

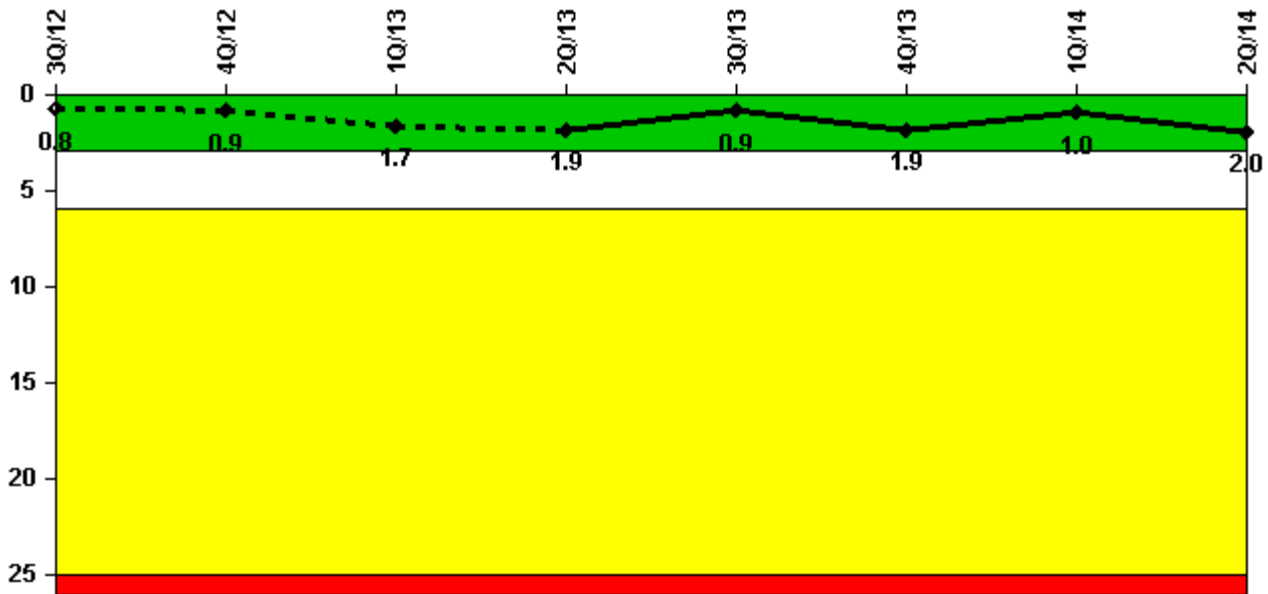
# Arkansas Nuclear 2

## 2Q/2014 Performance Indicators

The solid trend line represents the current reporting period.

Licensee's General Comments: none

### Unplanned Scrams per 7000 Critical Hrs



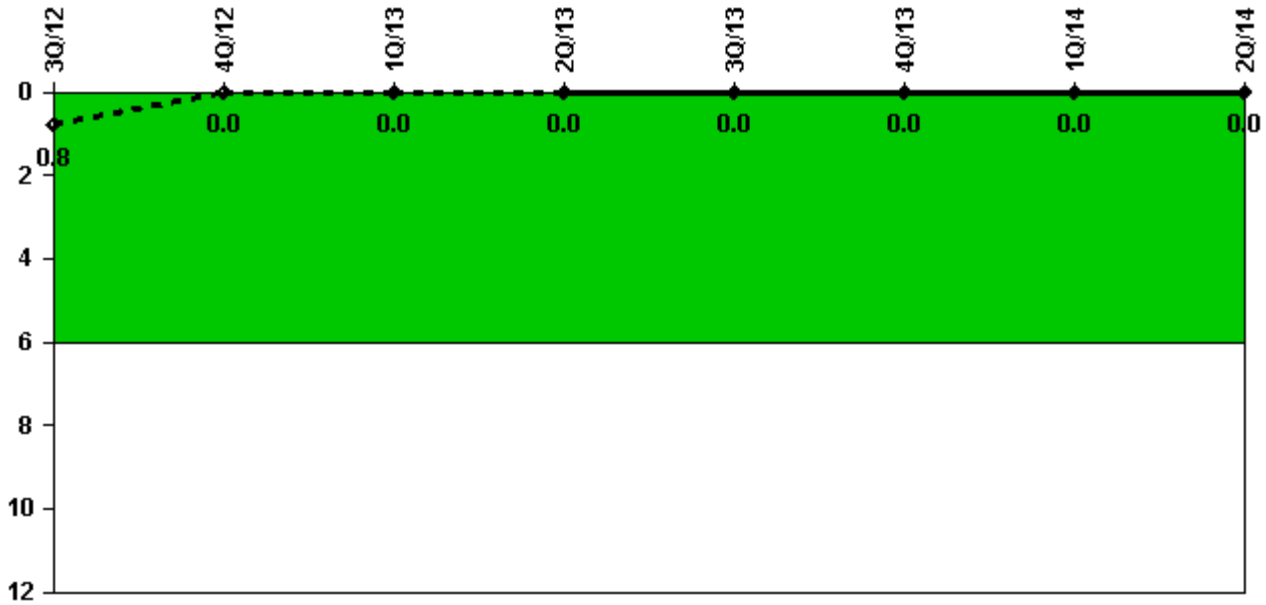
Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

### Notes

| Unplanned Scrams per 7000 Critical Hrs | 3Q/12      | 4Q/12      | 1Q/13      | 2Q/13      | 3Q/13      | 4Q/13      | 1Q/14      | 2Q/14      |
|--|------------|------------|------------|------------|------------|------------|------------|------------|
| Unplanned scrams                       | 1.0        | 0          | 1.0        | 0          | 0          | 1.0        | 0          | 1.0        |
| Critical hours                         | 1755.3     | 1987.5     | 2142.8     | 1526.7     | 2208.0     | 1664.8     | 1930.7     | 1068.7     |
| <b>Indicator value</b>                 | <b>0.8</b> | <b>0.9</b> | <b>1.7</b> | <b>1.9</b> | <b>0.9</b> | <b>1.9</b> | <b>1.0</b> | <b>2.0</b> |

Licensee Comments: none

### Unplanned Power Changes per 7000 Critical Hrs



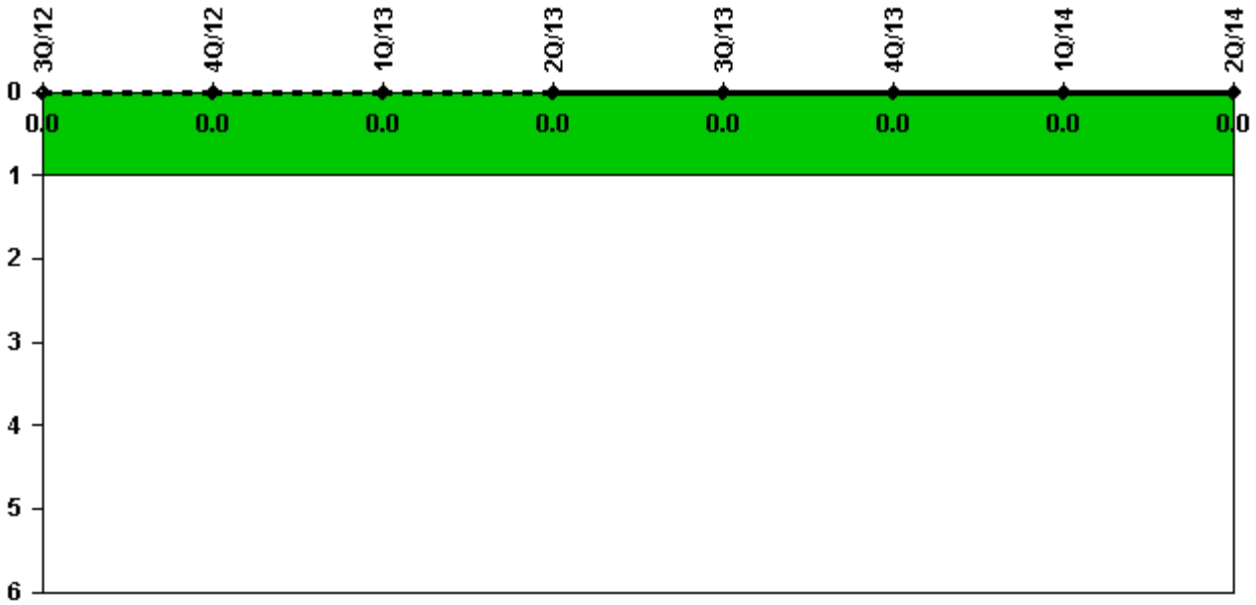
Thresholds: White > 6.0

#### Notes

| Unplanned Power Changes per 7000 Critical Hrs | 3Q/12      | 4Q/12    | 1Q/13    | 2Q/13    | 3Q/13    | 4Q/13    | 1Q/14    | 2Q/14    |
|---|------------|----------|----------|----------|----------|----------|----------|----------|
| Unplanned power changes                       | 0          | 0        | 0        | 0        | 0        | 0        | 0        | 0        |
| Critical hours                                | 1755.3     | 1987.5   | 2142.8   | 1526.7   | 2208.0   | 1664.8   | 1930.7   | 1068.7   |
| <b>Indicator value</b>                        | <b>0.8</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

### Unplanned Scrams with Complications



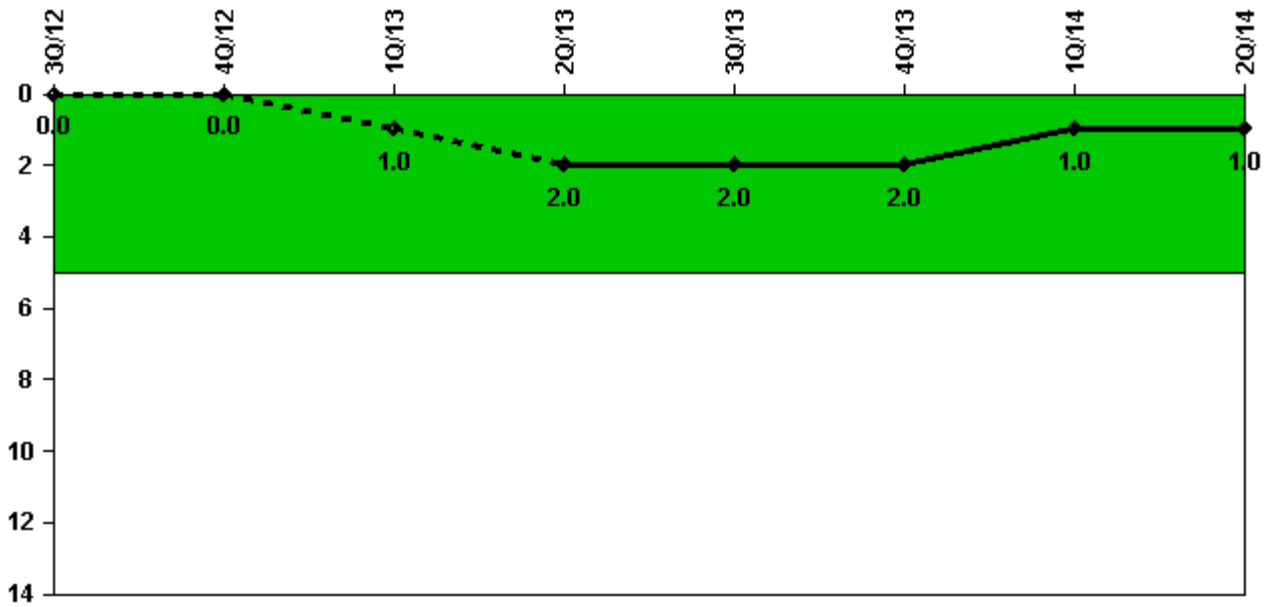
Thresholds: White > 1.0

#### Notes

| Unplanned Scrams with Complications | 3Q/12      | 4Q/12      | 1Q/13      | 2Q/13      | 3Q/13      | 4Q/13      | 1Q/14      | 2Q/14      |
|-------------------------------------|------------|------------|------------|------------|------------|------------|------------|------------|
| 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 (PWR)



Thresholds: White > 5.0

#### Notes

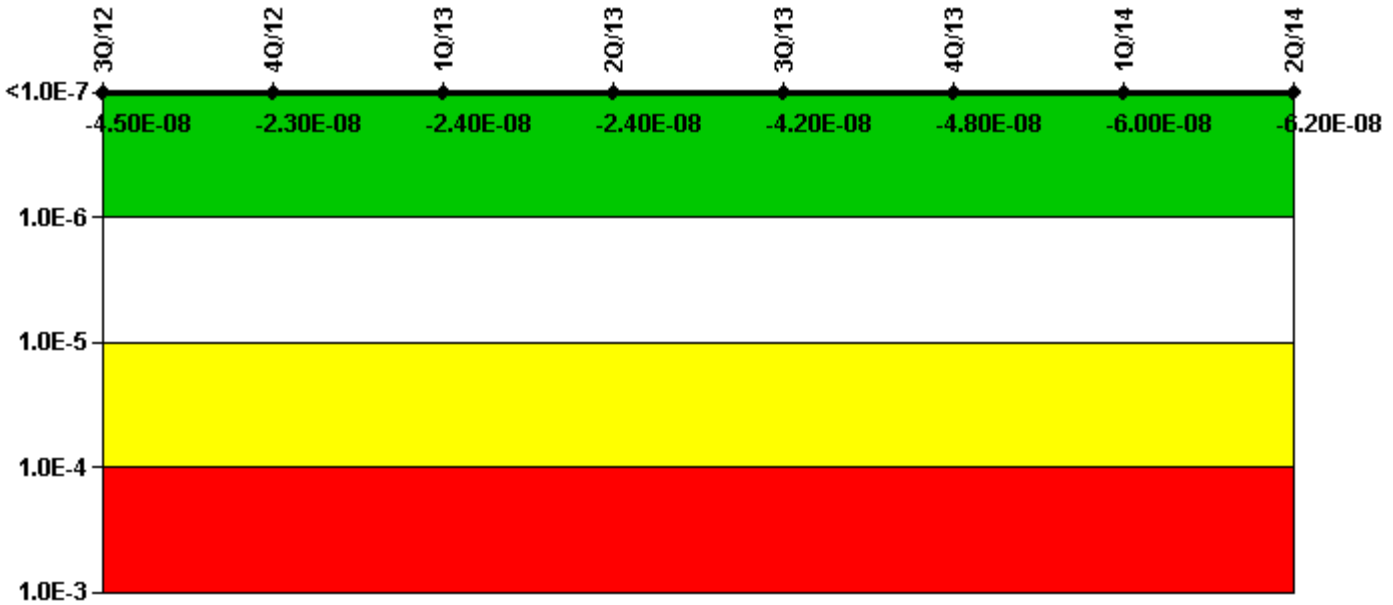
| Safety System Functional Failures (PWR) | 3Q/12    | 4Q/12    | 1Q/13    | 2Q/13    | 3Q/13    | 4Q/13    | 1Q/14    | 2Q/14    |
|---|----------|----------|----------|----------|----------|----------|----------|----------|
| Safety System Functional Failures       | 0        | 0        | 1        | 1        | 0        | 0        | 0        | 1        |
| <b>Indicator value</b>                  | <b>0</b> | <b>0</b> | <b>1</b> | <b>2</b> | <b>2</b> | <b>2</b> | <b>1</b> | <b>1</b> |

Licensee Comments:

2Q/13: April 2013 - Licensee Event Report 50-368/2013-002-00: Emergency Control Room Chiller Inoperability

1Q/13: Licensee Event Report 50-368/2013-001-00 submitted in February, 2012.

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



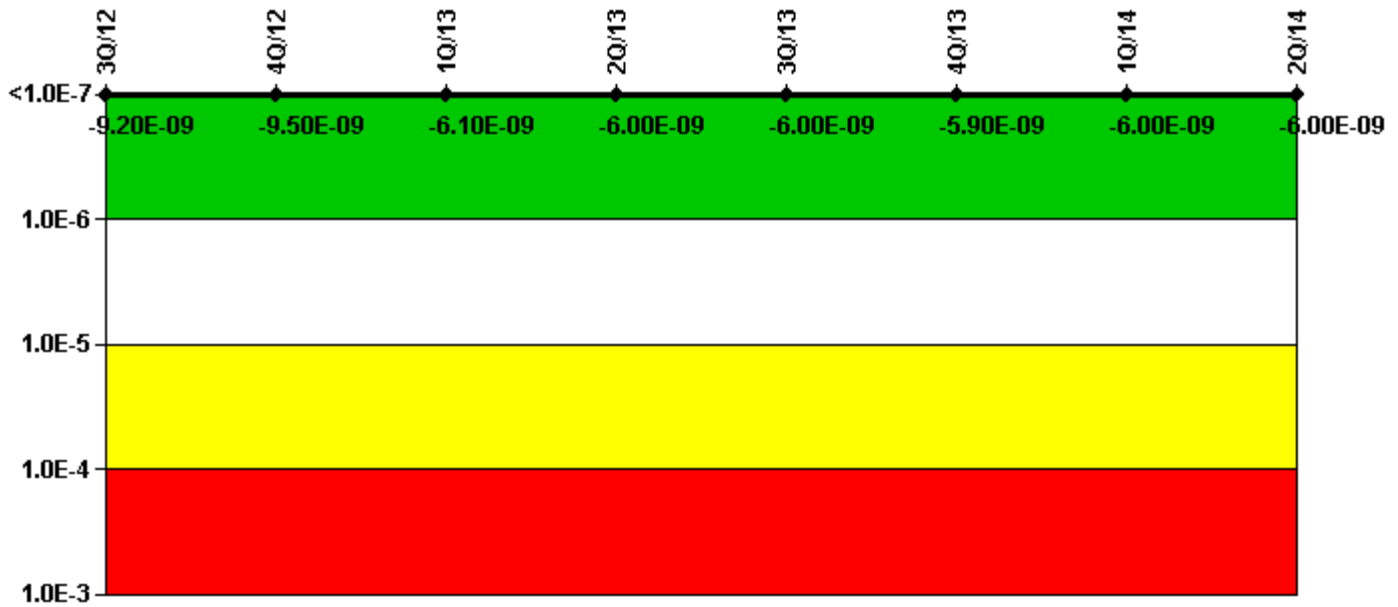
Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

#### Notes

| Mitigating Systems Performance Index, Emergency AC Power System | 3Q/12     | 4Q/12     | 1Q/13     | 2Q/13     | 3Q/13     | 4Q/13     | 1Q/14     | 2Q/14     |
|---|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| UAI ( $\Delta$ CDF)   | 8.38E-09  | 3.12E-08  | 3.13E-08  | 3.36E-08  | 9.58E-09  | 5.57E-09  | -5.77E-09 | -5.77E-09 |
| URI ( $\Delta$ CDF)   | -5.36E-08 | -5.42E-08 | -5.53E-08 | -5.72E-08 | -5.15E-08 | -5.35E-08 | -5.43E-08 | -5.62E-08 |
| PLE   | NO        | NO        | NO        | NO        | NO        | NO        | NO        | NO        |
| Indicator value   | -4.50E-08 | -2.30E-08 | -2.40E-08 | -2.40E-08 | -4.20E-08 | -4.80E-08 | -6.00E-08 | -6.20E-08 |

Licensee Comments: none

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



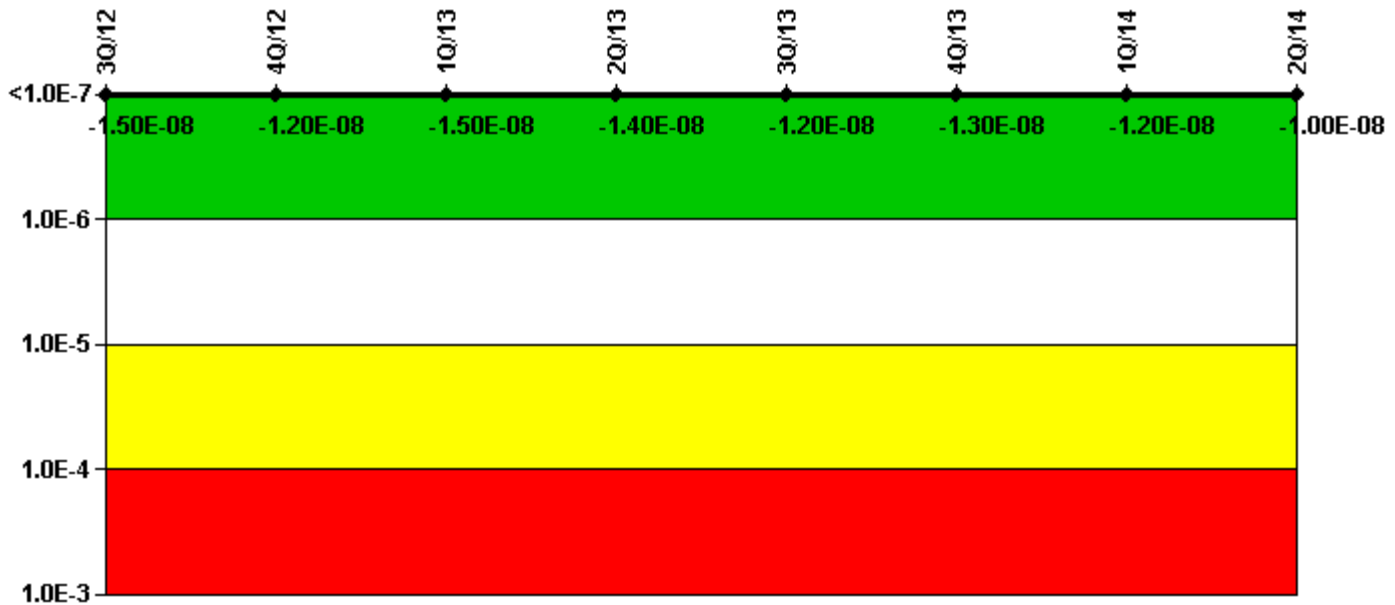
Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

#### Notes

| Mitigating Systems Performance Index, High Pressure Injection System | 3Q/12     | 4Q/12     | 1Q/13     | 2Q/13     | 3Q/13     | 4Q/13     | 1Q/14     | 2Q/14     |
|--|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| UAI ( $\Delta$ CDF)  | -4.59E-09 | -4.59E-09 | -1.06E-09 | -8.77E-10 | -9.56E-10 | -8.00E-10 | -9.65E-10 | -6.38E-10 |
| URI ( $\Delta$ CDF)  | -4.58E-09 | -4.94E-09 | -5.02E-09 | -5.13E-09 | -5.08E-09 | -5.08E-09 | -5.01E-09 | -5.34E-09 |
| PLE  | NO        | NO        | NO        | NO        | NO        | NO        | NO        | NO        |
| Indicator value  | -9.20E-09 | -9.50E-09 | -6.10E-09 | -6.00E-09 | -6.00E-09 | -5.90E-09 | -6.00E-09 | -6.00E-09 |

Licensee Comments: none

### Mitigating Systems Performance Index, Heat Removal System



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

#### Notes

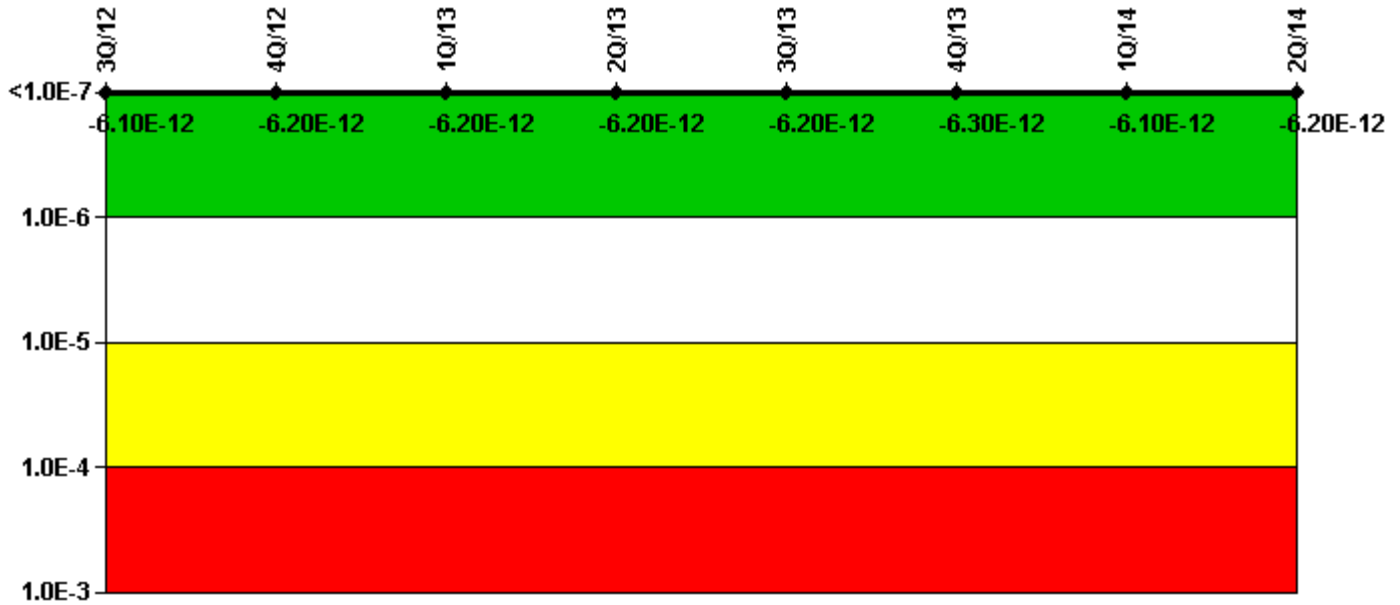
| Mitigating Systems Performance Index, Heat Removal System | 3Q/12     | 4Q/12     | 1Q/13     | 2Q/13     | 3Q/13     | 4Q/13     | 1Q/14     | 2Q/14     |
|---|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| UAI ( $\Delta$ CDF)                                       | -2.16E-09 | 1.15E-09  | -2.04E-09 | -1.35E-10 | 7.10E-10  | 6.78E-10  | 6.61E-10  | 3.40E-09  |
| URI ( $\Delta$ CDF)                                       | -1.32E-08 | -1.31E-08 | -1.33E-08 | -1.34E-08 | -1.31E-08 | -1.33E-08 | -1.29E-08 | -1.35E-08 |
| PLE   | NO        | NO        | NO        | NO        | NO        | NO        | NO        | NO        |
| Indicator value   | -1.50E-08 | -1.20E-08 | -1.50E-08 | -1.40E-08 | -1.20E-08 | -1.30E-08 | -1.20E-08 | -1.00E-08 |

#### Licensee Comments:

3Q/13: Follow-up comment as required by NEI 99-02 Reporting Guidance: An engineering evaluation was completed for the high oil level condition identified last quarter for the 2P-7A Emergency Feedwater Pump. The evaluation showed that the condition did not impact pump operability, and therefore, did not result in any performance indicator impact.

2Q/13: In May, a high oil level condition was identified for the 2P-7A Emergency Feedwater Pump. An engineering evaluation is in progress to evaluate the condition. Any performance indicator impact as a result of the evaluation will be reported in the following quarter, as instructed by NEI 99-02 Reporting Guidance.

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



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

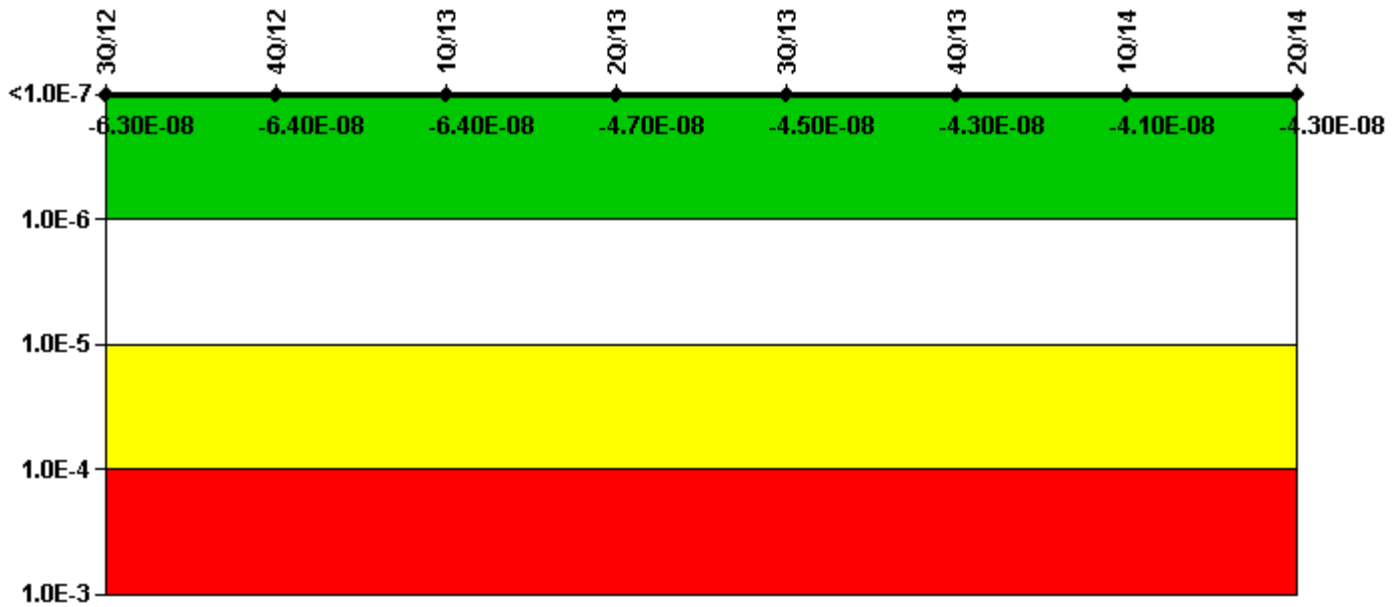
#### Notes

| Mitigating Systems Performance Index, Residual Heat Removal System | 3Q/12     | 4Q/12     | 1Q/13     | 2Q/13     | 3Q/13     | 4Q/13     | 1Q/14     | 2Q/14     |
|--|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| UAI ( $\Delta$ CDF)  | -4.49E-12 | -4.49E-12 | -4.49E-12 | -4.49E-12 | -4.49E-12 | -4.49E-12 | -4.49E-12 | -4.49E-12 |
| URI ( $\Delta$ CDF)  | -1.59E-12 | -1.73E-12 | -1.76E-12 | -1.73E-12 | -1.69E-12 | -1.86E-12 | -1.63E-12 | -1.76E-12 |
| PLE  | NO        | NO        | NO        | NO        | NO        | NO        | NO        | NO        |
| Indicator value  | -6.10E-12 | -6.20E-12 | -6.20E-12 | -6.20E-12 | -6.20E-12 | -6.30E-12 | -6.10E-12 | -6.20E-12 |

Licensee Comments: none



### Mitigating Systems Performance Index, Cooling Water Systems



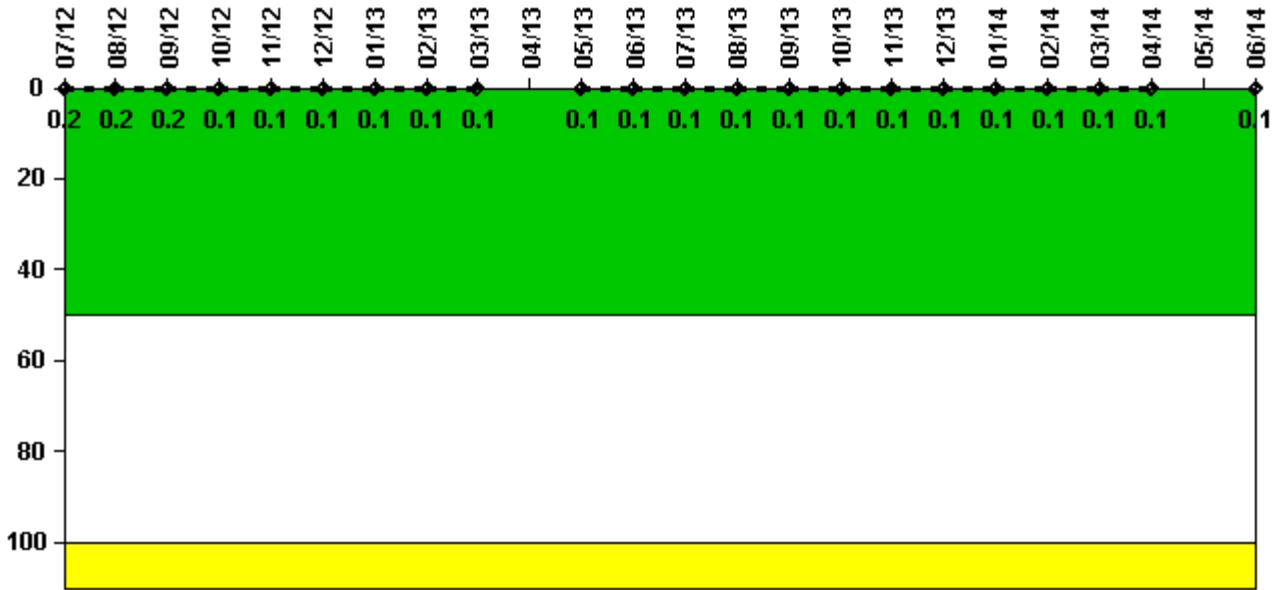
Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

#### Notes

| Mitigating Systems Performance Index, Cooling Water Systems | 3Q/12     | 4Q/12     | 1Q/13     | 2Q/13     | 3Q/13     | 4Q/13     | 1Q/14     | 2Q/14     |
|---|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| UAI ( $\Delta$ CDF)   | 0.00E+00  | 0.00E+00  | 0.00E+00  | 0.00E+00  | 0.00E+00  | 0.00E+00  | 0.00E+00  | 0.00E+00  |
| URI ( $\Delta$ CDF)   | -6.32E-08 | -6.40E-08 | -6.45E-08 | -4.71E-08 | -4.46E-08 | -4.33E-08 | -4.07E-08 | -4.35E-08 |
| PLE   | NO        | NO        | NO        | NO        | NO        | NO        | NO        | NO        |
| Indicator value   | -6.30E-08 | -6.40E-08 | -6.40E-08 | -4.70E-08 | -4.50E-08 | -4.30E-08 | -4.10E-08 | -4.30E-08 |

Licensee Comments: none

### Reactor Coolant System Activity



Thresholds: White > 50.0 Yellow > 100.0

#### Notes

| Reactor Coolant System Activity | 7/12     | 8/12     | 9/12     | 10/12    | 11/12    | 12/12    | 1/13     | 2/13     | 3/13     | 4/13 | 5/13     | 6/13     |
|---------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|------|----------|----------|
| Maximum activity                | 0.001720 | 0.001780 | 0.001760 | 0.000649 | 0.000720 | 0.000747 | 0.000775 | 0.000820 | 0.000811 | N/A  | 0.000823 | 0.000846 |
| 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                 | 0.2      | 0.2      | 0.2      | 0.1      | 0.1      | 0.1      | 0.1      | 0.1      | 0.1      | N/A  | 0.1      | 0.1      |

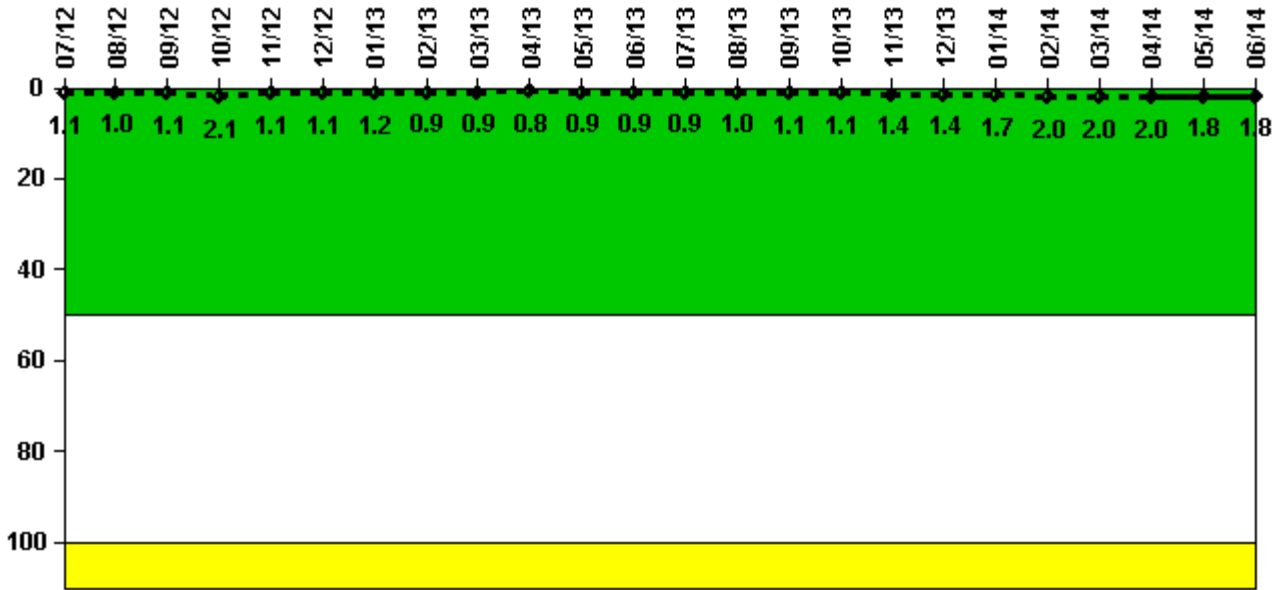
  

| Reactor Coolant System Activity | 7/13     | 8/13     | 9/13     | 10/13    | 11/13    | 12/13    | 1/14     | 2/14     | 3/14     | 4/14     | 5/14 | 6/14     |
|---------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|------|----------|
| Maximum activity                | 0.000875 | 0.000901 | 0.000902 | 0.000939 | 0.000978 | 0.000948 | 0.001000 | 0.001060 | 0.001040 | 0.001270 | N/A  | 0.000519 |
| 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      | 0.1      | 0.1      | 0.1      | 0.1      | 0.1      | 0.1      | N/A  | 0.1      |

Licensee Comments:

6/13: ANO-2 was not at steady state power as defined in NEI 99-02 for the entire month of April.

### Reactor Coolant System Leakage



Thresholds: White > 50.0 Yellow > 100.0

#### Notes

| Reactor Coolant System Leakage | 7/12       | 8/12       | 9/12       | 10/12      | 11/12      | 12/12      | 1/13       | 2/13       | 3/13       | 4/13       | 5/13       | 6/13       |
|--------------------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Maximum leakage                | 0.105      | 0.102      | 0.106      | 0.212      | 0.113      | 0.114      | 0.123      | 0.092      | 0.090      | 0.076      | 0.088      | 0.094      |
| 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       |
| <b>Indicator value</b>         | <b>1.1</b> | <b>1.0</b> | <b>1.1</b> | <b>2.1</b> | <b>1.1</b> | <b>1.1</b> | <b>1.2</b> | <b>0.9</b> | <b>0.9</b> | <b>0.8</b> | <b>0.9</b> | <b>0.9</b> |
| Reactor Coolant System Leakage | 7/13       | 8/13       | 9/13       | 10/13      | 11/13      | 12/13      | 1/14       | 2/14       | 3/14       | 4/14       | 5/14       | 6/14       |
| Maximum leakage                | 0.094      | 0.099      | 0.112      | 0.108      | 0.143      | 0.139      | 0.168      | 0.200      | 0.196      | 0.195      | 0.182      | 0.182      |
| 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       |
| <b>Indicator value</b>         | <b>0.9</b> | <b>1.0</b> | <b>1.1</b> | <b>1.1</b> | <b>1.4</b> | <b>1.4</b> | <b>1.7</b> | <b>2.0</b> | <b>2.0</b> | <b>2.0</b> | <b>1.8</b> | <b>1.8</b> |

#### Licensee Comments:

12/13: Total Leakage is being reported in lieu of Identified Leakage.

9/13: Total Leakage is being reported in lieu of Identified Leakage.

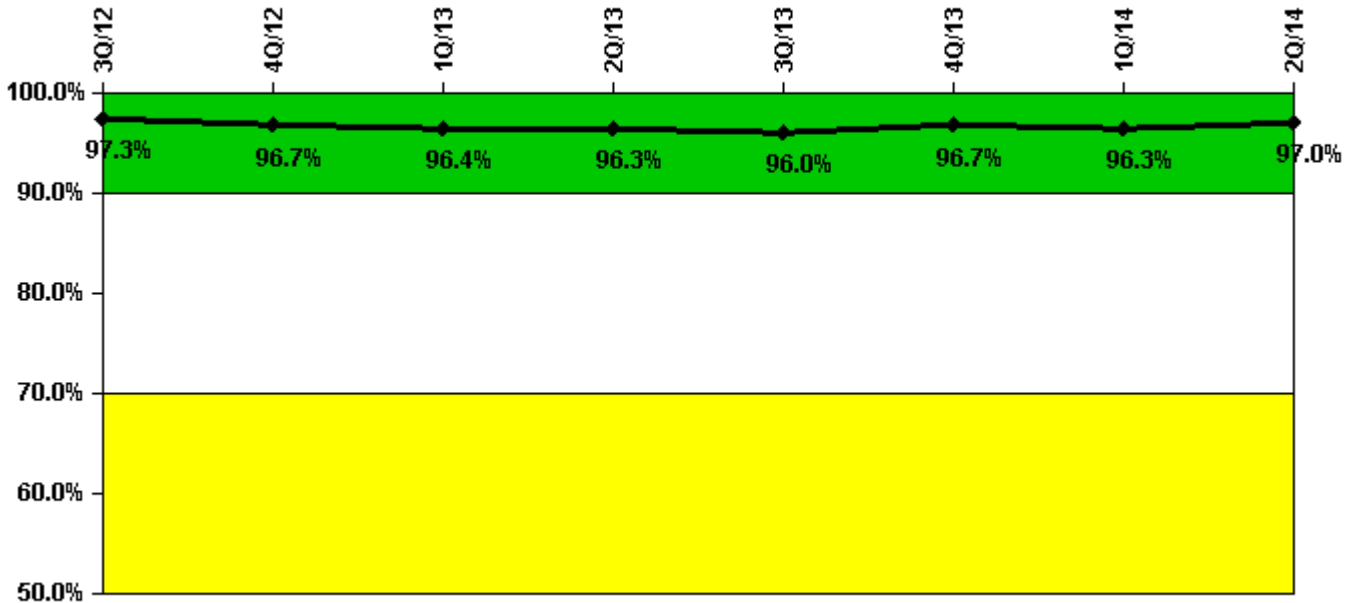
6/13: Total Leakage is being reported in lieu of Identified Leakage.

3/13: Total Leakage is being reported in lieu of Identified Leakage

12/12: Total Leakage is being reported in lieu of Identified Leakage.

9/12: Total Leakage is being reported in lieu of Identified Leakage.

### Drill/Exercise Performance



Thresholds: White < 90.0% Yellow < 70.0%

#### Notes

| Drill/Exercise Performance | 3Q/12        | 4Q/12        | 1Q/13        | 2Q/13        | 3Q/13        | 4Q/13        | 1Q/14        | 2Q/14        |
|----------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Successful opportunities   | 16.0         | 13.0         | 26.0         | 8.0          | 51.0         | 50.0         | 51.0         | 44.0         |
| Total opportunities        | 16.0         | 15.0         | 27.0         | 8.0          | 53.0         | 51.0         | 53.0         | 44.0         |
| Indicator value            | <b>97.3%</b> | <b>96.7%</b> | <b>96.4%</b> | <b>96.3%</b> | <b>96.0%</b> | <b>96.7%</b> | <b>96.3%</b> | <b>97.0%</b> |

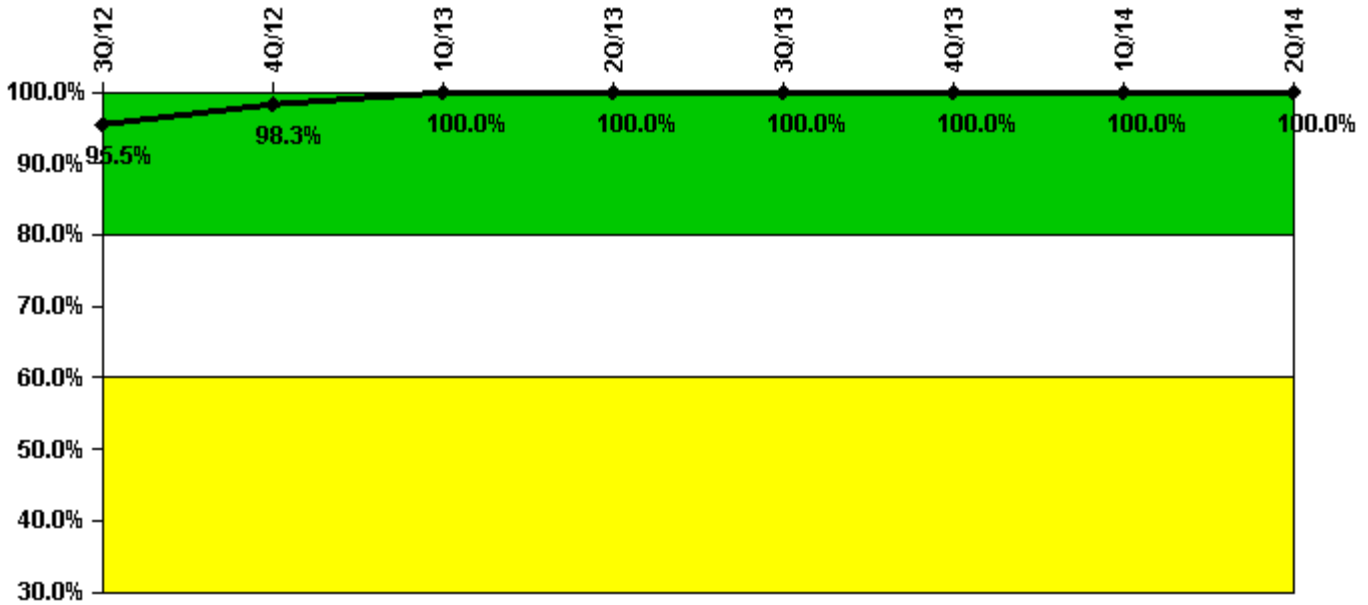
Licensee Comments:

4Q/13: Change to correct counting of the number of drills performed in the 4th qtr.

3Q/13: Change to correct counting of the number of drills performed in the 3rd qtr.

3Q/13: In January of 2014, five drills that were not previously counted were added to the 3rd Quarter 2013 Emergency Preparedness data.

### ERO Drill Participation



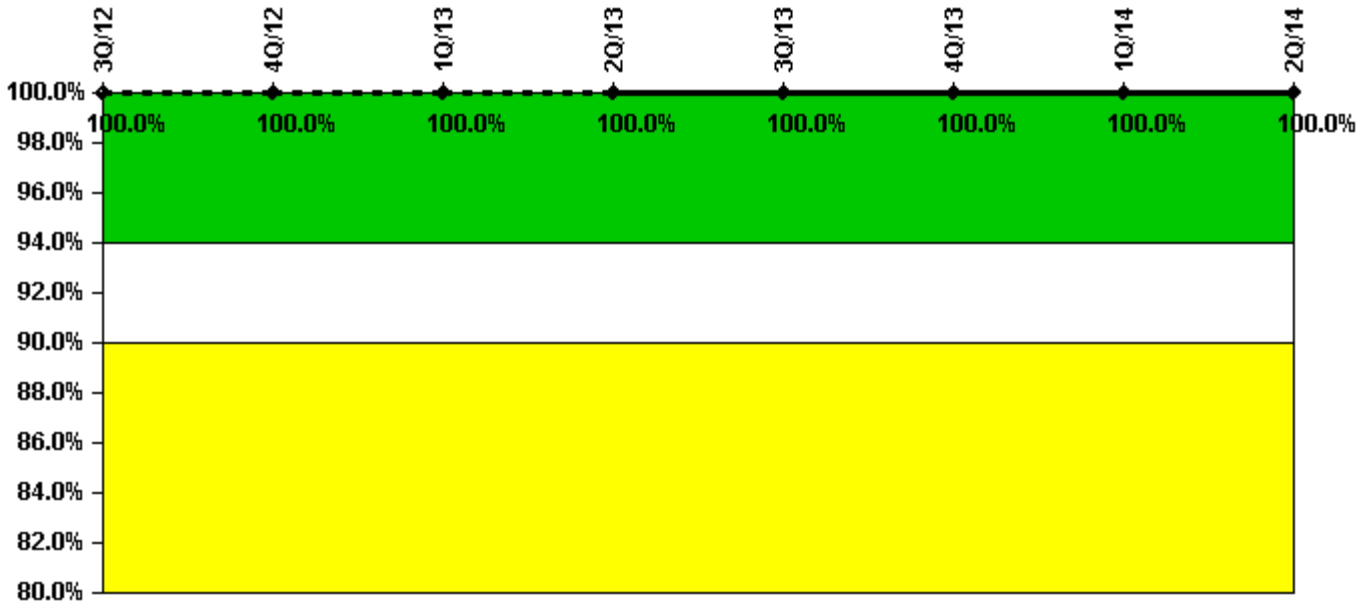
Thresholds: White < 80.0% Yellow < 60.0%

#### Notes

| ERO Drill Participation     | 3Q/12 | 4Q/12 | 1Q/13  | 2Q/13  | 3Q/13  | 4Q/13  | 1Q/14  | 2Q/14  |
|-----------------------------|-------|-------|--------|--------|--------|--------|--------|--------|
| Participating Key personnel | 106.0 | 115.0 | 84.0   | 81.0   | 98.0   | 99.0   | 103.0  | 118.0  |
| Total Key personnel         | 111.0 | 117.0 | 84.0   | 81.0   | 98.0   | 99.0   | 103.0  | 118.0  |
| Indicator value             | 95.5% | 98.3% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

Licensee Comments: none

### Alert & Notification System



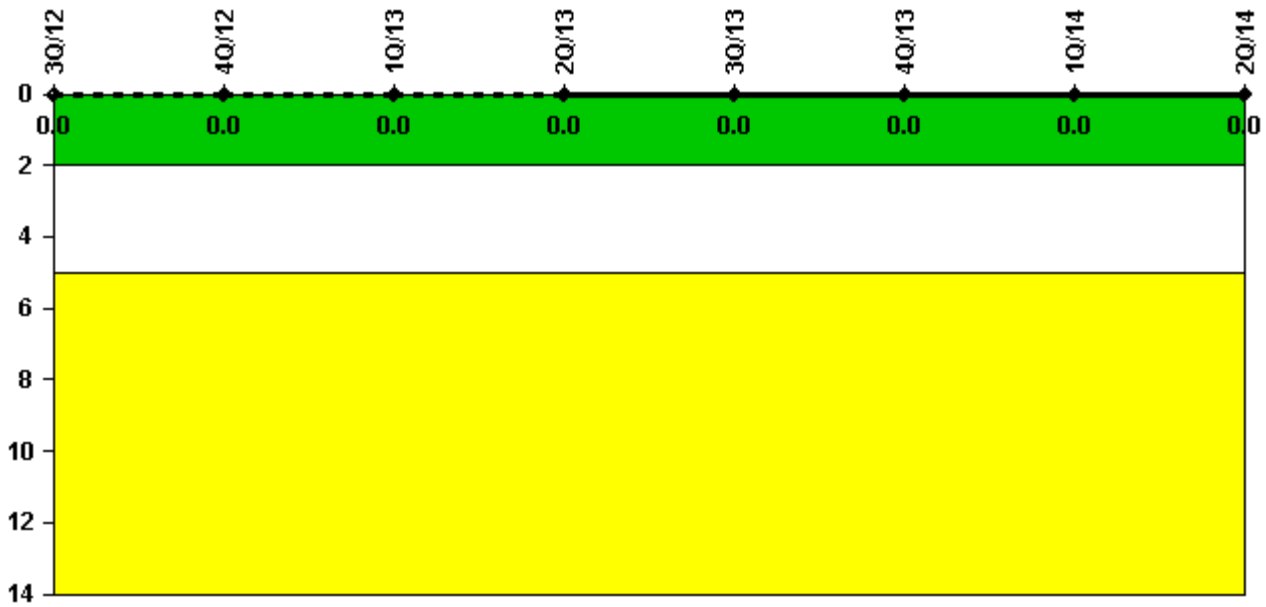
Thresholds: White < 94.0% Yellow < 90.0%

#### Notes

| Alert & Notification System | 3Q/12  | 4Q/12  | 1Q/13  | 2Q/13  | 3Q/13  | 4Q/13  | 1Q/14  | 2Q/14  |
|-----------------------------|--------|--------|--------|--------|--------|--------|--------|--------|
| Successful siren-tests      | 147    | 147    | 147    | 147    | 147    | 147    | 147    | 147    |
| Total sirens-tests          | 147    | 147    | 147    | 147    | 147    | 147    | 147    | 147    |
| Indicator value             | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

Licensee Comments: none

### Occupational Exposure Control Effectiveness



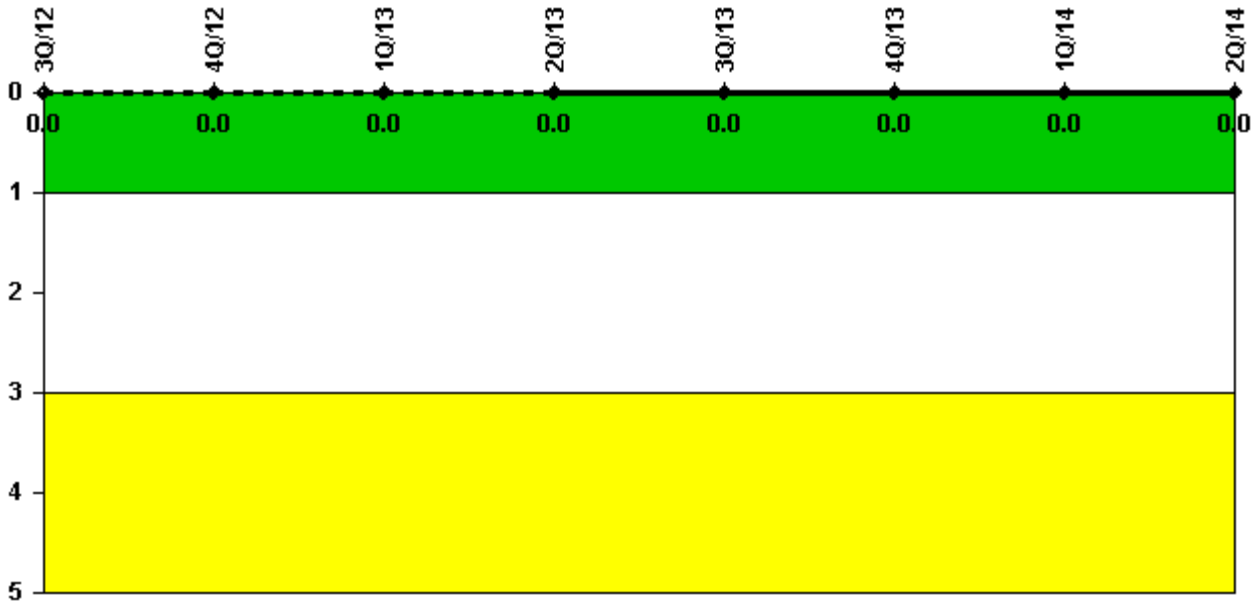
Thresholds: White > 2.0 Yellow > 5.0

#### Notes

| Occupational Exposure Control Effectiveness | 3Q/12    | 4Q/12    | 1Q/13    | 2Q/13    | 3Q/13    | 4Q/13    | 1Q/14    | 2Q/14    |
|---|----------|----------|----------|----------|----------|----------|----------|----------|
| 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 | 3Q/12    | 4Q/12    | 1Q/13    | 2Q/13    | 3Q/13    | 4Q/13    | 1Q/14    | 2Q/14    |
|---------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|
| RETS/ODCM 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

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: July 31, 2014*