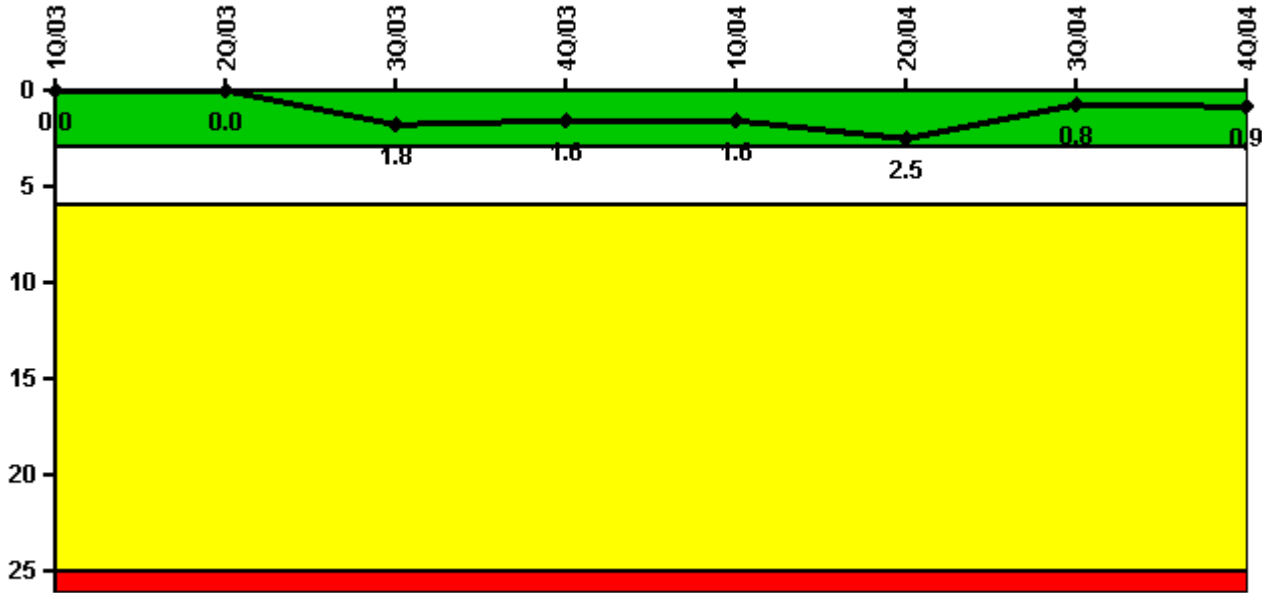


# Oyster Creek

## 4Q/2004 Performance Indicators

Licensee's General Comments: Total number of Key ERO Members increased with the qualification of four Shift Supervisors as Shift Manager (Emergency Director and Communicator) in July 2004. DIF 1/21/05

### Unplanned Scrams per 7000 Critical Hrs



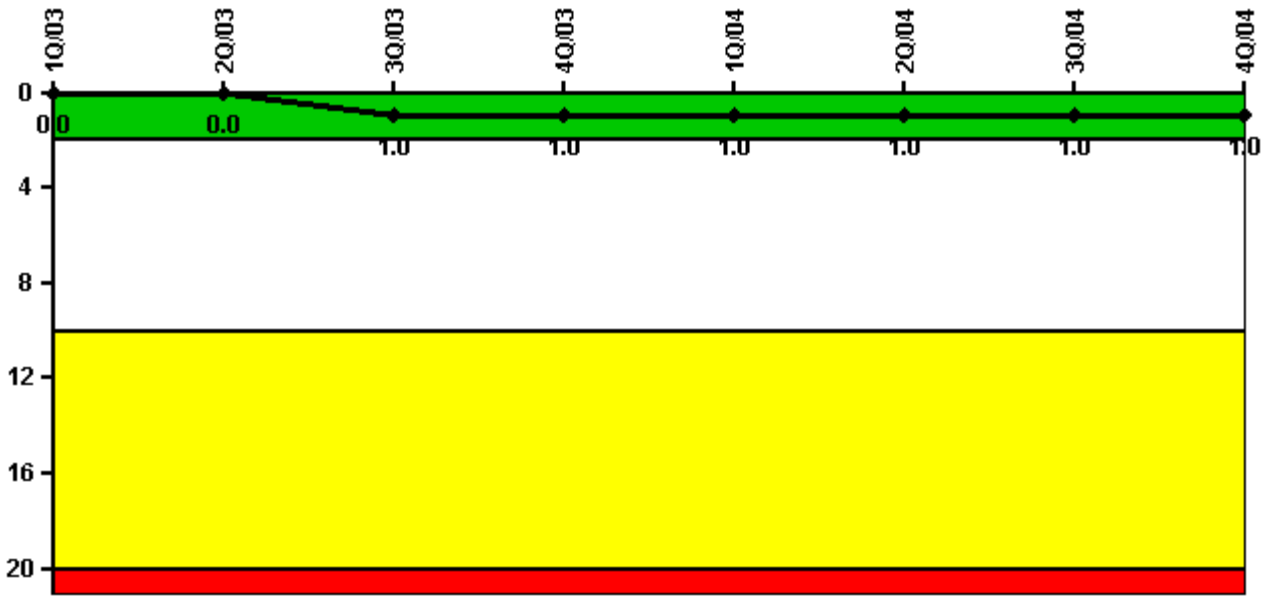
Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

### 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      | 0      | 2.0    | 0      | 0      | 1.0    | 0      | 0      |
| Critical hours                         | 2160.0 | 2028.1 | 2118.8 | 2209.0 | 2184.0 | 2058.4 | 2049.7 | 1750.3 |
| Indicator value                        | 0      | 0      | 1.8    | 1.6    | 1.6    | 2.5    | 0.8    | 0.9    |

Licensee Comments: none

### Scrams with Loss of Normal Heat Removal



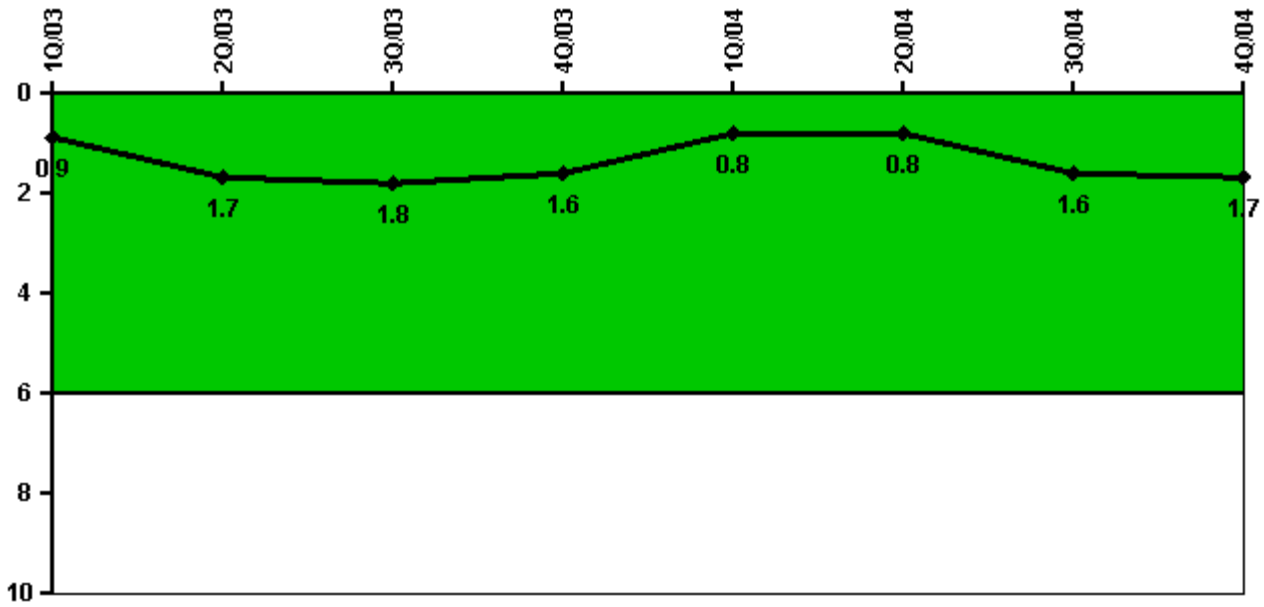
Thresholds: White > 2.0 Yellow > 10.0 Red > 20.0

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

Licensee Comments: none

### Unplanned Power Changes per 7000 Critical Hrs



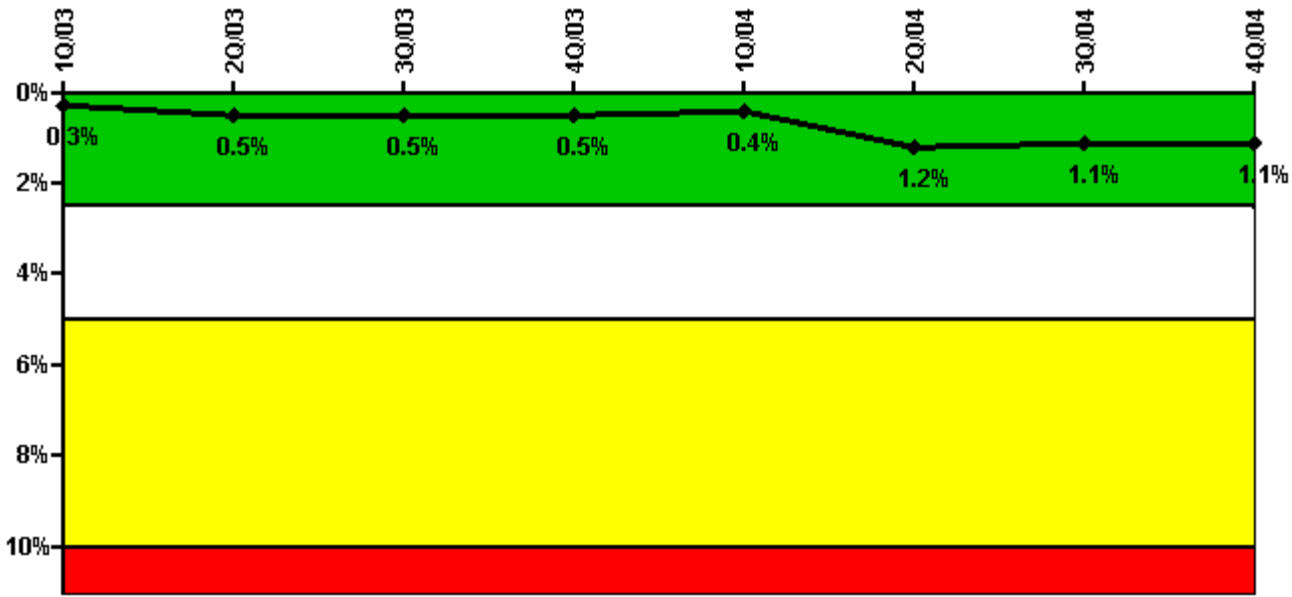
Thresholds: White > 6.0

#### 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    | 1.0    | 0      | 0      | 0      | 1.0    | 1.0    | 0      |
| Critical hours                                | 2160.0 | 2028.1 | 2118.8 | 2209.0 | 2184.0 | 2058.4 | 2049.7 | 1750.3 |
| Indicator value                               | 0.9    | 1.7    | 1.8    | 1.6    | 0.8    | 0.8    | 1.6    | 1.7    |

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                        | 10.30       | 16.13       | 0           | 0           | 0           | 0           | 0           | 11.35       |
| Unplanned unavailable hours                      | 0           | 30.68       | 0           | 0           | 0           | 12.83       | 0           | 0           |
| Fault exposure hours                             | 0           | 0           | 0           | 0           | 0           | 406.45      | 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                        | 0           | 19.60       | 0           | 7.08        | 0           | 13.62       | 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     | 2208.00     | 2209.00     | 2184.00     | 2183.00     | 2208.00     | 2209.00     |
| <b>Indicator value</b>                           | <b>0.3%</b> | <b>0.5%</b> | <b>0.5%</b> | <b>0.5%</b> | <b>0.4%</b> | <b>1.2%</b> | <b>1.1%</b> | <b>1.1%</b> |

Licensee Comments: none

## Safety System Unavailability, High Pressure Injection System

**Not applicable due to  
 unique design  
 characteristics.  
 Performance in this area  
 will be assessed through  
 focused NRC inspection  
 efforts.**

### Notes

| Safety System Unavailability, High Pressure Injection System | 1Q/03       | 2Q/03       | 3Q/03       | 4Q/03       | 1Q/04       | 2Q/04       | 3Q/04       | 4Q/04       |
|--|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| <b>Train 1</b>   |             |             |             |             |             |             |             |             |
| Planned unavailable hours                                    | 27.20       | 41.90       | 8.20        | 8.50        | 8.90        | 9.90        | 8.90        | 7.90        |
| 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     | 2043.00     | 2147.30     | 2209.00     | 2184.00     | 2058.60     | 2049.70     | 1750.33     |
| <b>Train 2</b>   |             |             |             |             |             |             |             |             |
| Planned unavailable hours                                    | 14.20       | 15.00       | 10.40       | 16.20       | 8.50        | 11.80       | 7.60        | 7.10        |
| 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     | 2043.00     | 2147.30     | 2209.00     | 2184.00     | 2058.60     | 2049.70     | 1750.33     |
|  |             |             |             |             |             |             |             |             |
| <b>Indicator value</b>                                       | <b>0.7%</b> | <b>0.7%</b> | <b>0.6%</b> | <b>0.6%</b> | <b>0.6%</b> | <b>0.6%</b> | <b>0.6%</b> | <b>0.6%</b> |

Licensee Comments: none

## Safety System Unavailability, Heat Removal System

Thresholds  
under  
development /  
review

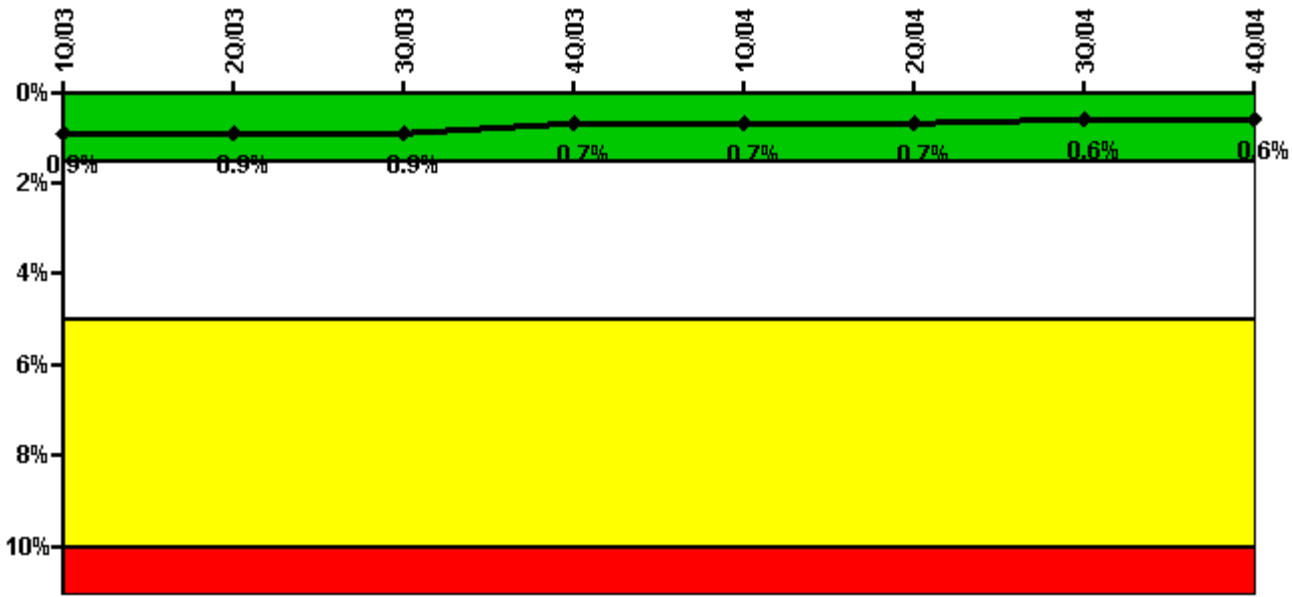
### Notes

| Safety System Unavailability, 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                         |       |       |       |       |       |       |       |       |
| Unplanned unavailable hours                       |       |       |       |       |       |       |       |       |
| Fault exposure hours                              |       |       |       |       |       |       |       |       |
| Effective Reset hours                             | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     |
| Required hours                                    |       |       |       |       |       |       |       |       |
| <b>Train 2</b>                                    |       |       |       |       |       |       |       |       |
| Planned unavailable hours                         |       |       |       |       |       |       |       |       |
| Unplanned unavailable hours                       |       |       |       |       |       |       |       |       |
| Fault exposure hours                              |       |       |       |       |       |       |       |       |
| Effective Reset hours                             | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     |
| Required hours                                    |       |       |       |       |       |       |       |       |
| <b>Indicator value</b>                            |       |       |       |       |       |       |       |       |

Licensee Comments: none

---

### Safety System Unavailability, Residual Heat Removal System



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

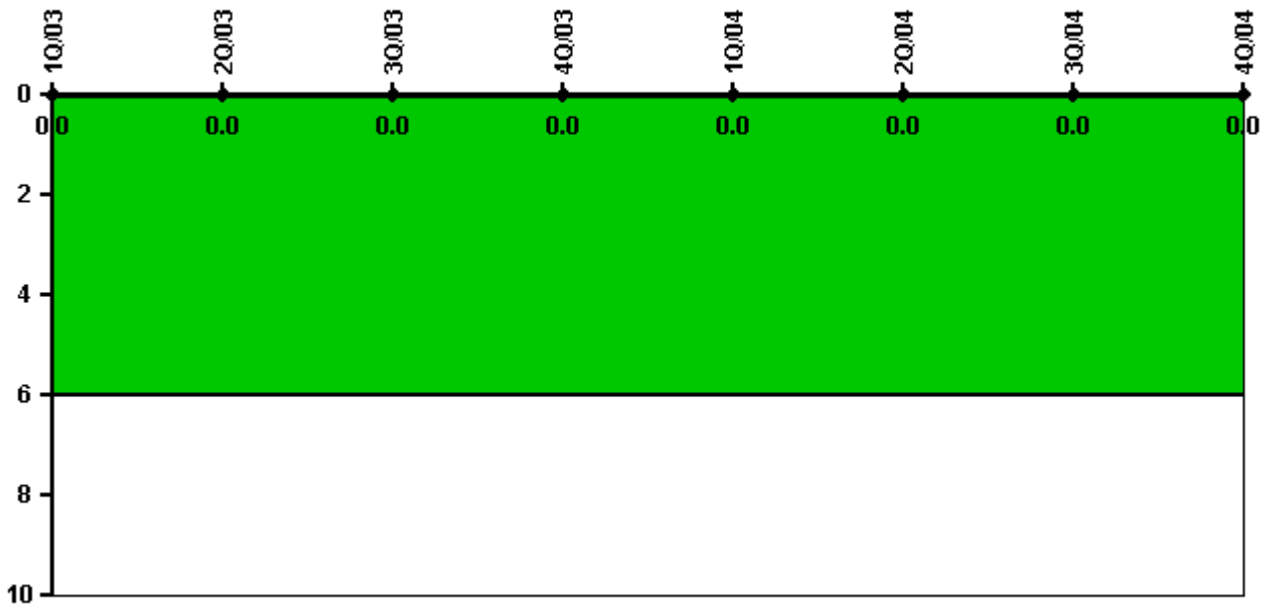
**Notes**

| 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       | 0       | 0       | 0       | 34.80   | 0       | 0       | 12.80   |
| Unplanned unavailable hours                                | 0       | 10.90   | 1.30    | 0       | 0       | 0.30    | 0.25    | 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                                  | 0       | 0       | 9.90    | 14.30   | 2.40    | 0       | 0       | 18.70   |
| Unplanned unavailable hours                                | 0       | 0       | 0       | 0       | 0       | 0.30    | 0.25    | 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                                  | 0       | 0       | 0       | 0       | 0       | 34.20   | 0       | 12.80   |
| Unplanned unavailable hours                                | 0       | 0       | 0       | 0       | 0       | 0.30    | 0.25    | 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 4</b>   |         |         |         |         |         |         |         |         |
| Planned unavailable hours                                  | 0       | 0       | 10.20   | 0       | 12.00   | 0       | 21.90   | 0       |
| Unplanned unavailable hours                                | 0       | 18.70   | 1.30    | 0.10    | 0       | 49.40   | 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 | 2043.00 | 2147.30 | 2209.00 | 2184.00 | 2058.60 | 2049.70 | 1750.33 |
| <b>Train 5</b>   |         |         |         |         |         |         |         |         |
| Planned unavailable hours                                  | 0       | 0       | 1.90    | 13.30   | 0.80    | 34.20   | 3.60    | 54.60   |
| Unplanned unavailable hours                                | 0       | 0       | 4.30    | 0.10    | 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 | 2043.00 | 2147.30 | 2209.00 | 2184.00 | 2058.60 | 2049.70 | 1750.33 |
| Indicator value       | 0.9%    | 0.9%    | 0.9%    | 0.7%    | 0.7%    | 0.7%    | 0.6%    | 0.6%    |

Licensee Comments: none

### Safety System Functional Failures (BWR)



Thresholds: White > 6.0

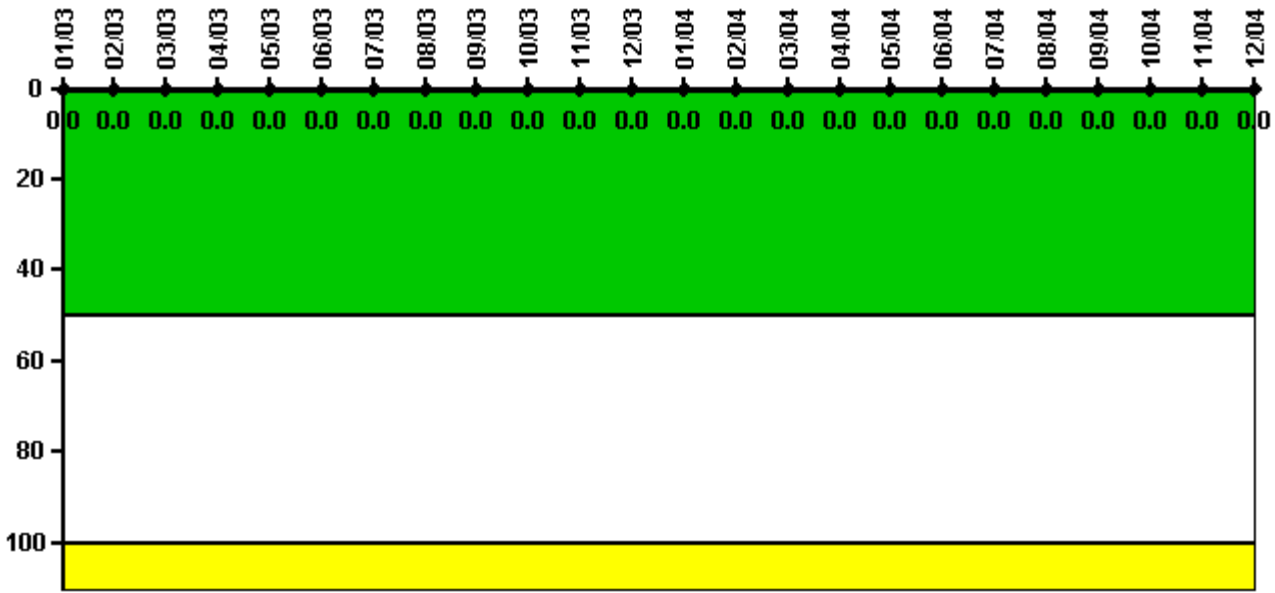
### Notes

| 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     | 0     | 0     | 0     | 0     | 0     | 0     |
| Indicator value                         | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     |

Licensee Comments: none



### Reactor Coolant System Activity



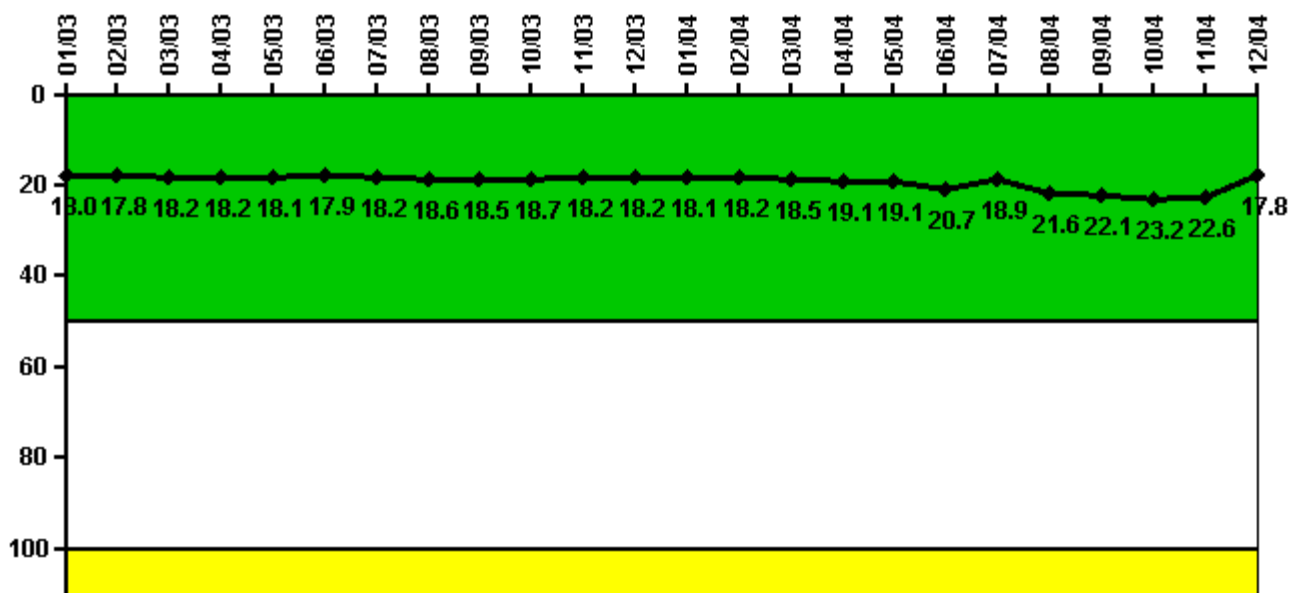
Thresholds: White > 50.0 Yellow > 100.0

**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                | 0.000041 | 0.000055 | 0.000037 | 0.000049 | 0.000031 | 0.000034 | 0.000034 | 0.000038 | 0.000032 | 0.000030 | 0.000028 | 0.000035 |
| 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        |
| 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                | 0.000029 | 0.000087 | 0.000053 | 0.000046 | 0.000052 | 0.000046 | 0.000054 | 0.000056 | 0.000051 | 0.000053 | 0.000020 | 0.000028 |
| 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

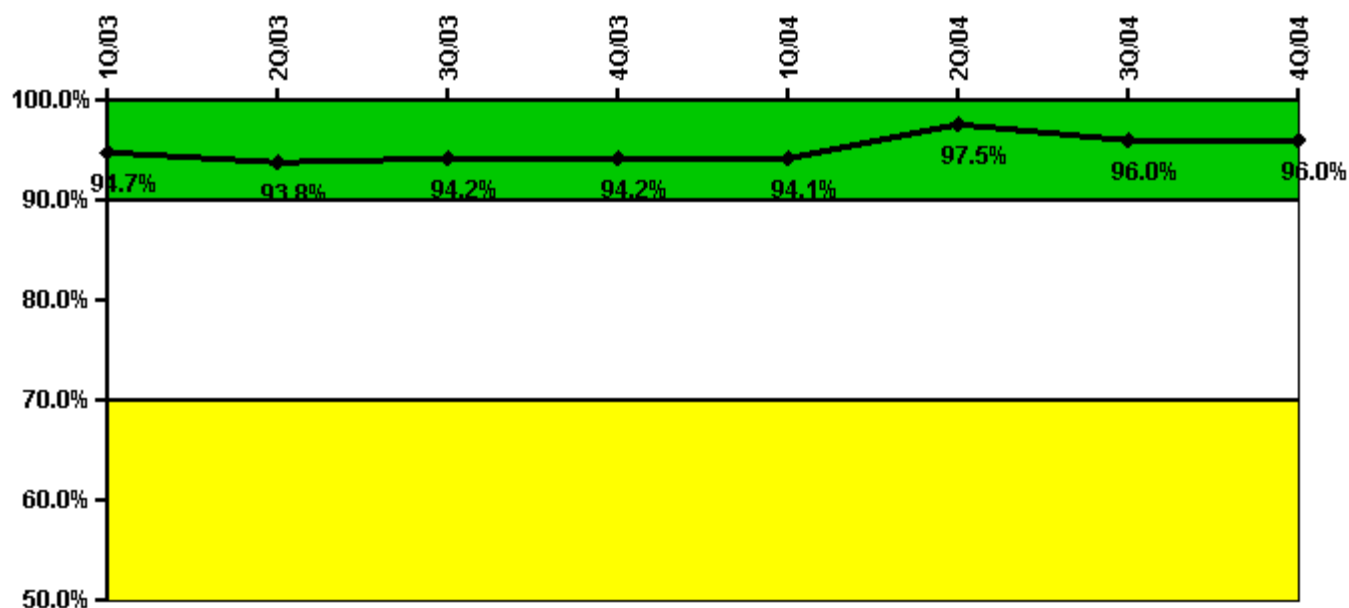
| Reactor Coolant System Leakage | 1/03  | 2/03  | 3/03  | 4/03  | 5/03  | 6/03  | 7/03  | 8/03  | 9/03  | 10/03 | 11/03 | 12/03 |
|--------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Maximum leakage                | 4.500 | 4.460 | 4.550 | 4.550 | 4.520 | 4.480 | 4.540 | 4.660 | 4.630 | 4.680 | 4.550 | 4.540 |
| 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                | 18.0  | 17.8  | 18.2  | 18.2  | 18.1  | 17.9  | 18.2  | 18.6  | 18.5  | 18.7  | 18.2  | 18.2  |

| 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                | 4.520 | 4.540 | 4.620 | 4.770 | 4.770 | 5.170 | 4.730 | 5.410 | 5.520 | 5.800 | 5.660 | 4.460 |
| 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                | 18.1  | 18.2  | 18.5  | 19.1  | 19.1  | 20.7  | 18.9  | 21.6  | 22.1  | 23.2  | 22.6  | 17.8  |

Licensee Comments: none

### Drill/Exercise Performance



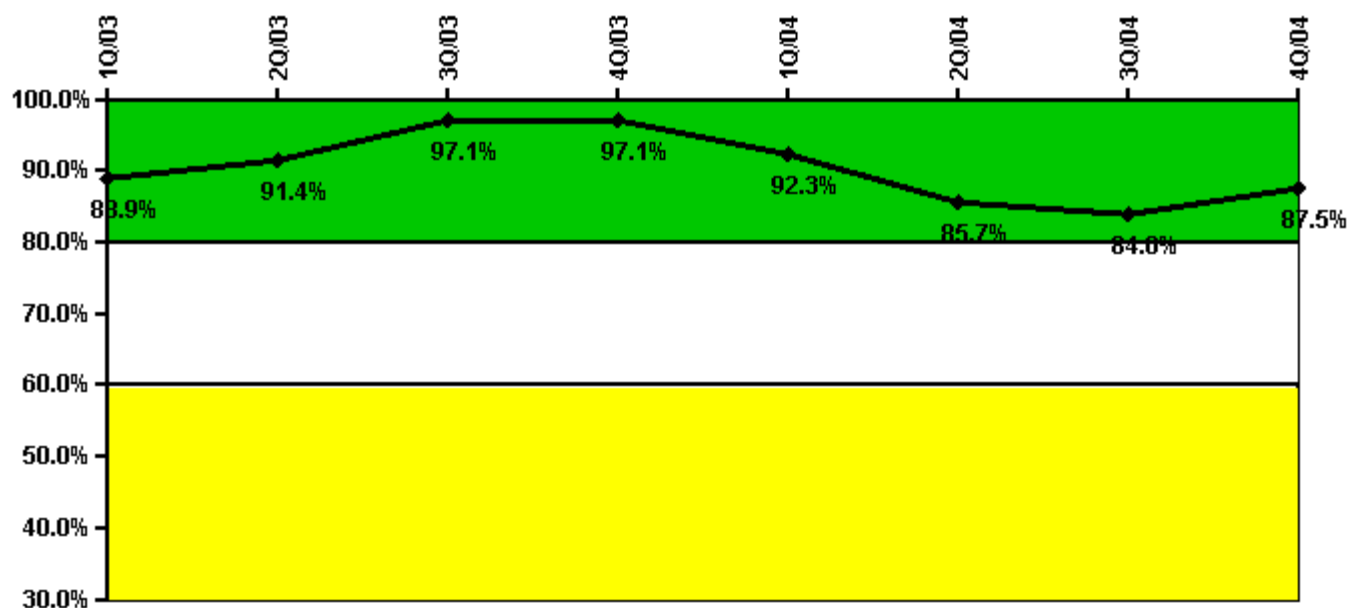
Thresholds: White < 90.0% Yellow < 70.0%

#### Notes

| Drill/Exercise Performance | 1Q/03 | 2Q/03 | 3Q/03 | 4Q/03 | 1Q/04 | 2Q/04 | 3Q/04 | 4Q/04 |
|----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| Successful opportunities   | 0     | 7.0   | 19.0  | 0     | 13.0  | 14.0  | 11.0  | 8.0   |
| Total opportunities        | 0     | 8.0   | 20.0  | 0     | 13.0  | 14.0  | 12.0  | 8.0   |
| Indicator value            | 94.7% | 93.8% | 94.2% | 94.2% | 94.1% | 97.5% | 96.0% | 96.0% |

Licensee Comments: none

### ERO Drill Participation



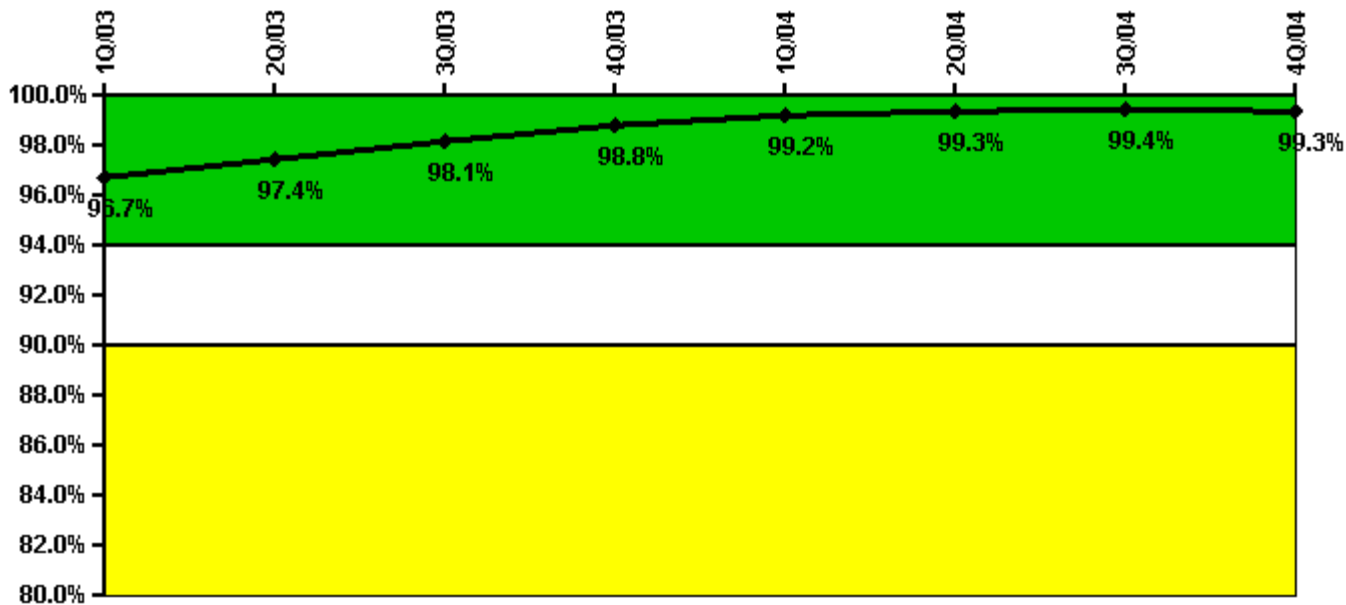
Thresholds: White < 80.0% Yellow < 60.0%

#### Notes

| ERO Drill Participation     | 1Q/03 | 2Q/03 | 3Q/03 | 4Q/03 | 1Q/04 | 2Q/04 | 3Q/04 | 4Q/04 |
|-----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| Participating Key personnel | 32.0  | 32.0  | 34.0  | 33.0  | 36.0  | 36.0  | 42.0  | 42.0  |
| Total Key personnel         | 36.0  | 35.0  | 35.0  | 34.0  | 39.0  | 42.0  | 50.0  | 48.0  |
| Indicator value             | 88.9% | 91.4% | 97.1% | 97.1% | 92.3% | 85.7% | 84.0% | 87.5% |

Licensee Comments: none

### Alert & Notification System



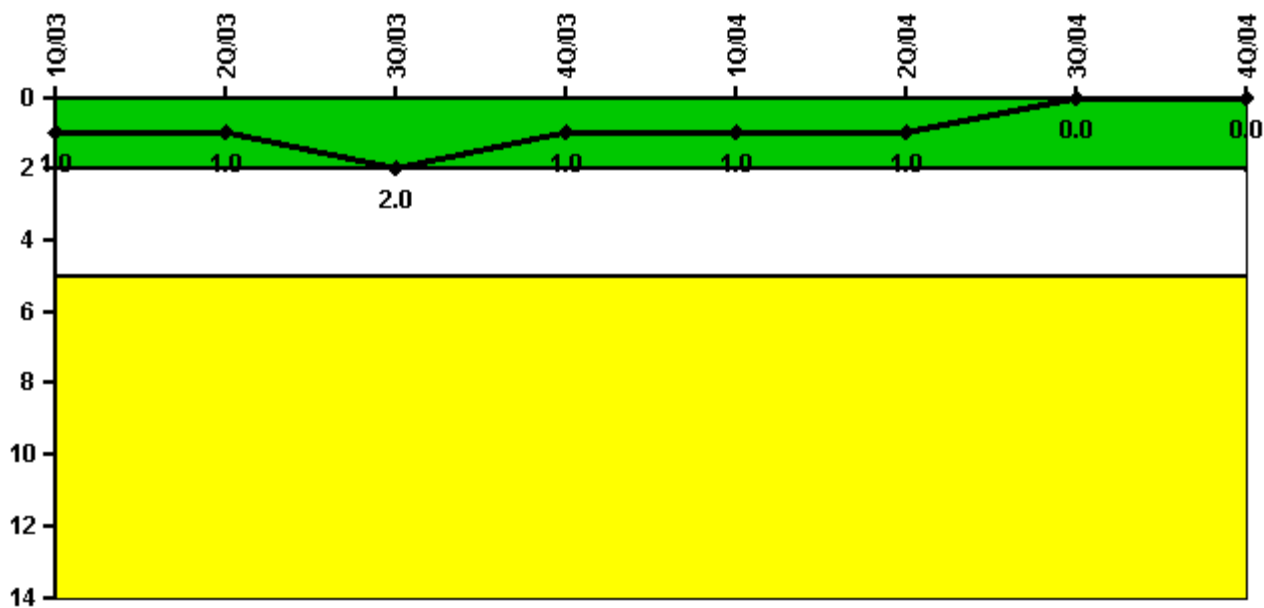
Thresholds: White < 94.0% Yellow < 90.0%

#### Notes

| Alert & Notification System | 1Q/03 | 2Q/03 | 3Q/03 | 4Q/03 | 1Q/04 | 2Q/04 | 3Q/04 | 4Q/04 |
|-----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| Successful siren-tests      | 240   | 373   | 585   | 545   | 539   | 542   | 545   | 501   |
| Total sirens-tests          | 252   | 378   | 588   | 546   | 546   | 546   | 546   | 504   |
| Indicator value             | 96.7% | 97.4% | 98.1% | 98.8% | 99.2% | 99.3% | 99.4% | 99.3% |

Licensee Comments: none

### Occupational Exposure Control Effectiveness



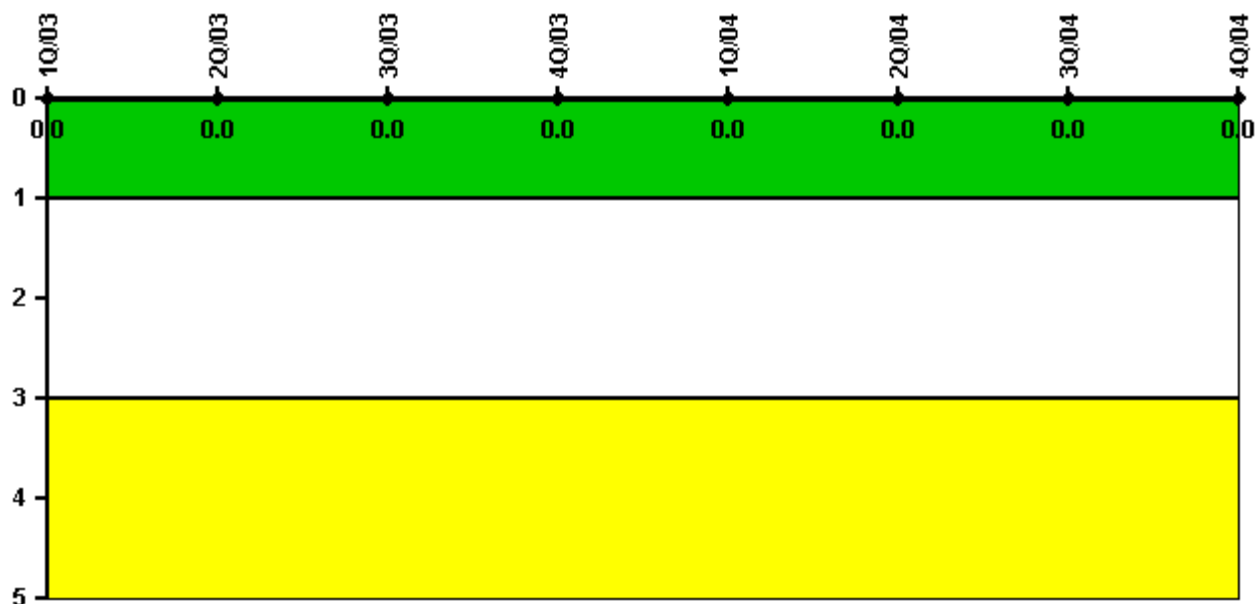
Thresholds: White > 2.0 Yellow > 5.0

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