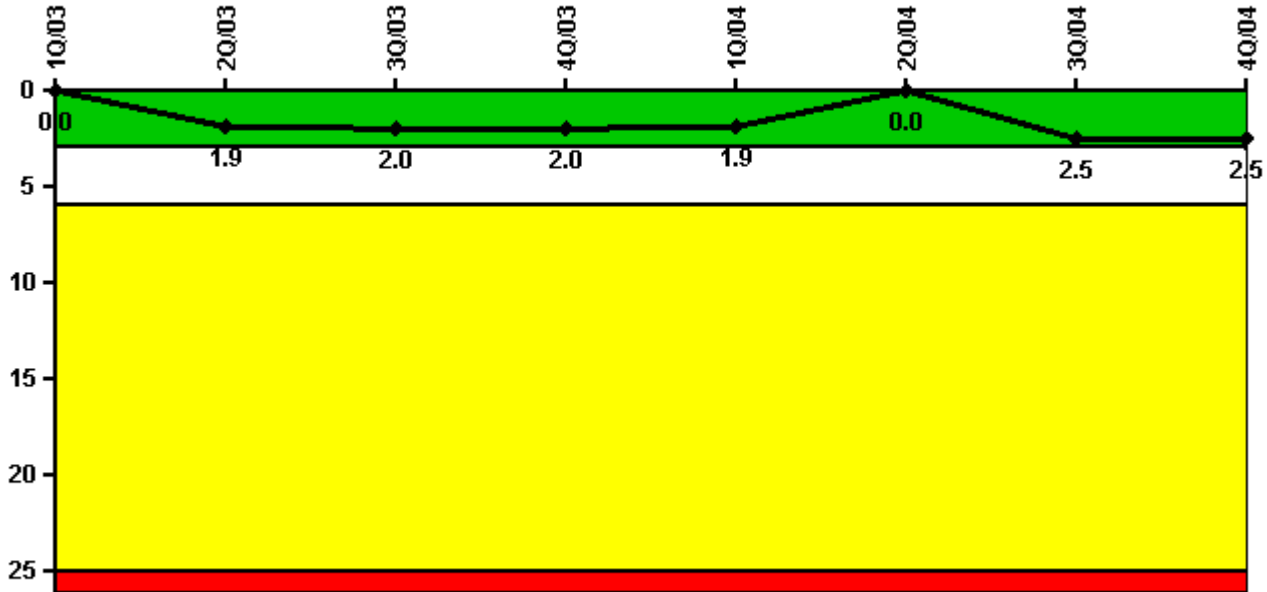


# Columbia Generating Station

## 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      | 3.0    | 0      |
| Critical hours                         | 1849.5 | 929.1 | 2175.4 | 2209.0 | 2184.0 | 2183.0 | 1733.0 | 2209.0 |
| Indicator value                        | 0      | 1.9   | 2.0    | 2.0    | 1.9    | 0      | 2.5    | 2.5    |

Licensee Comments: none

### Scrams with Loss of Normal Heat Removal



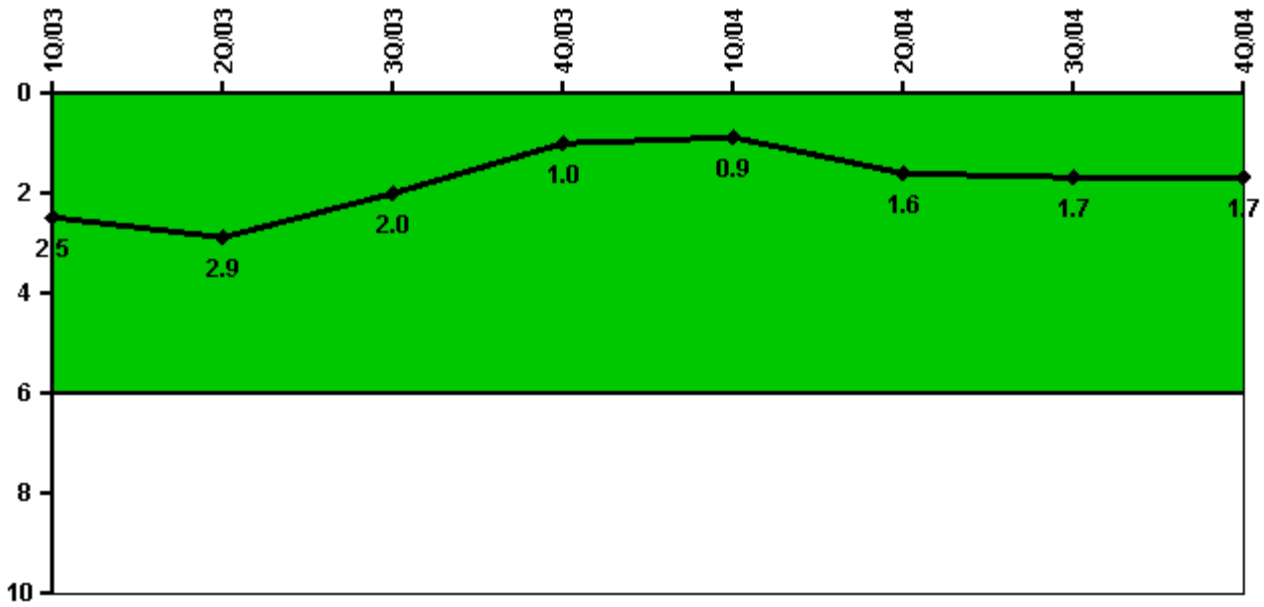
Thresholds: White > 2.0 Yellow > 10.0 Red > 20.0

#### 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     | 1.0   | 0     |
| Indicator value                         | 0     | 0     | 0     | 0     | 0     | 0     | 1.0   | 1.0   |

Licensee Comments: none

### Unplanned Power Changes per 7000 Critical Hrs



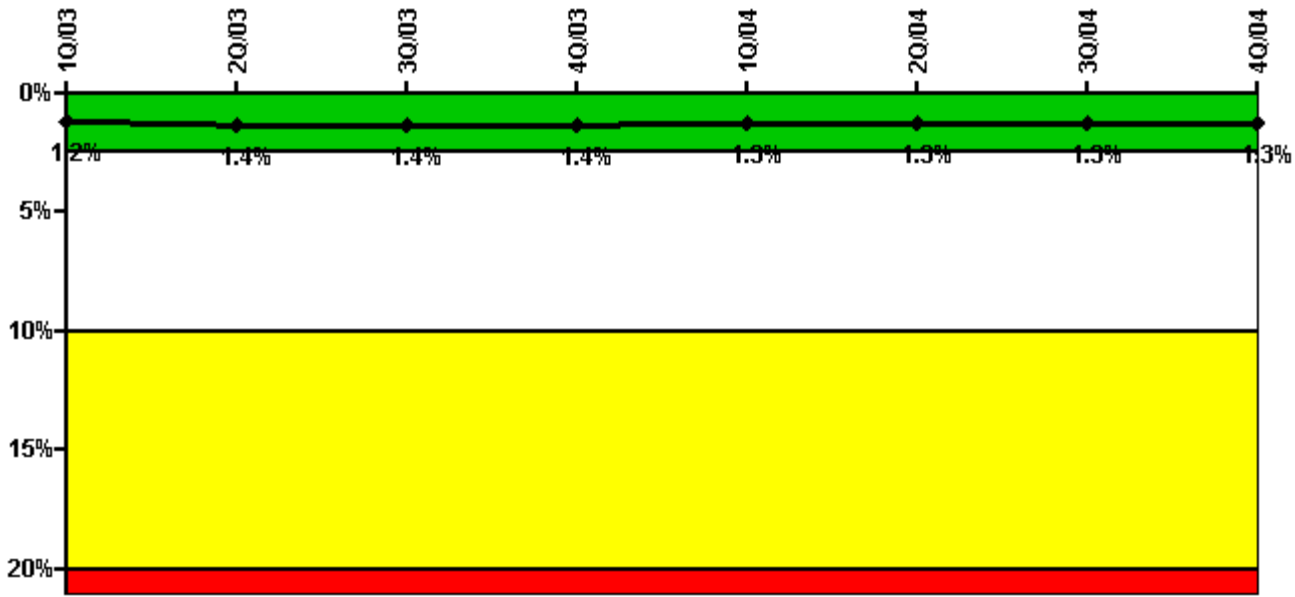
Thresholds: White > 6.0

#### 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                       | 1.0    | 0     | 0      | 0      | 1.0    | 1.0    | 0      | 0      |
| Critical hours                                | 1849.5 | 929.1 | 2175.4 | 2209.0 | 2184.0 | 2183.0 | 1733.0 | 2209.0 |
| Indicator value                               | 2.5    | 2.9   | 2.0    | 1.0    | 0.9    | 1.6    | 1.7    | 1.7    |

Licensee Comments: none

### Safety System Unavailability, Emergency AC Power, >2EDG



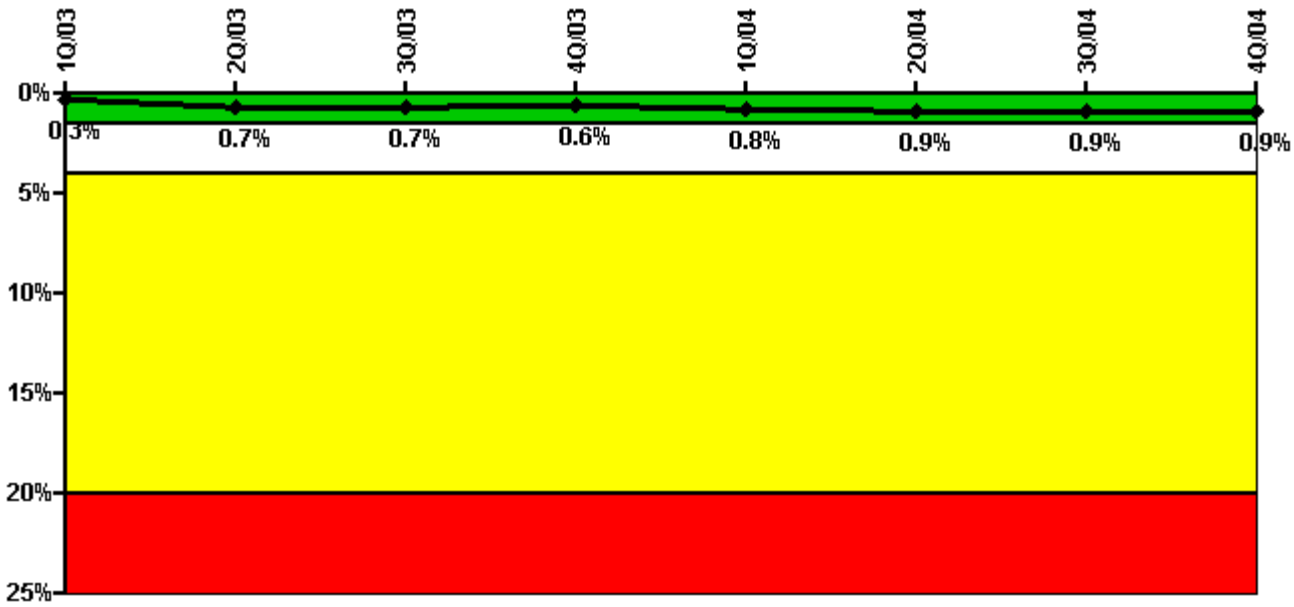
Thresholds: White > 2.5% Yellow > 10.0% Red > 20.0%

#### Notes

| Safety System Unavailability, Emergency AC Power, >2EDG | 1Q/03       | 2Q/03       | 3Q/03       | 4Q/03       | 1Q/04       | 2Q/04       | 3Q/04       | 4Q/04       |
|---|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| <b>Train 1</b>  |             |             |             |             |             |             |             |             |
| Planned unavailable hours                               | 4.02        | 63.69       | 7.22        | 40.07       | 1.42        | 17.96       | 1.20        | 8.48        |
| Unplanned unavailable hours                             | 317.58      | 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     | 2208.00     | 2209.00     | 2184.00     | 2183.00     | 2208.00     | 2209.00     |
| <b>Train 2</b>  |             |             |             |             |             |             |             |             |
| Planned unavailable hours                               | 77.49       | 6.64        | 41.16       | 6.22        | 2.66        | 7.62        | 1.47        | 1.47        |
| 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     | 2208.00     | 2209.00     | 2184.00     | 2183.00     | 2208.00     | 2209.00     |
| <b>Train 3</b>  |             |             |             |             |             |             |             |             |
| Planned unavailable hours                               | 8.10        | 97.82       | 8.26        | 9.13        | 4.23        | 3.07        | 9.06        | 10.88       |
| Unplanned unavailable hours                             | 0           | 0           | 5.88        | 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     | 2208.00     | 2209.00     | 2184.00     | 2183.00     | 2208.00     | 2209.00     |
| <b>Indicator value</b>                                  | <b>1.2%</b> | <b>1.4%</b> | <b>1.4%</b> | <b>1.4%</b> | <b>1.3%</b> | <b>1.3%</b> | <b>1.3%</b> | <b>1.3%</b> |

Licensee Comments: none

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



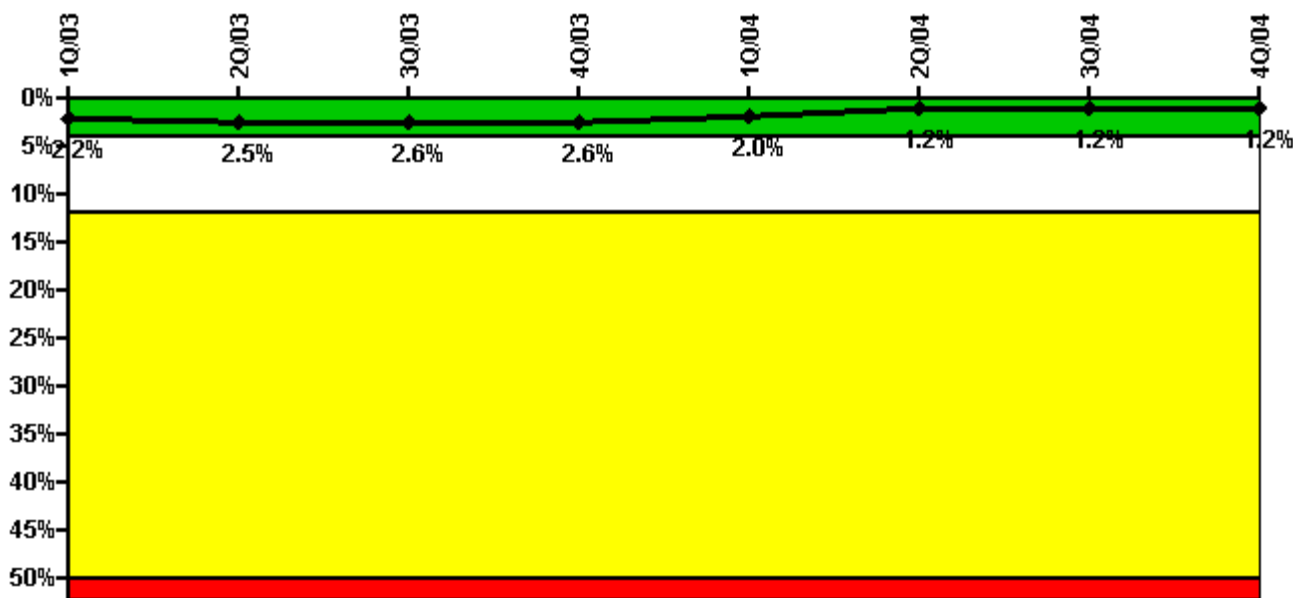
Thresholds: White > 1.5% Yellow > 4.0% Red > 20.0%

**Notes**

| Safety System Unavailability, High Pressure Injection System (HPCS) | 1Q/03       | 2Q/03       | 3Q/03       | 4Q/03       | 1Q/04       | 2Q/04       | 3Q/04       | 4Q/04       |
|---|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| <b>Train 1</b>  |             |             |             |             |             |             |             |             |
| Planned unavailable hours   | 0.45        | 78.68       | 7.42        | 12.89       | 49.24       | 5.62        | 0.52        | 1.90        |
| Unplanned unavailable hours   | 0           | 0           | 0           | 0           | 0.10        | 16.88       | 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  | 1865.85     | 948.29      | 2180.17     | 2209.00     | 2184.00     | 2183.00     | 1876.06     | 2209.00     |
| <b>Indicator value</b>  | <b>0.3%</b> | <b>0.7%</b> | <b>0.7%</b> | <b>0.6%</b> | <b>0.8%</b> | <b>0.9%</b> | <b>0.9%</b> | <b>0.9%</b> |

Licensee Comments: none

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



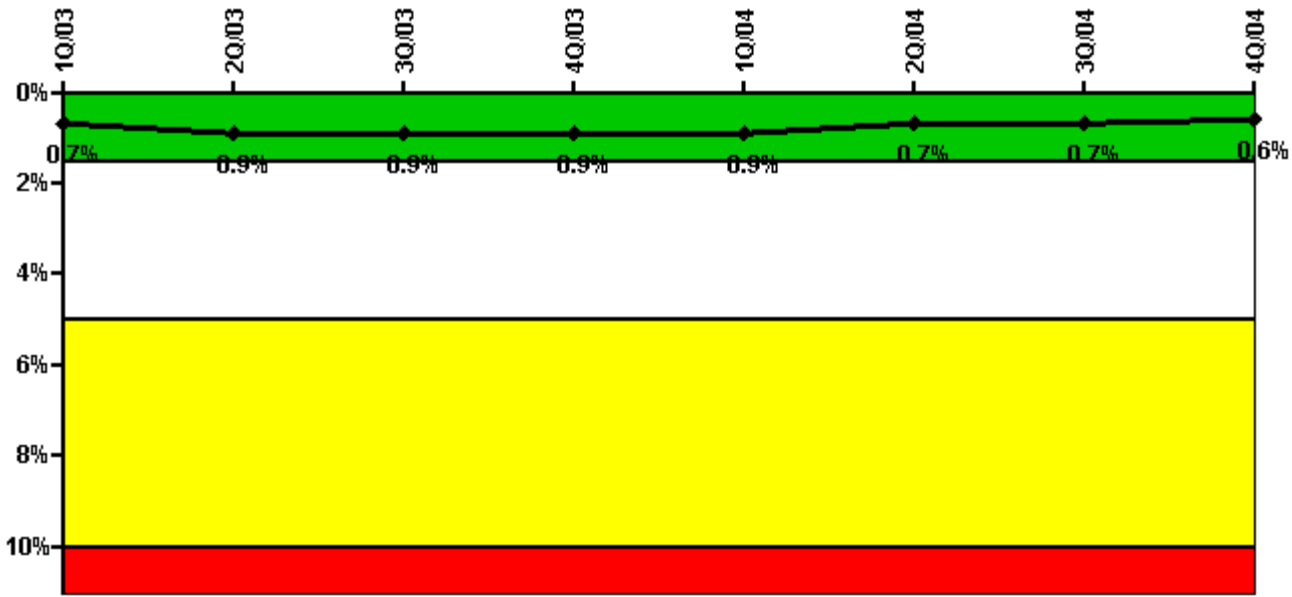
Thresholds: White > 4.0% Yellow > 12.0% Red > 50.0%

#### Notes

| Safety System Unavailability, Heat Removal System (RCIC) | 1Q/03       | 2Q/03       | 3Q/03       | 4Q/03       | 1Q/04       | 2Q/04       | 3Q/04       | 4Q/04       |
|--|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| <b>Train 1</b>   |             |             |             |             |             |             |             |             |
| Planned unavailable hours                                | 11.30       | 101.52      | 30.62       | 13.39       | 16.81       | 3.72        | 20.34       | 5.43        |
| Unplanned unavailable hours                              | 1.15        | 0           | 0.87        | 0           | 12.80       | 0           | 0           | 2.05        |
| Fault exposure hours                                     | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Effective Reset hours                                    | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Required hours   | 1851.33     | 922.61      | 2166.90     | 2209.00     | 2184.00     | 2183.00     | 1750.51     | 2209.00     |
|  |             |             |             |             |             |             |             |             |
| <b>Indicator value</b>                                   | <b>2.2%</b> | <b>2.5%</b> | <b>2.6%</b> | <b>2.6%</b> | <b>2.0%</b> | <b>1.2%</b> | <b>1.2%</b> | <b>1.2%</b> |

Licensee Comments: none

### Safety System Unavailability, Residual Heat Removal System



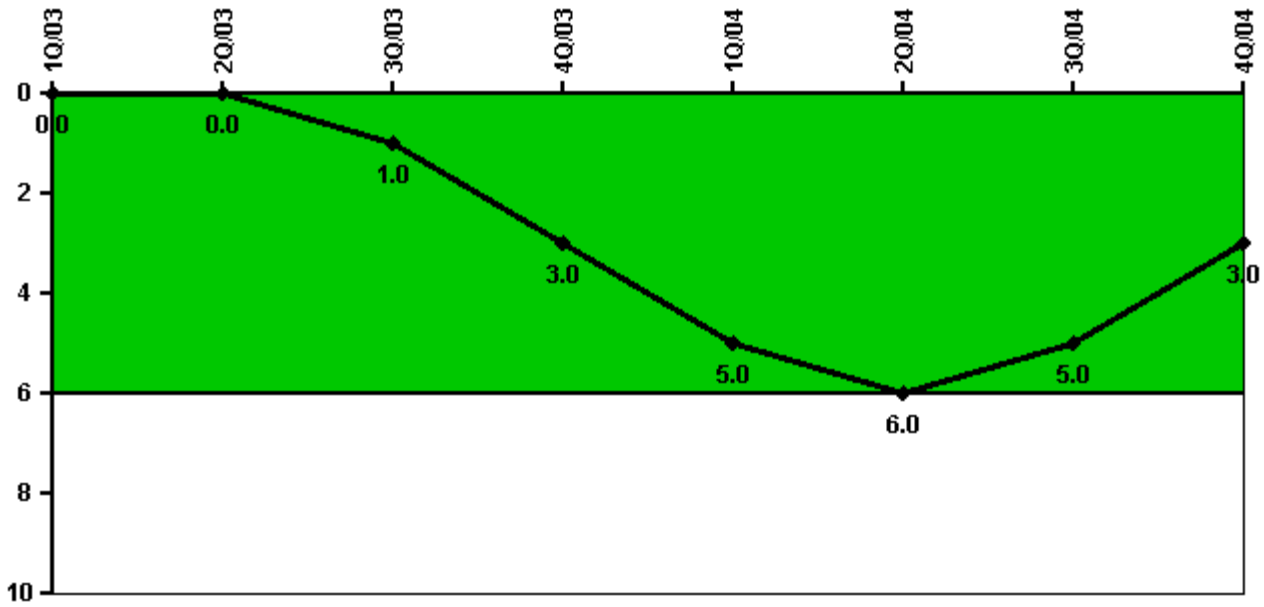
Thresholds: White > 1.5% Yellow > 5.0% Red > 10.0%

**Notes**

| Safety System Unavailability, Residual Heat Removal System | 1Q/03       | 2Q/03       | 3Q/03       | 4Q/03       | 1Q/04       | 2Q/04       | 3Q/04       | 4Q/04       |
|--|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| <b>Train 1</b>   |             |             |             |             |             |             |             |             |
| Planned unavailable hours                                  | 0.28        | 68.40       | 8.05        | 0.69        | 1.23        | 0.37        | 0.30        | 8.18        |
| Unplanned unavailable hours                                | 0           | 2.34        | 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     | 2208.00     | 2209.00     | 2184.00     | 2183.00     | 2208.00     | 2209.00     |
| <b>Train 2</b>   |             |             |             |             |             |             |             |             |
| Planned unavailable hours                                  | 47.45       | 15.69       | 11.31       | 0.28        | 1.95        | 0.23        | 6.78        | 0.25        |
| 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   | 2160.00     | 2183.00     | 2208.00     | 2209.00     | 2184.00     | 2183.00     | 2208.00     | 2209.00     |
| <b>Indicator value</b>                                     | <b>0.7%</b> | <b>0.9%</b> | <b>0.9%</b> | <b>0.9%</b> | <b>0.9%</b> | <b>0.7%</b> | <b>0.7%</b> | <b>0.6%</b> |

Licensee Comments: none

### Safety System Functional Failures (BWR)



Thresholds: White > 6.0

#### Notes

| Safety System Functional Failures (BWR) | 1Q/03 | 2Q/03 | 3Q/03 | 4Q/03 | 1Q/04 | 2Q/04 | 3Q/04 | 4Q/04 |
|---|-------|-------|-------|-------|-------|-------|-------|-------|
| Safety System Functional Failures       | 0     | 0     | 1     | 2     | 2     | 1     | 0     | 0     |
| Indicator value                         | 0     | 0     | 1     | 3     | 5     | 6     | 5     | 3     |

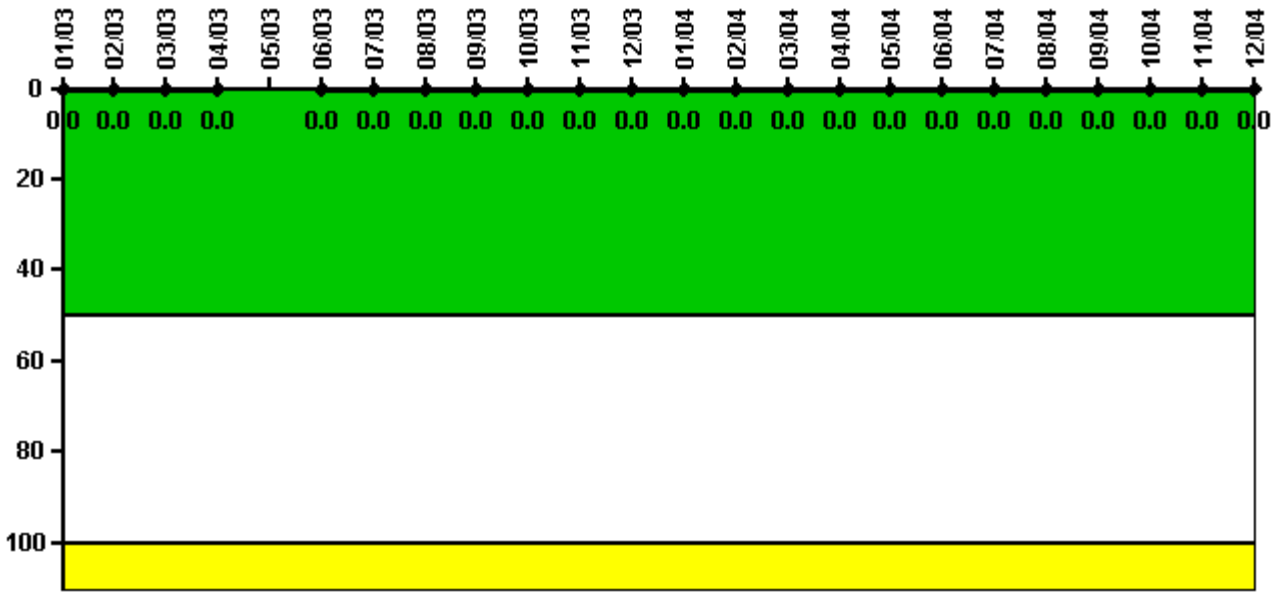
Licensee Comments:

4Q/04: Jan. 2004 data has been revised to add event documented in LER 2001-003-00, which was reported in Jan. 2004.

1Q/04: LER 2001-003-00 was reported on 1/20/04 under 50.73(a)(2)(v)(D). This event occurred in 2001 and is not reflected in this 2004 data.



### Reactor Coolant System Activity



Thresholds: White > 50.0 Yellow > 100.0

#### Notes

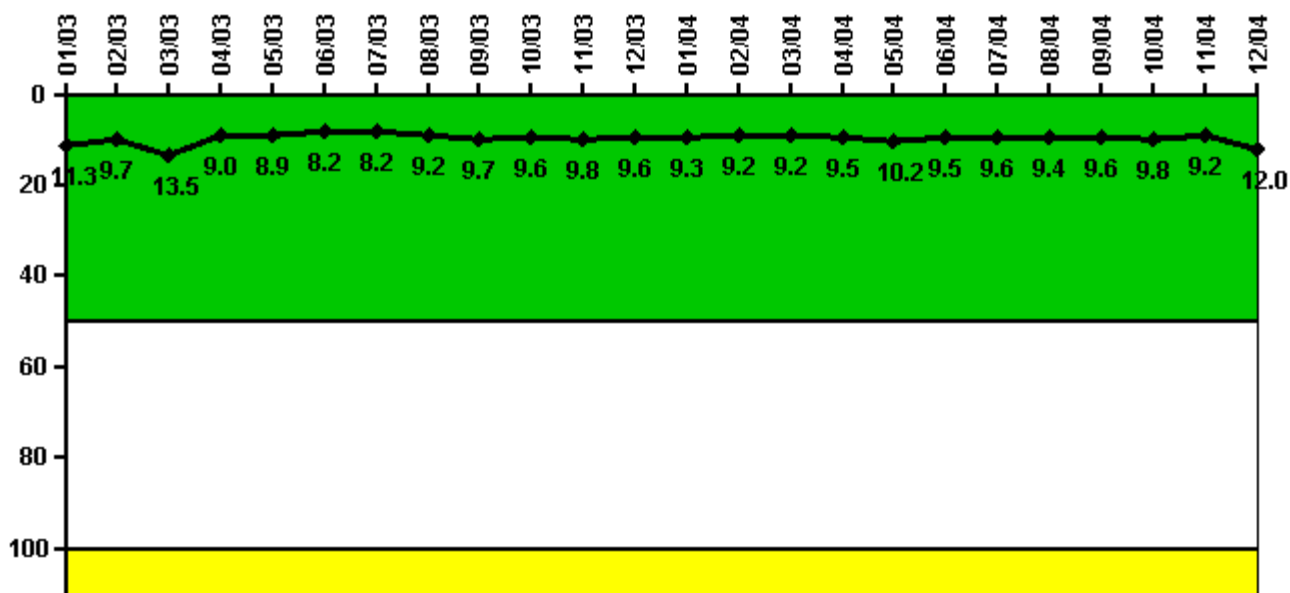
| Reactor Coolant System Activity | 1/03     | 2/03     | 3/03     | 4/03     | 5/03 | 6/03     | 7/03     | 8/03     | 9/03     | 10/03    | 11/03    | 12/03    |
|---------------------------------|----------|----------|----------|----------|------|----------|----------|----------|----------|----------|----------|----------|
| Maximum activity                | 0.000015 | 0.000010 | 0.000018 | 0.000013 | N/A  | 0.000008 | 0.000018 | 0.000017 | 0.000009 | 0.000006 | 0.000005 | 0.000008 |
| Technical specification limit   | 0.2      | 0.2      | 0.2      | 0.2      | 0.2  | 0.2      | 0.2      | 0.2      | 0.2      | 0.2      | 0.2      | 0.2      |
| Indicator value                 | 0        | 0        | 0        | 0        | N/A  | 0        | 0        | 0        | 0        | 0        | 0        | 0        |

| 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                | 0.000005 | 0.000005 | 0.000005 | 0.000005 | 0.000005 | 0.000006 | 0.000006 | 0.000004 | 0.000005 | 0.000006 | 0.000007 | 0.000008 |
| Technical specification limit   | 0.2      | 0.2      | 0.2      | 0.2      | 0.2      | 0.2      | 0.2      | 0.2      | 0.2      | 0.2      | 0.2      | 0.2      |
| Indicator value                 | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        |

Licensee Comments: none

### Reactor Coolant System Leakage



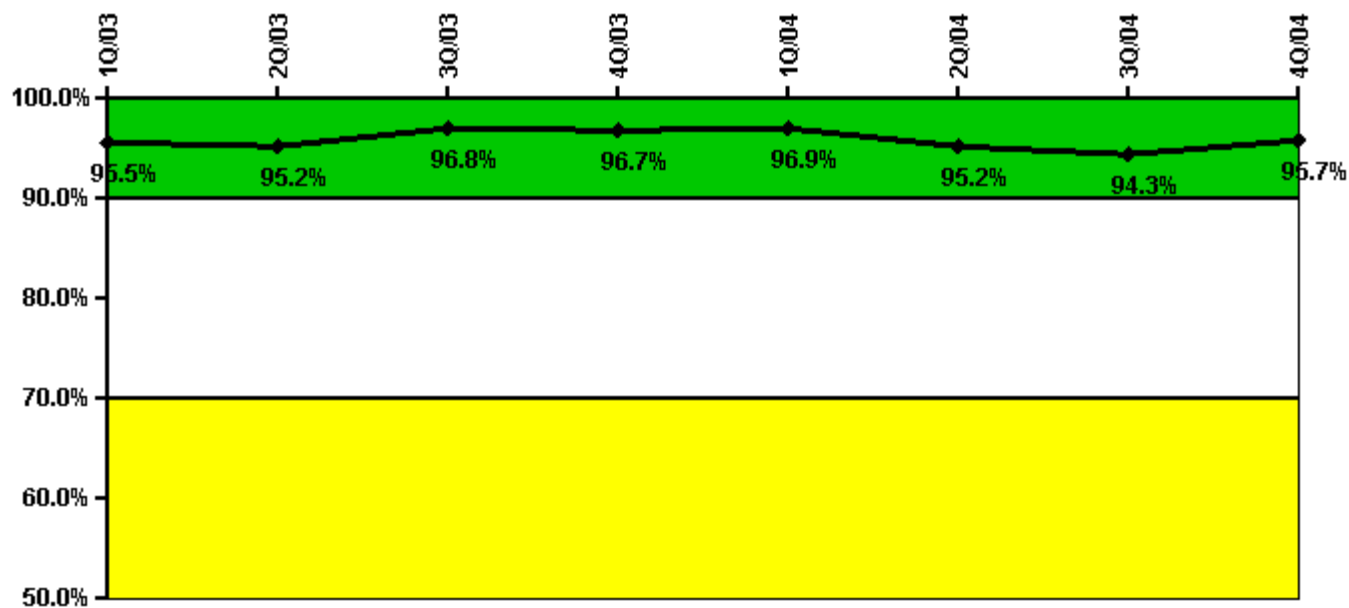
Thresholds: White > 50.0 Yellow > 100.0

#### 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                | 2.820 | 2.420 | 3.370 | 2.250 | 2.230 | 2.060 | 2.060 | 2.310 | 2.420 | 2.390 | 2.450 | 2.410 |
| Technical specification limit  | 25.0  | 25.0  | 25.0  | 25.0  | 25.0  | 25.0  | 25.0  | 25.0  | 25.0  | 25.0  | 25.0  | 25.0  |
| Indicator value                | 11.3  | 9.7   | 13.5  | 9.0   | 8.9   | 8.2   | 8.2   | 9.2   | 9.7   | 9.6   | 9.8   | 9.6   |
| 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                | 2.330 | 2.310 | 2.290 | 2.370 | 2.550 | 2.380 | 2.390 | 2.340 | 2.390 | 2.440 | 2.300 | 2.990 |
| Technical specification limit  | 25.0  | 25.0  | 25.0  | 25.0  | 25.0  | 25.0  | 25.0  | 25.0  | 25.0  | 25.0  | 25.0  | 25.0  |
| Indicator value                | 9.3   | 9.2   | 9.2   | 9.5   | 10.2  | 9.5   | 9.6   | 9.4   | 9.6   | 9.8   | 9.2   | 12.0  |

Licensee Comments: none

### Drill/Exercise Performance



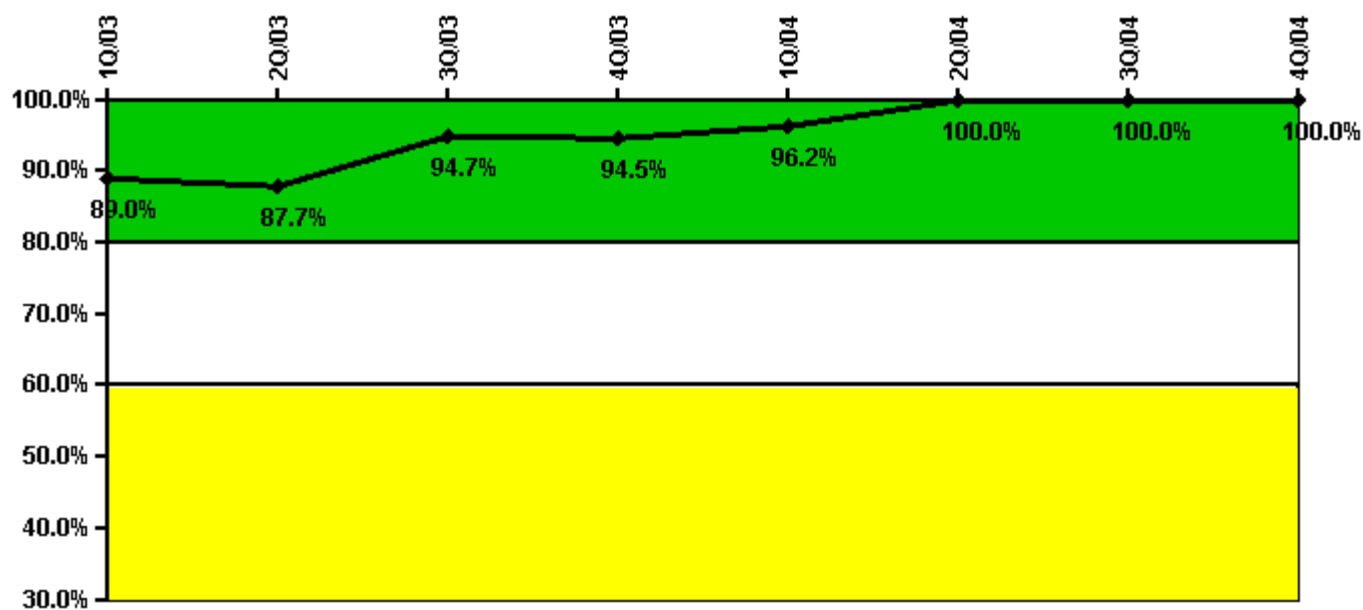
Thresholds: White < 90.0% Yellow < 70.0%

#### Notes

| Drill/Exercise Performance | 1Q/03 | 2Q/03 | 3Q/03 | 4Q/03 | 1Q/04 | 2Q/04 | 3Q/04 | 4Q/04 |
|----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| Successful opportunities   | 13.0  | 19.0  | 26.0  | 33.0  | 17.0  | 39.0  | 26.0  | 52.0  |
| Total opportunities        | 13.0  | 20.0  | 26.0  | 34.0  | 18.0  | 43.0  | 28.0  | 53.0  |
| Indicator value            | 95.5% | 95.2% | 96.8% | 96.7% | 96.9% | 95.2% | 94.3% | 95.7% |

Licensee Comments: none

### ERO Drill Participation



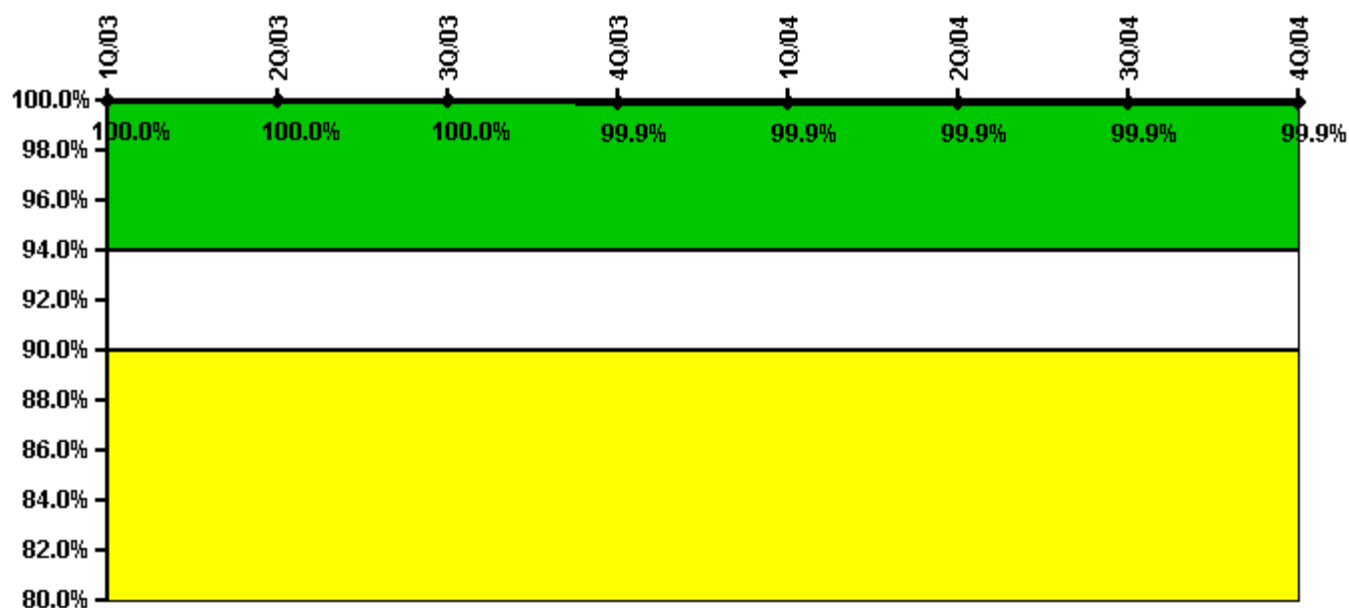
Thresholds: White < 80.0% Yellow < 60.0%

#### Notes

| ERO Drill Participation     | 1Q/03 | 2Q/03 | 3Q/03 | 4Q/03 | 1Q/04 | 2Q/04  | 3Q/04  | 4Q/04  |
|-----------------------------|-------|-------|-------|-------|-------|--------|--------|--------|
| Participating Key personnel | 65.0  | 64.0  | 54.0  | 52.0  | 51.0  | 54.0   | 55.0   | 56.0   |
| Total Key personnel         | 73.0  | 73.0  | 57.0  | 55.0  | 53.0  | 54.0   | 55.0   | 56.0   |
| Indicator value             | 89.0% | 87.7% | 94.7% | 94.5% | 96.2% | 100.0% | 100.0% | 100.0% |

Licensee Comments: none

### Alert & Notification System



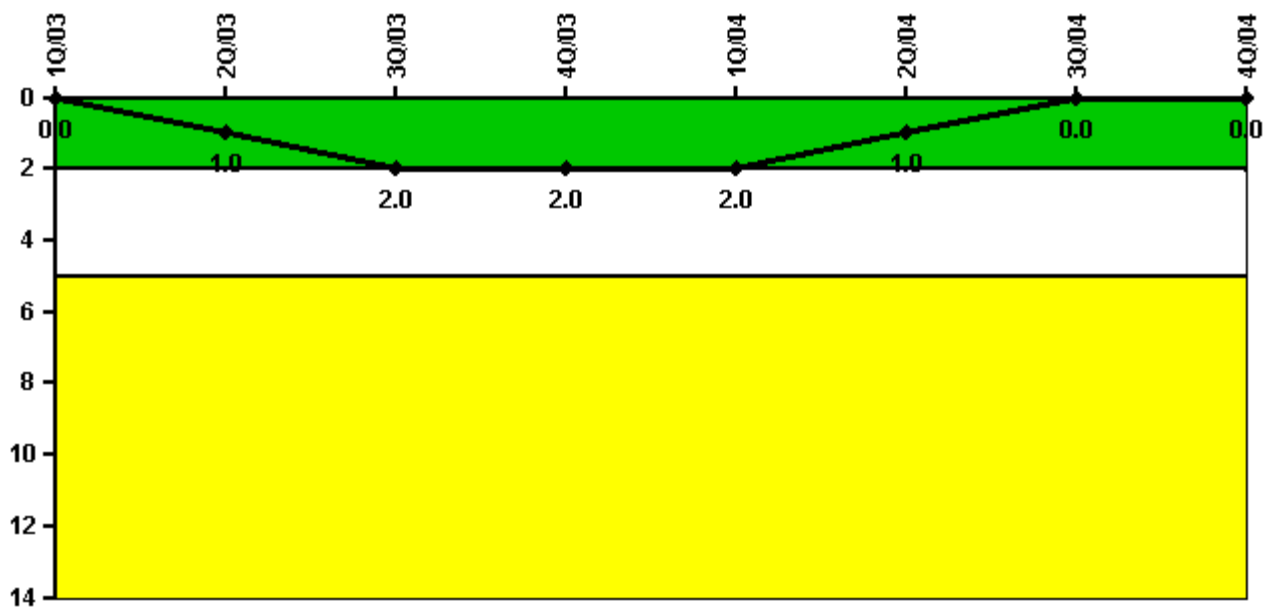
Thresholds: White < 94.0% Yellow < 90.0%

#### Notes

| Alert & Notification System | 1Q/03  | 2Q/03  | 3Q/03  | 4Q/03 | 1Q/04 | 2Q/04 | 3Q/04 | 4Q/04 |
|-----------------------------|--------|--------|--------|-------|-------|-------|-------|-------|
| Successful siren-tests      | 286    | 286    | 286    | 340   | 286   | 286   | 286   | 296   |
| Total sirens-tests          | 286    | 286    | 286    | 341   | 286   | 286   | 286   | 297   |
| Indicator value             | 100.0% | 100.0% | 100.0% | 99.9% | 99.9% | 99.9% | 99.9% | 99.9% |

Licensee Comments: none

### Occupational Exposure Control Effectiveness



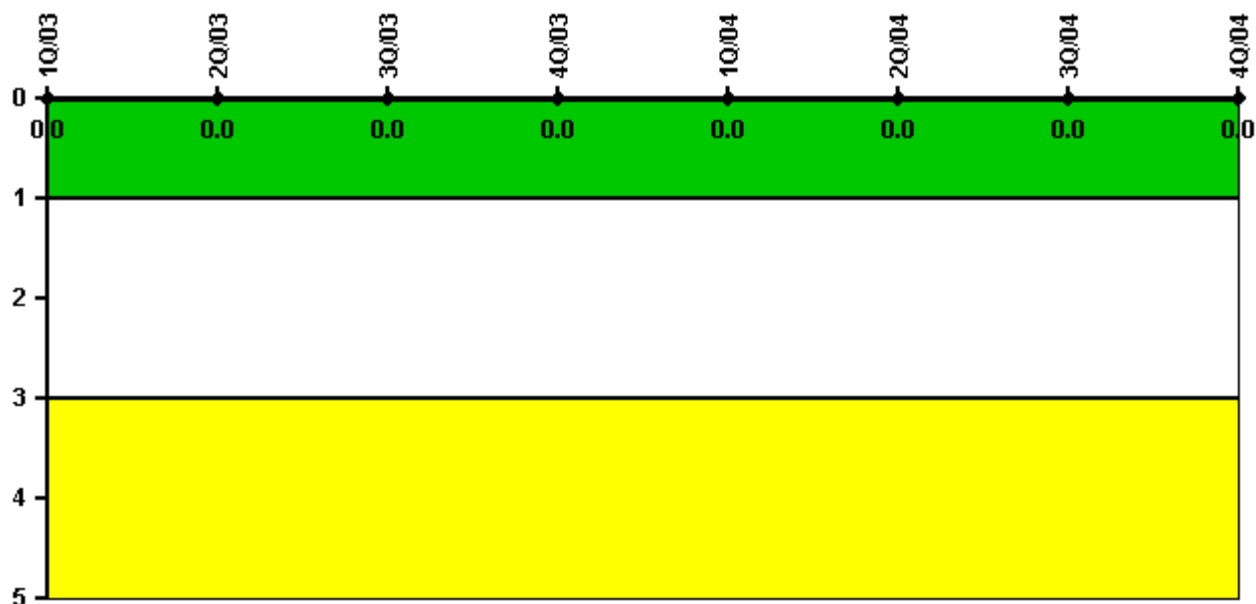
Thresholds: White > 2.0 Yellow > 5.0

#### 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        | 1        | 1        | 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>0</b> | <b>1</b> | <b>2</b> | <b>2</b> | <b>2</b> | <b>1</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