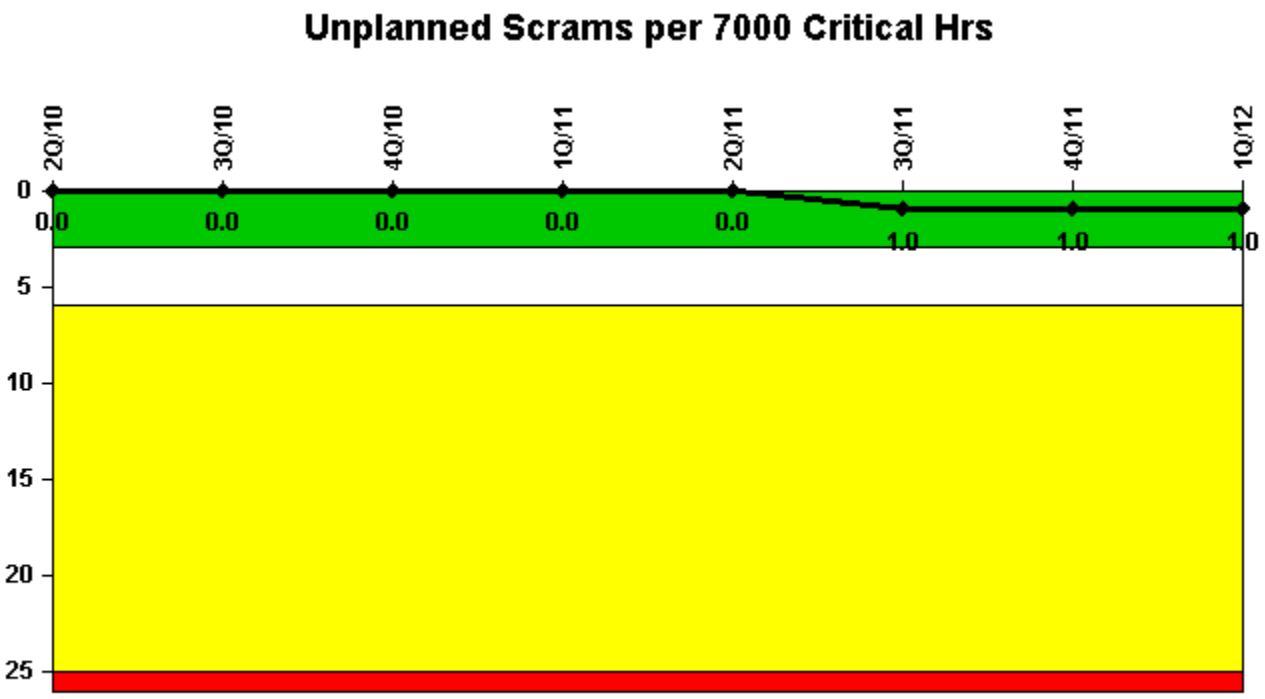
# Susquehanna 2

## 1Q/2012 Performance Indicators

Licensee's General Comments: none



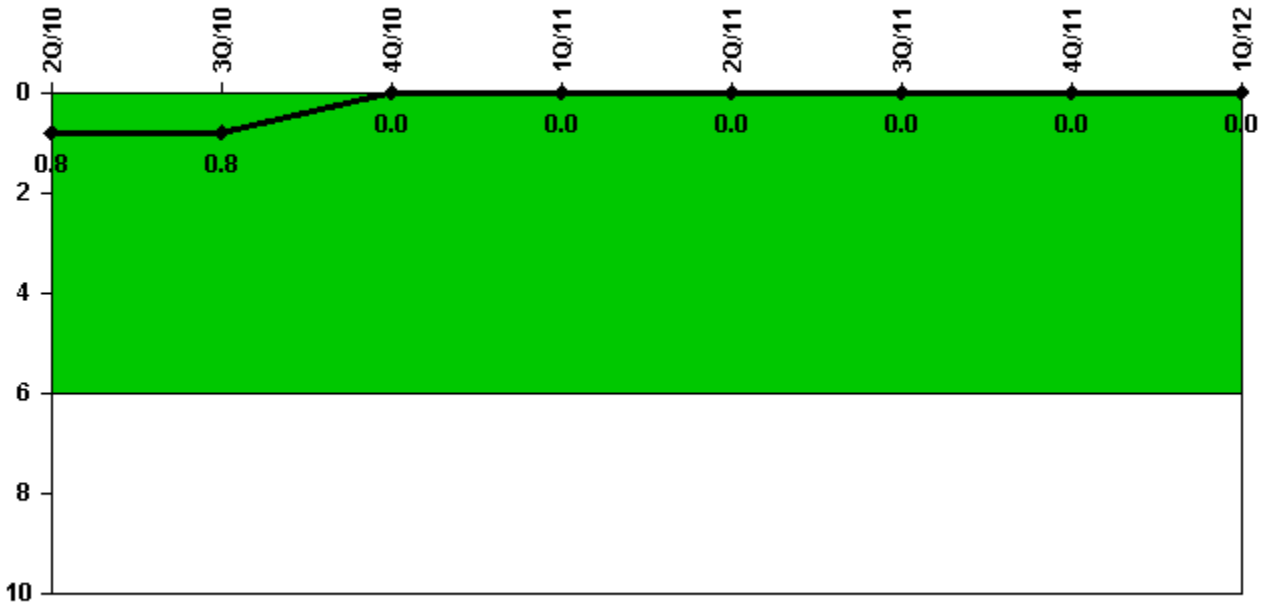

**Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0**

### Notes

| Unplanned Scrams per 7000 Critical Hrs | 2Q/10 | 3Q/10 | 4Q/10 | 1Q/11 | 2Q/11 | 3Q/11 | 4Q/11 | 1Q/12 |
|---|---|---|---|---|---|---|---|---|
| Unplanned scrams | 0 | 0 | 0 | 0 | 0 | 1.0 | 0 | 0 |
| Critical hours | 2143.6 | 2208.0 | 2209.0 | 2159.0 | 213.2 | 2125.9 | 2209.0 | 2183.0 |
| | | | | | | | | |
| **Indicator value** | **0** | **0** | **0** | **0** | **0** | **1.0** | **1.0** | **1.0** |

Licensee Comments: none

## Unplanned Power Changes per 7000 Critical Hrs



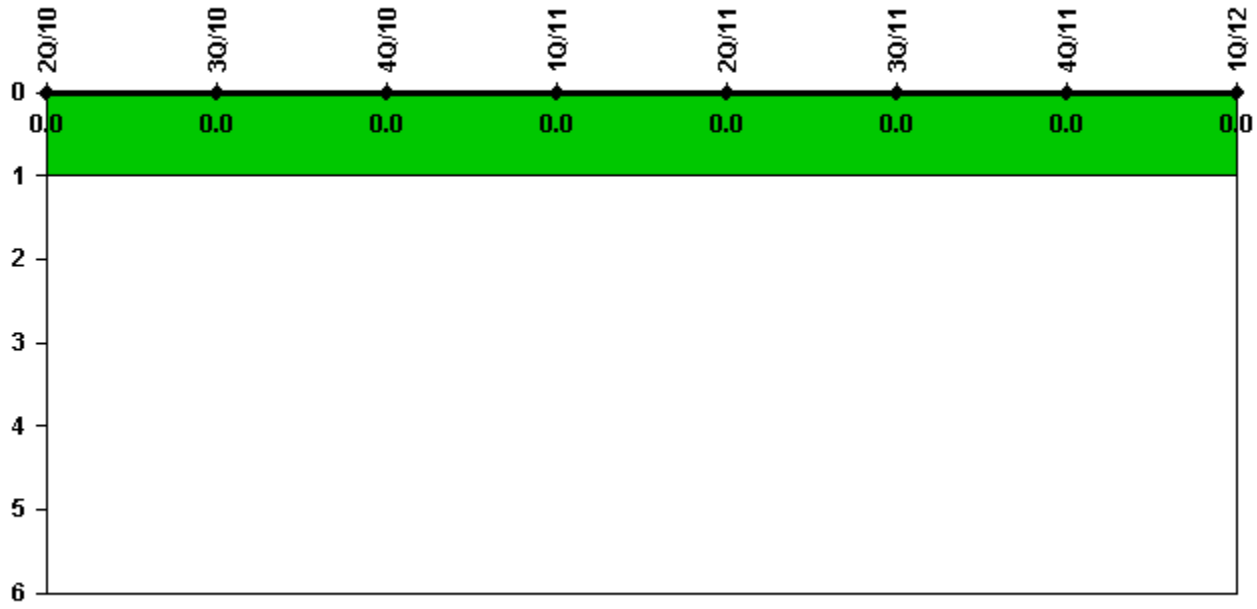

**Thresholds: White > 6.0**

## Notes

| Unplanned Power Changes per 7000 Critical Hrs | 2Q/10 | 3Q/10 | 4Q/10 | 1Q/11 | 2Q/11 | 3Q/11 | 4Q/11 | 1Q/12 |
|---|---|---|---|---|---|---|---|---|
| Unplanned power changes | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Critical hours | 2143.6 | 2208.0 | 2209.0 | 2159.0 | 213.2 | 2125.9 | 2209.0 | 2183.0 |
| | | | | | | | | |
| **Indicator value** | **0.8** | **0.8** | **0** | **0** | **0** | **0** | **0** | **0** |

Licensee Comments: none

## Unplanned Scrams with Complications



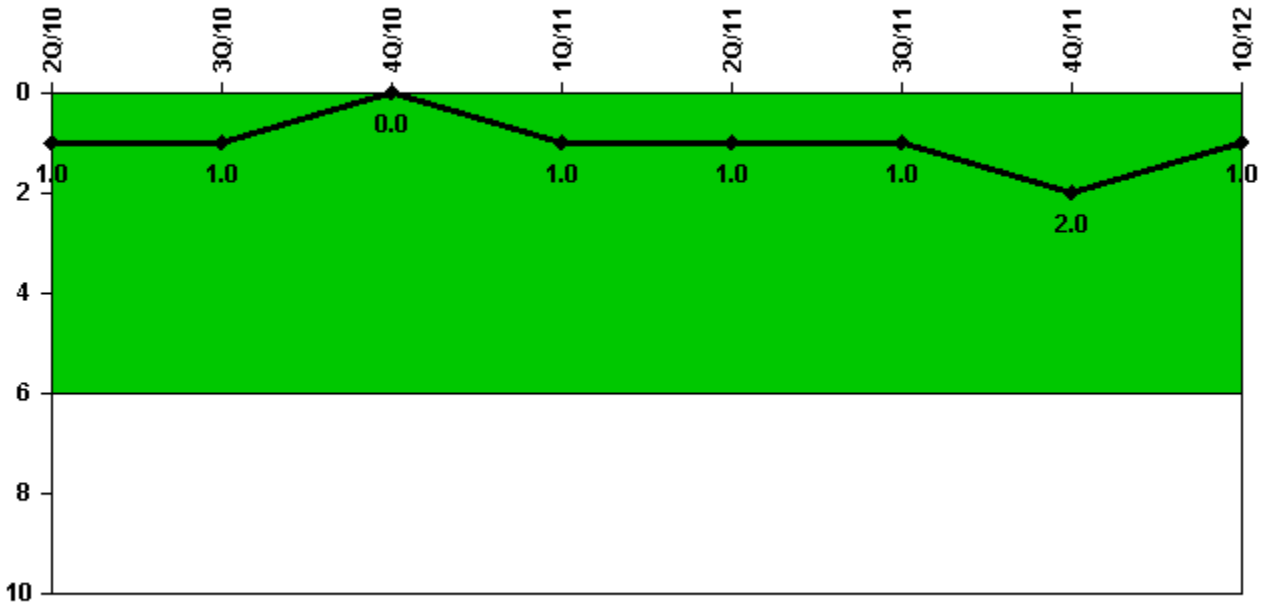

**Thresholds: White > 1.0**

### Notes

| Unplanned Scrams with Complications | 2Q/10 | 3Q/10 | 4Q/10 | 1Q/11 | 2Q/11 | 3Q/11 | 4Q/11 | 1Q/12 |
|---|---|---|---|---|---|---|---|---|
| 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)



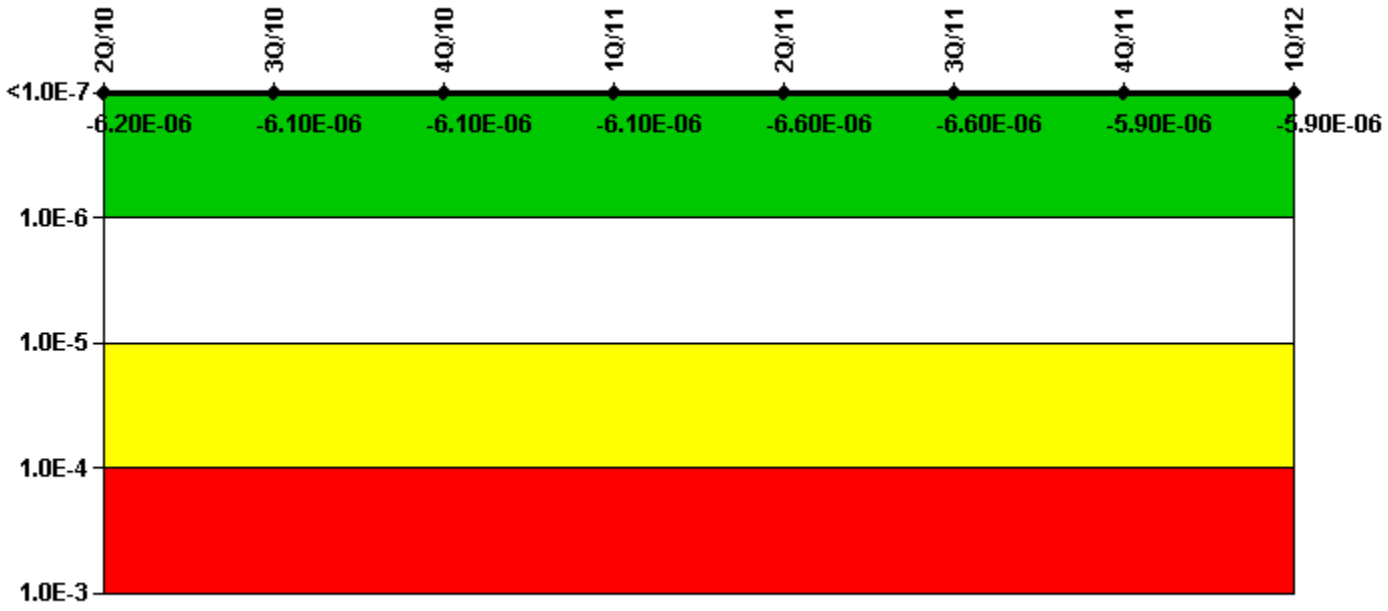

**Thresholds: White > 6.0**

### Notes

| Safety System Functional Failures (BWR) | 2Q/10 | 3Q/10 | 4Q/10 | 1Q/11 | 2Q/11 | 3Q/11 | 4Q/11 | 1Q/12 |
|---|---|---|---|---|---|---|---|---|
| Safety System Functional Failures | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 |
| | | | | | | | | |
| **Indicator value** | **1** | **1** | **0** | **1** | **1** | **1** | **2** | **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 | 2Q/10 | 3Q/10 | 4Q/10 | 1Q/11 | 2Q/11 | 3Q/11 | 4Q/11 | 1Q/12 |
|---|---|---|---|---|---|---|---|---|
| UAI (ΔCDF) | -2.75E-08 | -2.75E-08 | -2.75E-08 | -1.82E-08 | -1.87E-08 | 2.94E-09 | 1.94E-07 | 1.94E-07 |
| URI (ΔCDF) | -6.16E-06 | -6.11E-06 | -6.10E-06 | -6.06E-06 | -6.59E-06 | -6.62E-06 | -6.12E-06 | -6.11E-06 |
| PLE | NO | NO | NO | NO | NO | NO | NO | NO |
| | | | | | | | | |
| **Indicator value** | **-6.20E-06** | **-6.10E-06** | **-6.10E-06** | **-6.10E-06** | **-6.60E-06** | **-6.60E-06** | **-5.90E-06** | **-5.90E-06** |

Licensee Comments:

1Q/12: Risk Cap Invoked.

4Q/11: Risk Cap Invoked. The 3Q2011 Emergency AC Power System data is revised to include additional unavailable hours for the "C" diesel generator in September 2011. There is no safety significance associated with this change. The PI color was green before the data revision and it remains green after the change.

1Q/11: Risk Cap Invoked.

4Q/10: Risk Cap Invoked. Changed PRA Parameter(s). The Emergency Diesel Generator data previously reported for the first, second, and third quarters of 2010 is revised based on changed PRA parameters and the resulting revision to the MSPI coefficients in the SSES MSPI Basis Document. There is no safety significance associated with this change, and the color of the current Emergency Diesel Generator Performance Indicator remains Green.

3Q/10: Risk Cap Invoked. Changed PRA Parameter(s).

3Q/10: Risk Cap Invoked.

2Q/10: Risk Cap Invoked.

2Q/10: Risk Cap Invoked. Changed PRA Parameter(s).

2Q/10: Risk Cap Invoked.

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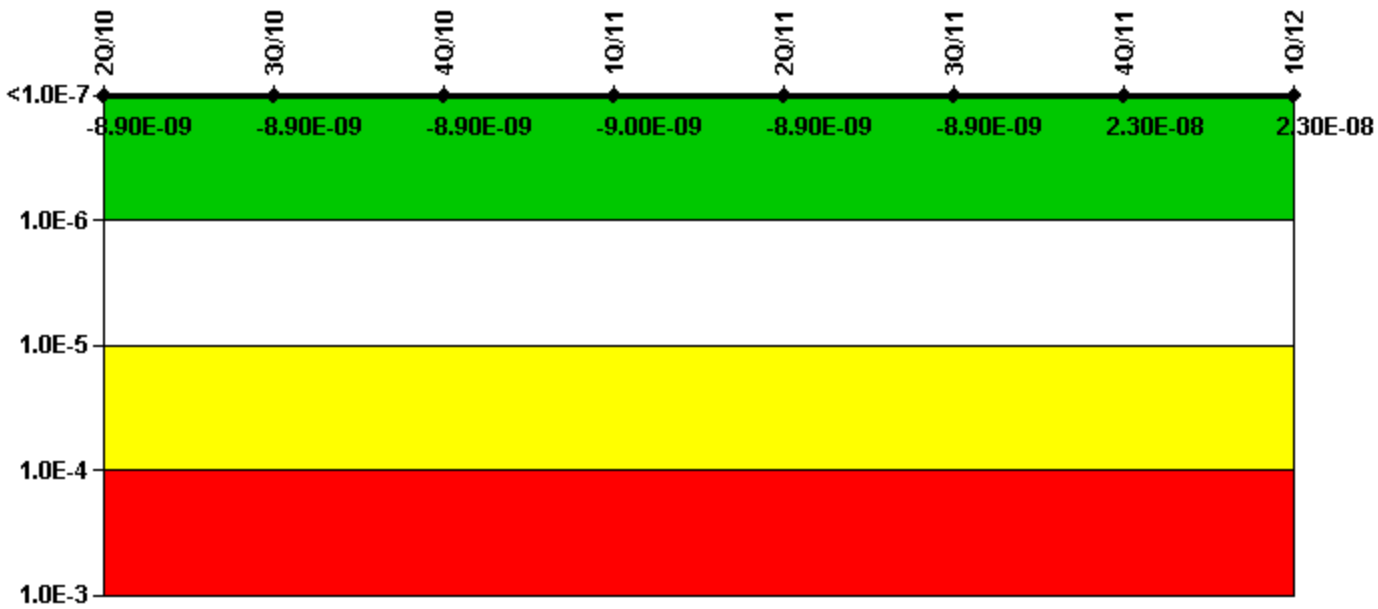
## Mitigating Systems Performance Index, High Pressure Injection System




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

### Notes

| Mitigating Systems Performance Index, High Pressure Injection System | 2Q/10 | 3Q/10 | 4Q/10 | 1Q/11 | 2Q/11 | 3Q/11 | 4Q/11 | 1Q/12 |
|---|---|---|---|---|---|---|---|---|
| UAI (ΔCDF) | -3.58E-09 | -3.58E-09 | -3.58E-09 | -3.58E-09 | -3.55E-09 | -3.54E-09 | 2.12E-09 | 2.12E-09 |
| URI (ΔCDF) | -5.33E-09 | -5.33E-09 | -5.32E-09 | -5.37E-09 | -5.37E-09 | -5.34E-09 | 2.07E-08 | 2.07E-08 |
| PLE | NO | NO | NO | NO | NO | NO | NO | NO |
| | | | | | | | | |
| **Indicator value** | **-8.90E-09** | **-8.90E-09** | **-8.90E-09** | **-9.00E-09** | **-8.90E-09** | **-8.90E-09** | **2.30E-08** | **2.30E-08** |

Licensee Comments:

4Q/10: Changed PRA Parameter(s). The High Pressure Coolant Injection data previously reported for the first, second, and third quarters of 2010 is revised based on changed PRA parameters and the resulting revision to the MSPI coefficients in the SSES MSPI Basis Document. There is no safety significance associated with this change, and the color of the current High Pressure Coolant Injection Performance Indicator remains Green.

3Q/10: Changed PRA Parameter(s).

2Q/10: Changed PRA Parameter(s).

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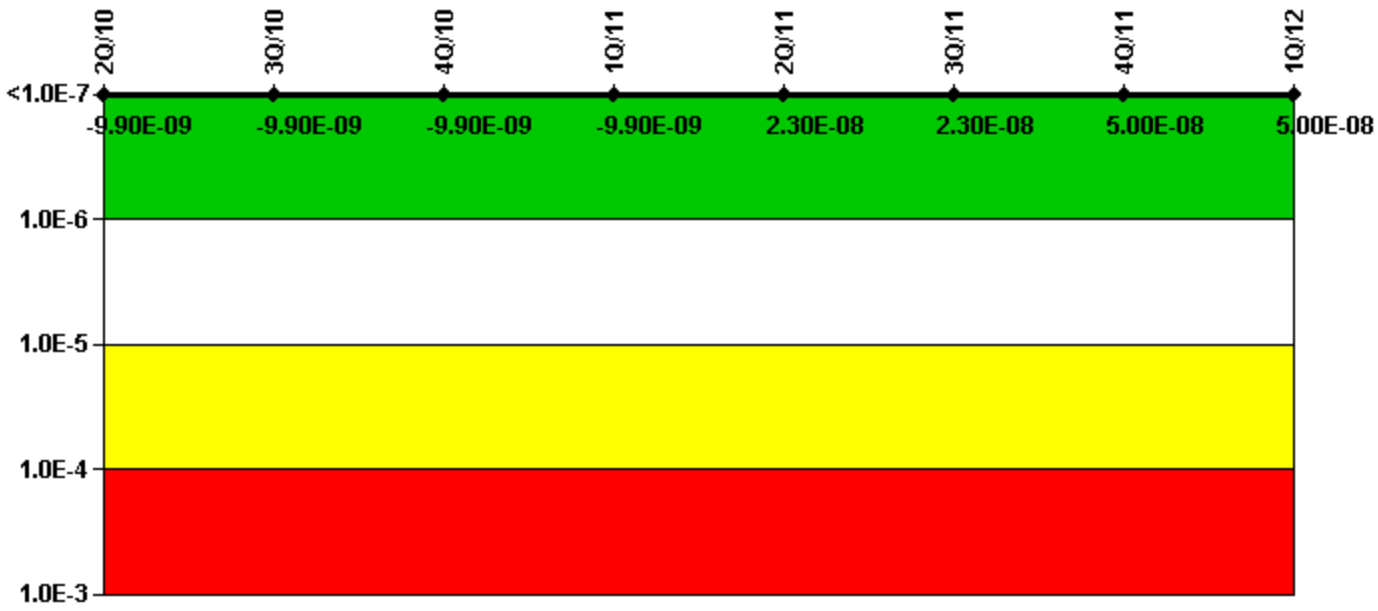
## Mitigating Systems Performance Index, Heat Removal System




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

### Notes

| Mitigating Systems Performance Index, Heat Removal System | 2Q/10 | 3Q/10 | 4Q/10 | 1Q/11 | 2Q/11 | 3Q/11 | 4Q/11 | 1Q/12 |
|---|---|---|---|---|---|---|---|---|
| UAI (ΔCDF) | -3.73E-09 | -3.73E-09 | -3.73E-09 | -3.73E-09 | 1.48E-09 | 3.21E-09 | 3.21E-09 | 3.21E-09 |
| URI (ΔCDF) | -6.19E-09 | -6.19E-09 | -6.19E-09 | -6.19E-09 | 2.18E-08 | 2.02E-08 | 4.71E-08 | 4.71E-08 |
| PLE | NO | NO | NO | NO | NO | NO | NO | NO |
| | | | | | | | | |
| **Indicator value** | **-9.90E-09** | **-9.90E-09** | **-9.90E-09** | **-9.90E-09** | **2.30E-08** | **2.30E-08** | **5.00E-08** | **5.00E-08** |

Licensee Comments:

4Q/11: The 2Q2011 and 3Q2011 Unit 2 RCIC data is revised to account for the Ramp Generator Signal Converter (RGSC) failure in June 2011. There is no safety significance associated with this change. The PI color was green before the data revision and it remains green after the change.

4Q/10: Changed PRA Parameter(s). The Reactor Core Isolation Cooling data previously reported for the first, second, and third quarters of 2010 is revised based on changed PRA parameters and the resulting revision to the MSPI coefficients in the SSES MSPI Basis Document. There is no safety significance associated with this change, and the color of the current Reactor Core Isolation Cooling Performance Indicator remains Green.

3Q/10: Changed PRA Parameter(s).

2Q/10: Changed PRA Parameter(s).

## 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 | 2Q/10 | 3Q/10 | 4Q/10 | 1Q/11 | 2Q/11 | 3Q/11 | 4Q/11 | 1Q/12 |
|---|---|---|---|---|---|---|---|---|
| UAI (ΔCDF) | -4.02E-10 | -4.02E-10 | -1.51E-10 | 1.12E-10 | 2.79E-10 | -7.59E-11 | -5.24E-10 | 2.55E-10 |
| URI (ΔCDF) | -1.19E-08 | -1.27E-08 | -1.30E-08 | -1.32E-08 | -1.49E-08 | -1.51E-08 | -1.52E-08 | -1.53E-08 |
| PLE | NO | NO | NO | NO | NO | NO | NO | NO |
| | | | | | | | | |
| **Indicator value** | **-1.20E-08** | **-1.30E-08** | **-1.30E-08** | **-1.30E-08** | **-1.50E-08** | **-1.50E-08** | **-1.60E-08** | **-1.50E-08** |

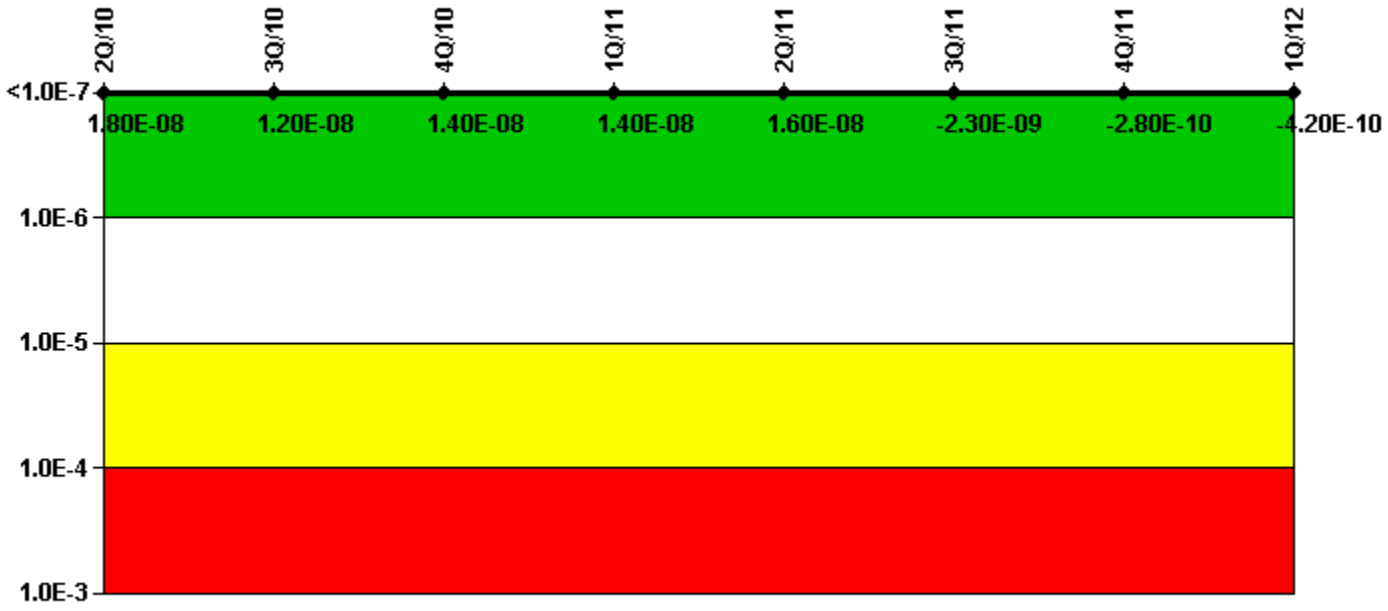
Licensee Comments:

4Q/10: Changed PRA Parameter(s). The Residual Heat Removal data previously reported for the first, second, and third quarters of 2010 is revised based on changed PRA parameters and the resulting revision to the MSPI coefficients in the SSES MSPI Basis Document. There is no safety significance associated with this change, and the color of the current Residual Heat Removal Performance Indicator remains Green.

3Q/10: Changed PRA Parameter(s).

2Q/10: Changed PRA Parameter(s).

## 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 | 2Q/10 | 3Q/10 | 4Q/10 | 1Q/11 | 2Q/11 | 3Q/11 | 4Q/11 | 1Q/12 |
|---|---|---|---|---|---|---|---|---|
| UAI (ΔCDF) | 4.57E-08 | 3.99E-08 | 4.13E-08 | 4.13E-08 | 4.50E-08 | 2.66E-08 | 2.88E-08 | 2.87E-08 |
| URI (ΔCDF) | -2.77E-08 | -2.76E-08 | -2.75E-08 | -2.75E-08 | -2.85E-08 | -2.89E-08 | -2.90E-08 | -2.91E-08 |
| PLE | NO | NO | NO | NO | NO | NO | NO | NO |
| | | | | | | | | |
| **Indicator value** | **1.80E-08** | **1.20E-08** | **1.40E-08** | **1.40E-08** | **1.60E-08** | **-2.30E-09** | **-2.80E-10** | **-4.20E-10** |

Licensee Comments:

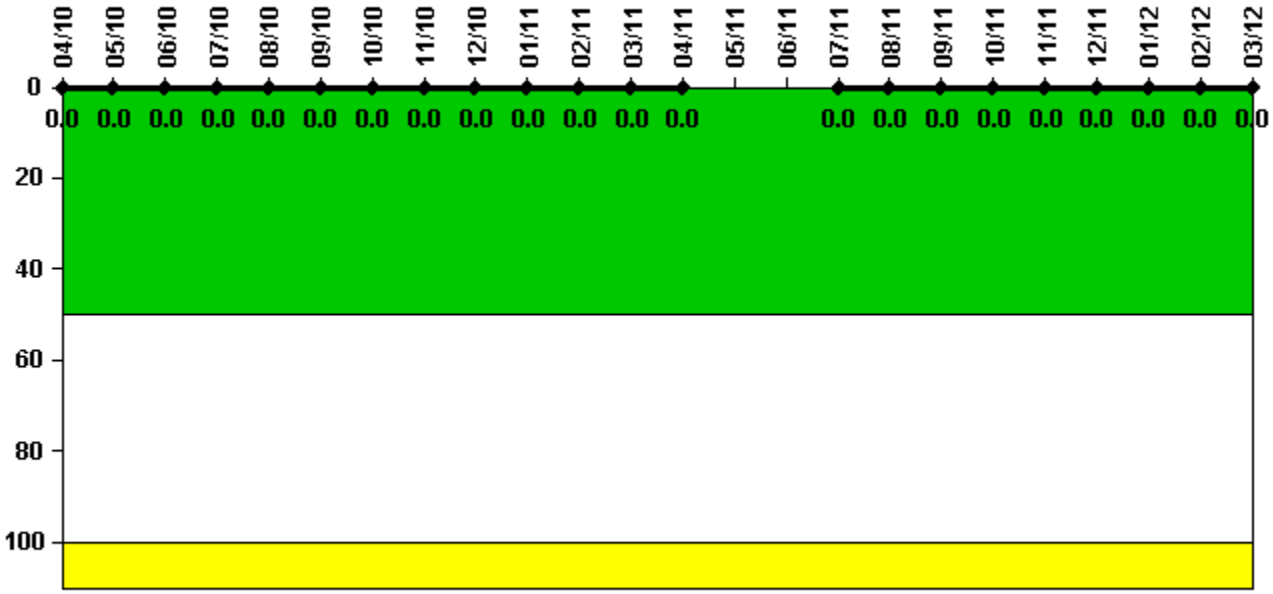
4Q/11: Previously reported data for 3Q2009, 2Q2010, and 3Q2010 is revised for operational non-test strokes of valves HV01224A1 and HV01224B1. This change provides more conservative values for the stroke count. There is no safety significance associated with this change. The PI color was green before the data revision and it remains green after the change.

4Q/10: Changed PRA Parameter(s). The Residual Heat Removal Service Water / Emergency Service Water data previously reported for the first, second, and third quarters of 2010 is revised based on changed PRA parameters and the resulting revision to the MSPI coefficients in the SSES MSPI Basis Document. There is no safety significance associated with this change, and the color of the current Residual Heat Removal Service Water / Emergency Service Water Performance Indicator remains Green.

3Q/10: Changed PRA Parameter(s).

2Q/10: Changed PRA Parameter(s).

## Reactor Coolant System Activity




**Thresholds: White > 50.0 Yellow > 100.0**

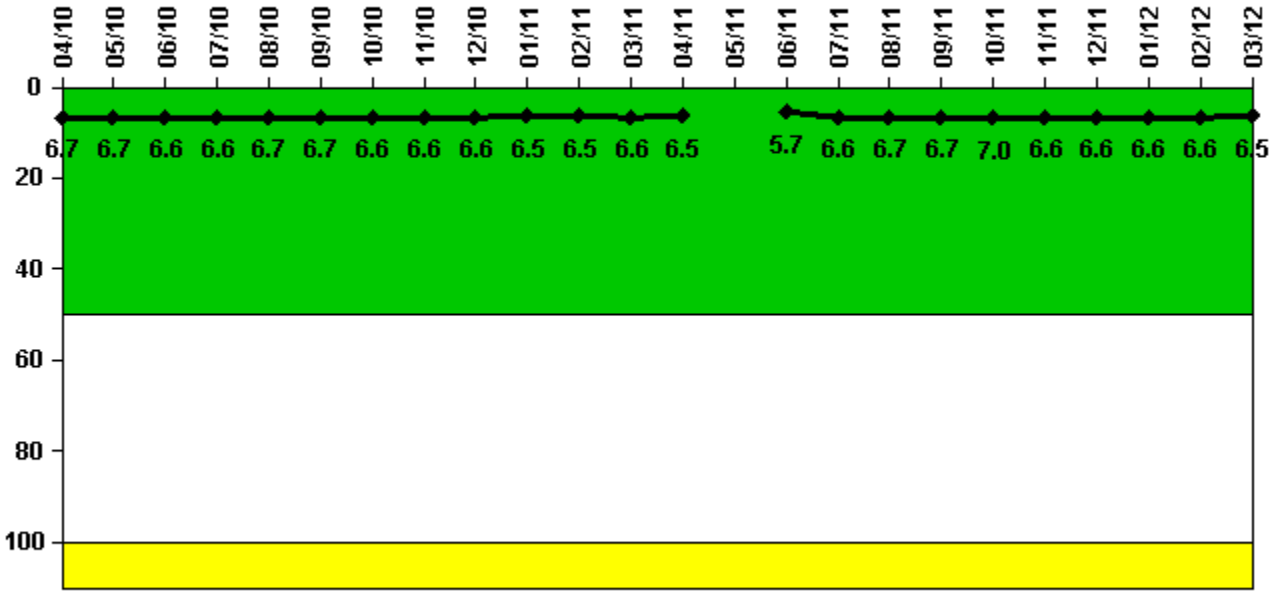
## Notes

| **Reactor Coolant System Activity** | **4 / 10** | **5 / 10** | **6 / 10** | **7 / 10** | **8 / 10** | **9 / 10** | **10 / 10** | **11 / 10** | **12 / 10** | **1 / 11** | **2 / 11** | **3 / 11** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Maximum activity | 0.000007 | 0.000006 | 0.000007 | 0.000007 | 0.000006 | 0.000008 | 0.000007 | 0.000008 | 0.000008 | 0.000008 | 0.000008 | 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** |

| **Reactor Coolant System Activity** | **4 / 11** | **5 / 11** | **6 / 11** | **7 / 11** | **8 / 11** | **9 / 11** | **10 / 11** | **11 / 11** | **12 / 11** | **1 / 12** | **2 / 12** | **3 / 12** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Maximum activity | 0.000009 | N/A | N/A | 0.000004 | 0.000004 | 0.000004 | 0.000005 | 0.000005 | 0.000005 | 0.000006 | 0.000005 | 0.000005 |
| 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** | **N / A** | **N / A** | **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 | 4/10 | 5/10 | 6/10 | 7/10 | 8/10 | 9/10 | 10/10 | 11/10 | 12/10 | 1/11 | 2/11 | 3/11 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Maximum leakage | 1.670 | 1.670 | 1.660 | 1.660 | 1.680 | 1.670 | 1.650 | 1.650 | 1.640 | 1.620 | 1.630 | 1.660 |
| 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** | **6.7** | **6.7** | **6.6** | **6.6** | **6.7** | **6.7** | **6.6** | **6.6** | **6.6** | **6.5** | **6.5** | **6.6** |

| Reactor Coolant System Leakage | 4/11 | 5/11 | 6/11 | 7/11 | 8/11 | 9/11 | 10/11 | 11/11 | 12/11 | 1/12 | 2/12 | 3/12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Maximum leakage | 1.620 | N/A | 1.430 | 1.640 | 1.670 | 1.680 | 1.740 | 1.650 | 1.650 | 1.650 | 1.640 | 1.630 |
| 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** | **6.5** | **N/A** | **5.7** | **6.6** | **6.7** | **6.7** | **7.0** | **6.6** | **6.6** | **6.6** | **6.6** | **6.5** |

Licensee Comments:

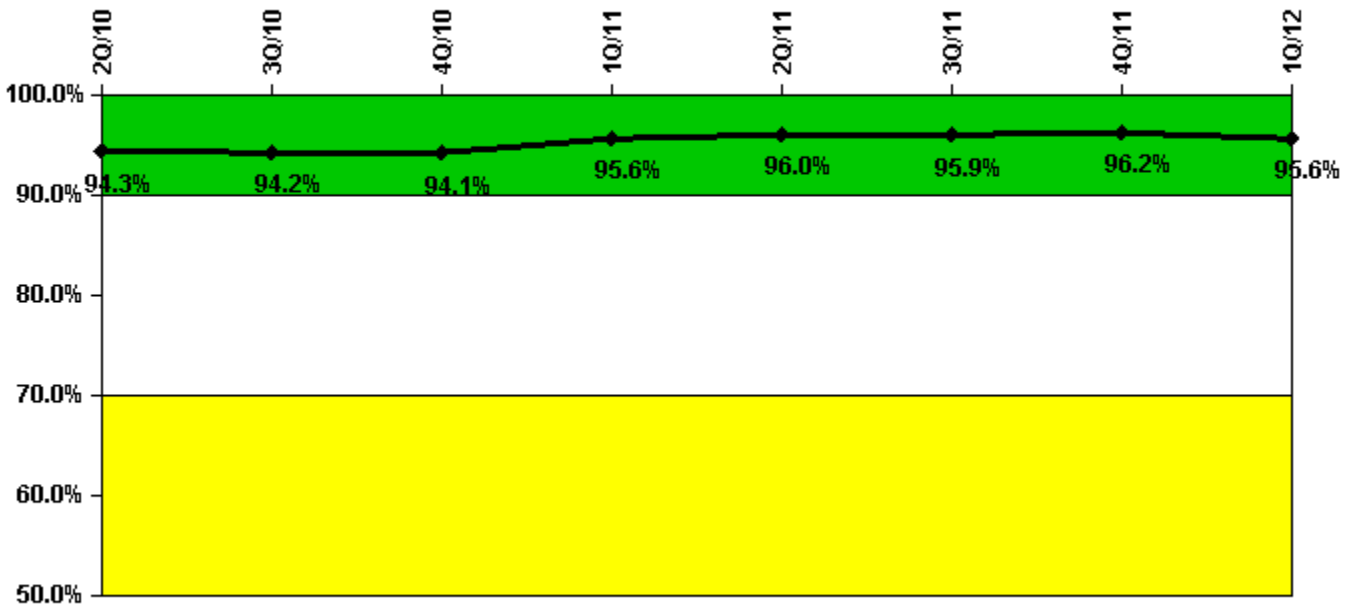
3/12: The Unit 2 RCSL data for May 2011 originally reported as 0 was changed to N/A because the unit was shutdown for the entire month of May. This change has no safety significance and has no effect on the PI color, which is green.

3/12: The Unit 2 RCSL data for May 2011 originally reported as 0 was changed to N/A because the unit was shutdown for the entire month of May. This change has no safety significance and has no effect on the PI color, which is green.

12/11: Previously reported data for Reactor Coolant System Leakage for the period from 1Q2010 through 2Q2011 is revised to provide the correct value for maximum monthly identified leakage. There is no safety significance associated with this change. The PI color was green before the data revision and it remains green after the change.

6/10: The Reactor Coolant System Leakage data for March 2010 is revised from 1.46 gpm to 1.49 gpm due to a misinterpretation of the monthly data. The error was determined during the second quarter 2010, after the first quarter data was submitted to the NRC. There is no safety significance associated with this change, and the color of the current Reactor Coolant System Leakage Performance Indicator remains green.

## Drill/Exercise Performance



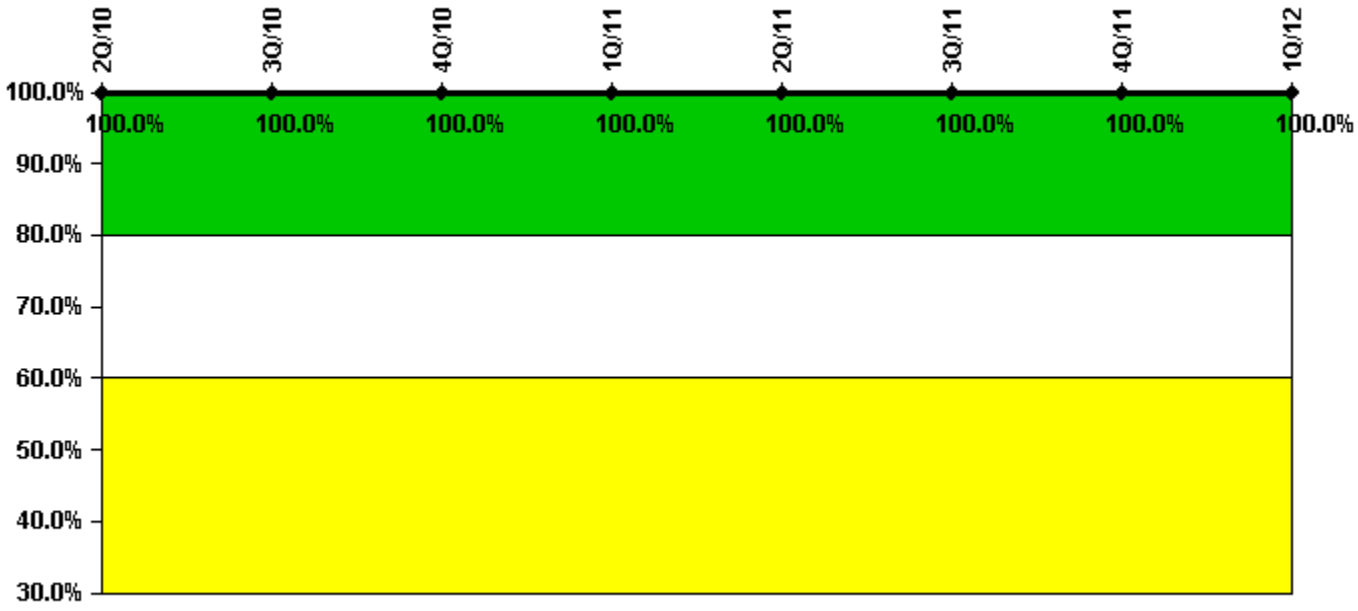

**Thresholds: White < 90.0% Yellow < 70.0%**

### Notes

| Drill/Exercise Performance | 2Q/10 | 3Q/10 | 4Q/10 | 1Q/11 | 2Q/11 | 3Q/11 | 4Q/11 | 1Q/12 |
|---|---|---|---|---|---|---|---|---|
| Successful opportunities | 67.0 | 35.0 | 18.0 | 0 | 21.0 | 21.0 | 10.0 | 23.0 |
| Total opportunities | 69.0 | 36.0 | 21.0 | 0 | 21.0 | 22.0 | 10.0 | 25.0 |
| | | | | | | | | |
| **Indicator value** | **94.3%** | **94.2%** | **94.1%** | **95.6%** | **96.0%** | **95.9%** | **96.2%** | **95.6%** |

Licensee Comments: none

## ERO Drill Participation



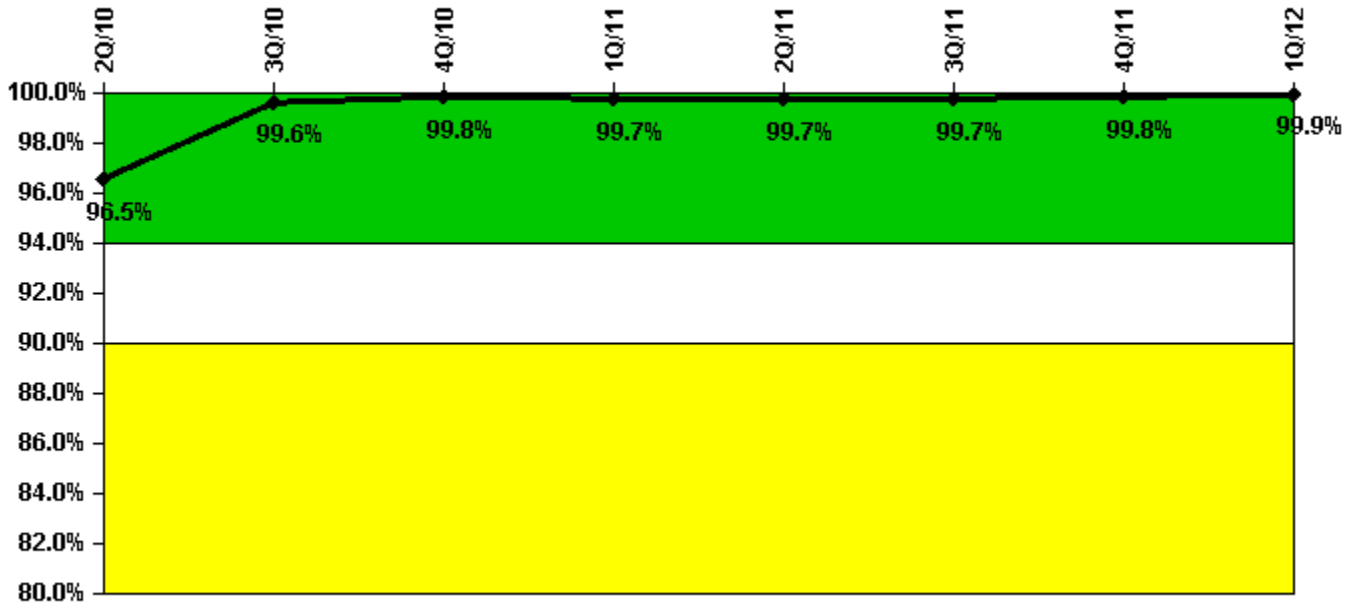

**Thresholds: White < 80.0% Yellow < 60.0%**

### Notes

| ERO Drill Participation | 2Q/10 | 3Q/10 | 4Q/10 | 1Q/11 | 2Q/11 | 3Q/11 | 4Q/11 | 1Q/12 |
|---|---|---|---|---|---|---|---|---|
| Participating Key personnel | 69.0 | 68.0 | 68.0 | 70.0 | 74.0 | 72.0 | 71.0 | 75.0 |
| Total Key personnel | 69.0 | 68.0 | 68.0 | 70.0 | 74.0 | 72.0 | 71.0 | 75.0 |
| | | | | | | | | |
| **Indicator value** | **100.0%** | **100.0%** | **100.0%** | **100.0%** | **100.0%** | **100.0%** | **100.0%** | **100.0%** |

Licensee Comments: none

## Alert & Notification System



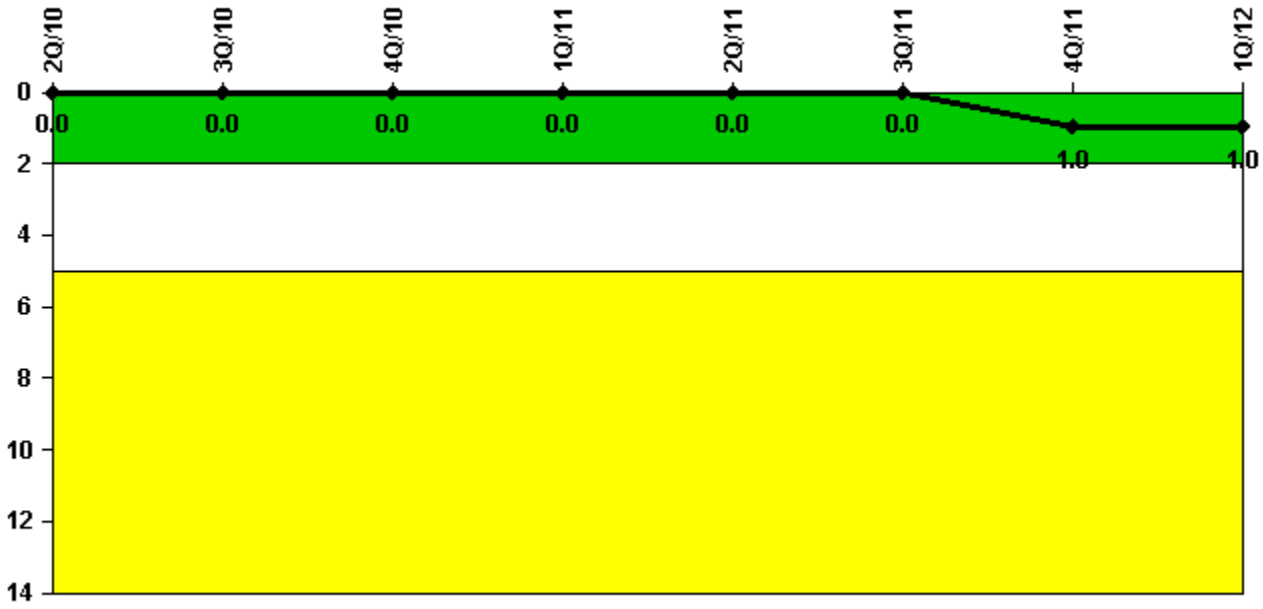

**Thresholds: White < 94.0% Yellow < 90.0%**

### Notes

| Alert & Notification System | 2Q/10 | 3Q/10 | 4Q/10 | 1Q/11 | 2Q/11 | 3Q/11 | 4Q/11 | 1Q/12 |
|---|---|---|---|---|---|---|---|---|
| Successful siren-tests | 608 | 605 | 606 | 531 | 606 | 607 | 608 | 608 |
| Total sirens-tests | 608 | 608 | 608 | 532 | 608 | 608 | 608 | 608 |
| | | | | | | | | |
| **Indicator value** | **96.5%** | **99.6%** | **99.8%** | **99.7%** | **99.7%** | **99.7%** | **99.8%** | **99.9%** |

Licensee Comments: none

## Occupational Exposure Control Effectiveness



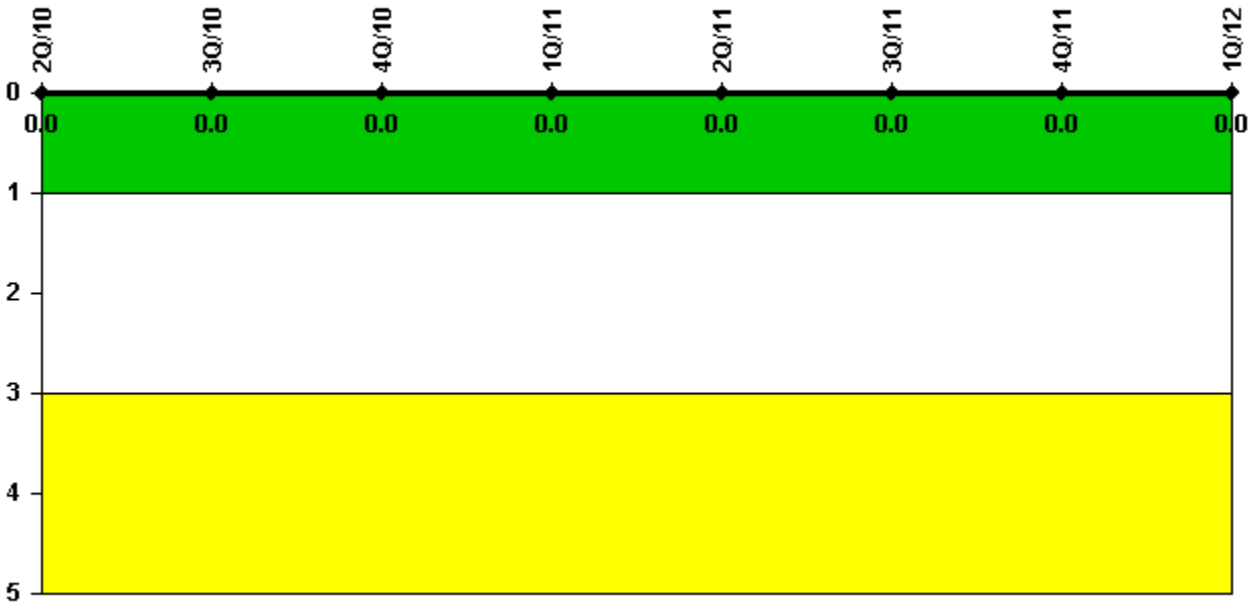

**Thresholds: White > 2.0 Yellow > 5.0**

### Notes

| Occupational Exposure Control Effectiveness | 2Q/10 | 3Q/10 | 4Q/10 | 1Q/11 | 2Q/11 | 3Q/11 | 4Q/11 | 1Q/12 |
|---|---|---|---|---|---|---|---|---|
| High radiation area occurrences | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 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 |
| **Indicator value** | **0** | **0** | **0** | **0** | **0** | **0** | **1** | **1** |

Licensee Comments: none

## RETS/ODCM Radiological Effluent




**Thresholds: White > 1.0 Yellow > 3.0**

### Notes

| RETS/ODCM Radiological Effluent | 2Q/10 | 3Q/10 | 4Q/10 | 1Q/11 | 2Q/11 | 3Q/11 | 4Q/11 | 1Q/12 |
|---|---|---|---|---|---|---|---|---|
| RETS/ODCM occurrences | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | | | | | | | |
| **Indicator value** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** |

Licensee Comments: none

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Security information not publicly available.

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Action Matrix Summary | Inspection Findings Summary | PI Summary | Reactor Oversight Process

*Last Modified: April 24, 2012*