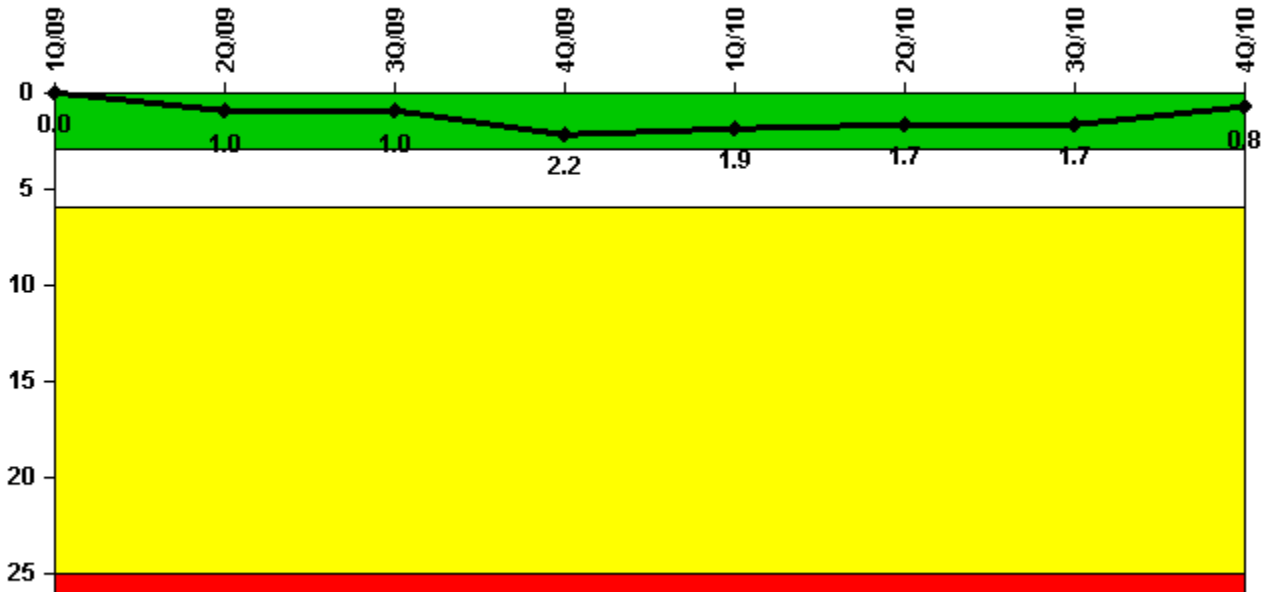


# Perry 1

## 4Q/2010 Performance Indicators

Licensee's General Comments: none

### Unplanned Scrams per 7000 Critical Hrs



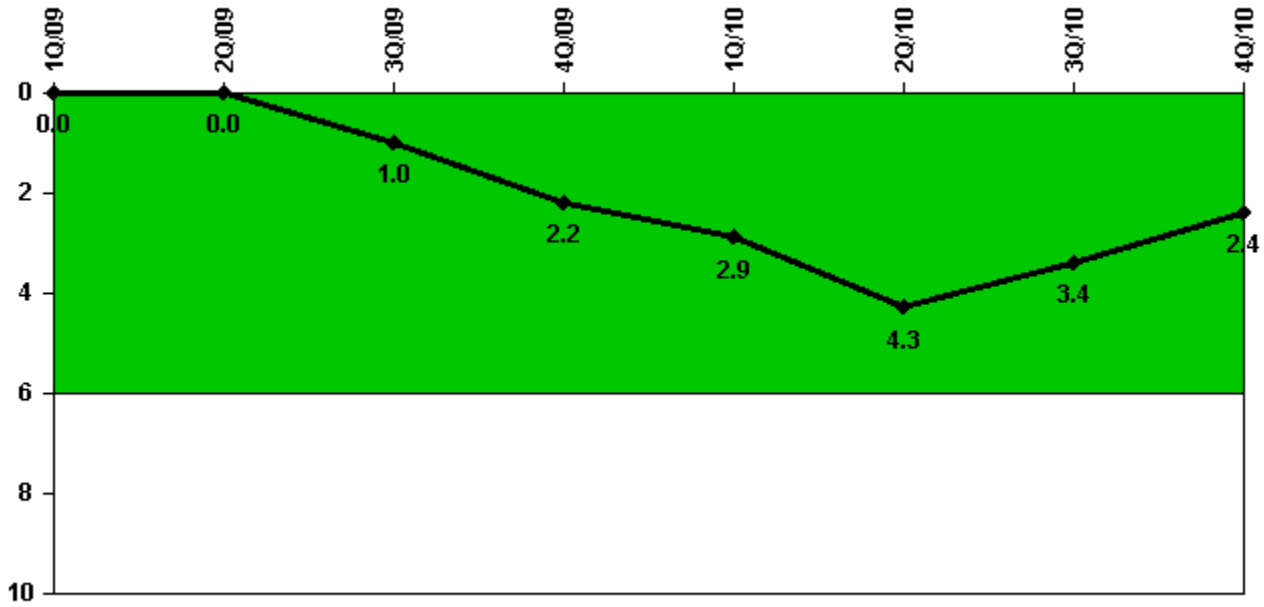
Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

### Notes

| Unplanned Scrams per 7000 Critical Hrs | 1Q/09  | 2Q/09  | 3Q/09  | 4Q/09  | 1Q/10  | 2Q/10  | 3Q/10  | 4Q/10  |
|--|--------|--------|--------|--------|--------|--------|--------|--------|
| Unplanned scrams                       | 0      | 1.0    | 0      | 1.0    | 0      | 1.0    | 0      | 0      |
| Critical hours                         | 1272.7 | 1134.7 | 2208.0 | 1801.9 | 2159.0 | 2049.3 | 2208.0 | 2209.0 |
| Indicator value                        | 0      | 1.0    | 1.0    | 2.2    | 1.9    | 1.7    | 1.7    | 0.8    |

Licensee Comments: none

## Unplanned Power Changes per 7000 Critical Hrs



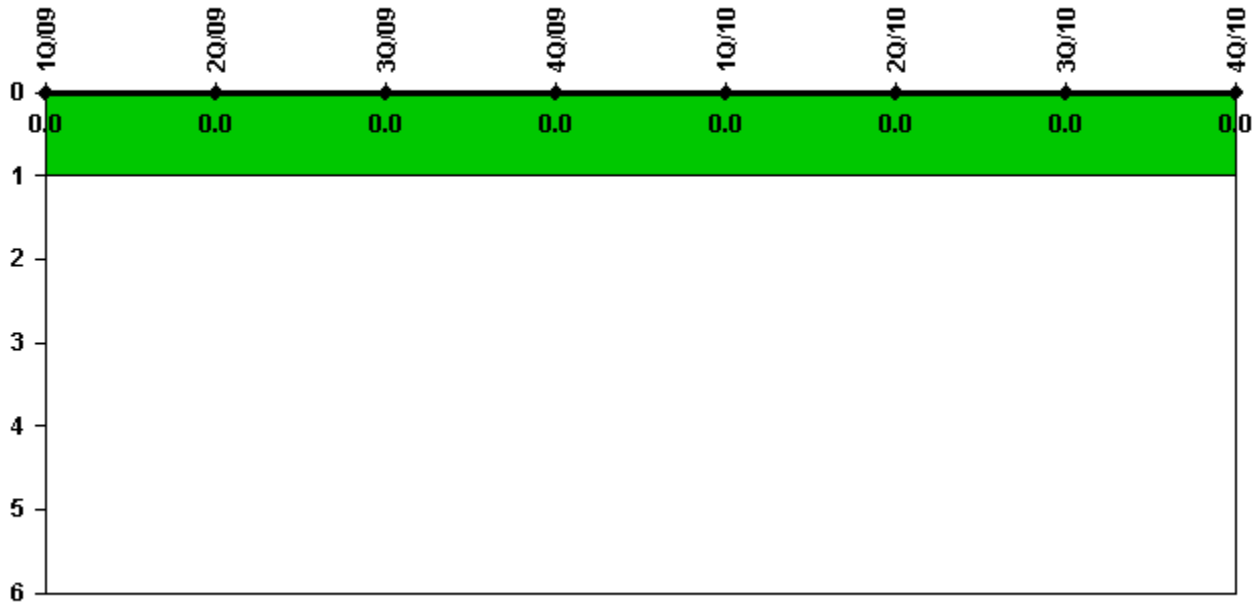
Thresholds: White > 6.0

### Notes

| Unplanned Power Changes per 7000 Critical Hrs | 1Q/09  | 2Q/09  | 3Q/09  | 4Q/09  | 1Q/10  | 2Q/10  | 3Q/10  | 4Q/10  |
|---|--------|--------|--------|--------|--------|--------|--------|--------|
| Unplanned power changes                       | 0      | 0      | 1.0    | 1.0    | 1.0    | 2.0    | 0      | 0      |
| Critical hours                                | 1272.7 | 1134.7 | 2208.0 | 1801.9 | 2159.0 | 2049.3 | 2208.0 | 2209.0 |
| Indicator value                               | 0      | 0      | 1.0    | 2.2    | 2.9    | 4.3    | 3.4    | 2.4    |

Licensee Comments: none

# Unplanned Scrams with Complications



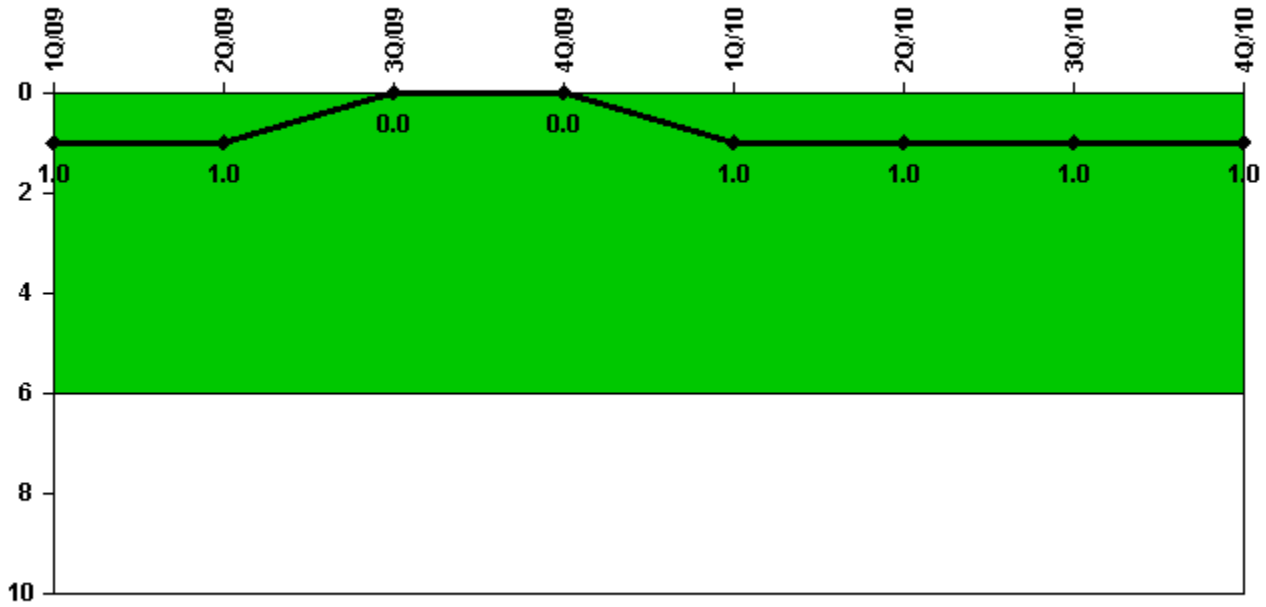
Thresholds: White > 1.0

## Notes

| Unplanned Scrams with Complications | 1Q/09 | 2Q/09 | 3Q/09 | 4Q/09 | 1Q/10 | 2Q/10 | 3Q/10 | 4Q/10 |
|-------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| Scrams with complications           | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     |
|                                     |       |       |       |       |       |       |       |       |
| Indicator value                     | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |

Licensee Comments: none

## Safety System Functional Failures (BWR)



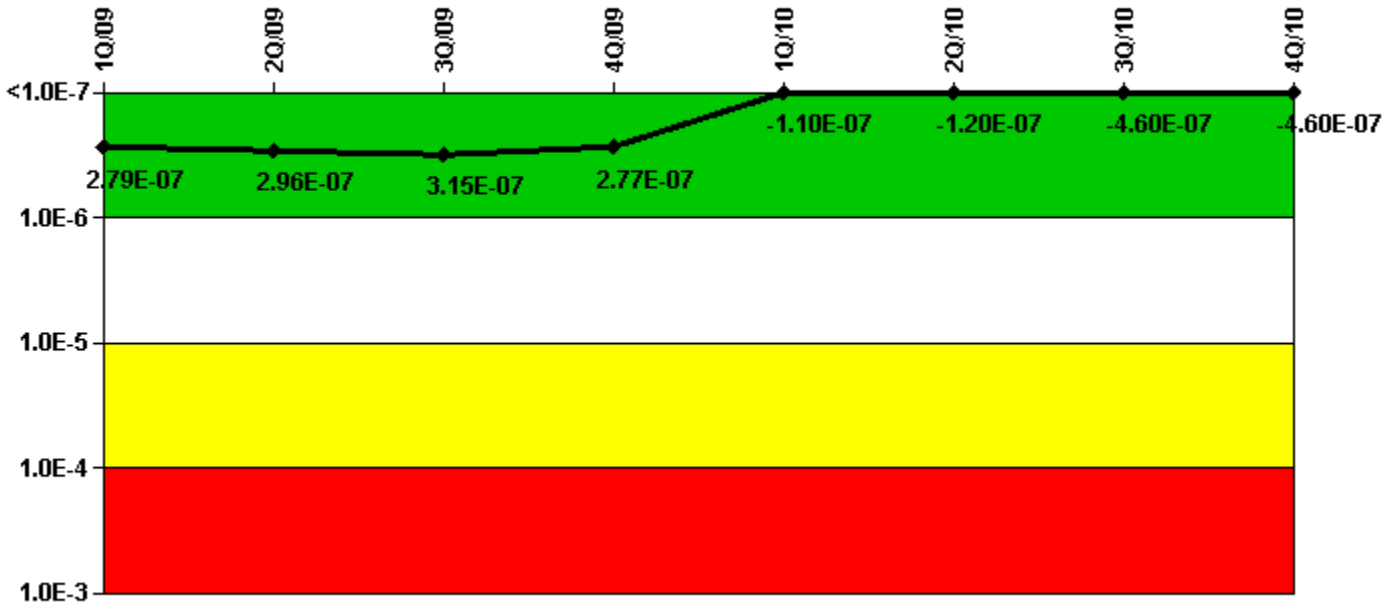
Thresholds: White > 6.0

### Notes

| Safety System Functional Failures (BWR) | 1Q/09 | 2Q/09 | 3Q/09 | 4Q/09 | 1Q/10 | 2Q/10 | 3Q/10 | 4Q/10 |
|---|-------|-------|-------|-------|-------|-------|-------|-------|
| Safety System Functional Failures       | 0     | 0     | 0     | 0     | 1     | 0     | 0     | 0     |
| Indicator value                         | 1     | 1     | 0     | 0     | 1     | 1     | 1     | 1     |

Licensee Comments: none

# Mitigating Systems Performance Index, Emergency AC Power System



Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

## Notes

| Mitigating Systems Performance Index, Emergency AC Power System | 1Q/09     | 2Q/09    | 3Q/09    | 4Q/09     | 1Q/10     | 2Q/10     | 3Q/10     | 4Q/10     |
|---|-----------|----------|----------|-----------|-----------|-----------|-----------|-----------|
| UAI ( $\Delta$ CDF)   | -5.20E-10 | 1.60E-08 | 3.50E-08 | -2.90E-09 | 1.06E-07  | 1.01E-07  | 7.68E-08  | 8.43E-08  |
| URI ( $\Delta$ CDF)   | 2.80E-07  | 2.80E-07 | 2.80E-07 | 2.80E-07  | -2.16E-07 | -2.16E-07 | -5.41E-07 | -5.41E-07 |
| PLE   | NO        | NO       | NO       | NO        | NO        | NO        | NO        | NO        |
| Indicator value   | 2.79E-07  | 2.96E-07 | 3.15E-07 | 2.77E-07  | -1.10E-07 | -1.20E-07 | -4.60E-07 | -4.60E-07 |

Licensee Comments: none

# Mitigating Systems Performance Index, High Pressure Injection System



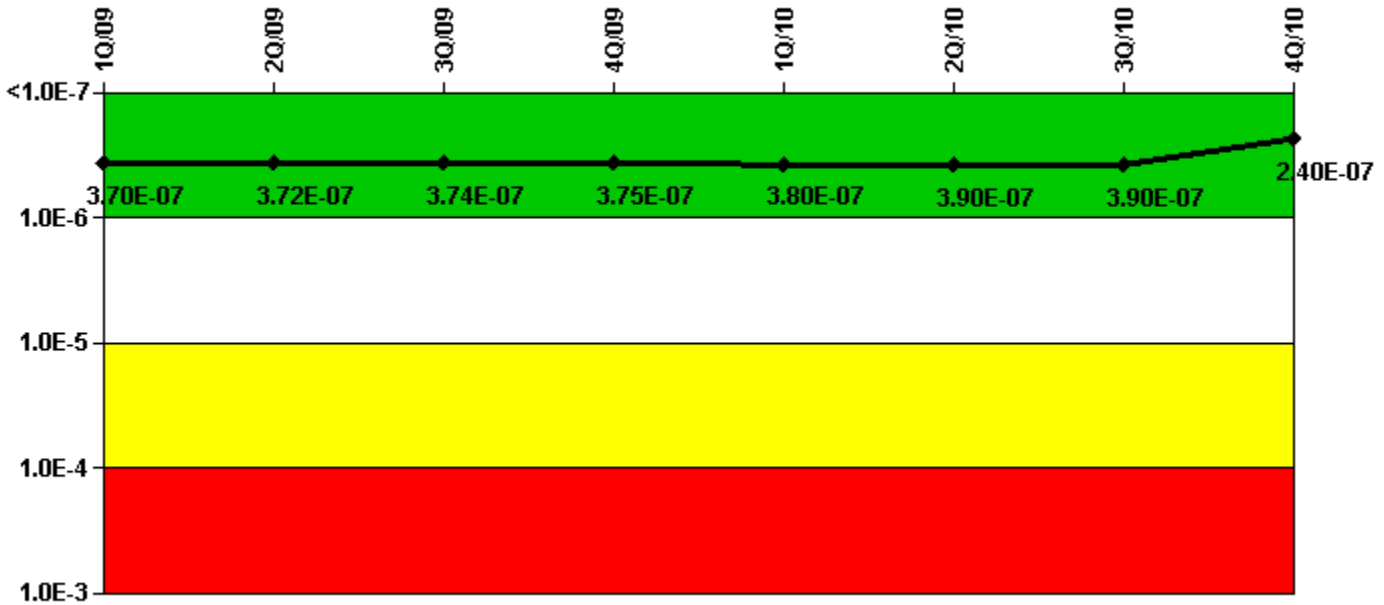
Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

## Notes

| Mitigating Systems Performance Index, High Pressure Injection System | 1Q/09     | 2Q/09     | 3Q/09     | 4Q/09     | 1Q/10     | 2Q/10     | 3Q/10     | 4Q/10     |
|--|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| UAI ( $\Delta$ CDF)  | 6.20E-09  | 3.50E-10  | 3.50E-10  | 4.10E-10  | 4.10E-10  | 2.26E-10  | 3.18E-08  | 3.20E-08  |
| URI ( $\Delta$ CDF)  | -5.70E-08 | -5.70E-08 | -5.70E-08 | -5.70E-08 | -5.69E-08 | -5.69E-08 | -5.69E-08 | -5.57E-08 |
| PLE  | NO        | NO        | NO        | NO        | NO        | NO        | NO        | NO        |
| Indicator value  | -5.08E-08 | -5.67E-08 | -5.67E-08 | -5.66E-08 | -5.60E-08 | -5.70E-08 | -2.50E-08 | -2.40E-08 |

Licensee Comments: none

# Mitigating Systems Performance Index, Heat Removal System



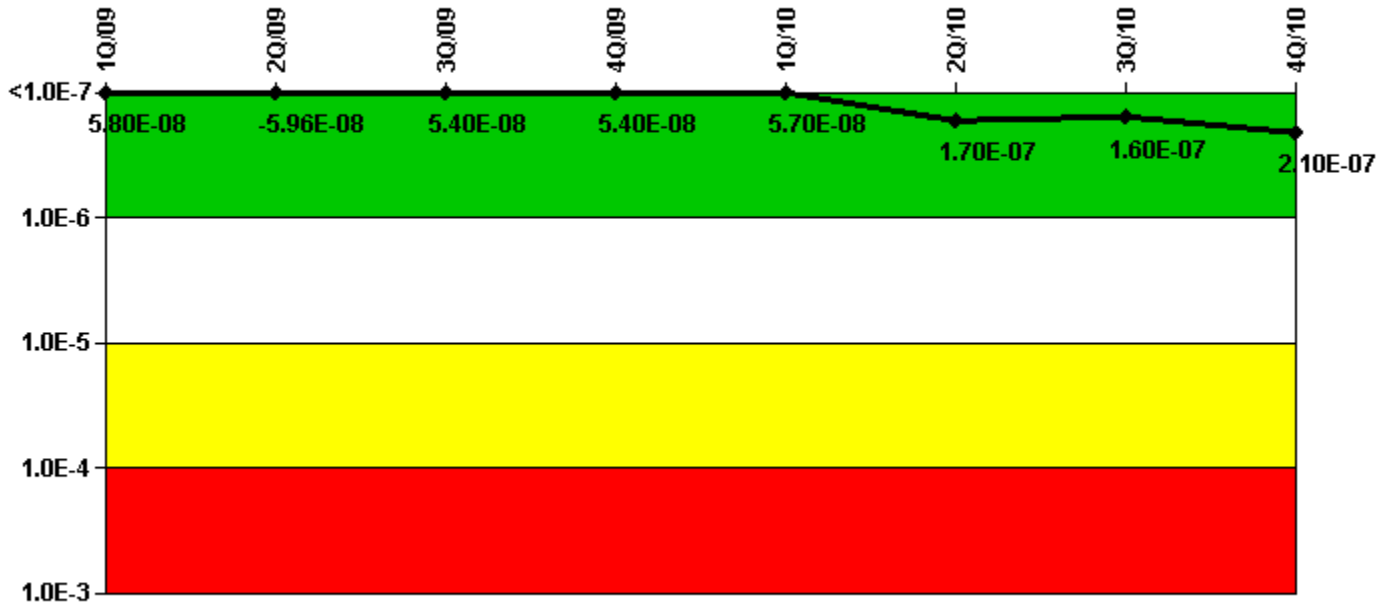
Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

## Notes

| Mitigating Systems Performance Index, Heat Removal System | 1Q/09    | 2Q/09    | 3Q/09    | 4Q/09    | 1Q/10    | 2Q/10    | 3Q/10    | 4Q/10    |
|---|----------|----------|----------|----------|----------|----------|----------|----------|
| UAI ( $\Delta$ CDF)                                       | 5.00E-08 | 5.20E-08 | 5.40E-08 | 5.50E-08 | 5.48E-08 | 6.93E-08 | 6.61E-08 | 3.11E-08 |
| URI ( $\Delta$ CDF)                                       | 3.20E-07 | 3.20E-07 | 3.20E-07 | 3.20E-07 | 3.23E-07 | 3.23E-07 | 3.23E-07 | 2.11E-07 |
| PLE   | NO       | NO       | NO       | NO       | NO       | NO       | NO       | NO       |
| Indicator value   | 3.70E-07 | 3.72E-07 | 3.74E-07 | 3.75E-07 | 3.80E-07 | 3.90E-07 | 3.90E-07 | 2.40E-07 |

Licensee Comments: none

# Mitigating Systems Performance Index, Residual Heat Removal System



Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

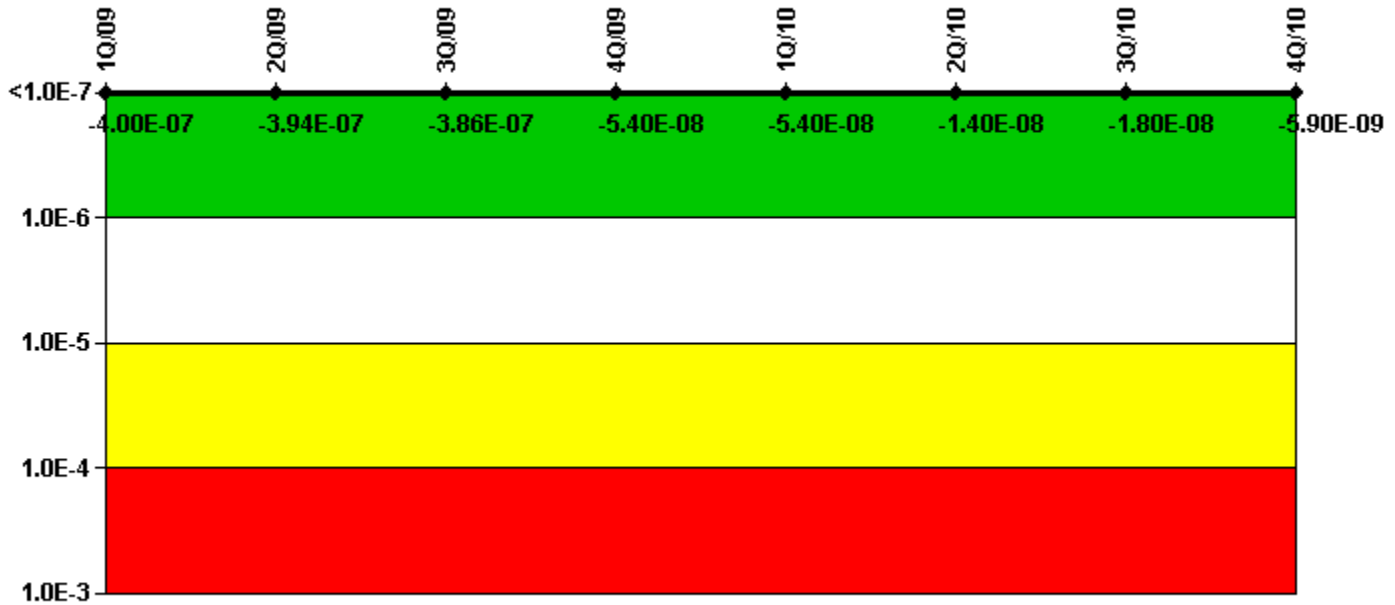
## Notes

| Mitigating Systems Performance Index, Residual Heat Removal System | 1Q/09     | 2Q/09     | 3Q/09     | 4Q/09     | 1Q/10     | 2Q/10     | 3Q/10     | 4Q/10     |
|--|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| UAI ( $\Delta$ CDF)  | -2.50E-08 | -3.60E-09 | 1.10E-07  | 1.10E-07  | 1.13E-07  | 2.26E-07  | 2.13E-07  | 2.67E-07  |
| URI ( $\Delta$ CDF)  | 8.30E-08  | -5.60E-08 | -5.60E-08 | -5.60E-08 | -5.62E-08 | -5.62E-08 | -5.62E-08 | -5.62E-08 |
| PLE  | NO        | NO        | NO        | NO        | NO        | NO        | NO        | NO        |
| Indicator value  | 5.80E-08  | -5.96E-08 | 5.40E-08  | 5.40E-08  | 5.70E-08  | 1.70E-07  | 1.60E-07  | 2.10E-07  |

Licensee Comments: none



# Mitigating Systems Performance Index, Cooling Water Systems



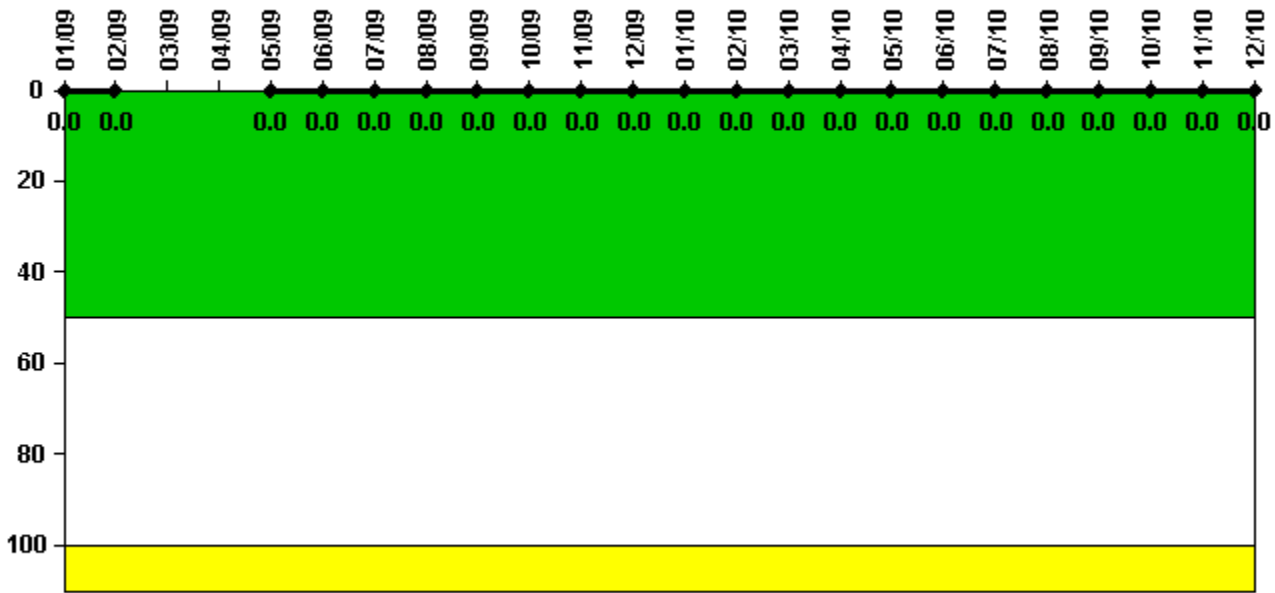
Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

## Notes

| Mitigating Systems Performance Index, Cooling Water Systems | 1Q/09     | 2Q/09     | 3Q/09     | 4Q/09     | 1Q/10     | 2Q/10     | 3Q/10     | 4Q/10     |
|---|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| UAI ( $\Delta$ CDF)   | -5.00E-08 | -4.40E-08 | -3.60E-08 | -1.50E-08 | -1.48E-08 | 2.54E-08  | 2.06E-08  | 3.09E-08  |
| URI ( $\Delta$ CDF)   | -3.50E-07 | -3.50E-07 | -3.50E-07 | -3.90E-08 | -3.89E-08 | -3.89E-08 | -3.89E-08 | -3.68E-08 |
| PLE   | NO        | NO        | NO        | NO        | NO        | NO        | NO        | NO        |
| Indicator value   | -4.00E-07 | -3.94E-07 | -3.86E-07 | -5.40E-08 | -5.40E-08 | -1.40E-08 | -1.80E-08 | -5.90E-09 |

Licensee Comments: none

# Reactor Coolant System Activity



Thresholds: White > 50.0 Yellow > 100.0

## Notes

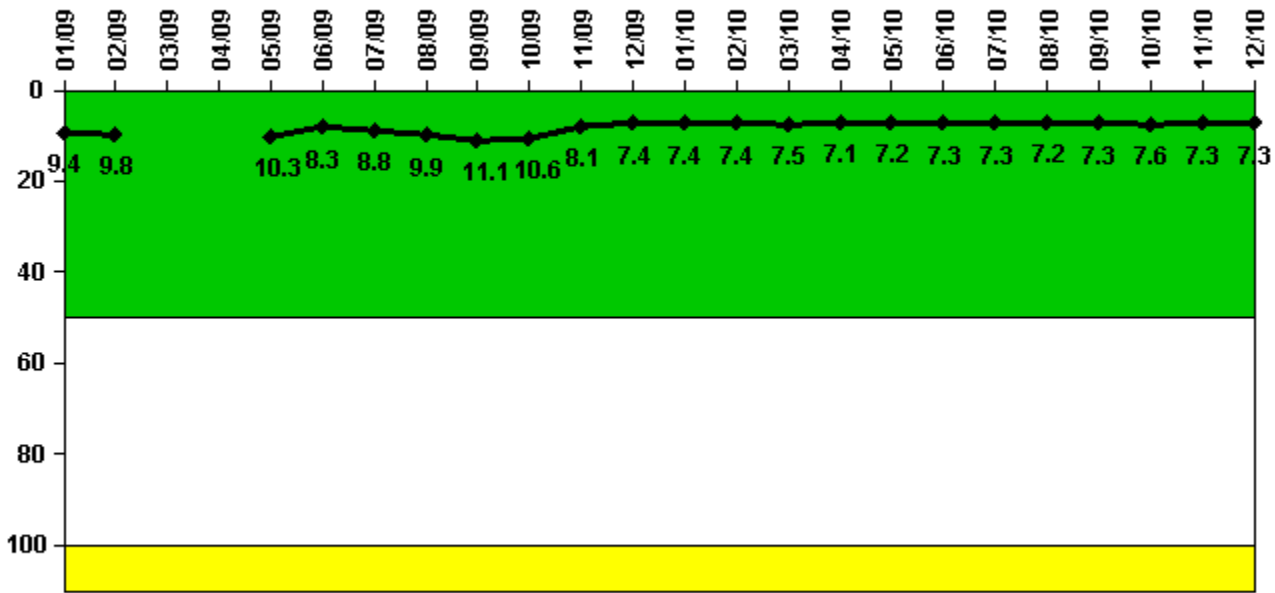
| Reactor Coolant System Activity | 1/09     | 2/09     | 3/09 | 4/09 | 5/09     | 6/09     | 7/09     | 8/09     | 9/09     | 10/09    | 11/09    | 12/09    |
|---------------------------------|----------|----------|------|------|----------|----------|----------|----------|----------|----------|----------|----------|
| Maximum activity                | 0.000022 | 0.000022 | N/A  | N/A  | 0.000008 | 0.000012 | 0.000015 | 0.000013 | 0.000012 | 0.000012 | 0.000014 | 0.000019 |
| 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        | N/A  | N/A  | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        |

| Reactor Coolant System Activity | 1/10     | 2/10     | 3/10     | 4/10     | 5/10     | 6/10     | 7/10     | 8/10     | 9/10     | 10/10    | 11/10    | 12/10    |
|---------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Maximum activity                | 0.000017 | 0.000018 | 0.000018 | 0.000018 | 0.000024 | 0.000022 | 0.000020 | 0.000022 | 0.000030 | 0.000026 | 0.000029 | 0.000026 |
| 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



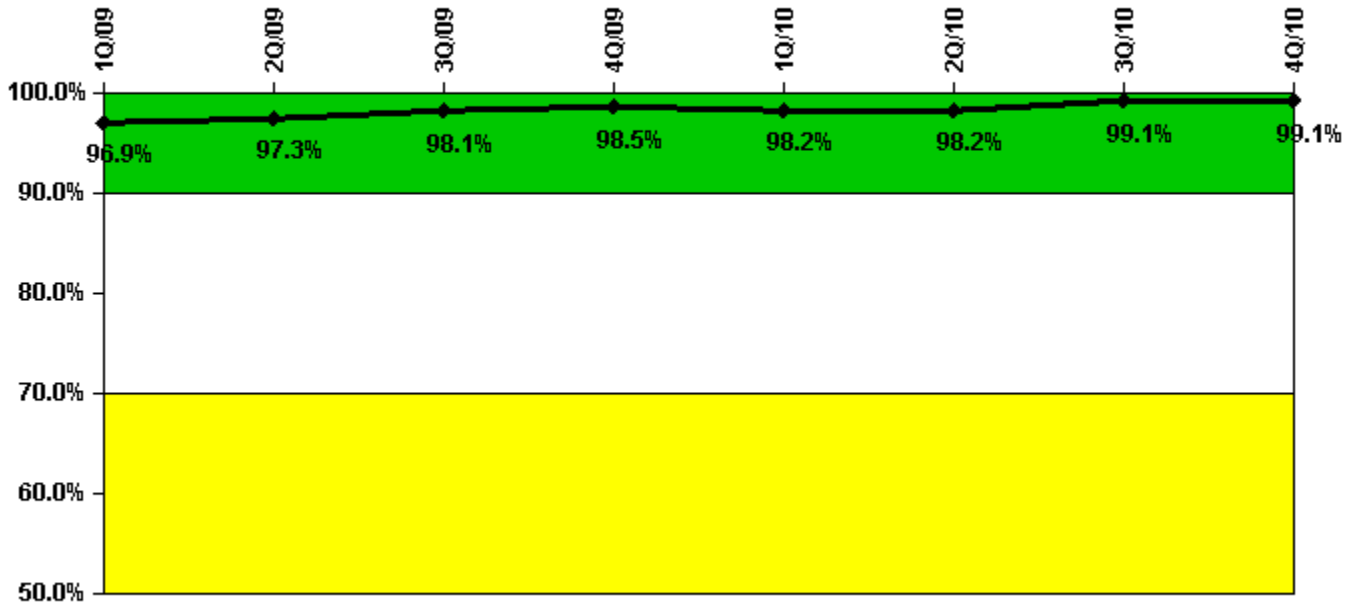
Thresholds: White > 50.0 Yellow > 100.0

### Notes

| Reactor Coolant System Leakage | 1/09  | 2/09  | 3/09  | 4/09  | 5/09  | 6/09  | 7/09  | 8/09  | 9/09  | 10/09 | 11/09 | 12/09 |
|--------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Maximum leakage                | 2.820 | 2.940 | N/A   | N/A   | 3.100 | 2.500 | 2.650 | 2.980 | 3.330 | 3.170 | 2.420 | 2.230 |
| Technical specification limit  | 30.0  | 30.0  | 30.0  | 30.0  | 30.0  | 30.0  | 30.0  | 30.0  | 30.0  | 30.0  | 30.0  | 30.0  |
| Indicator value                | 9.4   | 9.8   | N/A   | N/A   | 10.3  | 8.3   | 8.8   | 9.9   | 11.1  | 10.6  | 8.1   | 7.4   |
| Reactor Coolant System Leakage | 1/10  | 2/10  | 3/10  | 4/10  | 5/10  | 6/10  | 7/10  | 8/10  | 9/10  | 10/10 | 11/10 | 12/10 |
| Maximum leakage                | 2.230 | 2.230 | 2.240 | 2.130 | 2.150 | 2.190 | 2.200 | 2.150 | 2.200 | 2.290 | 2.190 | 2.190 |
| Technical specification limit  | 30.0  | 30.0  | 30.0  | 30.0  | 30.0  | 30.0  | 30.0  | 30.0  | 30.0  | 30.0  | 30.0  | 30.0  |
| Indicator value                | 7.4   | 7.4   | 7.5   | 7.1   | 7.2   | 7.3   | 7.3   | 7.2   | 7.3   | 7.6   | 7.3   | 7.3   |

Licensee Comments: none

## Drill/Exercise Performance



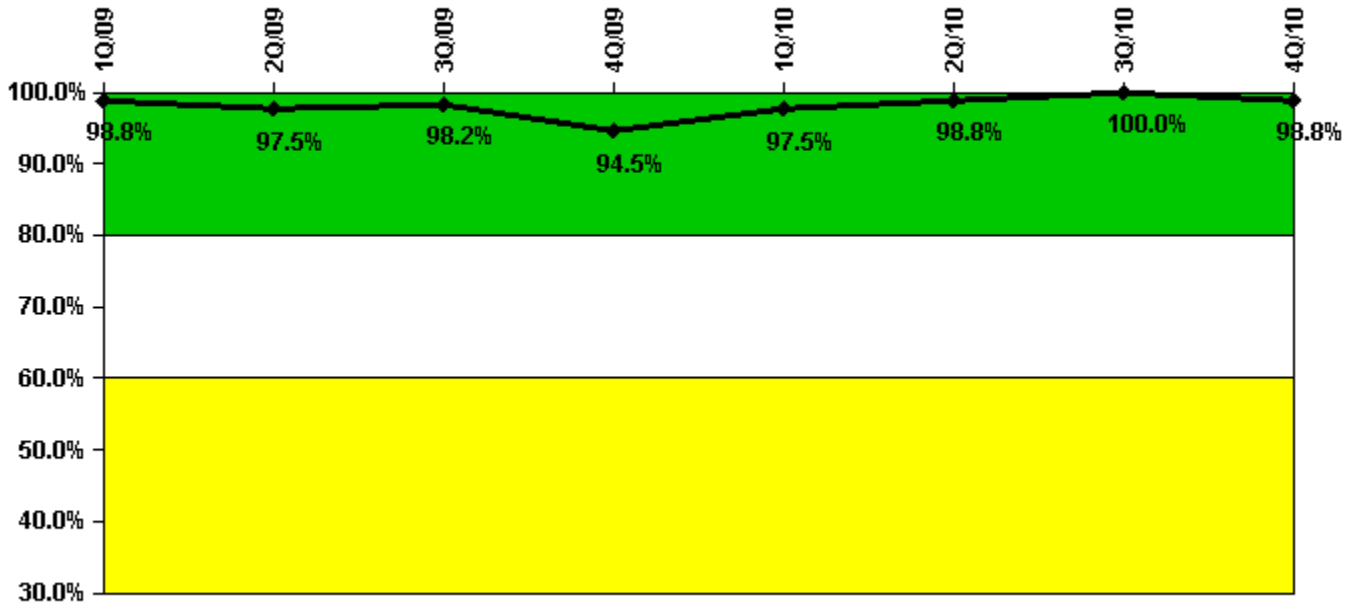
Thresholds: White < 90.0% Yellow < 70.0%

### Notes

| Drill/Exercise Performance | 1Q/09 | 2Q/09 | 3Q/09 | 4Q/09 | 1Q/10 | 2Q/10 | 3Q/10 | 4Q/10 |
|----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| Successful opportunities   | 16.0  | 12.0  | 34.0  | 30.0  | 37.0  | 20.0  | 48.0  | 21.0  |
| Total opportunities        | 16.0  | 12.0  | 34.0  | 30.0  | 38.0  | 20.0  | 49.0  | 21.0  |
|                            |       |       |       |       |       |       |       |       |
| Indicator value            | 96.9% | 97.3% | 98.1% | 98.5% | 98.2% | 98.2% | 99.1% | 99.1% |

License Comments: none

## ERO Drill Participation



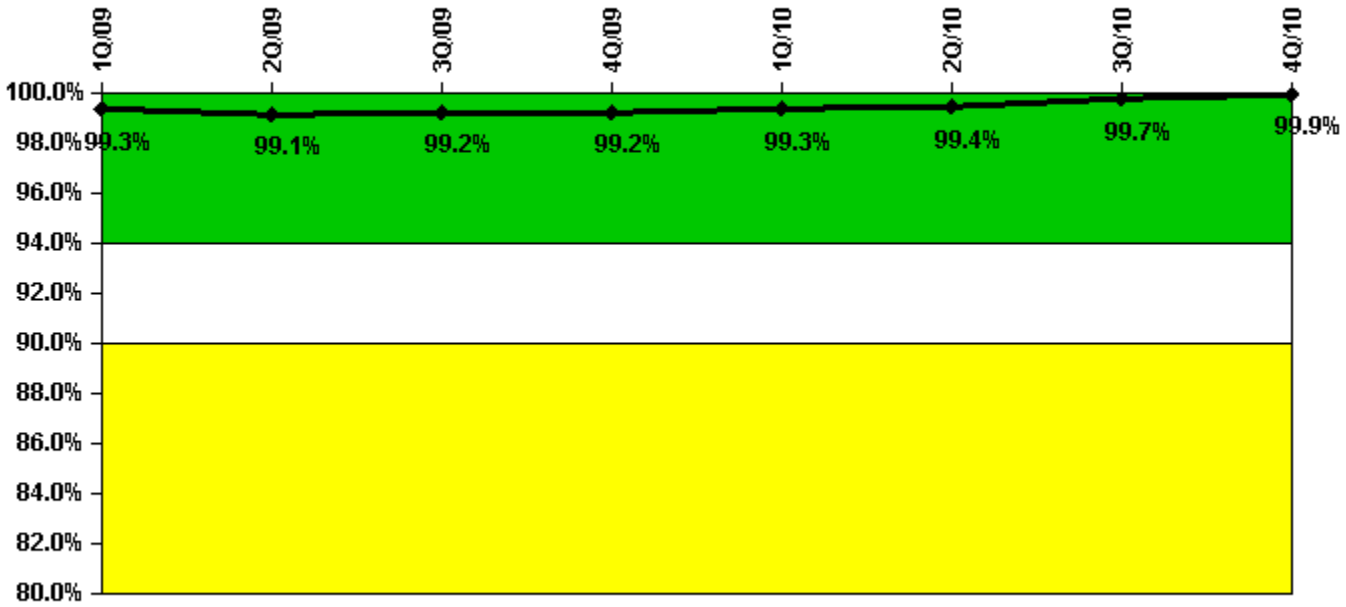
Thresholds: White < 80.0% Yellow < 60.0%

### Notes

| ERO Drill Participation     | 1Q/09 | 2Q/09 | 3Q/09 | 4Q/09 | 1Q/10 | 2Q/10 | 3Q/10  | 4Q/10 |
|-----------------------------|-------|-------|-------|-------|-------|-------|--------|-------|
| Participating Key personnel | 169.0 | 158.0 | 162.0 | 156.0 | 158.0 | 162.0 | 166.0  | 162.0 |
| Total Key personnel         | 171.0 | 162.0 | 165.0 | 165.0 | 162.0 | 164.0 | 166.0  | 164.0 |
|                             |       |       |       |       |       |       |        |       |
| Indicator value             | 98.8% | 97.5% | 98.2% | 94.5% | 97.5% | 98.8% | 100.0% | 98.8% |

Licensee Comments: none

# Alert & Notification System



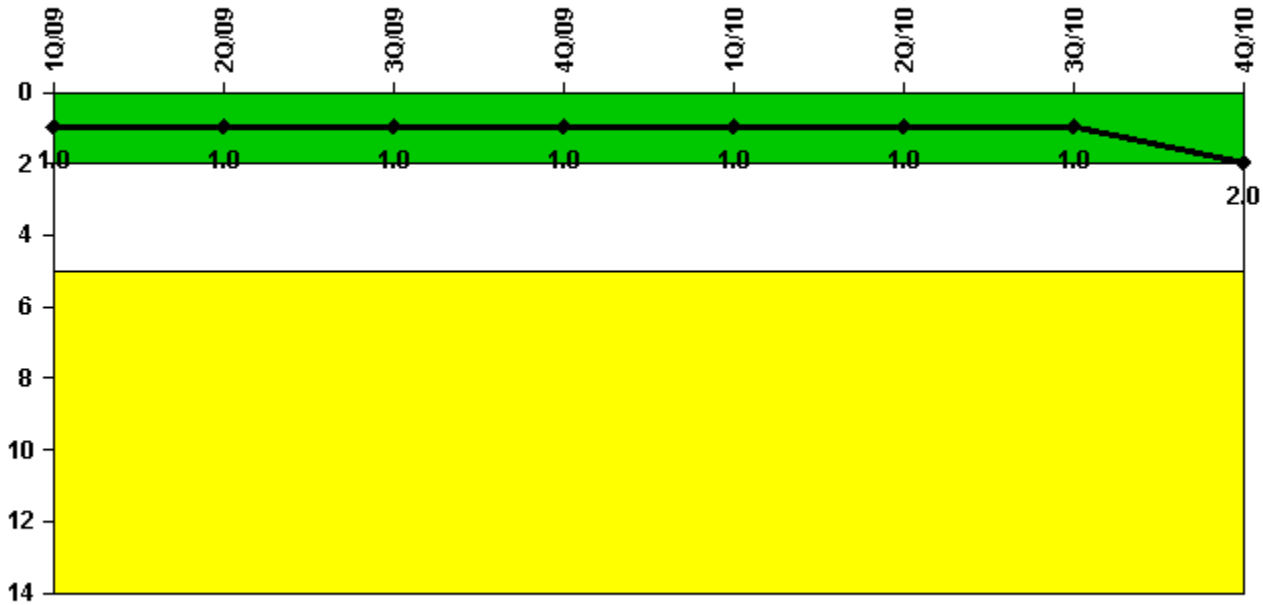
Thresholds: White < 94.0% Yellow < 90.0%

## Notes

| Alert & Notification System | 1Q/09 | 2Q/09 | 3Q/09 | 4Q/09 | 1Q/10 | 2Q/10 | 3Q/10 | 4Q/10 |
|-----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| Successful siren-tests      | 604   | 528   | 527   | 451   | 532   | 530   | 532   | 532   |
| Total sirens-tests          | 608   | 532   | 532   | 456   | 532   | 532   | 532   | 532   |
|                             |       |       |       |       |       |       |       |       |
| Indicator value             | 99.3% | 99.1% | 99.2% | 99.2% | 99.3% | 99.4% | 99.7% | 99.9% |

Licensee Comments: none

## Occupational Exposure Control Effectiveness



Thresholds: White > 2.0 Yellow > 5.0

### Notes

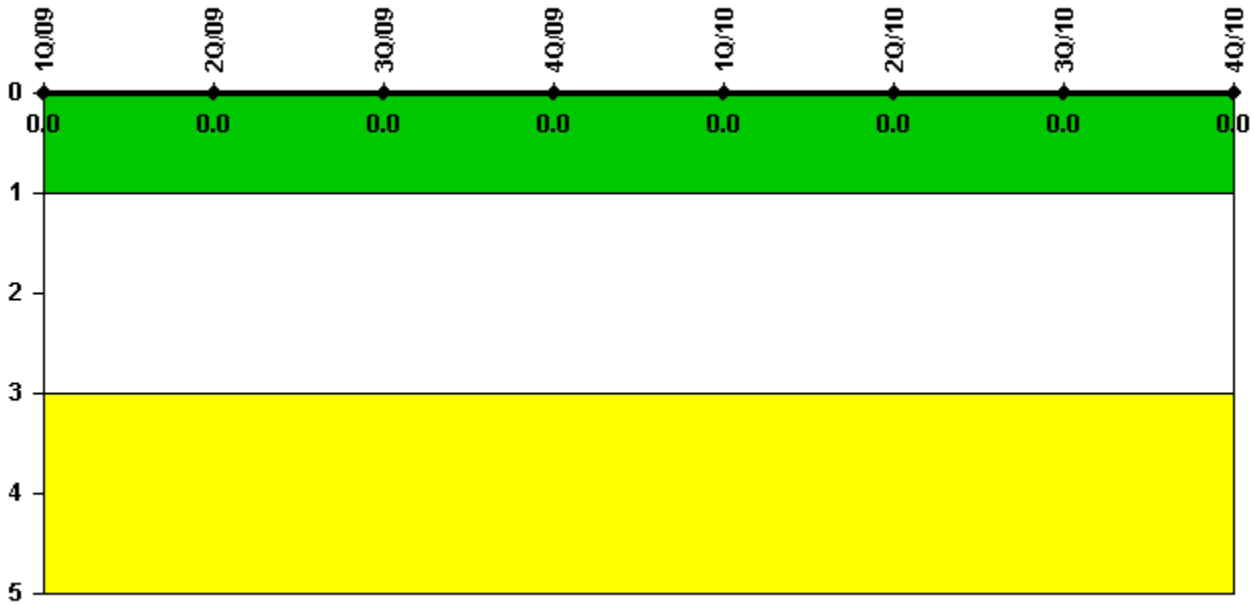
| Occupational Exposure Control Effectiveness | 1Q/09    | 2Q/09    | 3Q/09    | 4Q/09    | 1Q/10    | 2Q/10    | 3Q/10    | 4Q/10    |
|---|----------|----------|----------|----------|----------|----------|----------|----------|
| High radiation area occurrences             | 1        | 0        | 0        | 0        | 1        | 0        | 0        | 1        |
| 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>1</b> | <b>1</b> | <b>1</b> | <b>2</b> |

### Licensee Comments:

4Q/10: The High radiation area occurrence reported for November 2010 caused re-review of a March 12, 2010, occurrence where a radworker entered a Technical Specification High Radiation Area (TSHRA) where no briefing on radiological conditions was provided and received a dose rate alarm. This occurrence was determined to represent a loss of control of work in a TSHRA and is to be counted under the PI. A change file was prepared to correct the March 2010 PI data reported. The indicator color remains green. The indicator value is at the Increased Regulatory Response Band Threshold (2).

1Q/10: Corrected the number of High radiation area occurrences for March 2010 to 1 from 0 initially reported. On March 12, 2010, a radworker entered a Technical Specification High Radiation Area (TSHRA) where no briefing on radiological conditions was provided and received a dose rate alarm. This event represents a loss of control of work in a TSHRA and was identified by the Radiation Protection staff during review of a similar event in November 2010. The indicator color is green and is not changed by this correction.

# RETS/ODCM Radiological Effluent



Thresholds: White > 1.0 Yellow > 3.0

## Notes

| RETS/ODCM Radiological Effluent | 1Q/09 | 2Q/09 | 3Q/09 | 4Q/09 | 1Q/10 | 2Q/10 | 3Q/10 | 4Q/10 |
|---------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| RETS/ODCM occurrences           | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     |
| Indicator value                 | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     |

Licensee Comments: none

[Security](#) information not publicly available.