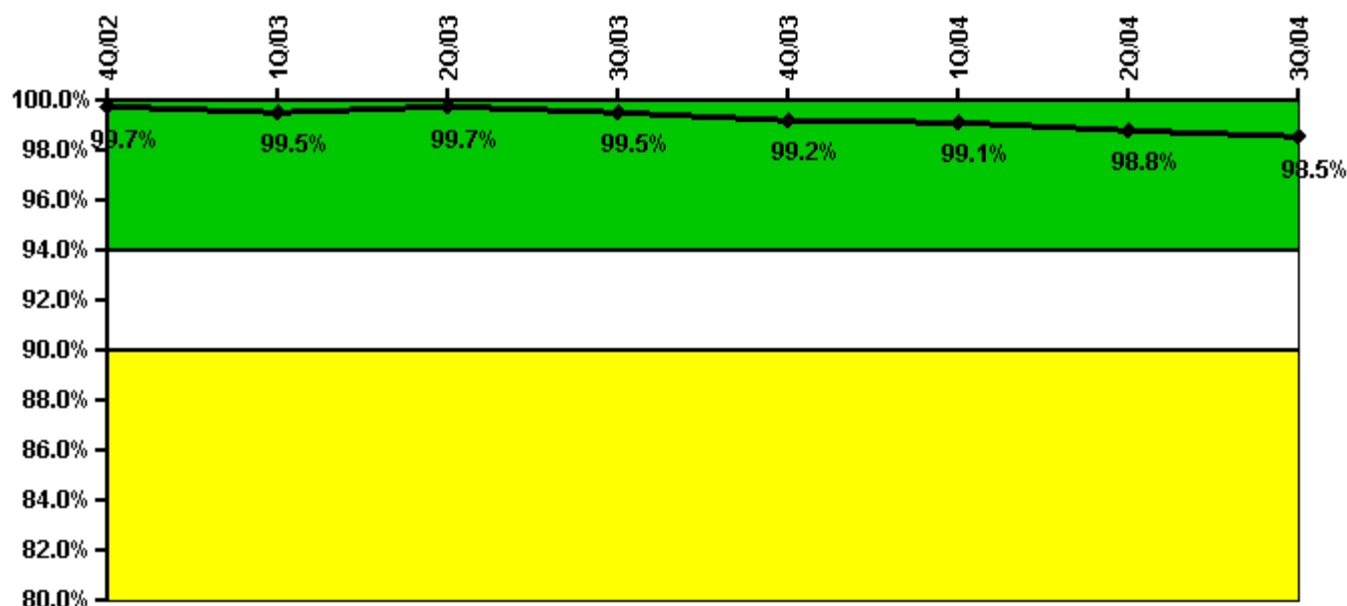
Thresholds: White < 80.0% Yellow < 60.0%

#### Notes

| ERO Drill Participation     | 4Q/02 | 1Q/03  | 2Q/03 | 3Q/03 | 4Q/03 | 1Q/04 | 2Q/04 | 3Q/04 |
|-----------------------------|-------|--------|-------|-------|-------|-------|-------|-------|
| Participating Key personnel | 127.0 | 124.0  | 151.0 | 152.0 | 150.0 | 150.0 | 147.0 | 149.0 |
| Total Key personnel         | 128.0 | 124.0  | 152.0 | 153.0 | 152.0 | 152.0 | 151.0 | 156.0 |
| Indicator value             | 99.2% | 100.0% | 99.3% | 99.3% | 98.7% | 98.7% | 97.4% | 95.5% |

Licensee Comments: none

### Alert & Notification System



Thresholds: White < 94.0% Yellow < 90.0%

#### Notes

| Alert & Notification System | 4Q/02 | 1Q/03 | 2Q/03 | 3Q/03 | 4Q/03 | 1Q/04 | 2Q/04 | 3Q/04 |
|-----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| Successful siren-tests      | 434   | 431   | 436   | 436   | 435   | 437   | 436   | 450   |
| Total sirens-tests          | 434   | 434   | 436   | 441   | 441   | 441   | 443   | 460   |
| Indicator value             | 99.7% | 99.5% | 99.7% | 99.5% | 99.2% | 99.1% | 98.8% | 98.5% |

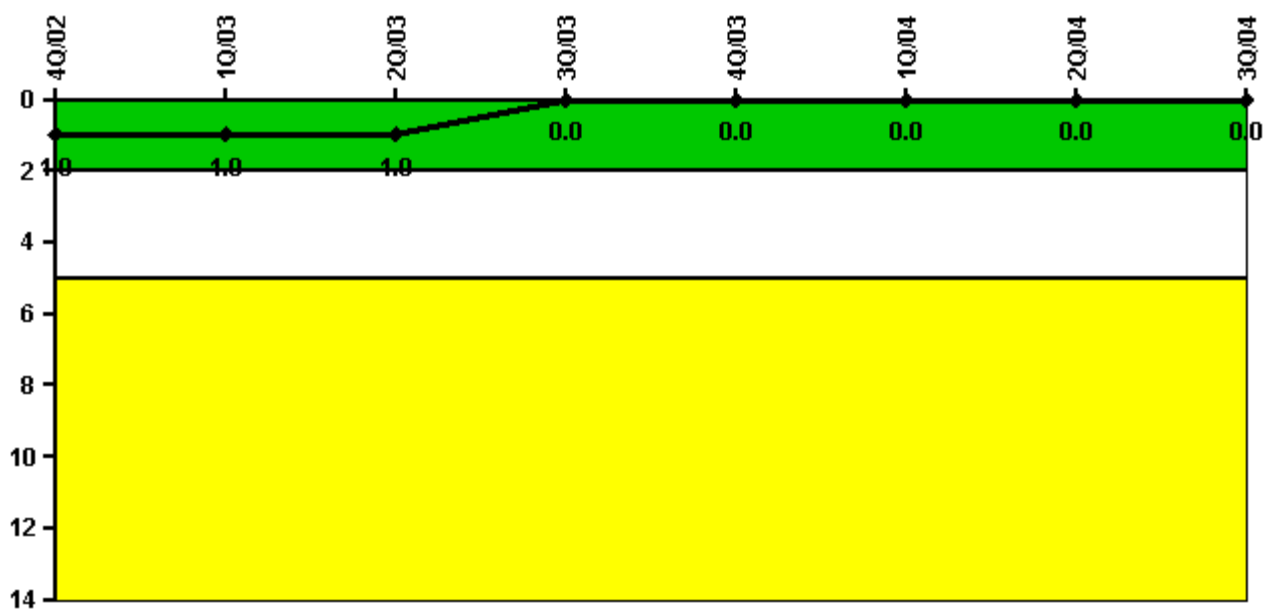
Licensee Comments:

3Q/04: Siren data revised after it was determined that siren # 45 has been inoperable since Feb '04.

2Q/04: Siren data revised after it was determined that siren # 45 has been inoperable since Feb '04.

1Q/04: Siren data revised after it was determined that siren # 45 has been inoperable since Feb '04.

### Occupational Exposure Control Effectiveness



Thresholds: White > 2.0 Yellow > 5.0

#### Notes

| Occupational Exposure Control Effectiveness | 4Q/02    | 1Q/03    | 2Q/03    | 3Q/03    | 4Q/03    | 1Q/04    | 2Q/04    | 3Q/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>1</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 | 4Q/02 | 1Q/03 | 2Q/03 | 3Q/03 | 4Q/03 | 1Q/04 | 2Q/04 | 3Q/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.