

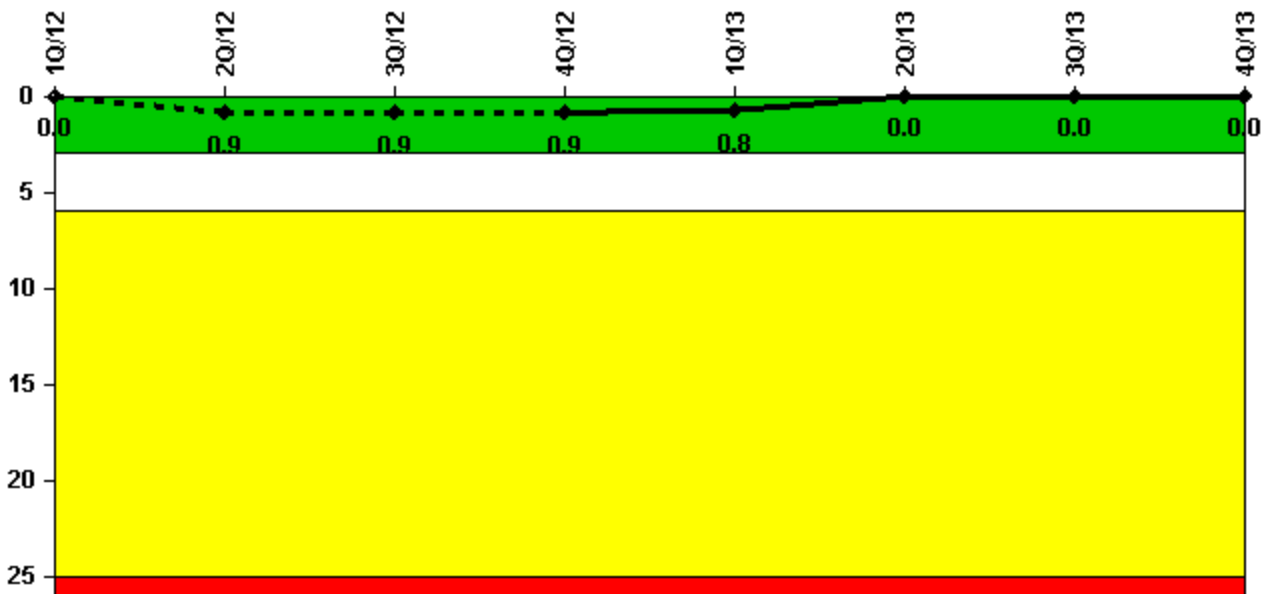
## Quad Cities 2

### 4Q/2013 Performance Indicators

The solid trend line represents the current reporting period.

Licensee's General Comments: none

#### Unplanned Scrams per 7000 Critical Hrs



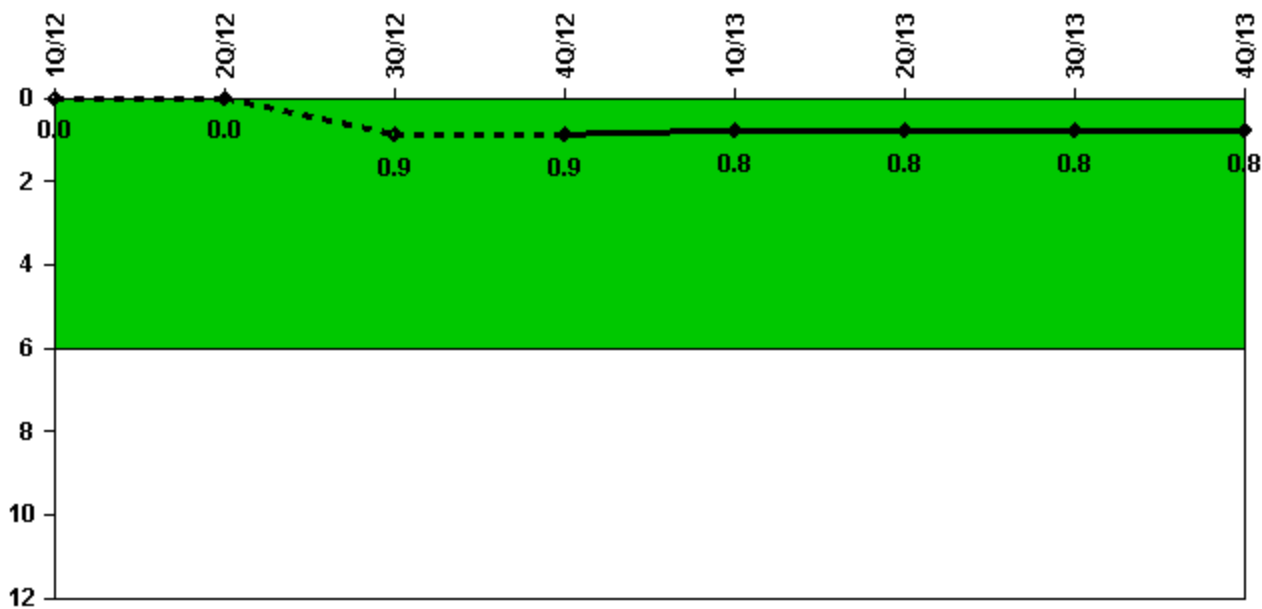
Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

#### Notes

| Unplanned Scrams per 7000 Critical Hrs | 1Q/12    | 2Q/12      | 3Q/12      | 4Q/12      | 1Q/13      | 2Q/13    | 3Q/13    | 4Q/13    |
|--|----------|------------|------------|------------|------------|----------|----------|----------|
| Unplanned scrams                       | 0        | 1.0        | 0          | 0          | 0          | 0        | 0        | 0        |
| Critical hours                         | 1872.8   | 1780.2     | 2208.0     | 2209.0     | 2133.9     | 2184.0   | 2208.0   | 2209.0   |
| <b>Indicator value</b>                 | <b>0</b> | <b>0.9</b> | <b>0.9</b> | <b>0.9</b> | <b>0.8</b> | <b>0</b> | <b>0</b> | <b>0</b> |

Licensee Comments: none

### Unplanned Power Changes per 7000 Critical Hrs



Thresholds: White > 6.0

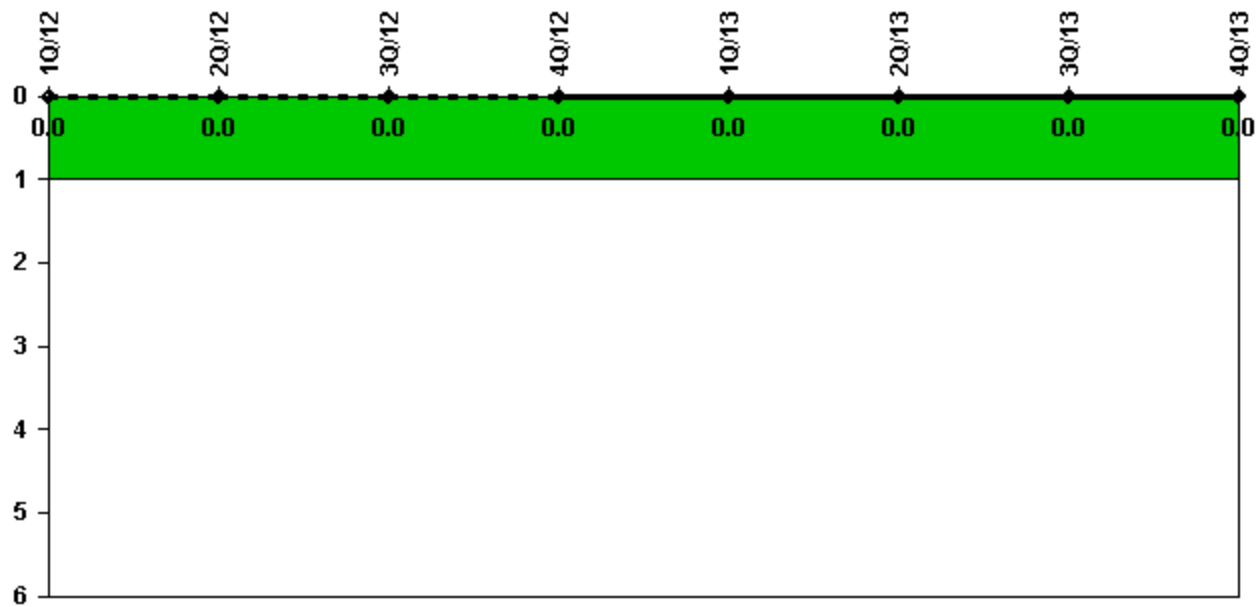
#### Notes

| Unplanned Power Changes per 7000 Critical Hrs | 1Q/12    | 2Q/12    | 3Q/12      | 4Q/12      | 1Q/13      | 2Q/13      | 3Q/13      | 4Q/13      |
|---|----------|----------|------------|------------|------------|------------|------------|------------|
| Unplanned power changes                       | 0        | 0        | 1.0        | 0          | 0          | 0          | 1.0        | 0          |
| Critical hours                                | 1872.8   | 1780.2   | 2208.0     | 2209.0     | 2133.9     | 2184.0     | 2208.0     | 2209.0     |
| <b>Indicator value</b>                        | <b>0</b> | <b>0</b> | <b>0.9</b> | <b>0.9</b> | <b>0.8</b> | <b>0.8</b> | <b>0.8</b> | <b>0.8</b> |

Licensee Comments:

3Q/13: An FAQ was submitted for a 6/5/13 event involving a power change on Unit 2 due to an animal intrusion event in the Quad Cities Switchyard.

### Unplanned Scrams with Complications



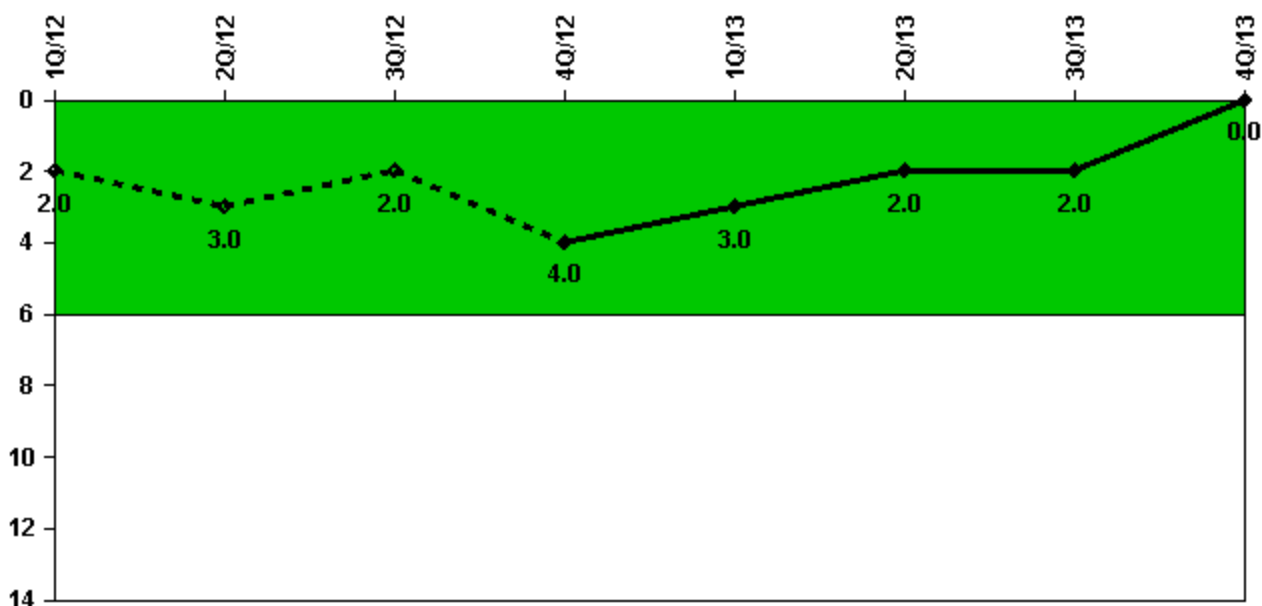
Thresholds: White > 1.0

#### Notes

| Unplanned Scrams with Complications | 1Q/12      | 2Q/12      | 3Q/12      | 4Q/12      | 1Q/13      | 2Q/13      | 3Q/13      | 4Q/13      |
|-------------------------------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Scrams with complications           | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          |
|                                     |            |            |            |            |            |            |            |            |
| <b>Indicator value</b>              | <b>0.0</b> | <b>0.0</b> | <b>0.0</b> | <b>0.0</b> | <b>0.0</b> | <b>0.0</b> | <b>0.0</b> | <b>0.0</b> |

Licensee Comments: none

### Safety System Functional Failures (BWR)



Thresholds: White > 6.0

#### Notes

| Safety System Functional Failures (BWR) | 1Q/12    | 2Q/12    | 3Q/12    | 4Q/12    | 1Q/13    | 2Q/13    | 3Q/13    | 4Q/13    |
|---|----------|----------|----------|----------|----------|----------|----------|----------|
| Safety System Functional Failures       | 1        | 1        | 0        | 2        | 0        | 0        | 0        | 0        |
| <b>Indicator value</b>                  | <b>2</b> | <b>3</b> | <b>2</b> | <b>4</b> | <b>3</b> | <b>2</b> | <b>2</b> | <b>0</b> |

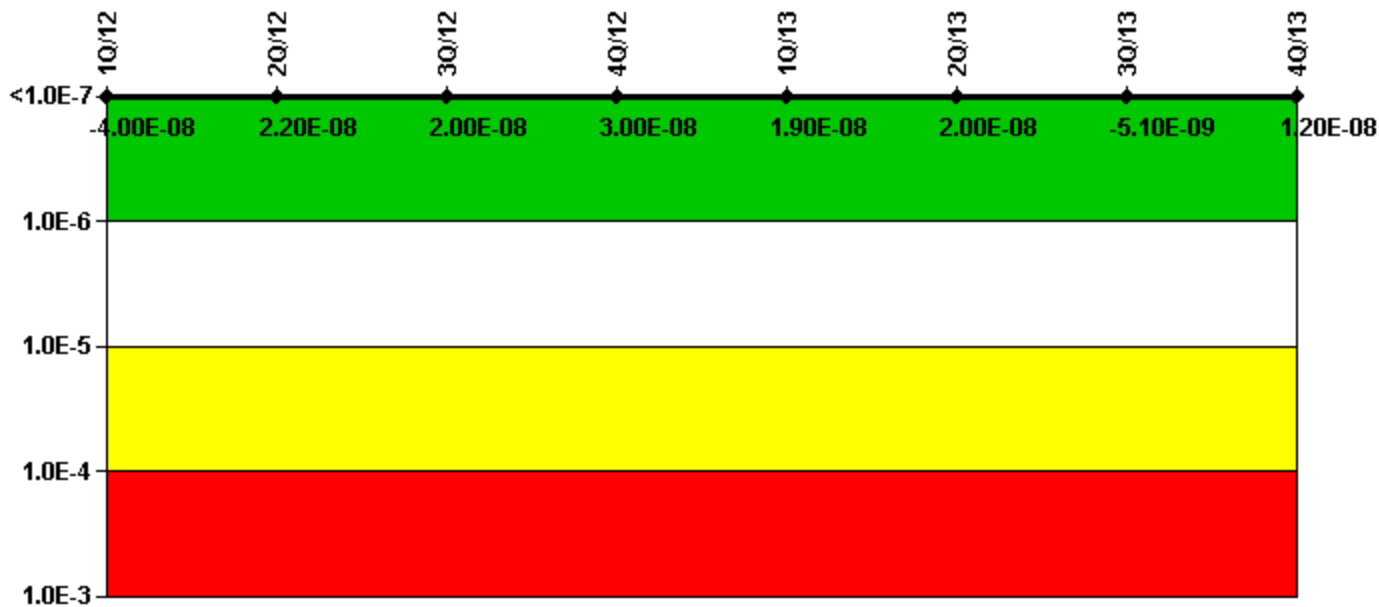
#### Licensee Comments:

4Q/12: LER 254/2012-004-00, Breach in Secondary Containment (11-5-12), (SSFF applies to both Units 1 and 2). LER 265/2012-004-00, Drywell Radiation Monitor Failed Downscale (11-20-12).

2Q/12: As part of this 3rd quarter submittal, a change package is being generated for 2nd quarter 2012 to include previously omitted comments pertaining to SSFF. This change is administrative in nature and does not change the color of the indicator. LER 265/2012-003-00, Unit 2 Auto Reactor Scram Due to DEHC System Failure (6-14-12), (SSFF also applies to Unit 1).

1Q/12: As part of this 3rd quarter submittal, a change package is being generated for 1st quarter 2012 to include previously omitted comments pertaining to SSFF. This change is administrative in nature and does not change the color of the indicator. Quad Cities LER 254/2012-001-00, Control Room Emergency Ventilation Air Conditioning System Inoperable (Breaker Trip), (Unit 1 LER, common to both units).

### Mitigating Systems Performance Index, Emergency AC Power System



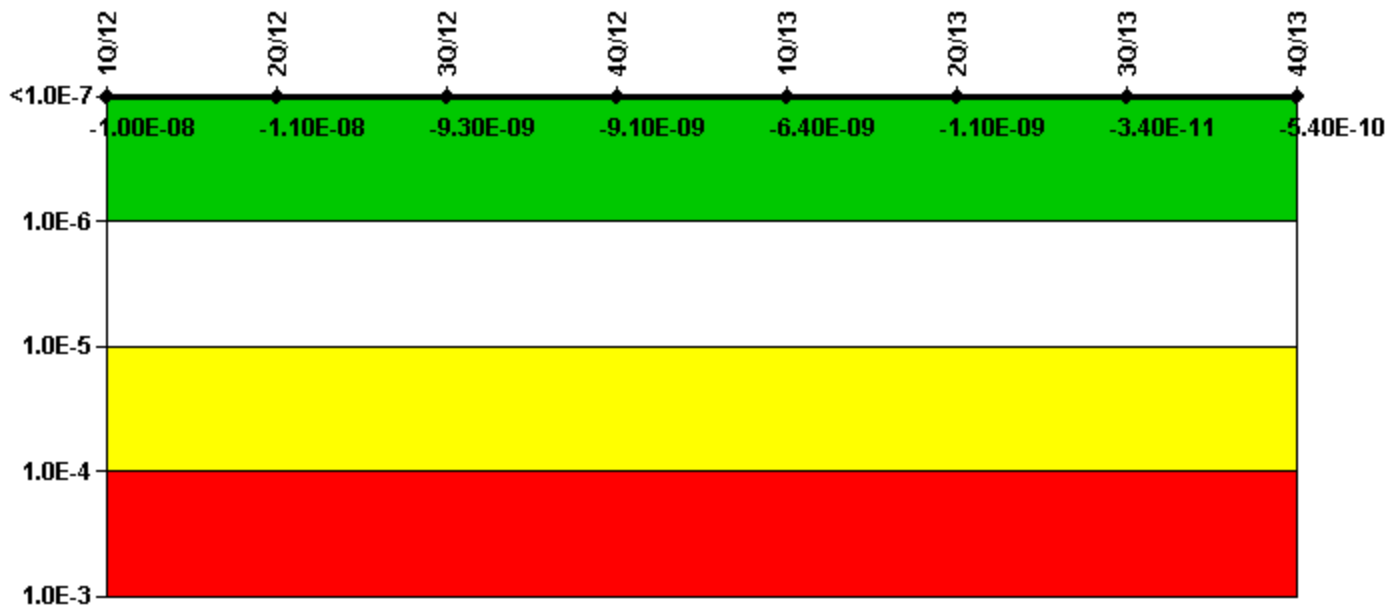
Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

#### Notes

| Mitigating Systems Performance Index, Emergency AC Power System | 1Q/12     | 2Q/12    | 3Q/12    | 4Q/12    | 1Q/13    | 2Q/13    | 3Q/13     | 4Q/13     |
|---|-----------|----------|----------|----------|----------|----------|-----------|-----------|
| UAI ( $\Delta$ CDF)   | 8.97E-09  | 1.44E-08 | 1.20E-08 | 2.07E-08 | 1.15E-08 | 9.10E-09 | 9.82E-09  | 2.83E-08  |
| URI ( $\Delta$ CDF)   | -4.94E-08 | 7.17E-09 | 7.54E-09 | 8.80E-09 | 7.60E-09 | 1.08E-08 | -1.49E-08 | -1.63E-08 |
| PLE   | NO        | NO       | NO       | NO       | NO       | NO       | NO        | NO        |
| Indicator value   | -4.00E-08 | 2.20E-08 | 2.00E-08 | 3.00E-08 | 1.90E-08 | 2.00E-08 | -5.10E-09 | 1.20E-08  |

Licensee Comments: none

### Mitigating Systems Performance Index, High Pressure Injection System



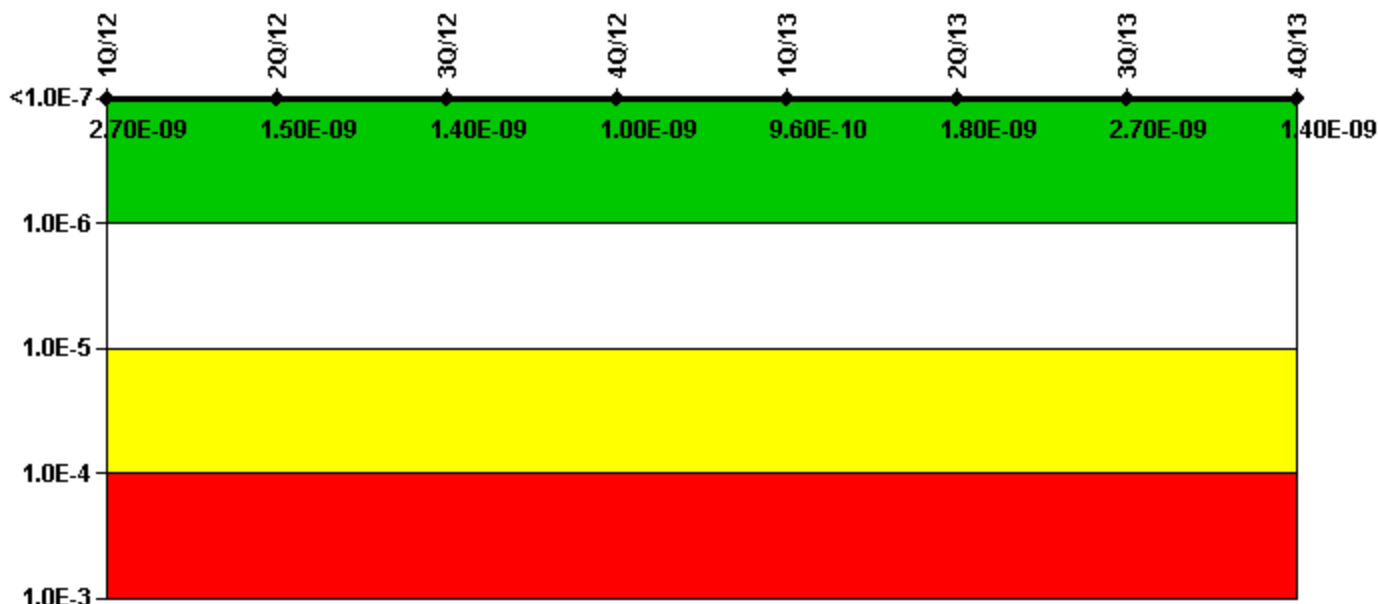
Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

#### Notes

| Mitigating Systems Performance Index, High Pressure Injection System | 1Q/12     | 2Q/12     | 3Q/12     | 4Q/12     | 1Q/13     | 2Q/13     | 3Q/13     | 4Q/13     |
|--|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| UAI ( $\Delta$ CDF)  | 5.46E-09  | 5.58E-09  | 6.75E-09  | 6.91E-09  | 9.05E-09  | 1.32E-08  | 1.43E-08  | 1.38E-08  |
| URI ( $\Delta$ CDF)  | -1.56E-08 | -1.68E-08 | -1.61E-08 | -1.61E-08 | -1.55E-08 | -1.43E-08 | -1.43E-08 | -1.43E-08 |
| PLE  | NO        | NO        | NO        | NO        | NO        | NO        | NO        | NO        |
| Indicator value  | -1.00E-08 | -1.10E-08 | -9.30E-09 | -9.10E-09 | -6.40E-09 | -1.10E-09 | -3.40E-11 | -5.40E-10 |

Licensee Comments: none

### Mitigating Systems Performance Index, Heat Removal System



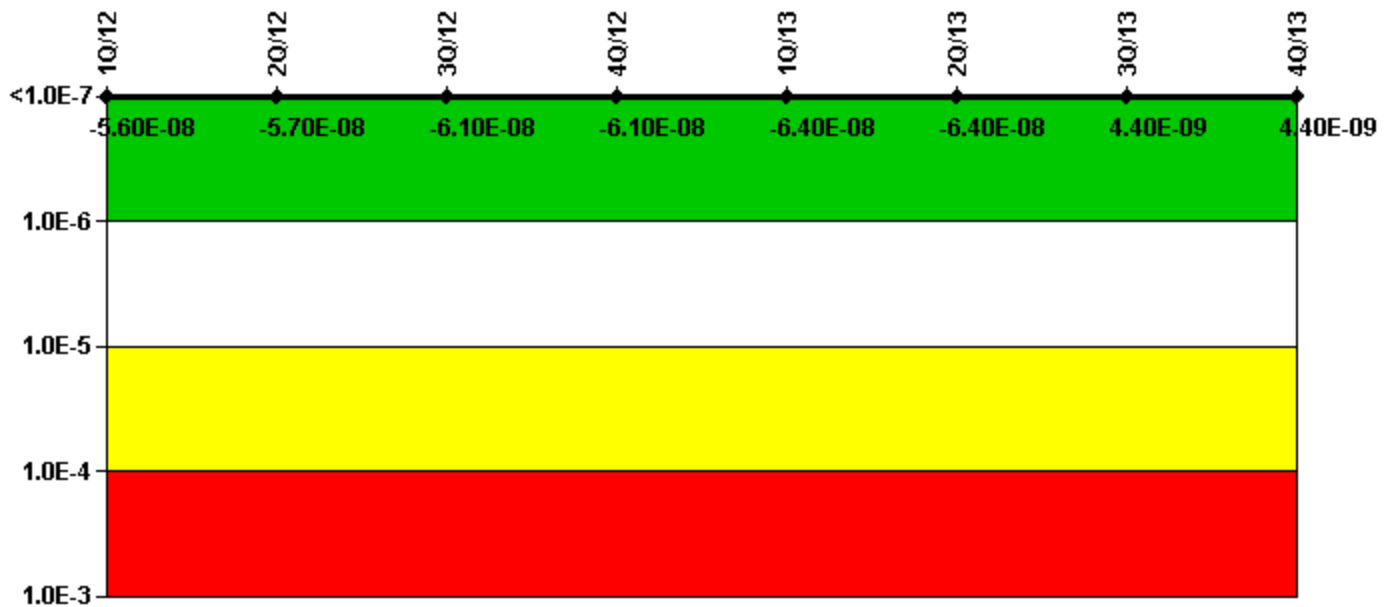
Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

#### Notes

| Mitigating Systems Performance Index, Heat Removal System | 1Q/12     | 2Q/12     | 3Q/12     | 4Q/12     | 1Q/13     | 2Q/13     | 3Q/13     | 4Q/13     |
|---|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| UAI ( $\Delta$ CDF)                                       | 1.52E-08  | 1.55E-08  | 1.54E-08  | 1.55E-08  | 1.59E-08  | 1.53E-08  | 1.62E-08  | 1.49E-08  |
| URI ( $\Delta$ CDF)                                       | -1.26E-08 | -1.40E-08 | -1.40E-08 | -1.45E-08 | -1.49E-08 | -1.36E-08 | -1.36E-08 | -1.36E-08 |
| PLE   | NO        | NO        | NO        | NO        | NO        | NO        | NO        | NO        |
| Indicator value   | 2.70E-09  | 1.50E-09  | 1.40E-09  | 1.00E-09  | 9.60E-10  | 1.80E-09  | 2.70E-09  | 1.40E-09  |

Licensee Comments: none

### Mitigating Systems Performance Index, Residual Heat Removal System



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

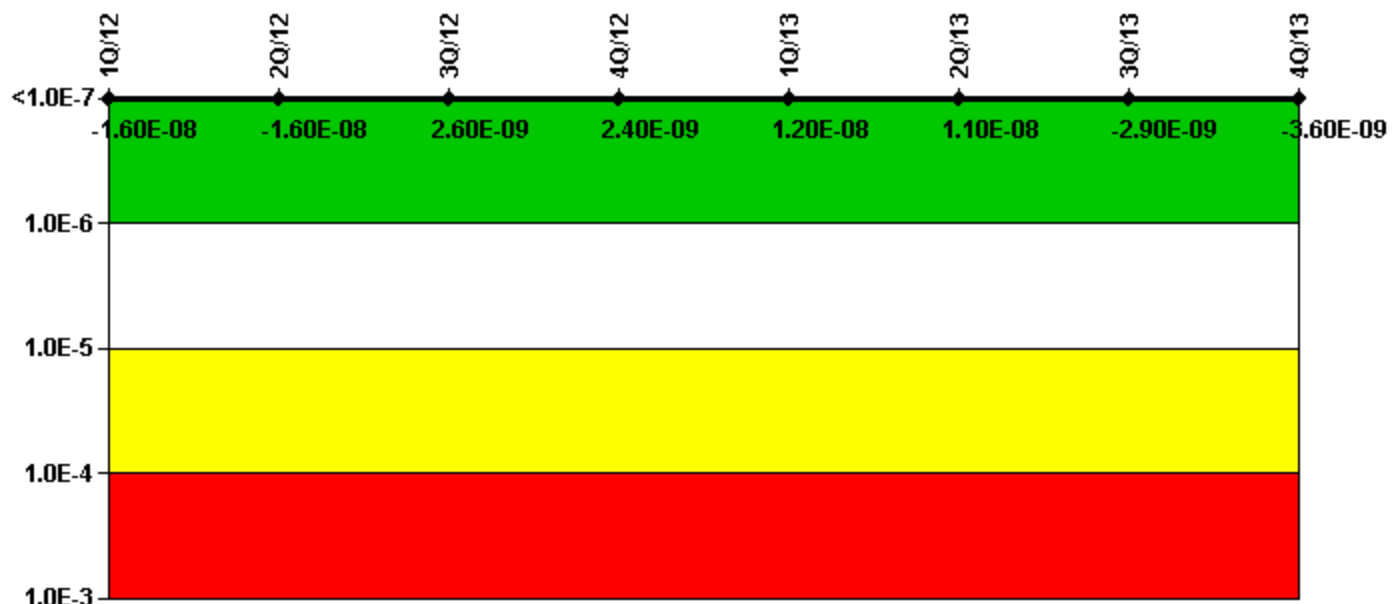
#### Notes

| Mitigating Systems Performance Index, Residual Heat Removal System | 1Q/12     | 2Q/12     | 3Q/12     | 4Q/12     | 1Q/13     | 2Q/13     | 3Q/13     | 4Q/13     |
|--|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| UAI ( $\Delta$ CDF)  | -1.91E-08 | -1.94E-08 | -2.38E-08 | -2.38E-08 | -2.38E-08 | -2.38E-08 | -1.85E-08 | -1.85E-08 |
| URI ( $\Delta$ CDF)  | -3.74E-08 | -3.74E-08 | -3.74E-08 | -3.74E-08 | -3.99E-08 | -3.99E-08 | 2.29E-08  | 2.29E-08  |
| PLE  | NO        | NO        | NO        | NO        | NO        | NO        | NO        | NO        |
| Indicator value  | -5.60E-08 | -5.70E-08 | -6.10E-08 | -6.10E-08 | -6.40E-08 | -6.40E-08 | 4.40E-09  | 4.40E-09  |

Licensee Comments: none



### Mitigating Systems Performance Index, Cooling Water Systems



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

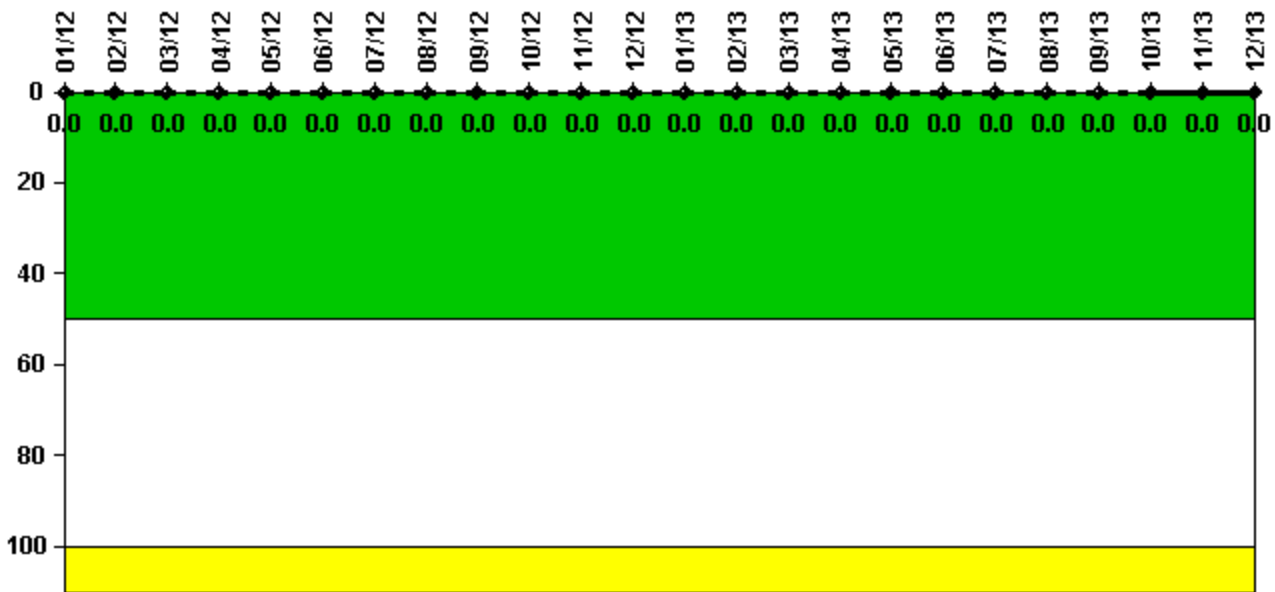
#### Notes

| Mitigating Systems Performance Index, Cooling Water Systems | 1Q/12     | 2Q/12     | 3Q/12    | 4Q/12    | 1Q/13    | 2Q/13    | 3Q/13     | 4Q/13     |
|---|-----------|-----------|----------|----------|----------|----------|-----------|-----------|
| UAI ( $\Delta$ CDF)   | -1.57E-08 | -1.57E-08 | 2.51E-09 | 2.28E-09 | 1.16E-08 | 1.07E-08 | -3.05E-09 | -3.05E-09 |
| URI ( $\Delta$ CDF)   | 1.06E-10  | 1.06E-10  | 1.06E-10 | 1.06E-10 | 1.06E-10 | 1.06E-10 | 1.06E-10  | -5.47E-10 |
| PLE   | NO        | NO        | NO       | NO       | NO       | NO       | NO        | NO        |
| Indicator value   | -1.60E-08 | -1.60E-08 | 2.60E-09 | 2.40E-09 | 1.20E-08 | 1.10E-08 | -2.90E-09 | -3.60E-09 |

Licensee Comments:

1Q/13: January Unavailability Hours were added for 2A RHRWS. This caused a change in MSPI Colling Water System PI's for first quarter 2013. This did not result in a change in 'color' for the indicator.

### Reactor Coolant System Activity



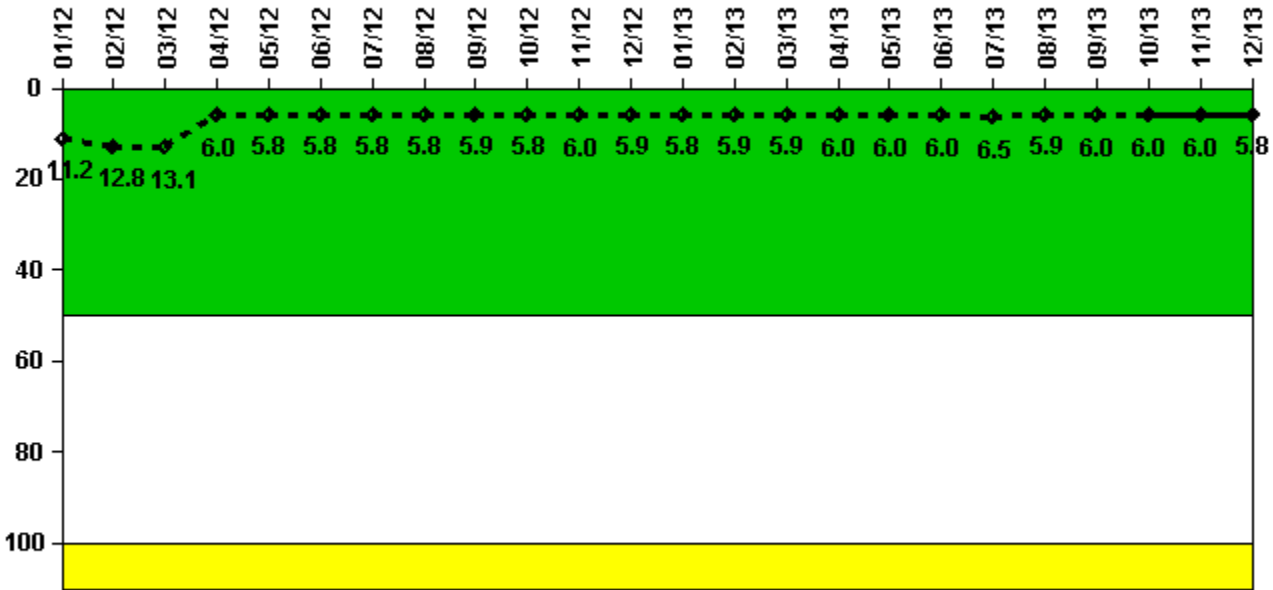
Thresholds: White > 50.0 Yellow > 100.0

#### Notes

| Reactor Coolant System Activity | 1/12     | 2/12     | 3/12     | 4/12     | 5/12     | 6/12     | 7/12     | 8/12     | 9/12     | 10/12    | 11/12    | 12/12    |
|---------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Maximum activity                | 0.000004 | 0.000009 | 0.000004 | 0.000002 | 0.000003 | 0.000003 | 0.000007 | 0.000011 | 0.000004 | 0.000010 | 0.000003 | 0.000003 |
| 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 | 1/13     | 2/13     | 3/13     | 4/13     | 5/13     | 6/13     | 7/13     | 8/13     | 9/13     | 10/13    | 11/13    | 12/13    |
| Maximum activity                | 0.000003 | 0.000004 | 0.000003 | 0.000004 | 0.000004 | 0.000005 | 0.000004 | 0.000008 | 0.000009 | 0.000009 | 0.000006 | 0.000010 |
| 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

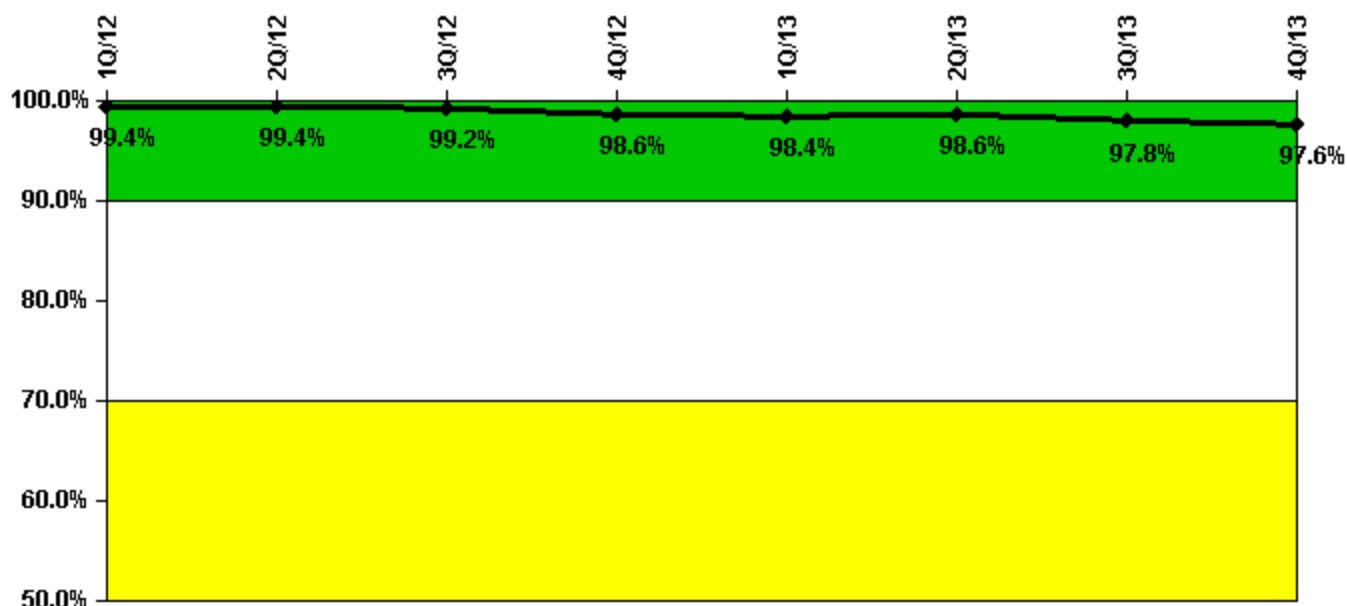
| Reactor Coolant System Leakage | 1/12  | 2/12  | 3/12  | 4/12  | 5/12  | 6/12  | 7/12  | 8/12  | 9/12  | 10/12 | 11/12 | 12/12 |
|--------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Maximum leakage                | 2.801 | 3.211 | 3.287 | 1.501 | 1.460 | 1.452 | 1.444 | 1.440 | 1.473 | 1.450 | 1.507 | 1.477 |
| 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                | 11.2  | 12.8  | 13.1  | 6.0   | 5.8   | 5.8   | 5.8   | 5.8   | 5.9   | 5.8   | 6.0   | 5.9   |

| Reactor Coolant System Leakage | 1/13  | 2/13  | 3/13  | 4/13  | 5/13  | 6/13  | 7/13  | 8/13  | 9/13  | 10/13 | 11/13 | 12/13 |
|--------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Maximum leakage                | 1.453 | 1.478 | 1.474 | 1.495 | 1.503 | 1.496 | 1.615 | 1.480 | 1.488 | 1.488 | 1.510 | 1.456 |
| 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                | 5.8   | 5.9   | 5.9   | 6.0   | 6.0   | 6.0   | 6.5   | 5.9   | 6.0   | 6.0   | 6.0   | 5.8   |

Licensee Comments: none

### Drill/Exercise Performance



Thresholds: White < 90.0% Yellow < 70.0%

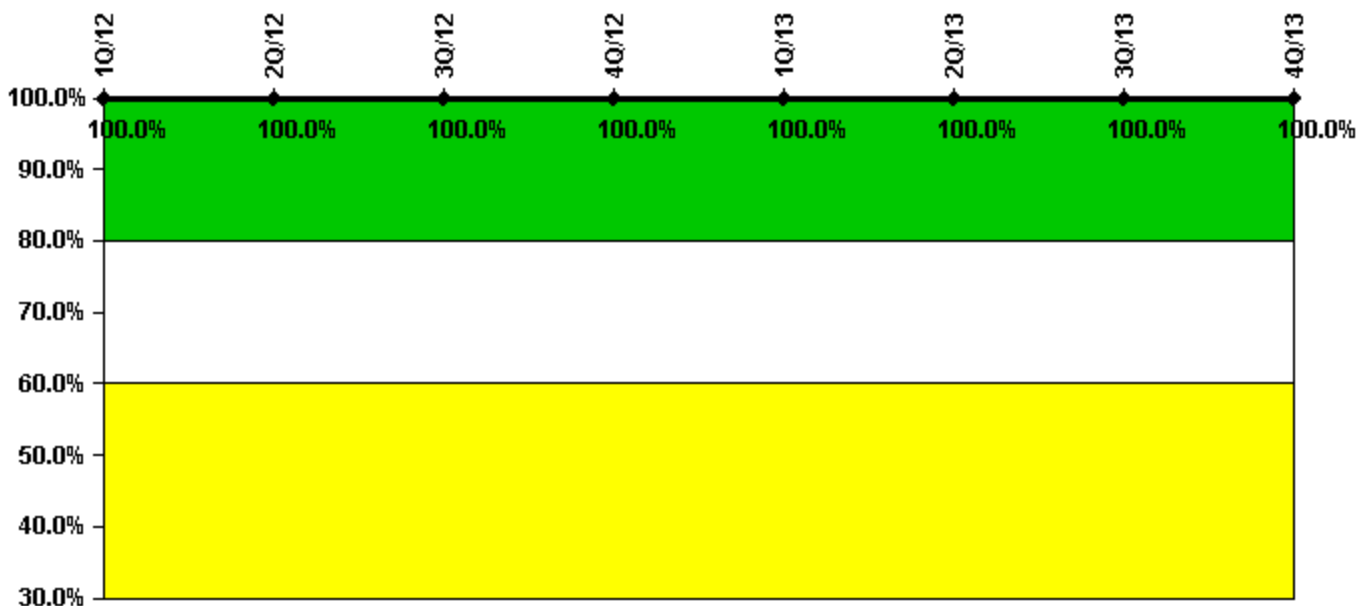
#### Notes

| Drill/Exercise Performance | 1Q/12 | 2Q/12 | 3Q/12 | 4Q/12 | 1Q/13 | 2Q/13 | 3Q/13 | 4Q/13 |
|----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| Successful opportunities   | 50.0  | 53.0  | 31.0  | 37.0  | 15.0  | 47.0  | 31.0  | 26.0  |
| Total opportunities        | 50.0  | 55.0  | 32.0  | 39.0  | 15.0  | 47.0  | 33.0  | 26.0  |
| Indicator value            | 99.4% | 99.4% | 99.2% | 98.6% | 98.4% | 98.6% | 97.8% | 97.6% |

Licensee Comments:

3Q/12: A change package is being submitted for 3rd quarter 2012 to update the September data for Successful drill, exer & event opportunities & Total drill, exer & event opportunities from 7 to 14. This does not affect the color of any indicator.

### ERO Drill Participation



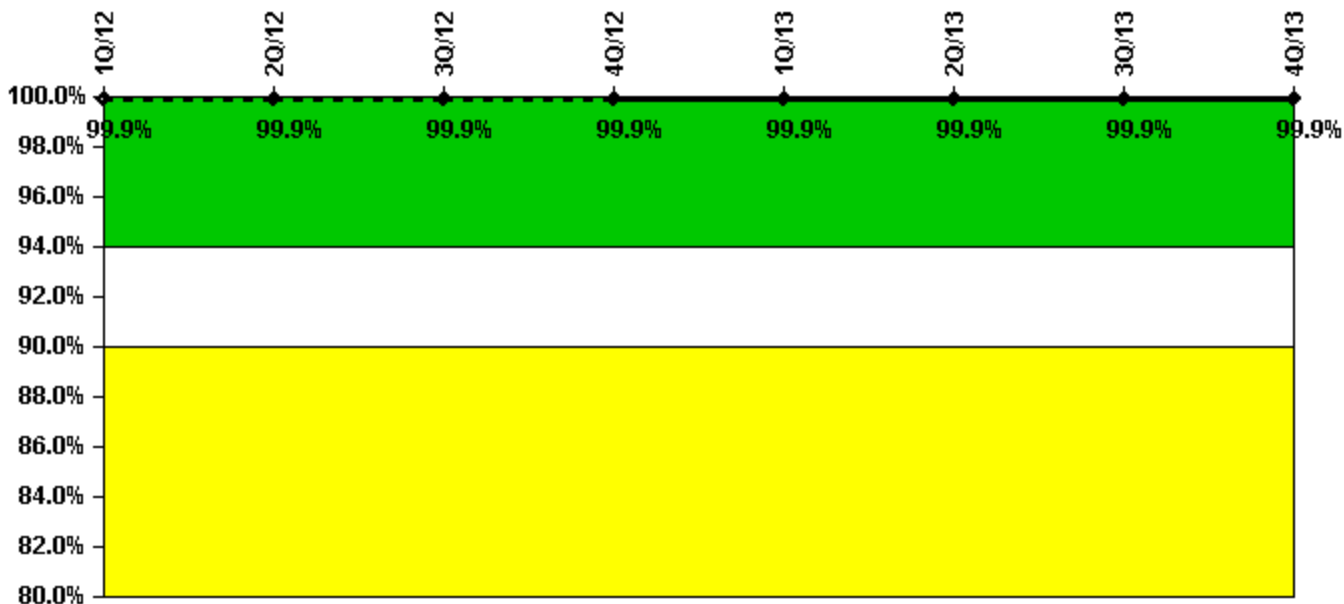
Thresholds: White < 80.0% Yellow < 60.0%

#### Notes

| ERO Drill Participation     | 1Q/12  | 2Q/12  | 3Q/12  | 4Q/12  | 1Q/13  | 2Q/13  | 3Q/13  | 4Q/13  |
|-----------------------------|--------|--------|--------|--------|--------|--------|--------|--------|
| Participating Key personnel | 75.0   | 78.0   | 74.0   | 75.0   | 69.0   | 70.0   | 71.0   | 73.0   |
| Total Key personnel         | 75.0   | 78.0   | 74.0   | 75.0   | 69.0   | 70.0   | 71.0   | 73.0   |
| Indicator value             | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

Licensee Comments: none

### Alert & Notification System



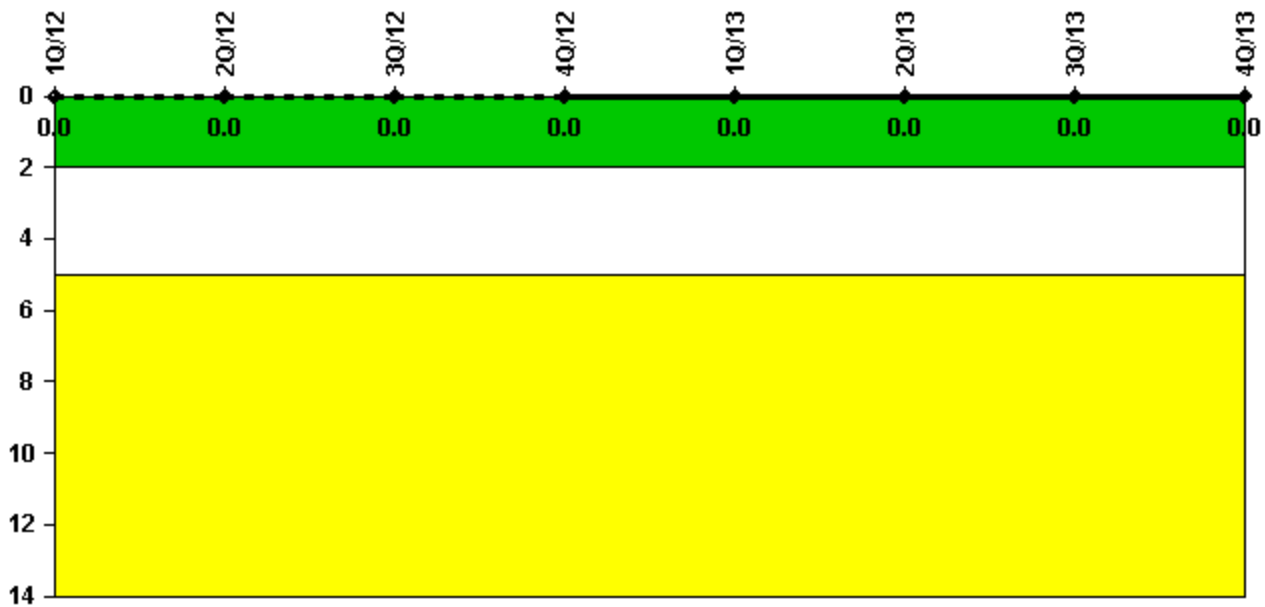
Thresholds: White < 94.0% Yellow < 90.0%

#### Notes

| Alert & Notification System | 1Q/12 | 2Q/12 | 3Q/12 | 4Q/12 | 1Q/13 | 2Q/13 | 3Q/13 | 4Q/13 |
|-----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| Successful siren-tests      | 2727  | 2686  | 2640  | 2688  | 2685  | 2684  | 2686  | 2687  |
| Total sirens-tests          | 2730  | 2688  | 2646  | 2688  | 2688  | 2688  | 2688  | 2688  |
| Indicator value             | 99.9% | 99.9% | 99.9% | 99.9% | 99.9% | 99.9% | 99.9% | 99.9% |

Licensee Comments: none

### Occupational Exposure Control Effectiveness



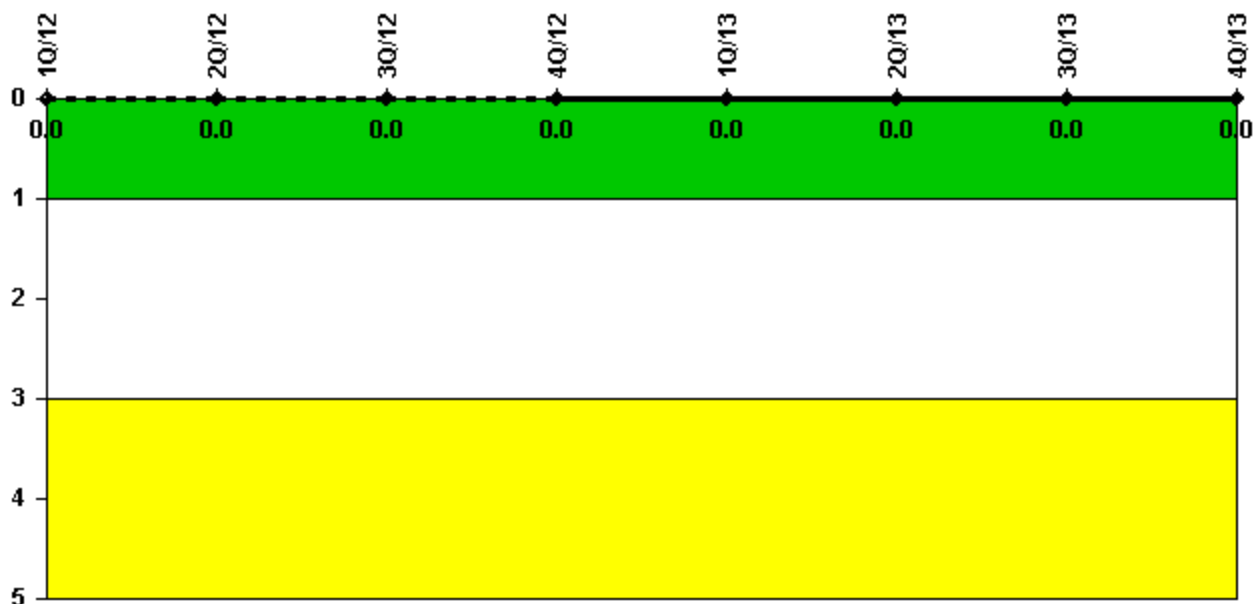
Thresholds: White > 2.0 Yellow > 5.0

#### Notes

| Occupational Exposure Control Effectiveness | 1Q/12    | 2Q/12    | 3Q/12    | 4Q/12    | 1Q/13    | 2Q/13    | 3Q/13    | 4Q/13    |
|---|----------|----------|----------|----------|----------|----------|----------|----------|
| 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

### RETS/ODCM Radiological Effluent



Thresholds: White > 1.0 Yellow > 3.0

#### Notes

| RETS/ODCM Radiological Effluent | 1Q/12 | 2Q/12 | 3Q/12 | 4Q/12 | 1Q/13 | 2Q/13 | 3Q/13 | 4Q/13 |
|---------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| RETS/ODCM occurrences           | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     |
| Indicator value                 | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     |

Licensee Comments: none

Although the Security Cornerstone is included in the Reactor Oversight Process assessment program, the Commission has decided that specific information related to findings and performance indicators pertaining to the Security Cornerstone will not be publicly available to ensure that security information is not provided to a possible adversary. Other than the fact that a finding or performance indicator is Green or Greater-Than-Green, security related information will not be displayed on the public web page.



 [Action Matrix Summary](#) | [Inspection Findings Summary](#) | [PI Summary](#) | [Reactor Oversight Process](#)

*Last Modified: January 22, 2014*