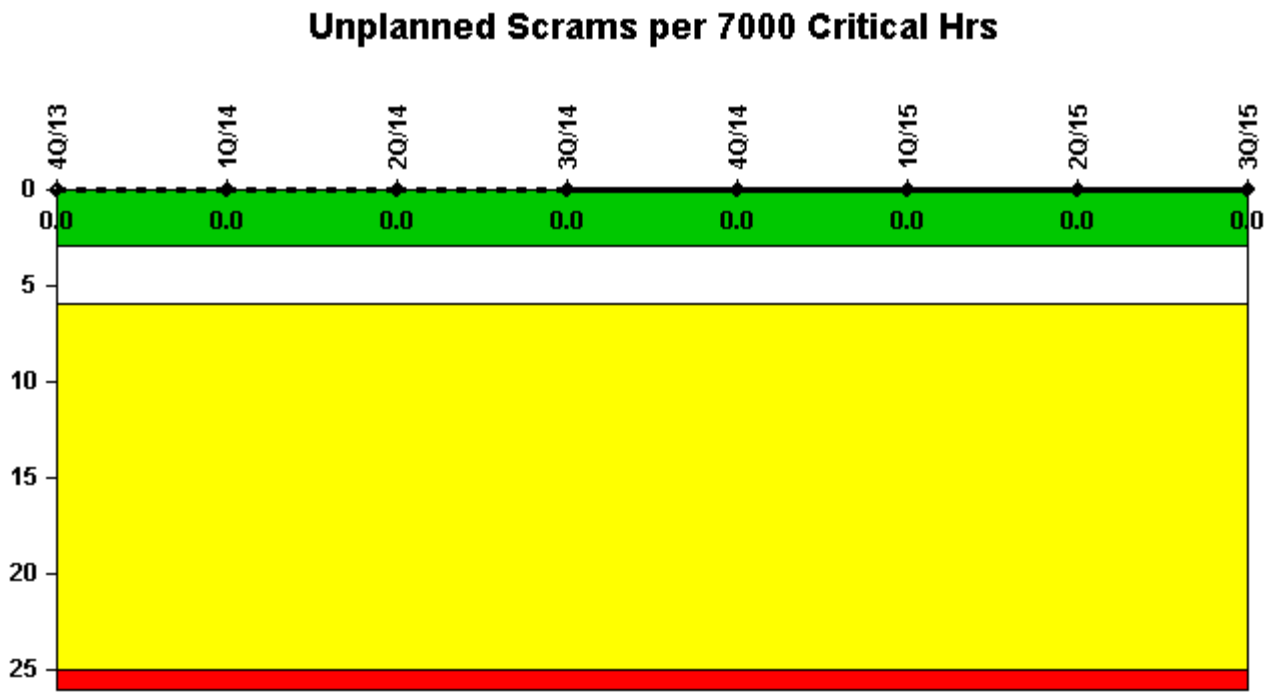
# FitzPatrick

## 3Q/2015 Performance Indicators

The solid trend line represents the current reporting period.

Licensee's General Comments: none



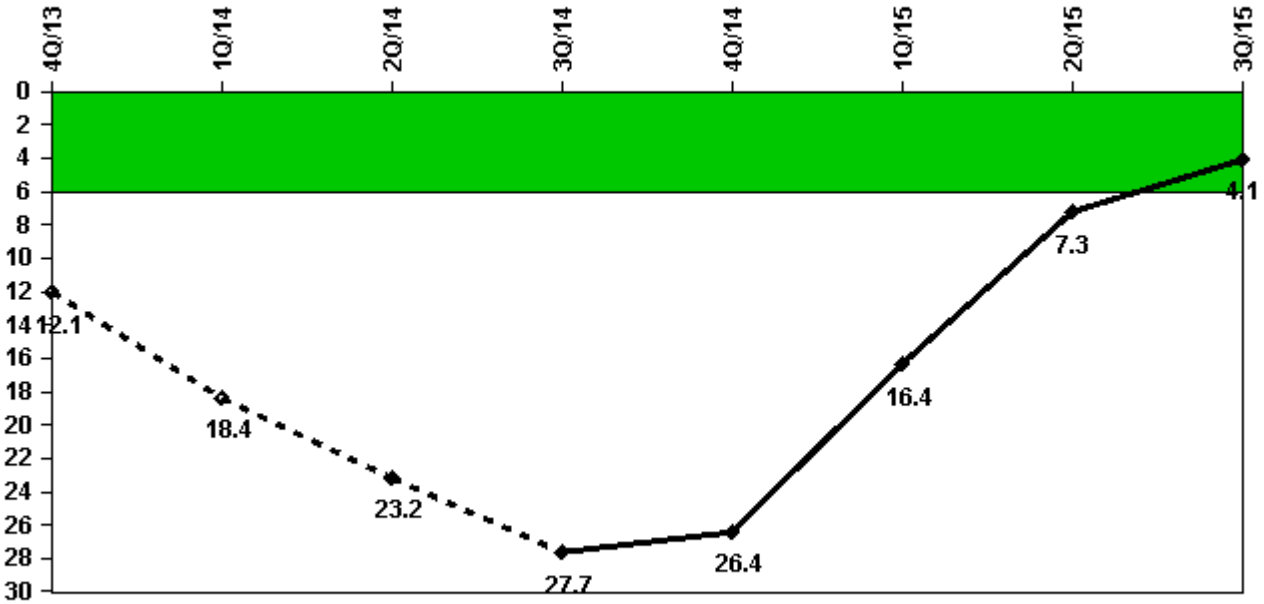

**Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0**

### Notes

| Unplanned Scrams per 7000 Critical Hrs | 4Q/13 | 1Q/14 | 2Q/14 | 3Q/14 | 4Q/14 | 1Q/15 | 2Q/15 | 3Q/15 |
|---|---|---|---|---|---|---|---|---|
| Unplanned scrams | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Critical hours | 2209.0 | 2159.0 | 2155.7 | 1318.0 | 2060.1 | 2159.0 | 2184.0 | 2208.0 |
| | | | | | | | | |
| **Indicator value** | **0** | **0** | **0** | **0** | **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/13 | 1Q/14 | 2Q/14 | 3Q/14 | 4Q/14 | 1Q/15 | 2Q/15 | 3Q/15 |
|---|---|---|---|---|---|---|---|---|
| Unplanned power changes | 6.0 | 11.0 | 10.0 | 4.0 | 4.0 | 0 | 0 | 1.0 |
| Critical hours | 2209.0 | 2159.0 | 2155.7 | 1318.0 | 2060.1 | 2159.0 | 2184.0 | 2208.0 |
| | | | | | | | | |
| **Indicator value** | **12.1** | **18.4** | **23.2** | **27.7** | **26.4** | **16.4** | **7.3** | **4.1** |

Licensee Comments:

2Q/15: Multiple downpowers were due to Main Condenser tube leakage. Retubing project completed during Refuel Outage 21. Main Condenser degrading performance has been corrected and this PI is improving. There is no effect on public or nuclear safety.

1Q/15: Multiple downpowers were due to Main Condenser tube leakage. Retubing project completed during Refuel Outage 21. Main Condenser degrading performance has been corrected and this PI is improving. There is no effect on public or nuclear safety.

4Q/14: Multiple downpowers are due to Main Condenser tube leakage. Retubing project completed during Refuel Outage 21. Main Condenser degrading performance has been corrected and this PI is expected to improve. There is no effect on public or nuclear safety.

3Q/14: Multiple downpowers are due to Main Condenser tube leakage. Retubing project completed during Refuel Outage 21. Main Condenser degrading performance has been corrected and this PI is expected to improve. There is no effect on public or nuclear safety.

2Q/14: Multiple downpowers are due to repairs on the Main Condenser tube inleakage. This deficiency is a known issue but individual tube failures are not predictable. Compensatory measures, such as tube plugging and

tube sleeving, have been performed to mitigate Main Condenser performance. Full Tube replacement is scheduled for next refueling outage. There is no effect on public or nuclear safety.

1Q/14: Multiple downpowers are due to repairs on the Main Condenser tube inleakage. This deficiency is a known issue but individual tube failures are not predictable. Compensatory measures, such as tube plugging and tube sleeving, have been performed to mitigate Main Condenser performance. Full Tube replacement is scheduled for next refueling outage. There is no effect on public or nuclear safety.

4Q/13: Multiple downpowers are due to repairs on the Main Condenser tube inleakage. This deficiency is a known issue but individual tube failures are not predictable. Compensatory measures, such as tube plugging and tube sleeving, have been performed to mitigate Main Condenser performance. There is no affect on public or nuclear safety.

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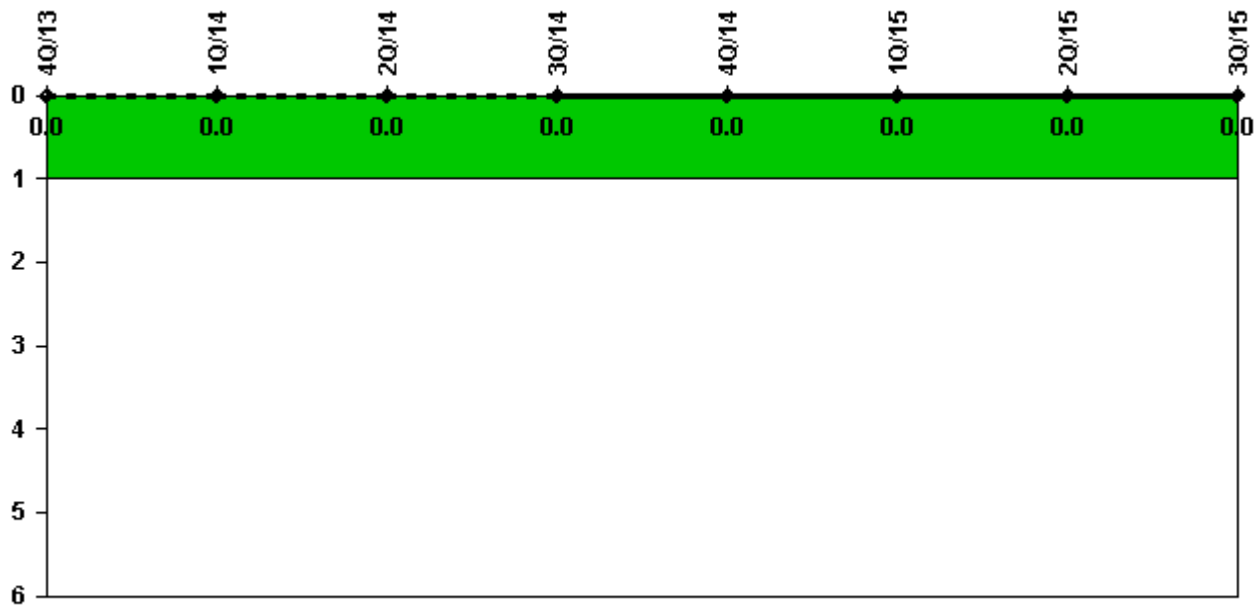
## Unplanned Scrams with Complications

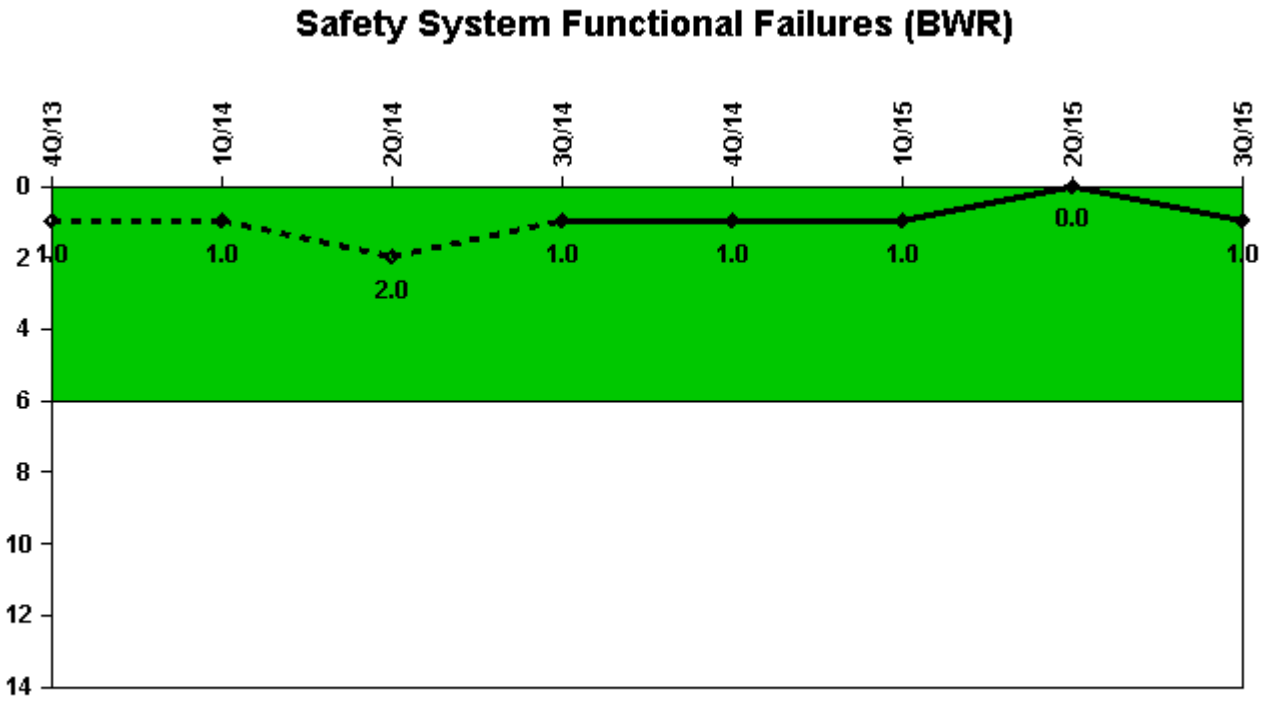



**Thresholds: White > 1.0**

### Notes

| Unplanned Scrams with Complications | 4Q/13 | 1Q/14 | 2Q/14 | 3Q/14 | 4Q/14 | 1Q/15 | 2Q/15 | 3Q/15 |
|---|---|---|---|---|---|---|---|---|
| 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




**Thresholds: White > 6.0**

## Notes

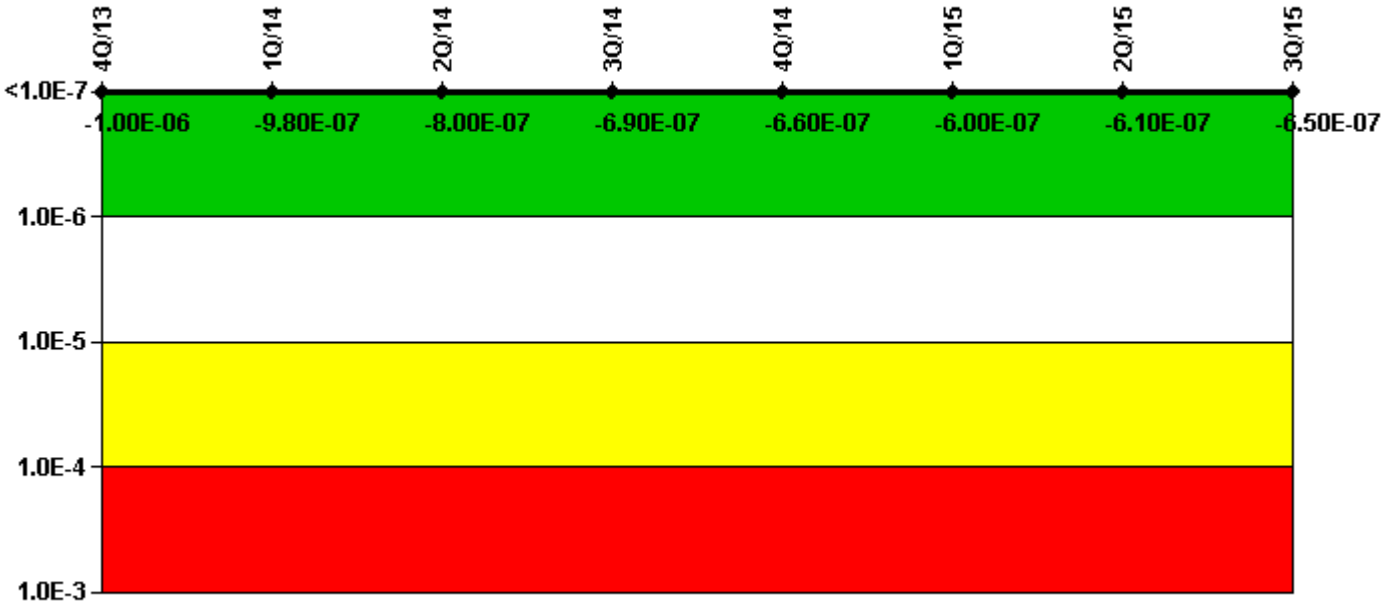
| Safety System Functional Failures (BWR) | 4Q/13 | 1Q/14 | 2Q/14 | 3Q/14 | 4Q/14 | 1Q/15 | 2Q/15 | 3Q/15 |
|---|---|---|---|---|---|---|---|---|
| Safety System Functional Failures | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| | | | | | | | | |
| **Indicator value** | **1** | **1** | **2** | **1** | **1** | **1** | **0** | **1** |

Licensee Comments:

3Q/15: LER-2015-003, Roof Maintenance Results in Secondary Containment Vacuum Below Technical Specification Limit

2Q/14: LER-14-001

## Mitigating Systems Performance Index, Emergency AC Power System




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

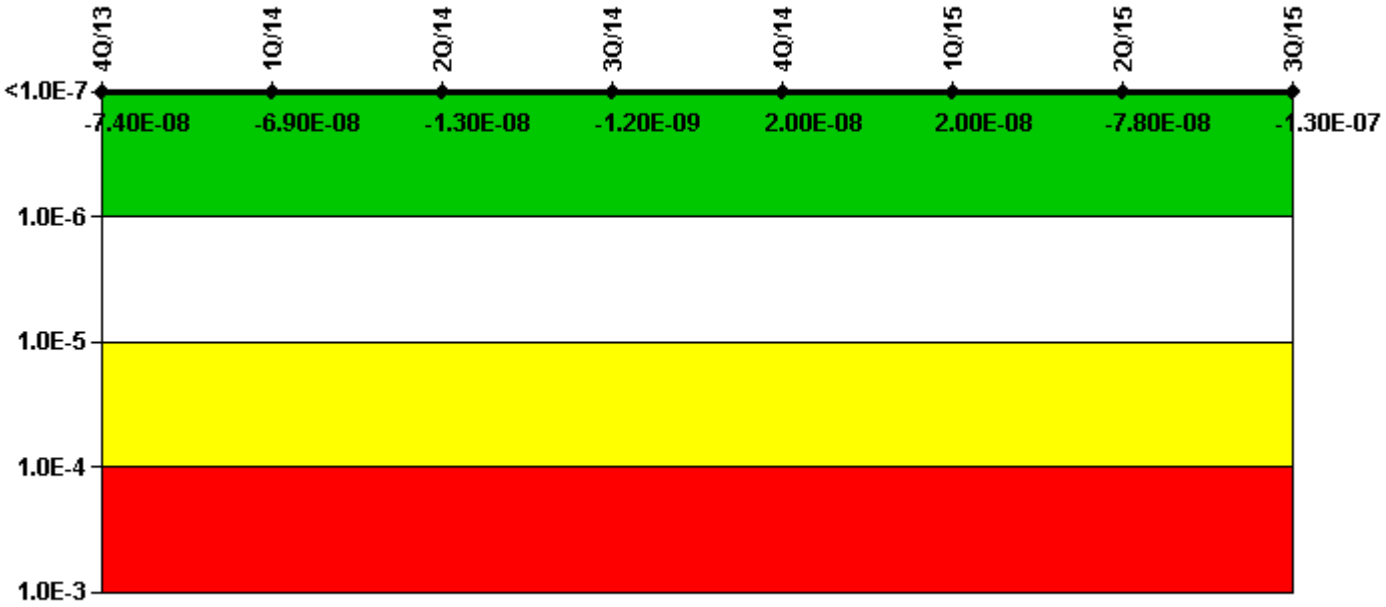
### Notes

| Mitigating Systems Performance Index, Emergency AC Power System | 4Q/13 | 1Q/14 | 2Q/14 | 3Q/14 | 4Q/14 | 1Q/15 | 2Q/15 | 3Q/15 |
|---|---|---|---|---|---|---|---|---|
| UAI (ΔCDF) | 9.66E-09 | 9.53E-09 | 7.89E-09 | 8.30E-09 | 5.04E-09 | 2.79E-09 | 5.78E-09 | 4.70E-09 |
| URI (ΔCDF) | -1.01E-06 | -9.94E-07 | -8.13E-07 | -7.03E-07 | -6.64E-07 | -5.99E-07 | -6.19E-07 | -6.57E-07 |
| PLE | NO | NO | NO | NO | NO | NO | NO | NO |
| | | | | | | | | |
| **Indicator value** | **-1.00E-06** | **-9.80E-07** | **-8.00E-07** | **-6.90E-07** | **-6.60E-07** | **-6.00E-07** | **-6.10E-07** | **-6.50E-07** |

Licensee Comments:

4Q/13: Change report submitted to make minor changes in the 3rd quarter 2013 to 4th quarter 2012. The Indicator color significance remains Green with the change.

## Mitigating Systems Performance Index, High Pressure Injection System




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

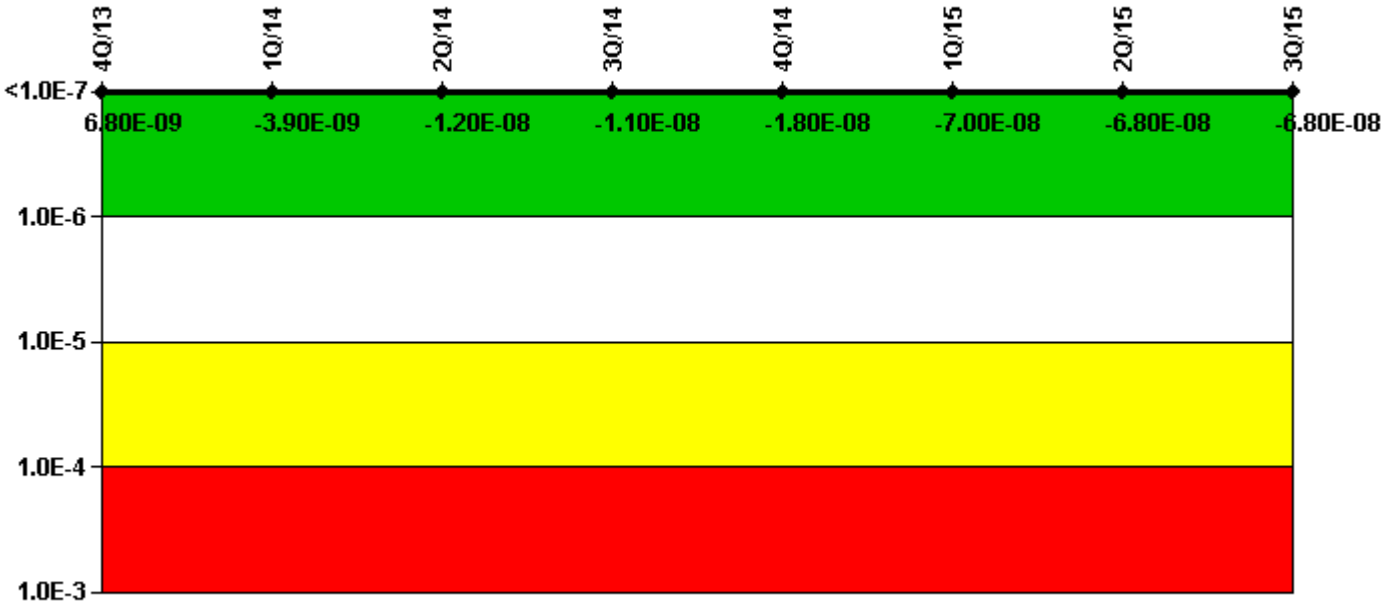
### Notes

| Mitigating Systems Performance Index, High Pressure Injection System | 4Q/13 | 1Q/14 | 2Q/14 | 3Q/14 | 4Q/14 | 1Q/15 | 2Q/15 | 3Q/15 |
|---|---|---|---|---|---|---|---|---|
| UAI (ΔCDF) | 7.02E-09 | 7.02E-09 | 6.56E-08 | 7.50E-08 | 1.03E-07 | 1.03E-07 | 9.35E-09 | -4.43E-08 |
| URI (ΔCDF) | -8.08E-08 | -7.62E-08 | -7.86E-08 | -7.63E-08 | -8.30E-08 | -8.32E-08 | -8.70E-08 | -8.28E-08 |
| PLE | NO | NO | NO | NO | NO | NO | NO | NO |
| | | | | | | | | |
| **Indicator value** | **-7.40E-08** | **-6.90E-08** | **-1.30E-08** | **-1.20E-09** | **2.00E-08** | **2.00E-08** | **-7.80E-08** | **-1.30E-07** |

Licensee Comments:

2Q/14: MSPI Basis Document Rev 4: Revise HPCI and RCIC to remove the Pressure Control Mode. Remove 10SOV-101A through D

## Mitigating Systems Performance Index, Heat Removal System



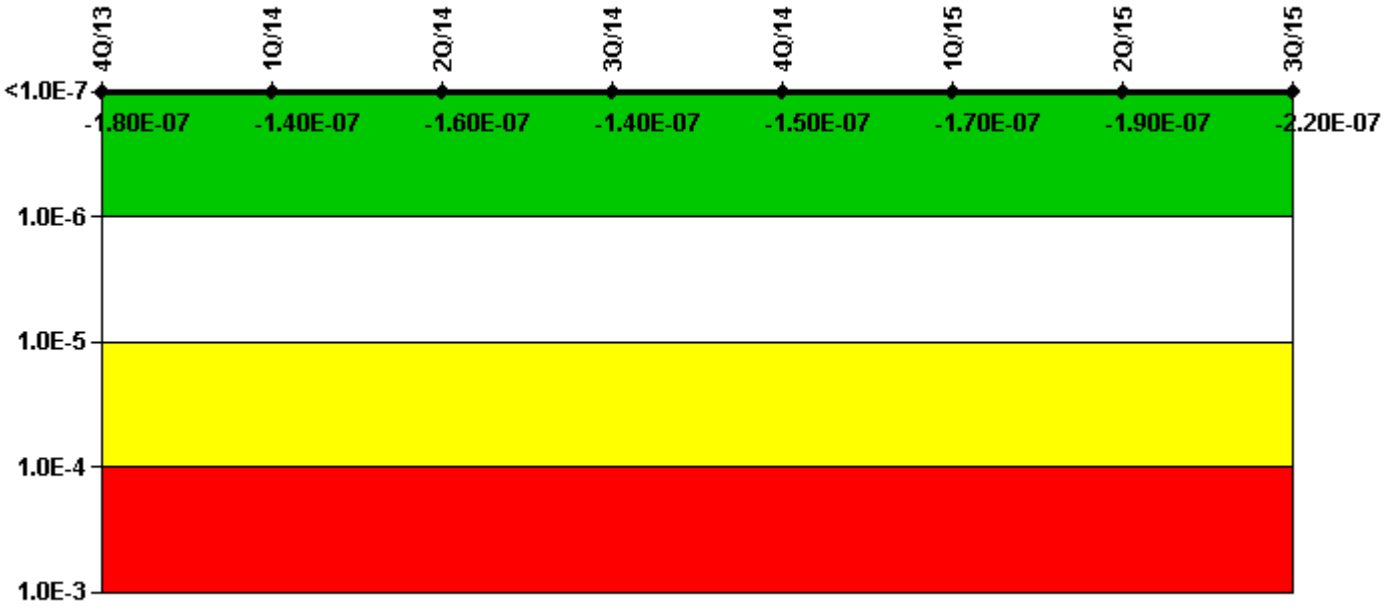

**Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4**

### Notes

| Mitigating Systems Performance Index, Heat Removal System | 4Q/13 | 1Q/14 | 2Q/14 | 3Q/14 | 4Q/14 | 1Q/15 | 2Q/15 | 3Q/15 |
|---|---|---|---|---|---|---|---|---|
| UAI (ΔCDF) | 1.78E-08 | 5.09E-08 | 4.32E-08 | 4.16E-08 | 3.90E-08 | -1.27E-08 | -1.14E-08 | -1.32E-08 |
| URI (ΔCDF) | -1.10E-08 | -5.48E-08 | -5.48E-08 | -5.26E-08 | -5.71E-08 | -5.70E-08 | -5.70E-08 | -5.45E-08 |
| PLE | NO | NO | NO | NO | NO | NO | NO | NO |
| | | | | | | | | |
| **Indicator value** | **6.80E-09** | **-3.90E-09** | **-1.20E-08** | **-1.10E-08** | **-1.80E-08** | **-7.00E-08** | **-6.80E-08** | **-6.80E-08** |

Licensee Comments: none

## Mitigating Systems Performance Index, Residual Heat Removal System



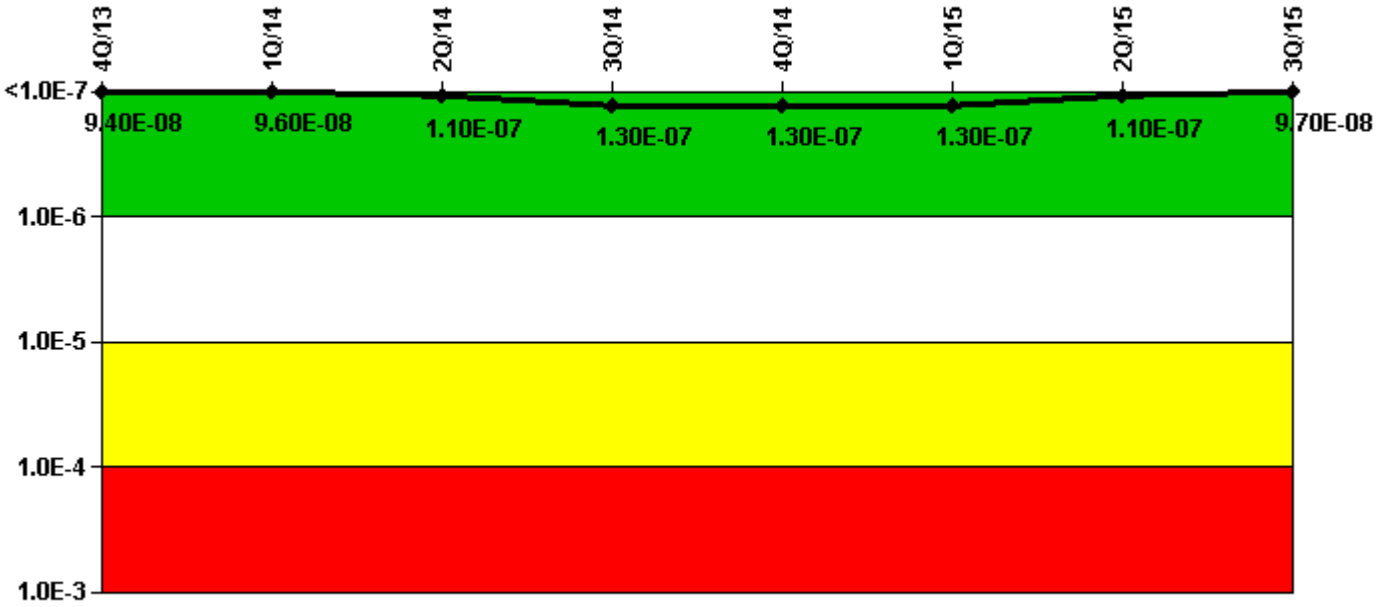

**Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4**

### Notes

| Mitigating Systems Performance Index, Residual Heat Removal System | 4Q/13 | 1Q/14 | 2Q/14 | 3Q/14 | 4Q/14 | 1Q/15 | 2Q/15 | 3Q/15 |
|---|---|---|---|---|---|---|---|---|
| UAI (ΔCDF) | 5.90E-08 | 1.00E-07 | 9.04E-08 | 1.17E-07 | 1.20E-07 | 8.97E-08 | 7.15E-08 | 2.83E-08 |
| URI (ΔCDF) | -2.41E-07 | -2.44E-07 | -2.47E-07 | -2.60E-07 | -2.65E-07 | -2.63E-07 | -2.63E-07 | -2.50E-07 |
| PLE | NO | NO | NO | NO | NO | NO | NO | NO |
| | | | | | | | | |
| **Indicator value** | **-1.80E-07** | **-1.40E-07** | **-1.60E-07** | **-1.40E-07** | **-1.50E-07** | **-1.70E-07** | **-1.90E-07** | **-2.20E-07** |

Licensee Comments: none

## Mitigating Systems Performance Index, Cooling Water Systems



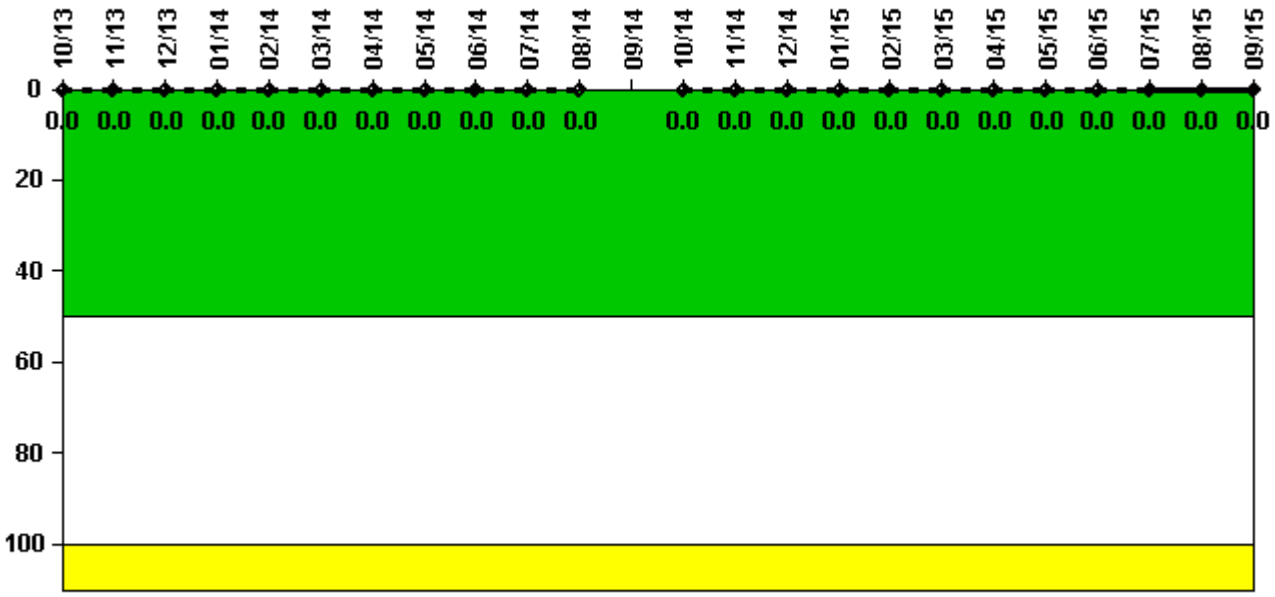

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

### Notes

| Mitigating Systems Performance Index, Cooling Water Systems | 4Q/13 | 1Q/14 | 2Q/14 | 3Q/14 | 4Q/14 | 1Q/15 | 2Q/15 | 3Q/15 |
|---|---|---|---|---|---|---|---|---|
| UAI (ΔCDF) | 1.06E-07 | 1.07E-07 | 1.25E-07 | 1.38E-07 | 1.40E-07 | 1.39E-07 | 1.20E-07 | 1.10E-07 |
| URI (ΔCDF) | -1.13E-08 | -1.13E-08 | -1.15E-08 | -1.22E-08 | -1.23E-08 | -1.23E-08 | -1.26E-08 | -1.26E-08 |
| PLE | NO | NO | NO | NO | NO | NO | NO | NO |
| | | | | | | | | |
| **Indicator value** | **9.40E-08** | **9.60E-08** | **1.10E-07** | **1.30E-07** | **1.30E-07** | **1.30E-07** | **1.10E-07** | **9.70E-08** |

Licensee Comments: none

## Reactor Coolant System Activity




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

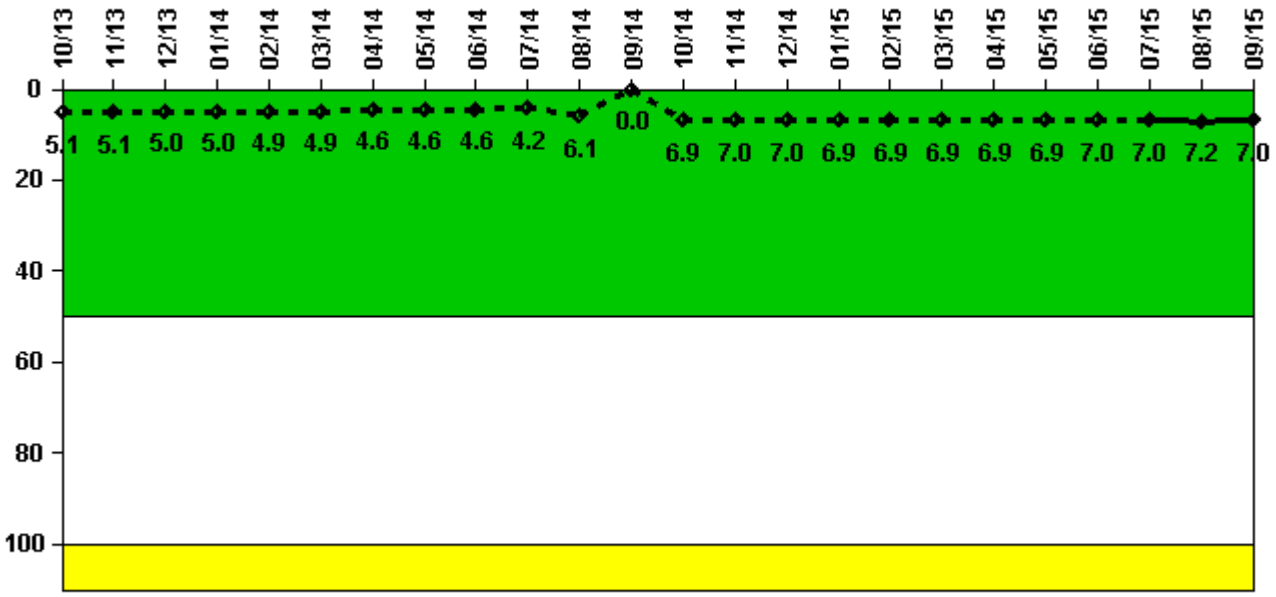
### Notes

| Reactor Coolant System Activity | 10/13 | 11/13 | 12/13 | 1/14 | 2/14 | 3/14 | 4/14 | 5/14 | 6/14 | 7/14 | 8/14 | 9/14 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Maximum activity | 0.000010 | 0.000010 | 0.000014 | 0.000015 | 0.000015 | 0.000013 | 0.000009 | 0.000012 | 0.000006 | 0.000018 | 0.000017 | N/A |
| 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** | **N/A** |

| Reactor Coolant System Activity | 10/14 | 11/14 | 12/14 | 1/15 | 2/15 | 3/15 | 4/15 | 5/15 | 6/15 | 7/15 | 8/15 | 9/15 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Maximum activity | 0.000008 | 0.000008 | 0.000010 | 0.000012 | 0.000009 | 0.000011 | 0.000010 | 0.000008 | 0.000008 | 0.000007 | 0.000008 | 0.000006 |
| 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



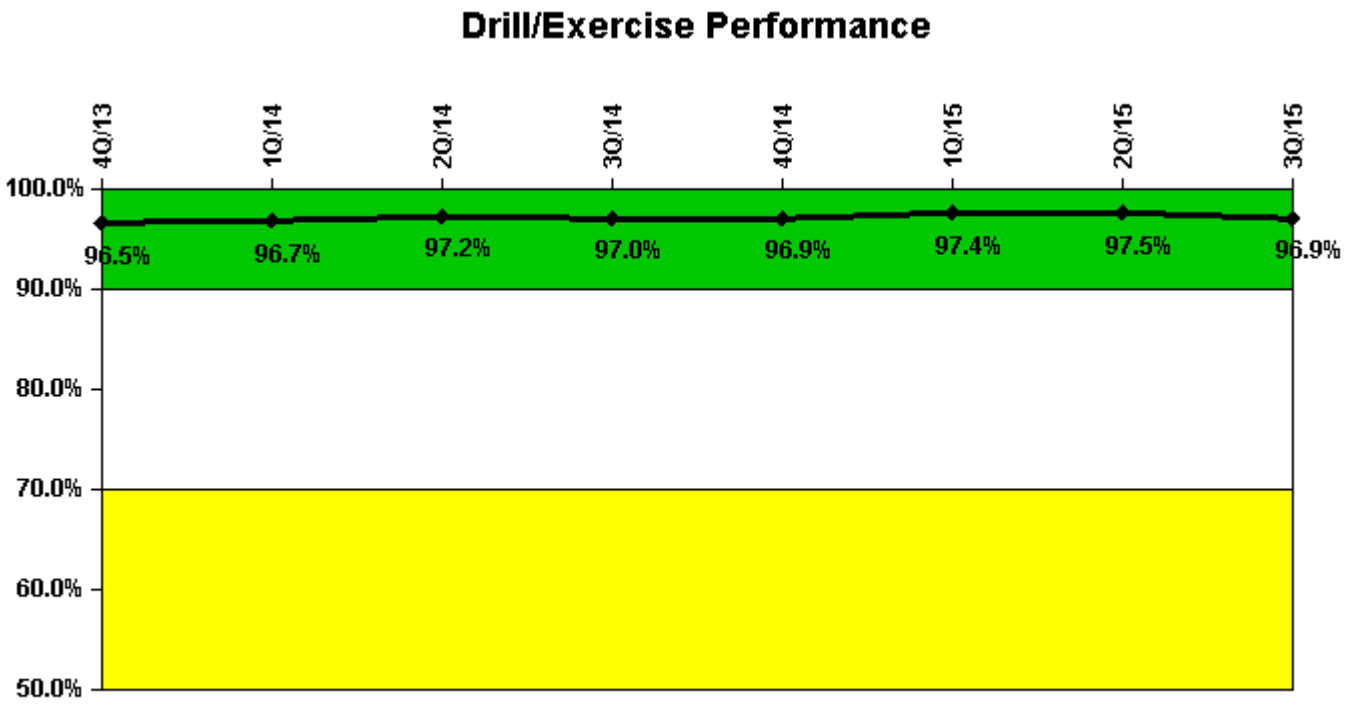

**Thresholds: White > 50.0 Yellow > 100.0**

### Notes

| Reactor Coolant System Leakage | 10/13 | 11/13 | 12/13 | 1/14 | 2/14 | 3/14 | 4/14 | 5/14 | 6/14 | 7/14 | 8/14 | 9/14 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Maximum leakage | 1.280 | 1.270 | 1.260 | 1.250 | 1.230 | 1.220 | 1.160 | 1.140 | 1.150 | 1.060 | 1.530 | 0 |
| 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** | **5.1** | **5.1** | **5.0** | **5.0** | **4.9** | **4.9** | **4.6** | **4.6** | **4.6** | **4.2** | **6.1** | **0** |

| Reactor Coolant System Leakage | 10/14 | 11/14 | 12/14 | 1/15 | 2/15 | 3/15 | 4/15 | 5/15 | 6/15 | 7/15 | 8/15 | 9/15 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Maximum leakage | 1.720 | 1.740 | 1.760 | 1.730 | 1.730 | 1.730 | 1.730 | 1.730 | 1.740 | 1.740 | 1.790 | 1.760 |
| 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** | **6.9** | **7.0** | **7.0** | **6.9** | **6.9** | **6.9** | **6.9** | **6.9** | **7.0** | **7.0** | **7.2** | **7.0** |

Licensee Comments: none

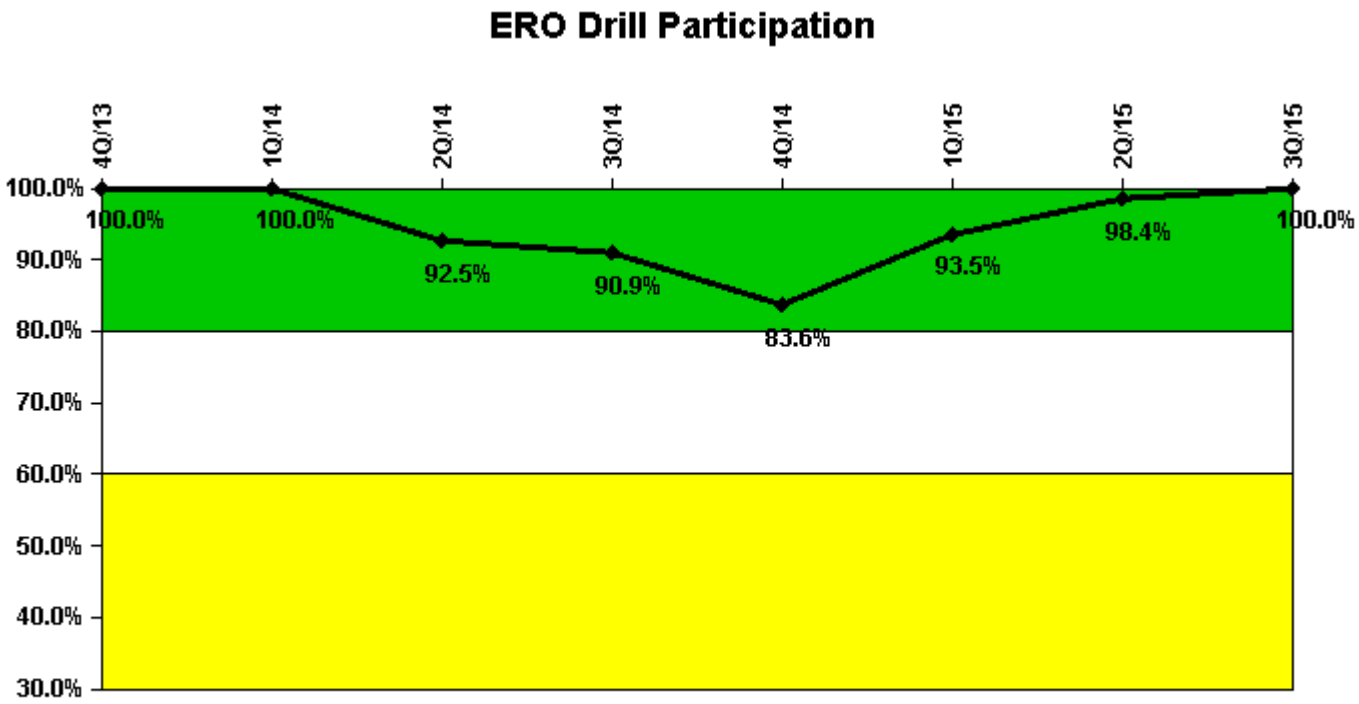



**Thresholds: White < 90.0% Yellow < 70.0%**

## Notes

| Drill/Exercise Performance | 4Q/13 | 1Q/14 | 2Q/14 | 3Q/14 | 4Q/14 | 1Q/15 | 2Q/15 | 3Q/15 |
|---|---|---|---|---|---|---|---|---|
| Successful opportunities | 76.0 | 51.0 | 50.0 | 0 | 0 | 24.0 | 69.0 | 16.0 |
| Total opportunities | 77.0 | 52.0 | 55.0 | 0 | 0 | 24.0 | 70.0 | 17.0 |
| | | | | | | | | |
| **Indicator value** | **96.5%** | **96.7%** | **97.2%** | **97.0%** | **96.9%** | **97.4%** | **97.5%** | **96.9%** |

Licensee Comments: none




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

## Notes

| ERO Drill Participation | 4Q/13 | 1Q/14 | 2Q/14 | 3Q/14 | 4Q/14 | 1Q/15 | 2Q/15 | 3Q/15 |
|---|---|---|---|---|---|---|---|---|
| Participating Key personnel | 78.0 | 69.0 | 62.0 | 60.0 | 56.0 | 58.0 | 62.0 | 61.0 |
| Total Key personnel | 78.0 | 69.0 | 67.0 | 66.0 | 67.0 | 62.0 | 63.0 | 61.0 |
| | | | | | | | | |
| **Indicator value** | **100.0%** | **100.0%** | **92.5%** | **90.9%** | **83.6%** | **93.5%** | **98.4%** | **100.0%** |

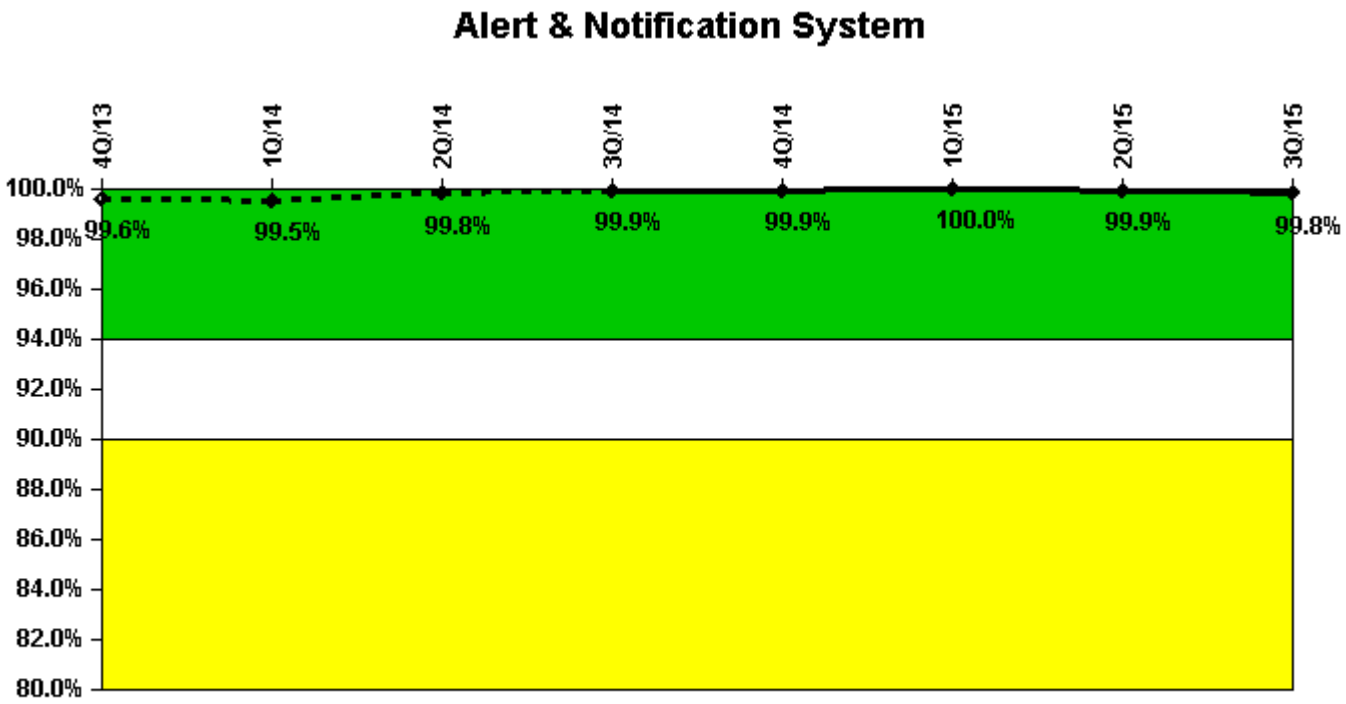
Licensee Comments:

2Q/15: December 2014 data is updated to correct a discrepancy in which an individual should have been counted for 2 separate positions. The change has a minor effect on the indicator value and it does not change the indicator color.

4Q/14: Data is updated to correct a discrepancy in which an individual should have been counted for 2 separate positions. The change has a minor effect on the indicator value and it does not change the indicator color.

1Q/14: 4th quarter 2013 data was revised to reflect updated qualification status of one key individual. This change does not affect the indicator color.

4Q/13: December and November 2013 data was revised to reflect updated qualification status of one key individual. This change does not affect the indicator color.



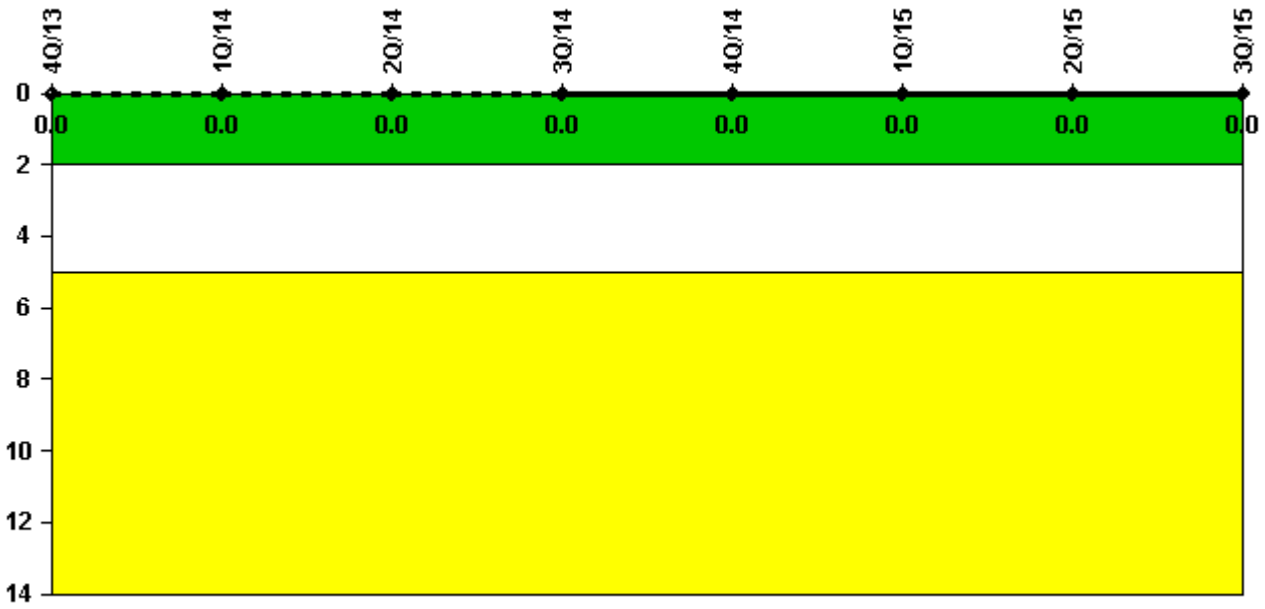

**Thresholds: White < 94.0% Yellow < 90.0%**

## Notes

| Alert & Notification System | 4Q/13 | 1Q/14 | 2Q/14 | 3Q/14 | 4Q/14 | 1Q/15 | 2Q/15 | 3Q/15 |
|---|---|---|---|---|---|---|---|---|
| Successful siren-tests | 333 | 221 | 296 | 259 | 296 | 259 | 258 | 258 |
| Total sirens-tests | 333 | 222 | 296 | 259 | 296 | 259 | 259 | 259 |
| | | | | | | | | |
| **Indicator value** | **99.6%** | **99.5%** | **99.8%** | **99.9%** | **99.9%** | **100.0%** | **99.9%** | **99.8%** |

Licensee Comments: none

## Occupational Exposure Control Effectiveness

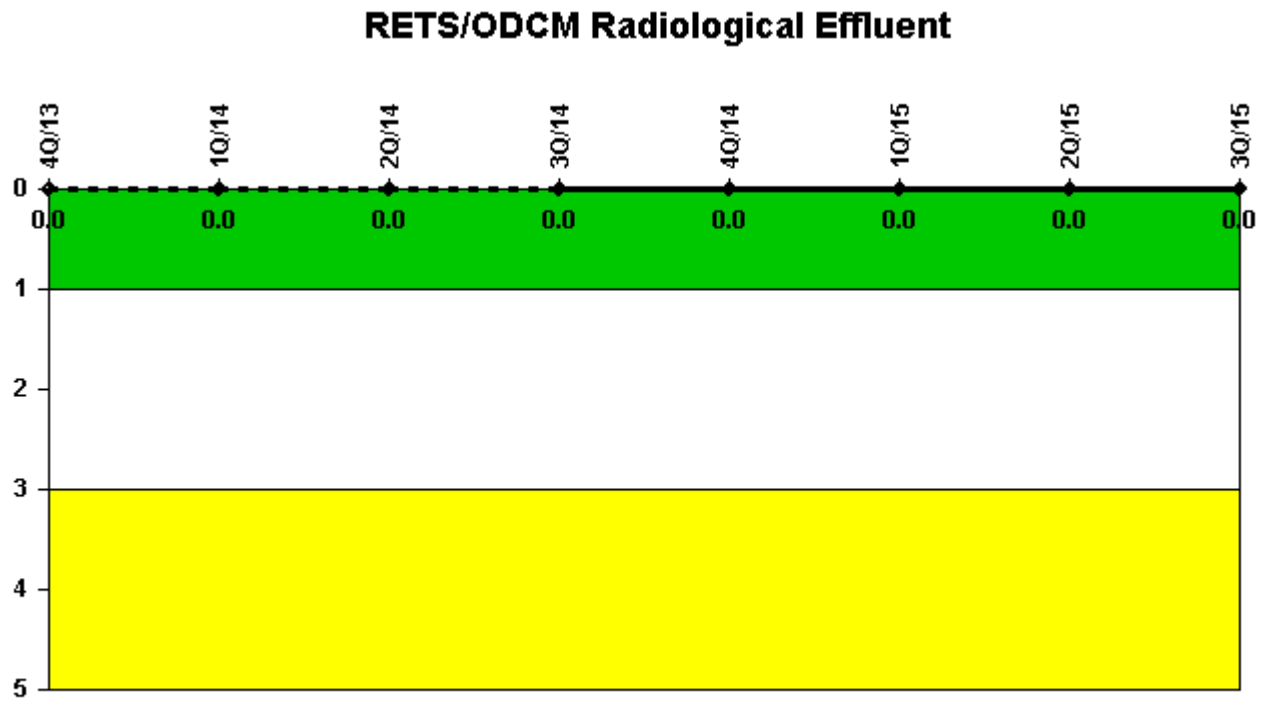



**Thresholds: White > 2.0 Yellow > 5.0**

### Notes

| Occupational Exposure Control Effectiveness | 4Q/13 | 1Q/14 | 2Q/14 | 3Q/14 | 4Q/14 | 1Q/15 | 2Q/15 | 3Q/15 |
|---|---|---|---|---|---|---|---|---|
| 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 |
| **Indicator value** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** |

Licensee Comments: none




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

## Notes

| RETS/ODCM Radiological Effluent | 4Q/13 | 1Q/14 | 2Q/14 | 3Q/14 | 4Q/14 | 1Q/15 | 2Q/15 | 3Q/15 |
|---|---|---|---|---|---|---|---|---|
| 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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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.

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

*Last Modified: December 15, 2015*