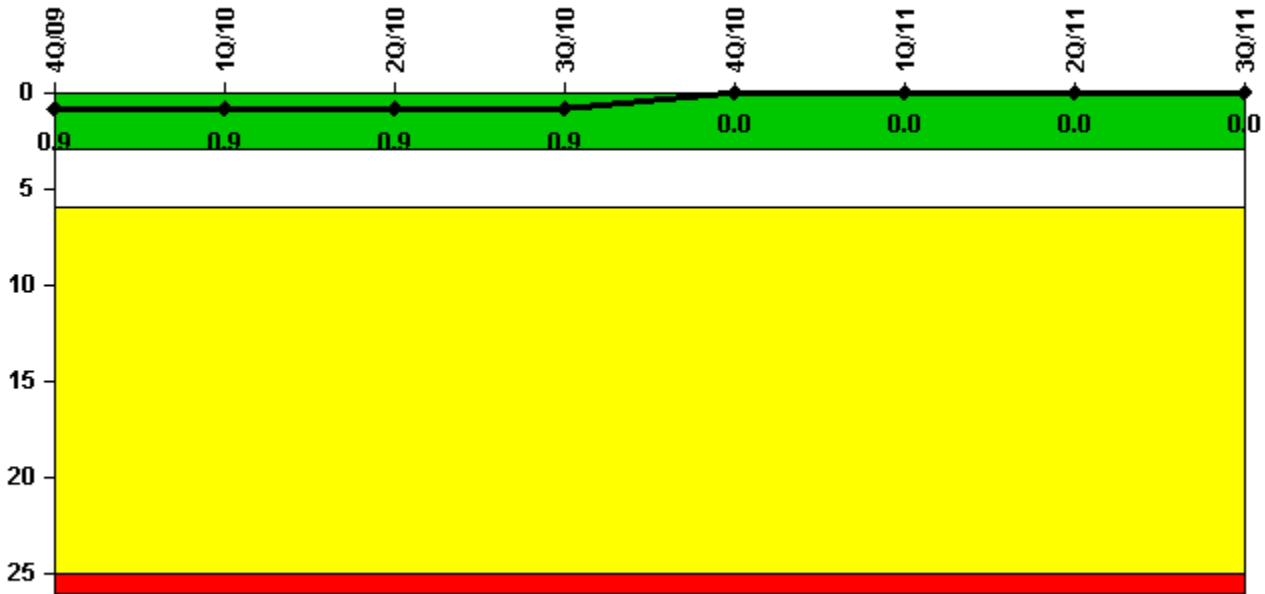


# Waterford 3

## 3Q/2011 Performance Indicators

Licensee's General Comments: none

### Unplanned Scrams per 7000 Critical Hrs



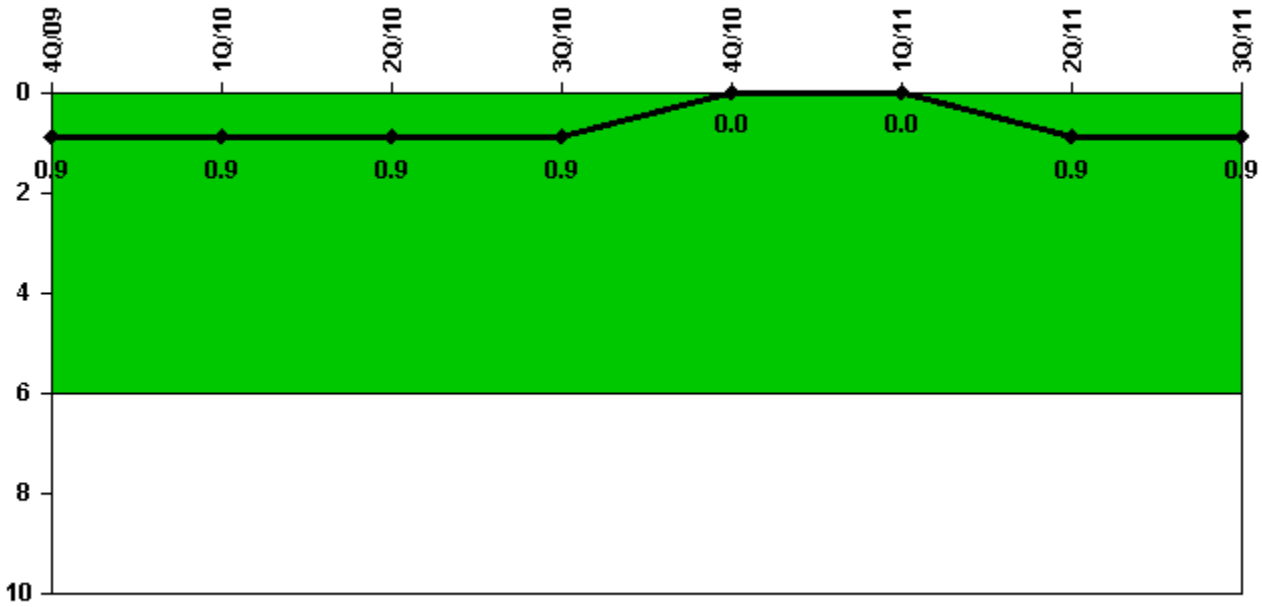
Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

### Notes

| Unplanned Scrams per 7000 Critical Hrs | 4Q/09  | 1Q/10  | 2Q/10  | 3Q/10  | 4Q/10  | 1Q/11  | 2Q/11  | 3Q/11  |
|--|--------|--------|--------|--------|--------|--------|--------|--------|
| Unplanned scrams                       | 1.0    | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Critical hours                         | 1162.1 | 2159.0 | 2184.0 | 2208.0 | 2209.0 | 2159.0 | 1341.8 | 2208.0 |
| Indicator value                        | 0.9    | 0.9    | 0.9    | 0.9    | 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/09  | 1Q/10  | 2Q/10  | 3Q/10  | 4Q/10  | 1Q/11  | 2Q/11  | 3Q/11  |
|---|--------|--------|--------|--------|--------|--------|--------|--------|
| Unplanned power changes                       | 1.0    | 0      | 0      | 0      | 0      | 0      | 1.0    | 0      |
| Critical hours                                | 1162.1 | 2159.0 | 2184.0 | 2208.0 | 2209.0 | 2159.0 | 1341.8 | 2208.0 |
| Indicator value                               | 0.9    | 0.9    | 0.9    | 0.9    | 0      | 0      | 0.9    | 0.9    |

Licensee Comments: none

# Unplanned Scrams with Complications



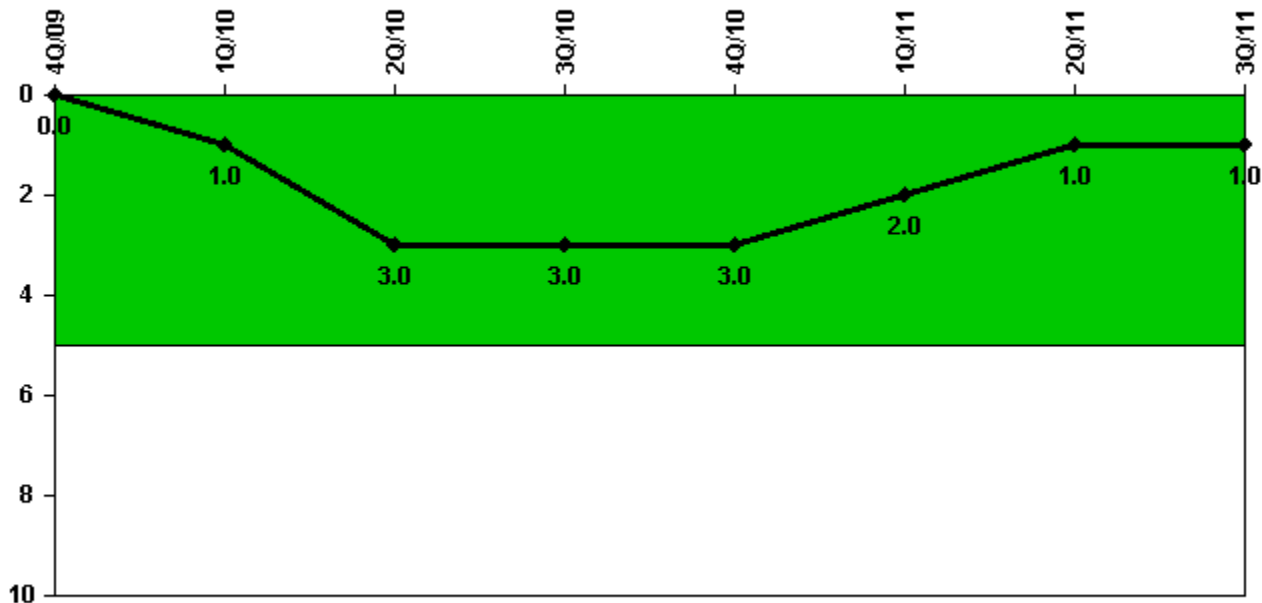
Thresholds: White > 1.0

## Notes

| Unplanned Scrams with Complications | 4Q/09 | 1Q/10 | 2Q/10 | 3Q/10 | 4Q/10 | 1Q/11 | 2Q/11 | 3Q/11 |
|-------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| 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 (PWR)



Thresholds: White > 5.0

### Notes

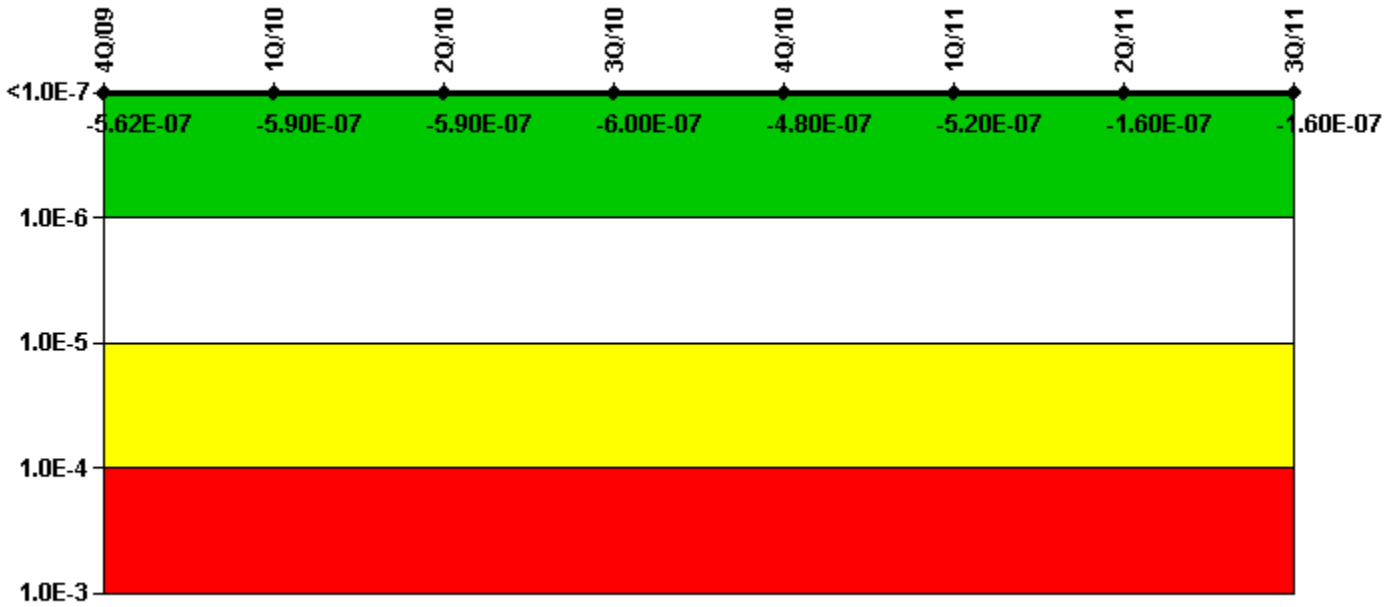
| Safety System Functional Failures (PWR) | 4Q/09 | 1Q/10 | 2Q/10 | 3Q/10 | 4Q/10 | 1Q/11 | 2Q/11 | 3Q/11 |
|---|-------|-------|-------|-------|-------|-------|-------|-------|
| Safety System Functional Failures       | 0     | 1     | 2     | 0     | 0     | 0     | 1     | 0     |
| Indicator value                         | 0     | 1     | 3     | 3     | 3     | 2     | 1     | 1     |

Licensee Comments:

3Q/11: A change file is being submitted this quarter to provide a Licensee Event Report number for a Safety System Functional Failure that occurred in the second quarter of 2011. There is no change to the PI value or color.

2Q/11: There was one Safety System Functional Failure in the 2nd quarter of 2011 reported under License Event Report 2011-003-00.

# Mitigating Systems Performance Index, Emergency AC Power System



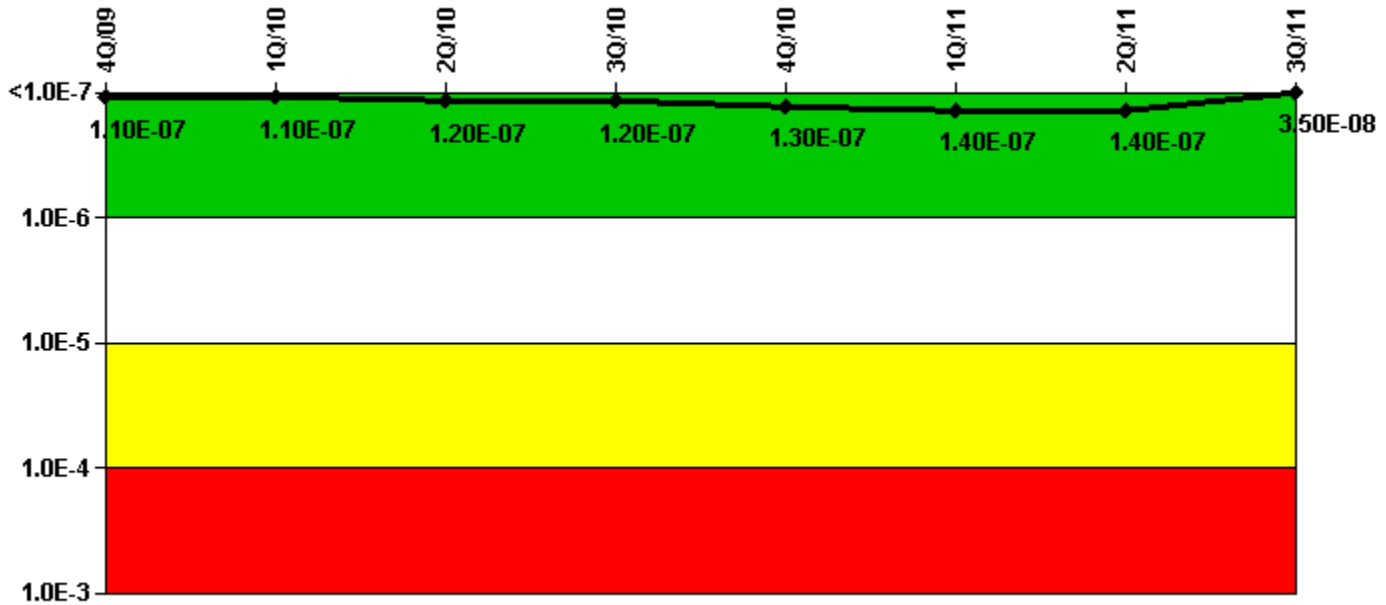
Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

## Notes

| Mitigating Systems Performance Index, Emergency AC Power System | 4Q/09     | 1Q/10     | 2Q/10     | 3Q/10     | 4Q/10     | 1Q/11     | 2Q/11     | 3Q/11     |
|---|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| UAI ( $\Delta$ CDF)   | 4.80E-08  | 9.60E-09  | 9.10E-09  | 7.37E-10  | 1.20E-07  | 7.11E-08  | 1.37E-07  | 1.38E-07  |
| URI ( $\Delta$ CDF)   | -6.10E-07 | -6.00E-07 | -5.98E-07 | -5.96E-07 | -5.96E-07 | -5.91E-07 | -3.00E-07 | -2.99E-07 |
| PLE   | NO        | NO        | NO        | NO        | NO        | NO        | NO        | NO        |
| Indicator value   | -5.62E-07 | -5.90E-07 | -5.90E-07 | -6.00E-07 | -4.80E-07 | -5.20E-07 | -1.60E-07 | -1.60E-07 |

Licensee Comments: none

# Mitigating Systems Performance Index, High Pressure Injection System



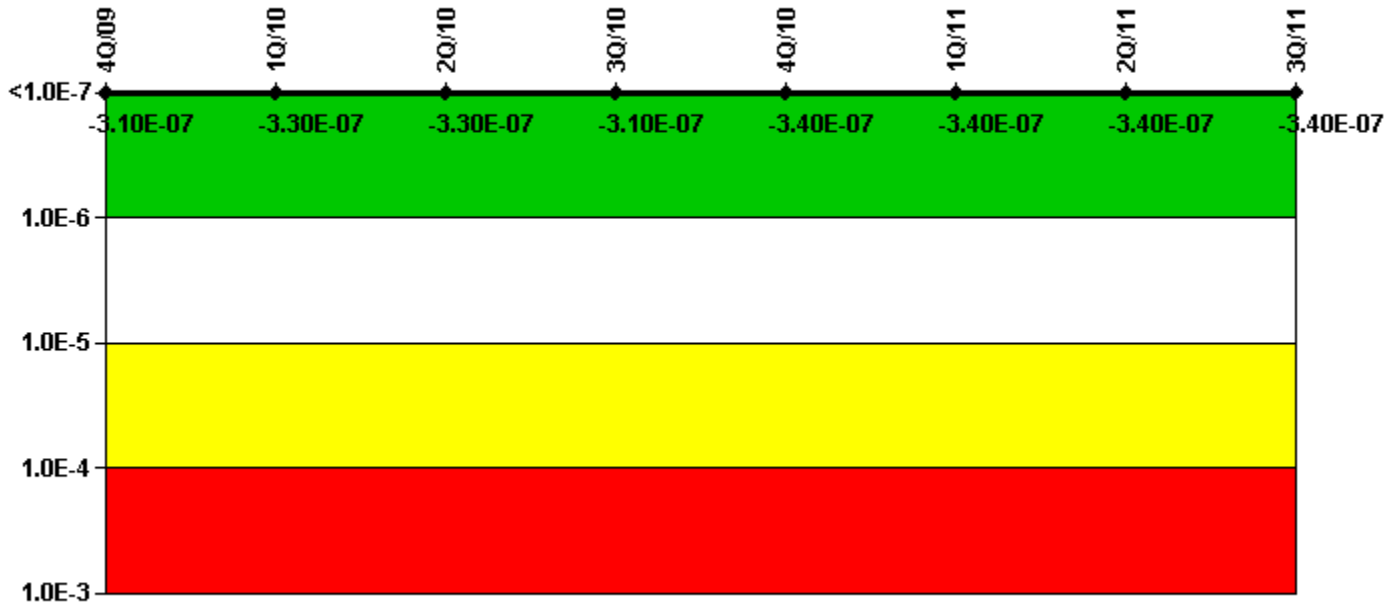
Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

## Notes

| Mitigating Systems Performance Index, High Pressure Injection System | 4Q/09     | 1Q/10     | 2Q/10     | 3Q/10     | 4Q/10    | 1Q/11    | 2Q/11    | 3Q/11    |
|--|-----------|-----------|-----------|-----------|----------|----------|----------|----------|
| UAI ( $\Delta$ CDF)  | -8.11E-09 | -8.11E-09 | -2.98E-10 | -2.98E-10 | 2.92E-09 | 1.05E-08 | 1.06E-08 | 1.29E-08 |
| URI ( $\Delta$ CDF)  | 1.22E-07  | 1.21E-07  | 1.23E-07  | 1.24E-07  | 1.29E-07 | 1.32E-07 | 1.29E-07 | 2.20E-08 |
| PLE  | NO        | NO        | NO        | NO        | NO       | NO       | NO       | NO       |
| Indicator value  | 1.10E-07  | 1.10E-07  | 1.20E-07  | 1.20E-07  | 1.30E-07 | 1.40E-07 | 1.40E-07 | 3.50E-08 |

Licensee Comments: none

# Mitigating Systems Performance Index, Heat Removal System



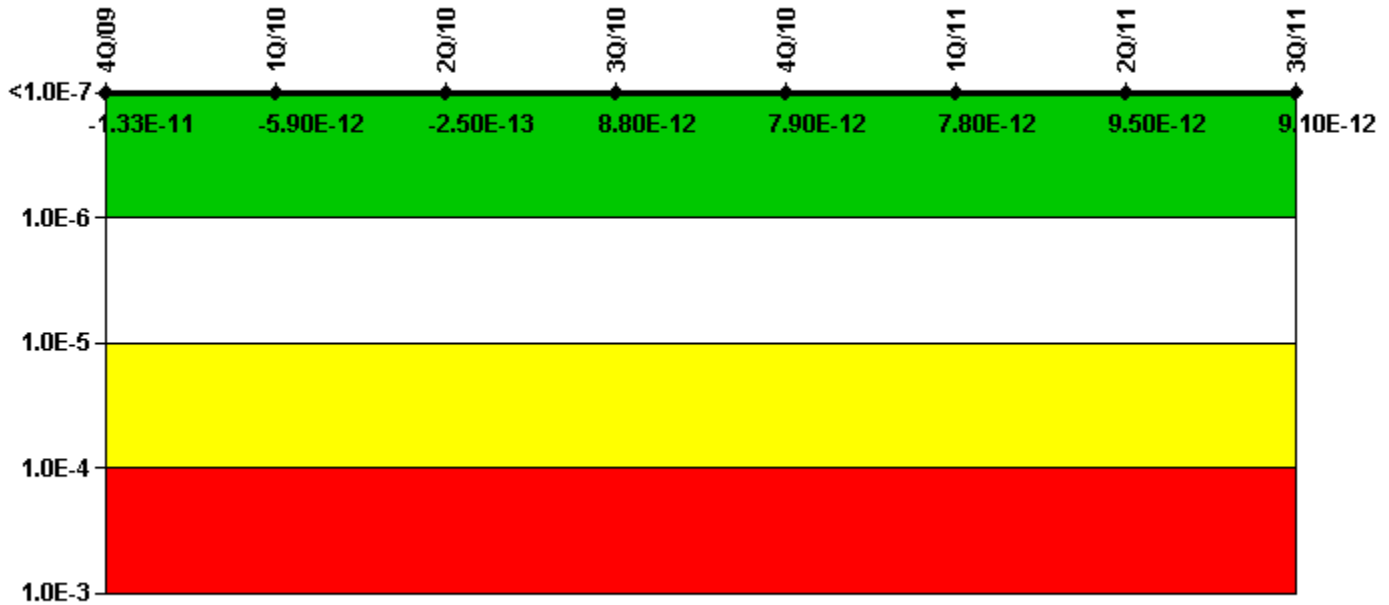
Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

## Notes

| Mitigating Systems Performance Index, Heat Removal System | 4Q/09     | 1Q/10     | 2Q/10     | 3Q/10     | 4Q/10     | 1Q/11     | 2Q/11     | 3Q/11     |
|---|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| UAI ( $\Delta$ CDF)                                       | -1.00E-08 | -3.35E-08 | -3.35E-08 | -7.46E-09 | -3.68E-08 | -4.30E-08 | -4.30E-08 | -4.30E-08 |
| URI ( $\Delta$ CDF)                                       | -3.00E-07 | -2.98E-07 | -2.98E-07 | -2.98E-07 | -3.00E-07 | -2.99E-07 | -2.96E-07 | -3.02E-07 |
| PLE   | NO        | NO        | NO        | NO        | NO        | NO        | NO        | NO        |
| Indicator value   | -3.10E-07 | -3.30E-07 | -3.30E-07 | -3.10E-07 | -3.40E-07 | -3.40E-07 | -3.40E-07 | -3.40E-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

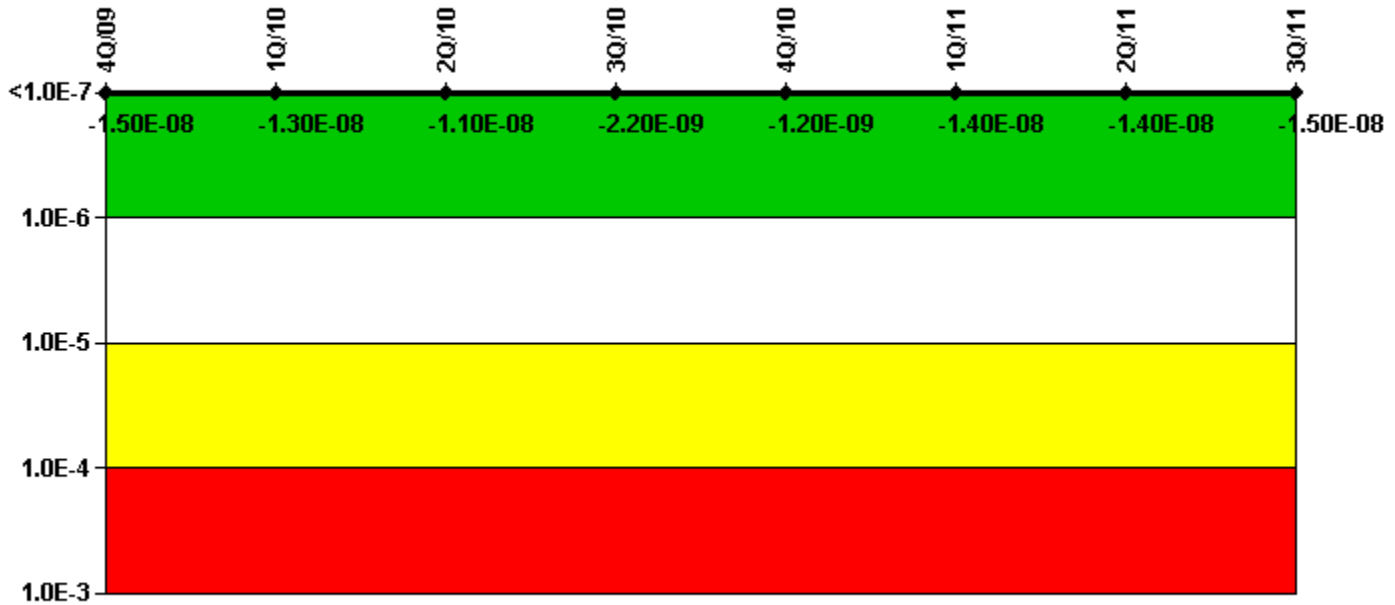
## Notes

| Mitigating Systems Performance Index, Residual Heat Removal System | 4Q/09     | 1Q/10     | 2Q/10     | 3Q/10     | 4Q/10     | 1Q/11     | 2Q/11     | 3Q/11     |
|--|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| UAI ( $\Delta$ CDF)  | -1.30E-12 | 6.06E-12  | 1.17E-11  | 2.07E-11  | 1.98E-11  | 1.98E-11  | 2.14E-11  | 2.08E-11  |
| URI ( $\Delta$ CDF)  | -1.20E-11 | -1.20E-11 | -1.20E-11 | -1.19E-11 | -1.18E-11 | -1.20E-11 | -1.18E-11 | -1.16E-11 |
| PLE  | NO        | NO        | NO        | NO        | NO        | NO        | NO        | NO        |
| Indicator value  | -1.33E-11 | -5.90E-12 | -2.50E-13 | 8.80E-12  | 7.90E-12  | 7.80E-12  | 9.50E-12  | 9.10E-12  |

Licensee Comments: none



# Mitigating Systems Performance Index, Cooling Water Systems



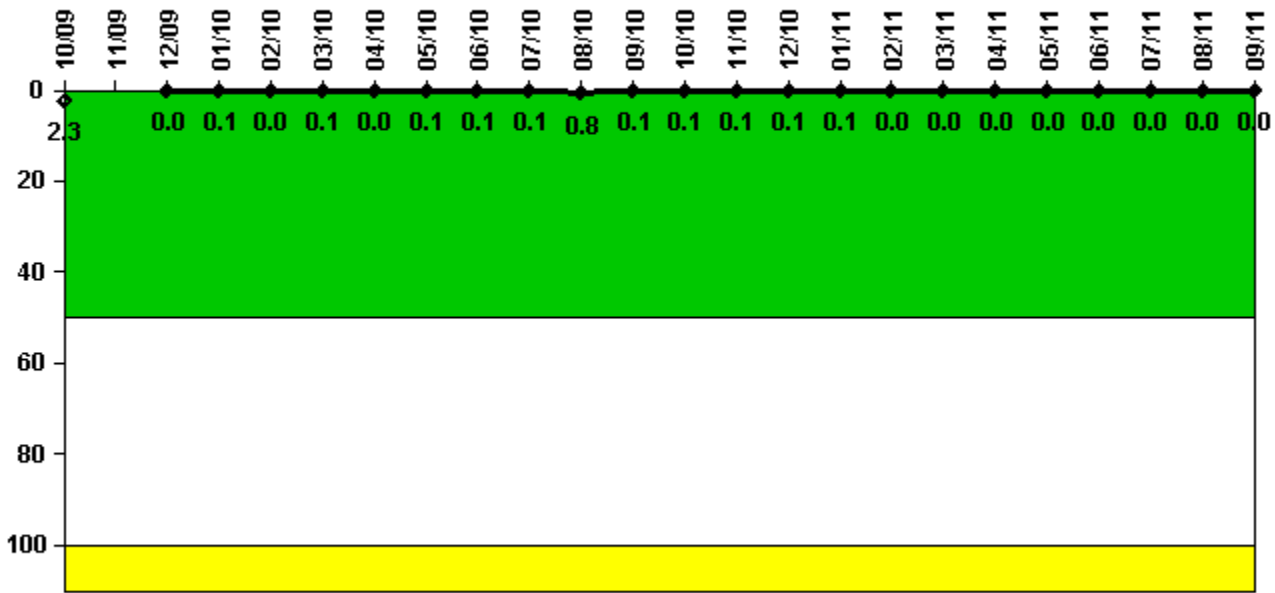
Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

## Notes

| Mitigating Systems Performance Index, Cooling Water Systems | 4Q/09     | 1Q/10     | 2Q/10     | 3Q/10     | 4Q/10     | 1Q/11     | 2Q/11     | 3Q/11     |
|---|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| UAI ( $\Delta$ CDF)   | 2.00E-09  | 2.02E-09  | 3.13E-09  | 1.03E-08  | 1.16E-08  | 1.20E-08  | 1.20E-08  | 1.13E-08  |
| URI ( $\Delta$ CDF)   | -1.70E-08 | -1.55E-08 | -1.45E-08 | -1.25E-08 | -1.29E-08 | -2.62E-08 | -2.63E-08 | -2.67E-08 |
| PLE   | NO        | NO        | NO        | NO        | NO        | NO        | NO        | NO        |
| Indicator value   | -1.50E-08 | -1.30E-08 | -1.10E-08 | -2.20E-09 | -1.20E-09 | -1.40E-08 | -1.40E-08 | -1.50E-08 |

Licensee Comments: none

# Reactor Coolant System Activity



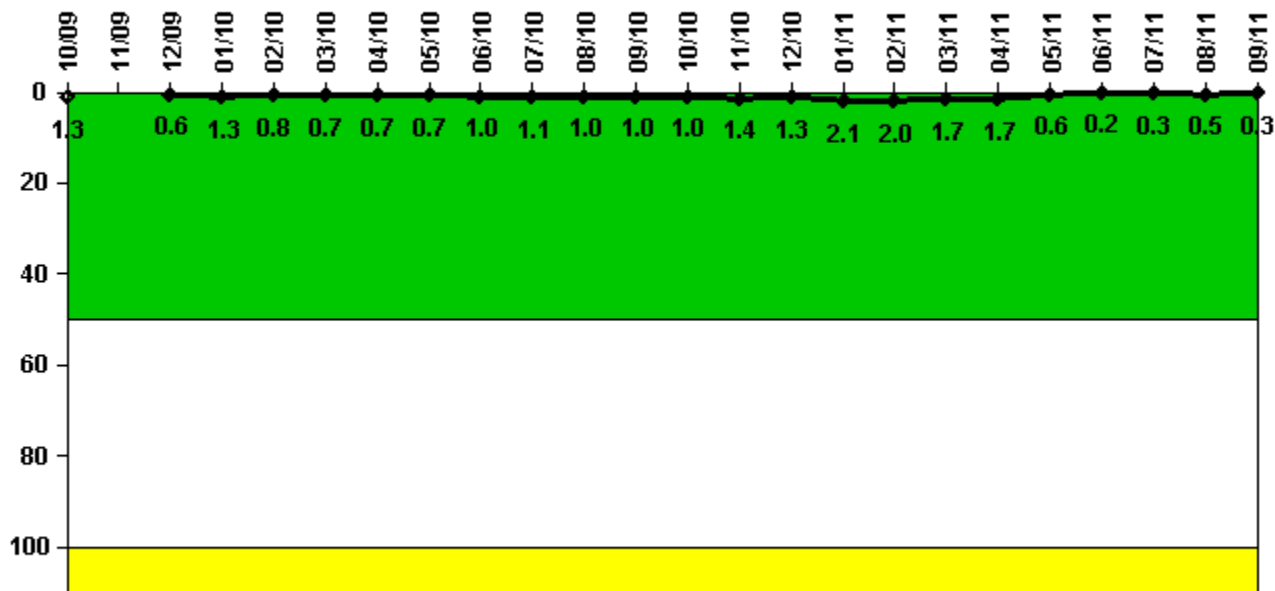
Thresholds: White > 50.0 Yellow > 100.0

## Notes

| Reactor Coolant System Activity | 10/09    | 11/09    | 12/09    | 1/10     | 2/10     | 3/10     | 4/10     | 5/10     | 6/10     | 7/10     | 8/10     | 9/10     |
|---------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Maximum activity                | 0.022700 | N/A      | 0.000289 | 0.000510 | 0.000332 | 0.000592 | 0.000407 | 0.001150 | 0.000694 | 0.000724 | 0.008380 | 0.000762 |
| 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                 | 2.3      | N/A      | 0        | 0.1      | 0        | 0.1      | 0        | 0.1      | 0.1      | 0.1      | 0.8      | 0.1      |
| Reactor Coolant System Activity | 10/10    | 11/10    | 12/10    | 1/11     | 2/11     | 3/11     | 4/11     | 5/11     | 6/11     | 7/11     | 8/11     | 9/11     |
| Maximum activity                | 0.000788 | 0.000759 | 0.000813 | 0.000814 | 0.000482 | 0.000278 | 0.000292 | 0.000248 | 0.000418 | 0.000436 | 0.000424 | 0.000413 |
| 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        | 0        | 0        | 0        | 0        | 0        | 0        | 0        |

Licensee Comments: none

# Reactor Coolant System Leakage



Thresholds: White > 50.0 Yellow > 100.0

## Notes

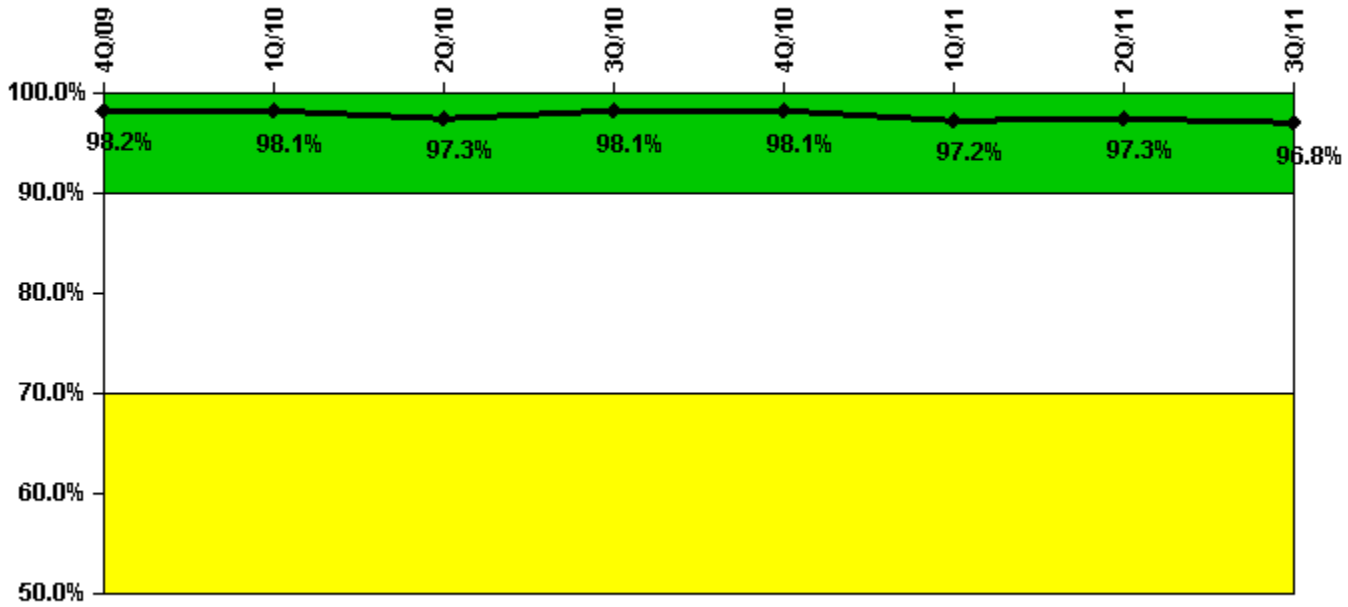
| Reactor Coolant System Leakage | 10/09 | 11/09 | 12/09 | 1/10  | 2/10  | 3/10  | 4/10  | 5/10  | 6/10  | 7/10  | 8/10  | 9/10  |
|--------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Maximum leakage                | 0.130 | N/A   | 0.060 | 0.130 | 0.080 | 0.070 | 0.070 | 0.070 | 0.100 | 0.110 | 0.100 | 0.100 |
| 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                | 1.3   | N/A   | 0.6   | 1.3   | 0.8   | 0.7   | 0.7   | 0.7   | 1.0   | 1.1   | 1.0   | 1.0   |

| Reactor Coolant System Leakage | 10/10 | 11/10 | 12/10 | 1/11  | 2/11  | 3/11  | 4/11  | 5/11  | 6/11  | 7/11  | 8/11  | 9/11  |
|--------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Maximum leakage                | 0.100 | 0.140 | 0.130 | 0.210 | 0.200 | 0.170 | 0.170 | 0.060 | 0.020 | 0.030 | 0.050 | 0.030 |
| 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                | 1.0   | 1.4   | 1.3   | 2.1   | 2.0   | 1.7   | 1.7   | 0.6   | 0.2   | 0.3   | 0.5   | 0.3   |

Licensee Comments: none

## Drill/Exercise Performance



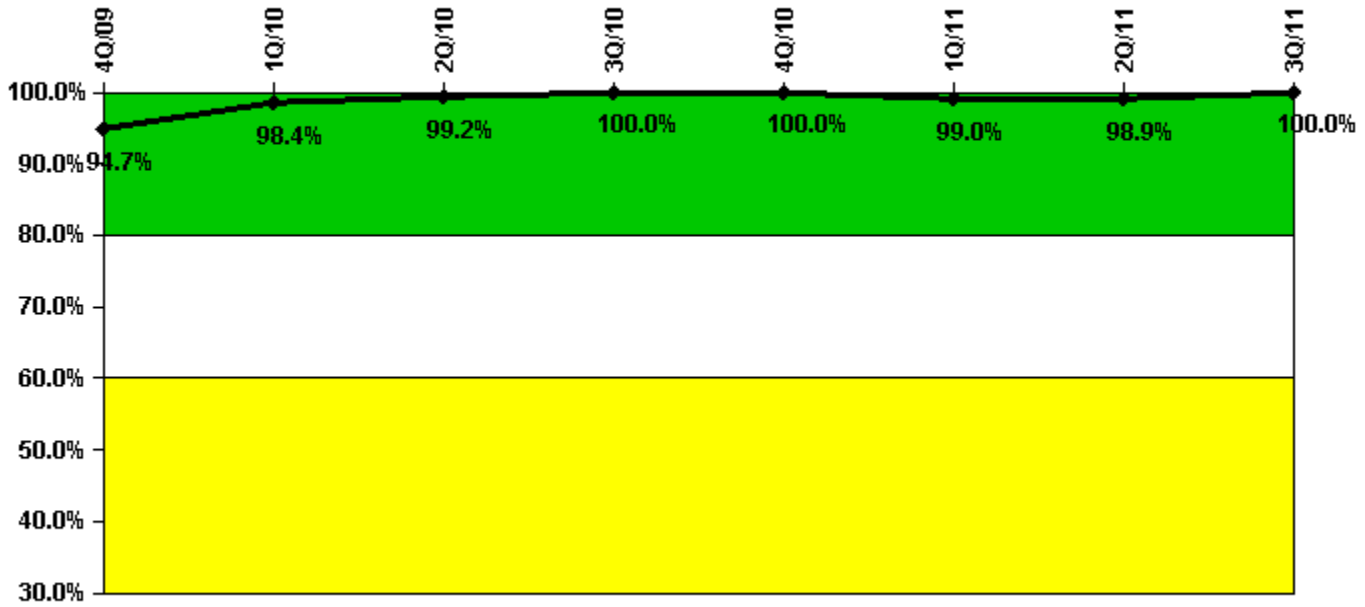
Thresholds: White < 90.0% Yellow < 70.0%

### Notes

| Drill/Exercise Performance | 4Q/09 | 1Q/10 | 2Q/10 | 3Q/10 | 4Q/10 | 1Q/11 | 2Q/11 | 3Q/11 |
|----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| Successful opportunities   | 4.0   | 23.0  | 55.0  | 52.0  | 28.0  | 24.0  | 12.0  | 17.0  |
| Total opportunities        | 4.0   | 24.0  | 58.0  | 52.0  | 28.0  | 26.0  | 12.0  | 18.0  |
|                            |       |       |       |       |       |       |       |       |
| Indicator value            | 98.2% | 98.1% | 97.3% | 98.1% | 98.1% | 97.2% | 97.3% | 96.8% |

Licensee Comments: none

## ERO Drill Participation



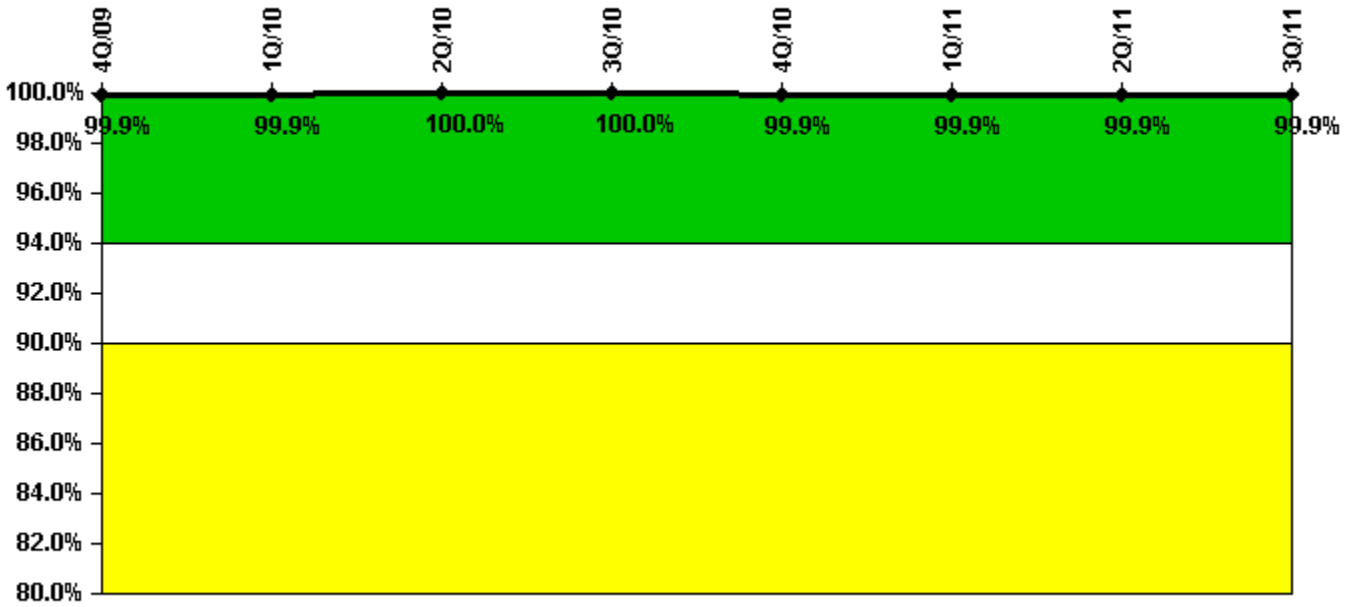
Thresholds: White < 80.0% Yellow < 60.0%

### Notes

| ERO Drill Participation     | 4Q/09 | 1Q/10 | 2Q/10 | 3Q/10  | 4Q/10  | 1Q/11 | 2Q/11 | 3Q/11  |
|-----------------------------|-------|-------|-------|--------|--------|-------|-------|--------|
| Participating Key personnel | 124.0 | 126.0 | 122.0 | 123.0  | 125.0  | 101.0 | 93.0  | 92.0   |
| Total Key personnel         | 131.0 | 128.0 | 123.0 | 123.0  | 125.0  | 102.0 | 94.0  | 92.0   |
|                             |       |       |       |        |        |       |       |        |
| Indicator value             | 94.7% | 98.4% | 99.2% | 100.0% | 100.0% | 99.0% | 98.9% | 100.0% |

Licensee Comments: none

# Alert & Notification System



Thresholds: White < 94.0% Yellow < 90.0%

## Notes

| Alert & Notification System | 4Q/09 | 1Q/10 | 2Q/10  | 3Q/10  | 4Q/10 | 1Q/11 | 2Q/11 | 3Q/11 |
|-----------------------------|-------|-------|--------|--------|-------|-------|-------|-------|
| Successful siren-tests      | 438   | 438   | 438    | 438    | 437   | 438   | 438   | 437   |
| Total sirens-tests          | 438   | 438   | 438    | 438    | 438   | 438   | 438   | 438   |
| Indicator value             | 99.9% | 99.9% | 100.0% | 100.0% | 99.9% | 99.9% | 99.9% | 99.9% |

Licensee Comments: none

# Occupational Exposure Control Effectiveness



**Thresholds: White > 2.0 Yellow > 5.0**

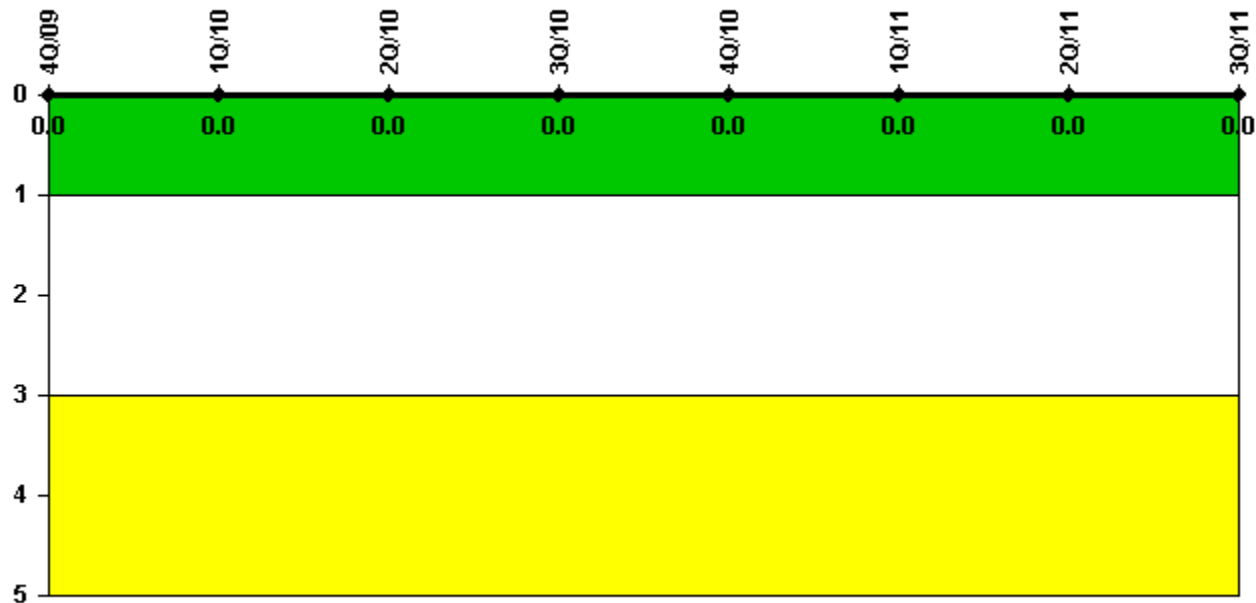
## Notes

| Occupational Exposure Control Effectiveness | 4Q/09    | 1Q/10    | 2Q/10    | 3Q/10    | 4Q/10    | 1Q/11    | 2Q/11    | 3Q/11    |
|---|----------|----------|----------|----------|----------|----------|----------|----------|
| 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>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> |

Licensee Comments: none

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## RETS/ODCM Radiological Effluent



Thresholds: White > 1.0 Yellow > 3.0

### Notes

| RETS/ODCM Radiological Effluent | 4Q/09 | 1Q/10 | 2Q/10 | 3Q/10 | 4Q/10 | 1Q/11 | 2Q/11 | 3Q/11 |
|---------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| RETS/ODCM occurrences           | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     |
| Indicator value                 | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     |

Licensee Comments:

2Q/11: Revised the June 2011 RETS/ODCM Radiological Effluent occurrence from 1 to 0 to correct a typographical error. There was no RETS/ODCM Radiological Effluent occurrence in the 2nd quarter 2011. This change does not affect the PI color, which remains green.

[Security](#) information not publicly available.