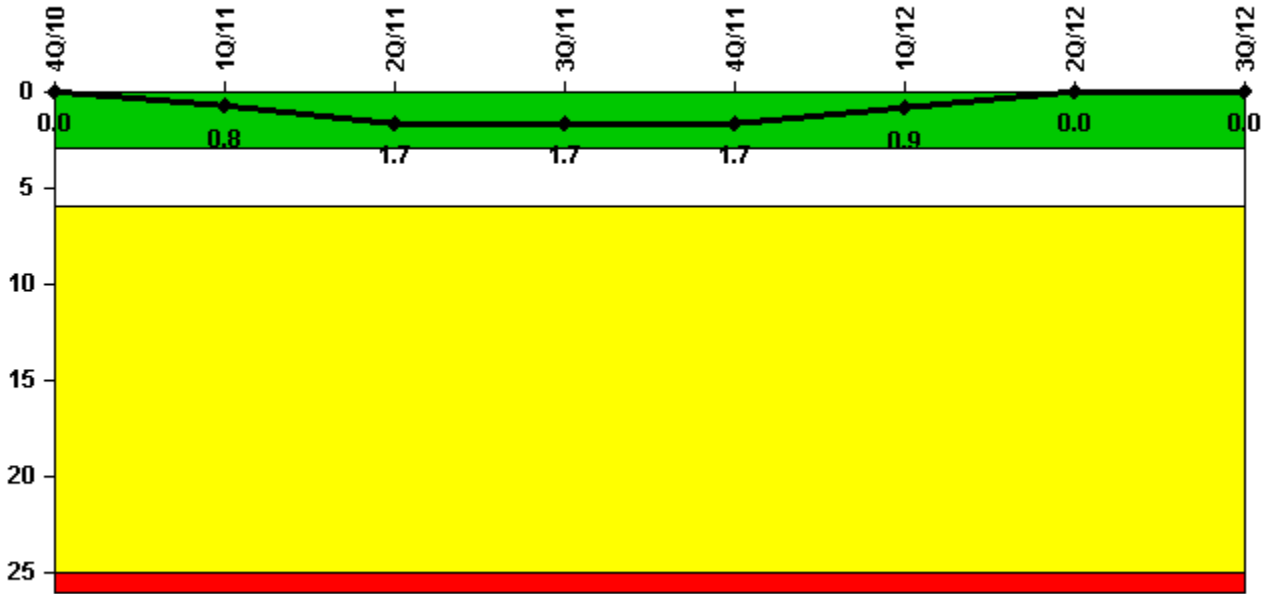


## Limerick 2

### 3Q/2012 Performance Indicators

Licensee's General Comments: none

#### Unplanned Scrams per 7000 Critical Hrs



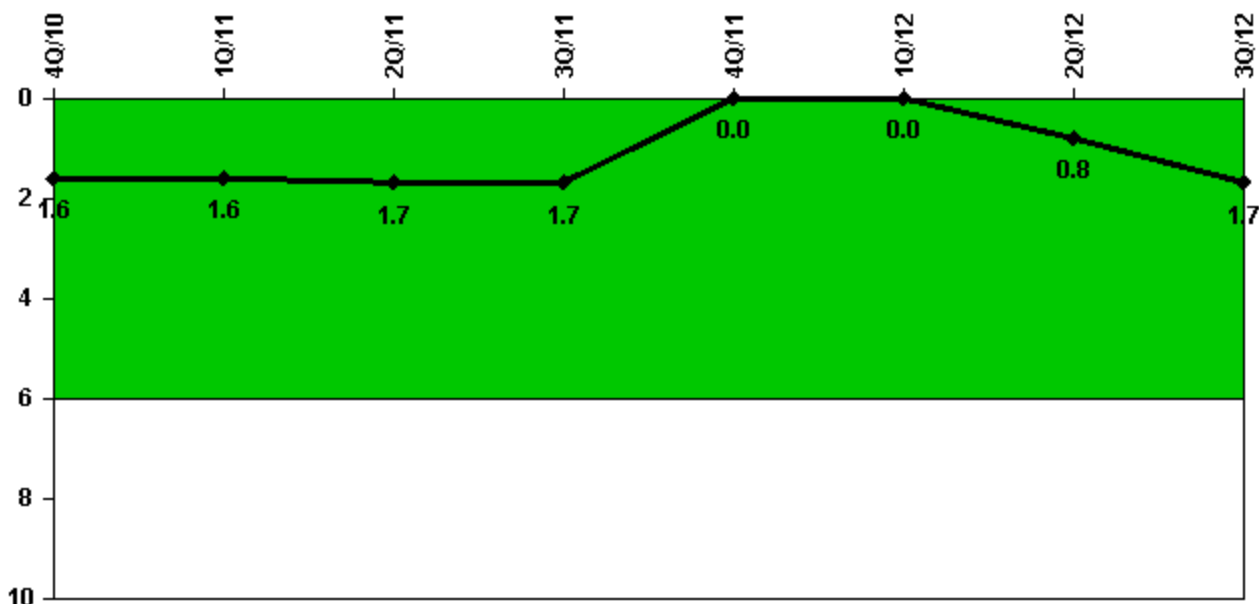
Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

#### Notes

| Unplanned Scrams per 7000 Critical Hrs | 4Q/10    | 1Q/11      | 2Q/11      | 3Q/11      | 4Q/11      | 1Q/12      | 2Q/12    | 3Q/12    |
|--|----------|------------|------------|------------|------------|------------|----------|----------|
| Unplanned scrams                       | 0        | 1.0        | 1.0        | 0          | 0          | 0          | 0        | 0        |
| Critical hours                         | 2209.0   | 2024.4     | 1592.4     | 2208.0     | 2209.0     | 2183.0     | 1923.7   | 2155.7   |
| <b>Indicator value</b>                 | <b>0</b> | <b>0.8</b> | <b>1.7</b> | <b>1.7</b> | <b>1.7</b> | <b>0.9</b> | <b>0</b> | <b>0</b> |

Licensee Comments: none

### Unplanned Power Changes per 7000 Critical Hrs



Thresholds: White > 6.0

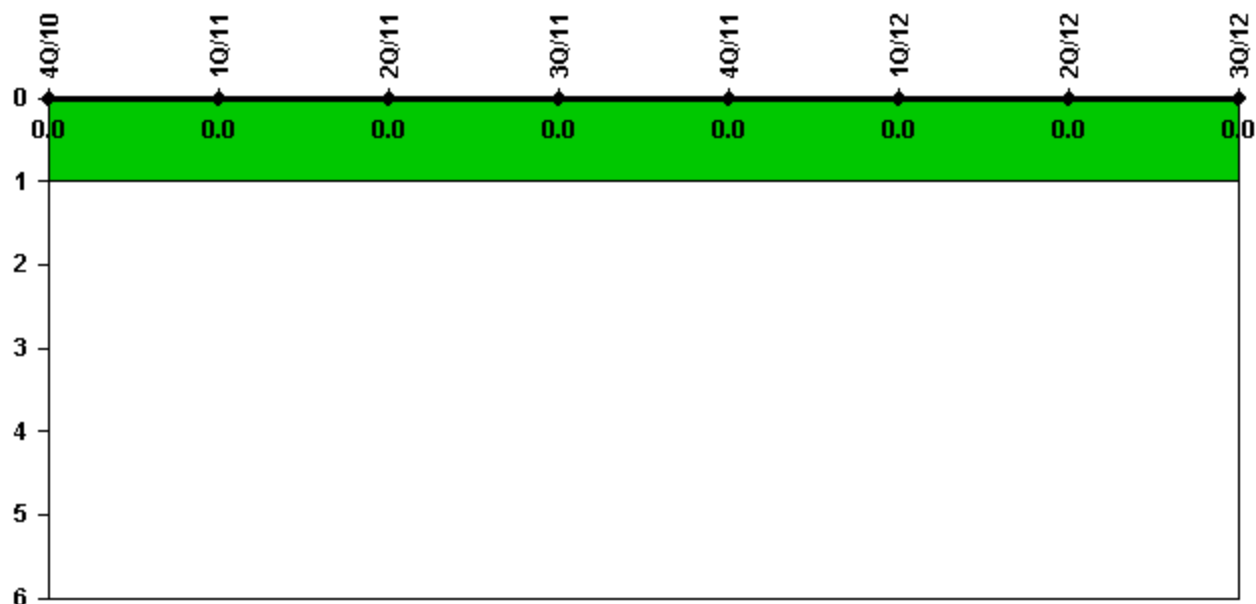
#### Notes

| Unplanned Power Changes per 7000 Critical Hrs | 4Q/10      | 1Q/11      | 2Q/11      | 3Q/11      | 4Q/11    | 1Q/12    | 2Q/12      | 3Q/12      |
|---|------------|------------|------------|------------|----------|----------|------------|------------|
| Unplanned power changes                       | 2.0        | 0          | 0          | 0          | 0        | 0        | 1.0        | 1.0        |
| Critical hours                                | 2209.0     | 2024.4     | 1592.4     | 2208.0     | 2209.0   | 2183.0   | 1923.7     | 2155.7     |
| <b>Indicator value</b>                        | <b>1.6</b> | <b>1.6</b> | <b>1.7</b> | <b>1.7</b> | <b>0</b> | <b>0</b> | <b>0.8</b> | <b>1.7</b> |

#### Licensee Comments:

1Q/11: IE03 changed from unplanned to planned for the power ascension, which began on 02/28/2011 at 22:02 and ended on 3/1/11. This was more than 72 hours after an unplanned manual scram which occurred on 2/25/2011 at 09:12 which meets the definition of a planned power change. No color change is involved.

### Unplanned Scrams with Complications



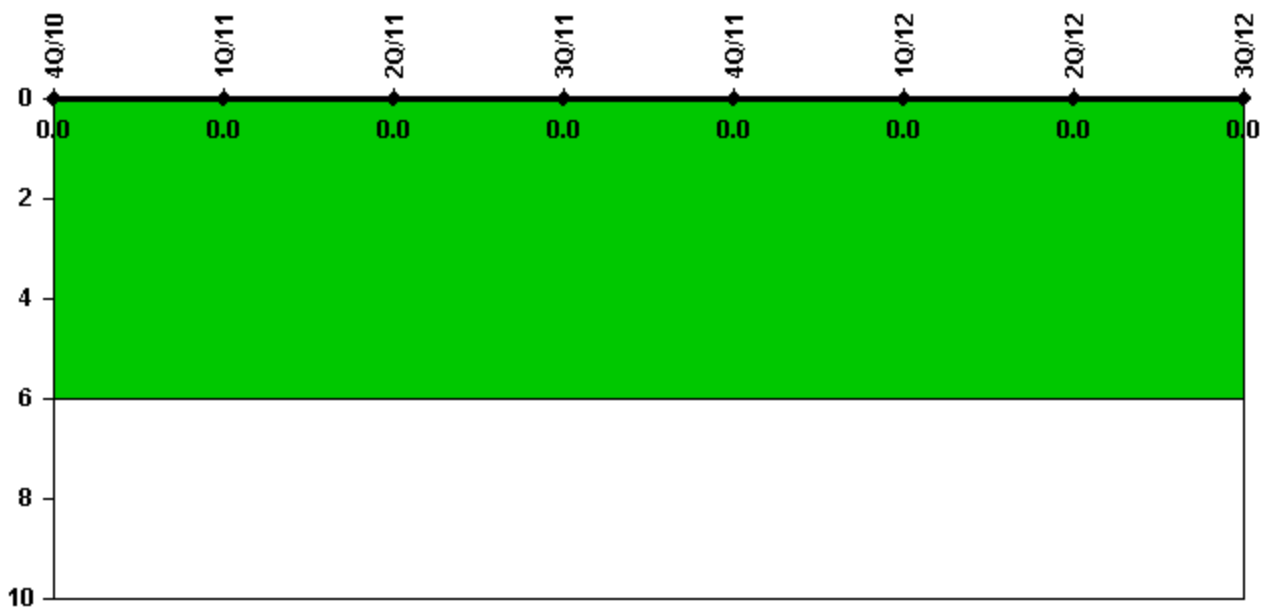
Thresholds: White > 1.0

#### Notes

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



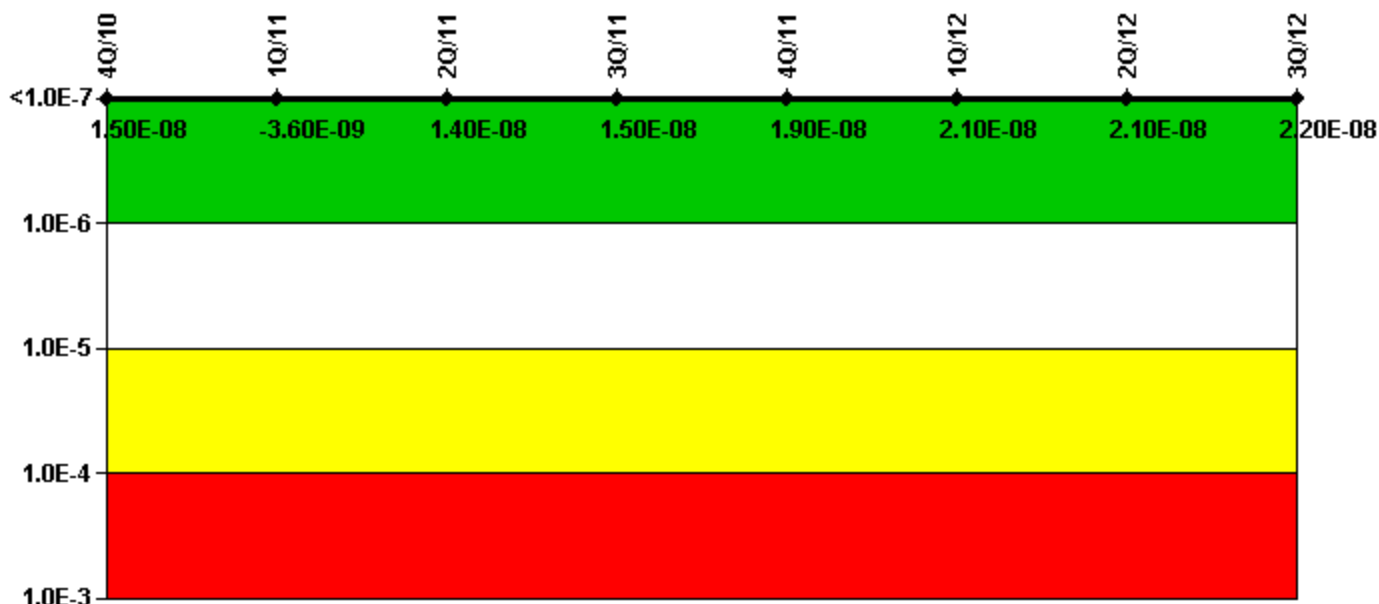
Thresholds: White > 6.0

#### Notes

| Safety System Functional Failures (BWR) | 4Q/10    | 1Q/11    | 2Q/11    | 3Q/11    | 4Q/11    | 1Q/12    | 2Q/12    | 3Q/12    |
|---|----------|----------|----------|----------|----------|----------|----------|----------|
| Safety System Functional Failures       | 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

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



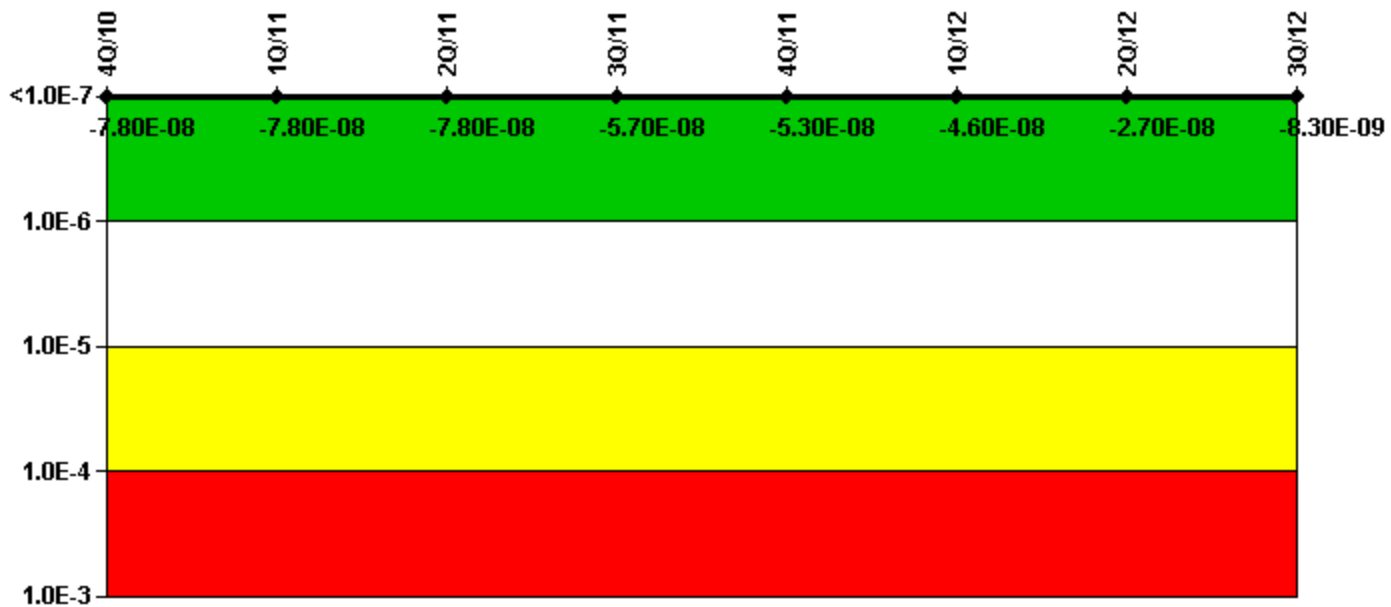
Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

**Notes**

| Mitigating Systems Performance Index, Emergency AC Power System | 4Q/10    | 1Q/11     | 2Q/11    | 3Q/11    | 4Q/11    | 1Q/12    | 2Q/12    | 3Q/12    |
|---|----------|-----------|----------|----------|----------|----------|----------|----------|
| UAI (ΔCDF)  | 8.00E-09 | 7.78E-09  | 7.98E-09 | 9.41E-09 | 1.23E-08 | 1.31E-08 | 1.14E-08 | 1.17E-08 |
| URI (ΔCDF)  | 6.92E-09 | -1.14E-08 | 6.50E-09 | 5.95E-09 | 6.94E-09 | 7.44E-09 | 9.97E-09 | 1.00E-08 |
| PLE   | NO       | NO        | NO       | NO       | NO       | NO       | NO       | NO       |
| Indicator value   | 1.50E-08 | -3.60E-09 | 1.40E-08 | 1.50E-08 | 1.90E-08 | 2.10E-08 | 2.10E-08 | 2.20E-08 |

Licensee Comments: none

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



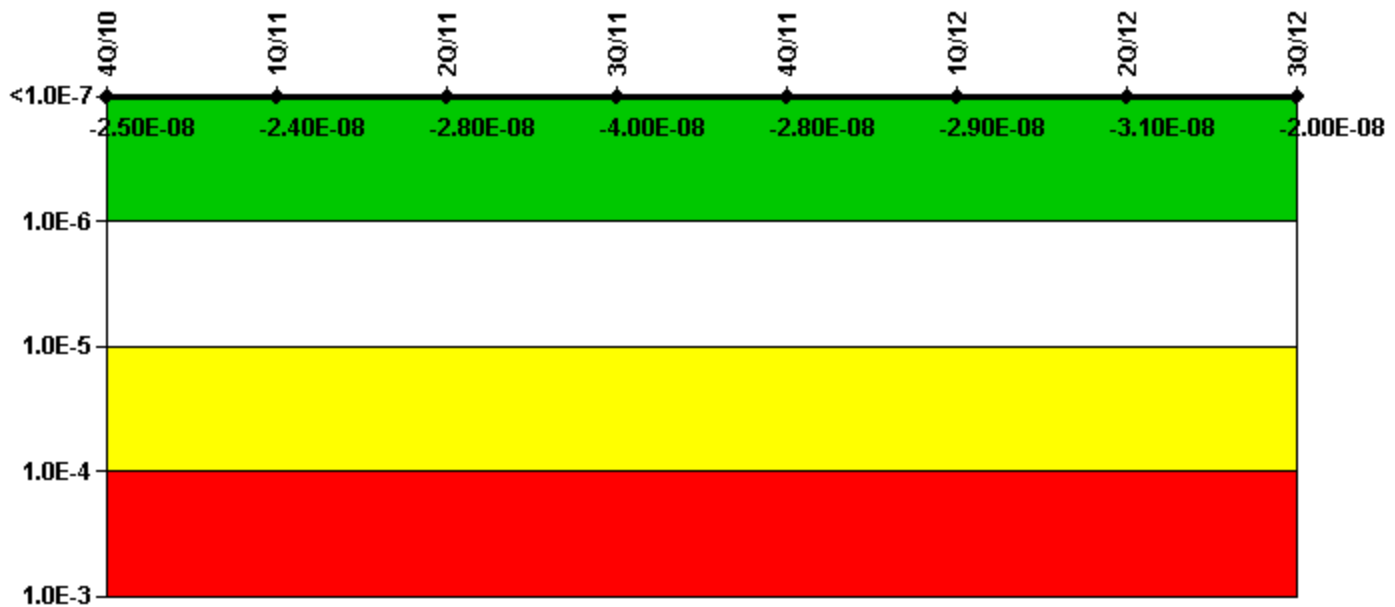
Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

#### Notes

| Mitigating Systems Performance Index, High Pressure Injection System | 4Q/10     | 1Q/11     | 2Q/11     | 3Q/11     | 4Q/11     | 1Q/12     | 2Q/12     | 3Q/12     |
|--|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| UAI ( $\Delta$ CDF)  | -3.20E-08 | -3.20E-08 | -3.20E-08 | -1.09E-08 | -7.05E-09 | 4.15E-11  | 1.94E-08  | 3.83E-08  |
| URI ( $\Delta$ CDF)  | -4.62E-08 | -4.62E-08 | -4.63E-08 | -4.64E-08 | -4.64E-08 | -4.65E-08 | -4.66E-08 | -4.66E-08 |
| PLE  | NO        | NO        | NO        | NO        | NO        | NO        | NO        | NO        |
| Indicator value  | -7.80E-08 | -7.80E-08 | -7.80E-08 | -5.70E-08 | -5.30E-08 | -4.60E-08 | -2.70E-08 | -8.30E-09 |

Licensee Comments: none

### Mitigating Systems Performance Index, Heat Removal System



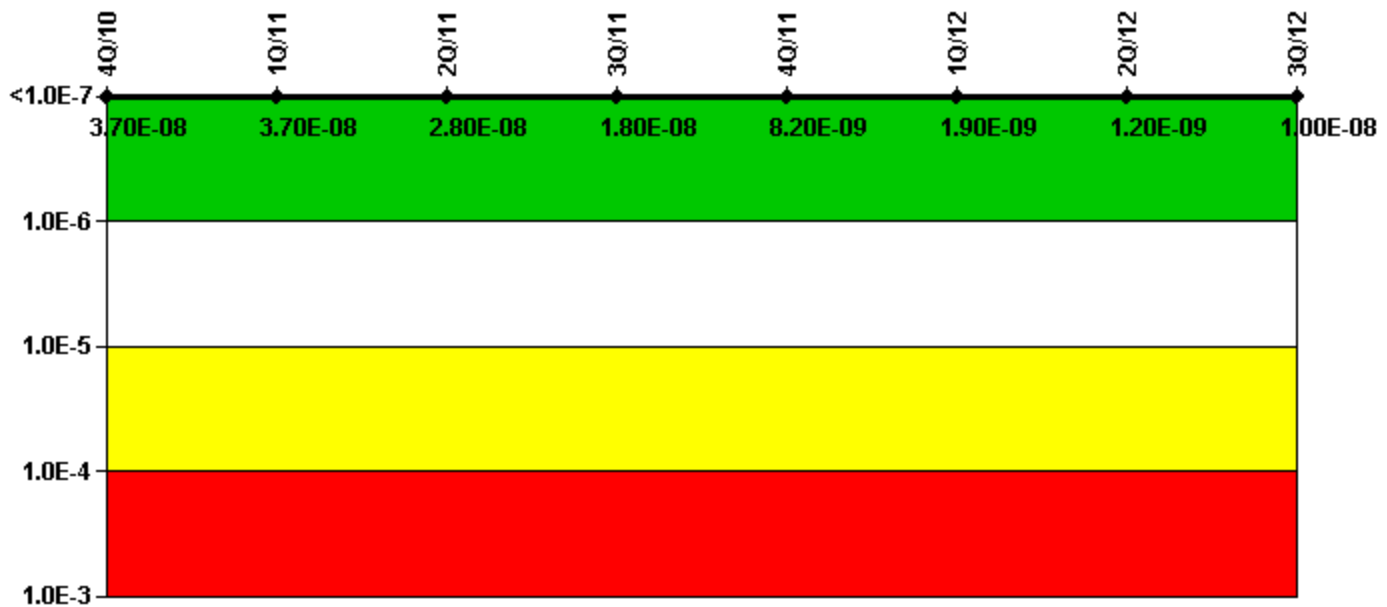
Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

#### Notes

| Mitigating Systems Performance Index, Heat Removal System | 4Q/10     | 1Q/11     | 2Q/11     | 3Q/11     | 4Q/11     | 1Q/12     | 2Q/12     | 3Q/12     |
|---|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| UAI ( $\Delta$ CDF)                                       | 2.30E-09  | 2.63E-09  | -6.05E-10 | -1.32E-08 | -1.21E-09 | -1.99E-09 | -3.87E-09 | 6.66E-09  |
| URI ( $\Delta$ CDF)                                       | -2.71E-08 | -2.71E-08 | -2.71E-08 | -2.71E-08 | -2.71E-08 | -2.71E-08 | -2.71E-08 | -2.71E-08 |
| PLE   | NO        | NO        | NO        | NO        | NO        | NO        | NO        | NO        |
| Indicator value   | -2.50E-08 | -2.40E-08 | -2.80E-08 | -4.00E-08 | -2.80E-08 | -2.90E-08 | -3.10E-08 | -2.00E-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

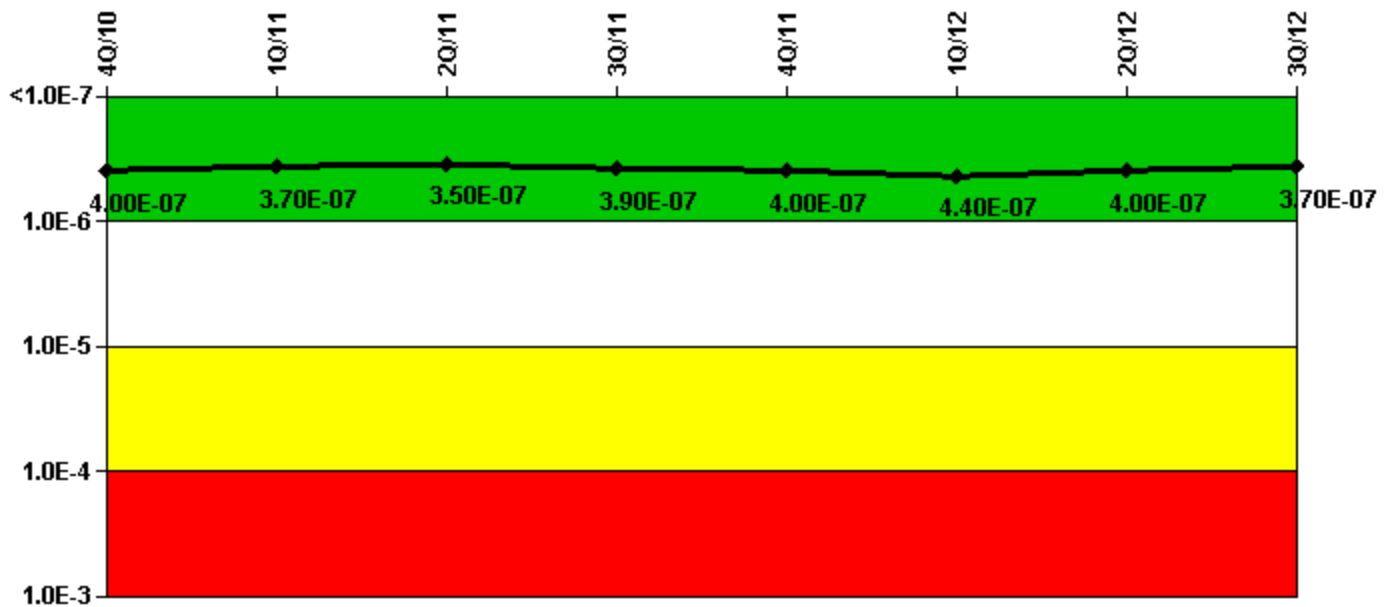
#### Notes

| Mitigating Systems Performance Index, Residual Heat Removal System | 4Q/10     | 1Q/11     | 2Q/11     | 3Q/11     | 4Q/11     | 1Q/12     | 2Q/12     | 3Q/12     |
|--|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| UAI ( $\Delta$ CDF)  | 3.87E-08  | 3.83E-08  | 3.06E-08  | 1.98E-08  | 1.03E-08  | 3.95E-09  | 3.26E-09  | 1.21E-08  |
| URI ( $\Delta$ CDF)  | -1.36E-09 | -1.38E-09 | -2.16E-09 | -2.17E-09 | -2.17E-09 | -2.09E-09 | -2.07E-09 | -2.07E-09 |
| PLE  | NO        | NO        | NO        | NO        | NO        | NO        | NO        | NO        |
| Indicator value  | 3.70E-08  | 3.70E-08  | 2.80E-08  | 1.80E-08  | 8.20E-09  | 1.90E-09  | 1.20E-09  | 1.00E-08  |

Licensee Comments: none



### Mitigating Systems Performance Index, Cooling Water Systems



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

#### Notes

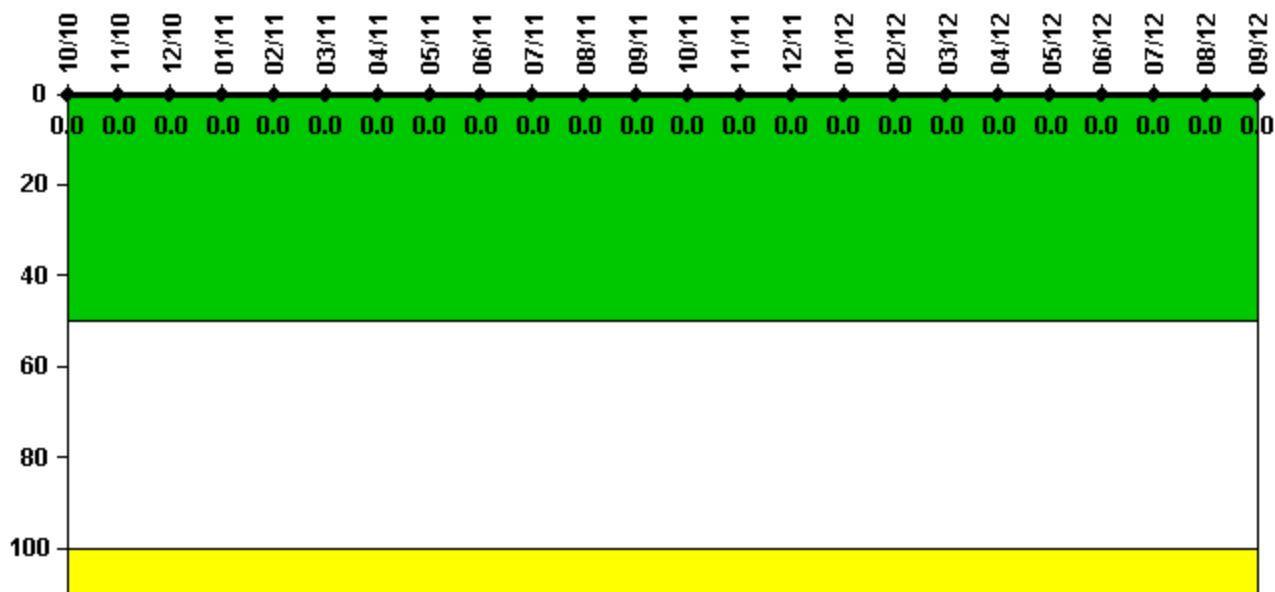
| Mitigating Systems Performance Index, Cooling Water Systems | 4Q/10     | 1Q/11     | 2Q/11     | 3Q/11     | 4Q/11     | 1Q/12     | 2Q/12     | 3Q/12     |
|---|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| UAI (ΔCDF)  | 4.27E-07  | 3.95E-07  | 3.75E-07  | 4.20E-07  | 4.25E-07  | 4.71E-07  | 4.28E-07  | 4.00E-07  |
| URI (ΔCDF)  | -2.85E-08 | -2.81E-08 | -2.85E-08 | -2.91E-08 | -3.00E-08 | -3.05E-08 | -3.09E-08 | -3.12E-08 |
| PLE   | NO        | NO        | NO        | NO        | NO        | NO        | NO        | NO        |
| Indicator value   | 4.00E-07  | 3.70E-07  | 3.50E-07  | 3.90E-07  | 4.00E-07  | 4.40E-07  | 4.00E-07  | 3.70E-07  |

#### Licensee Comments:

1Q/12: LGS MSPI Basis Document revision 4 was effective on 01/01/12. This was approved and issued on 12/15/11. This revision incorporated FAQs 11-01 (CW), 11-06, 11-07, 11-08 (EDGs) and other minor changes. No PRA data or factors were changed and there was no impact to historical PI data.

3Q/11: 04/20/12- Station personnel identified errors counting ESW system unavailability hours for cooling water piping to RHR pump 2C motor oil cooler. Added 75.59 UA hours to ESW segment 17. No color thresholds were crossed due to this change. Ref: IR 1291798.

### Reactor Coolant System Activity



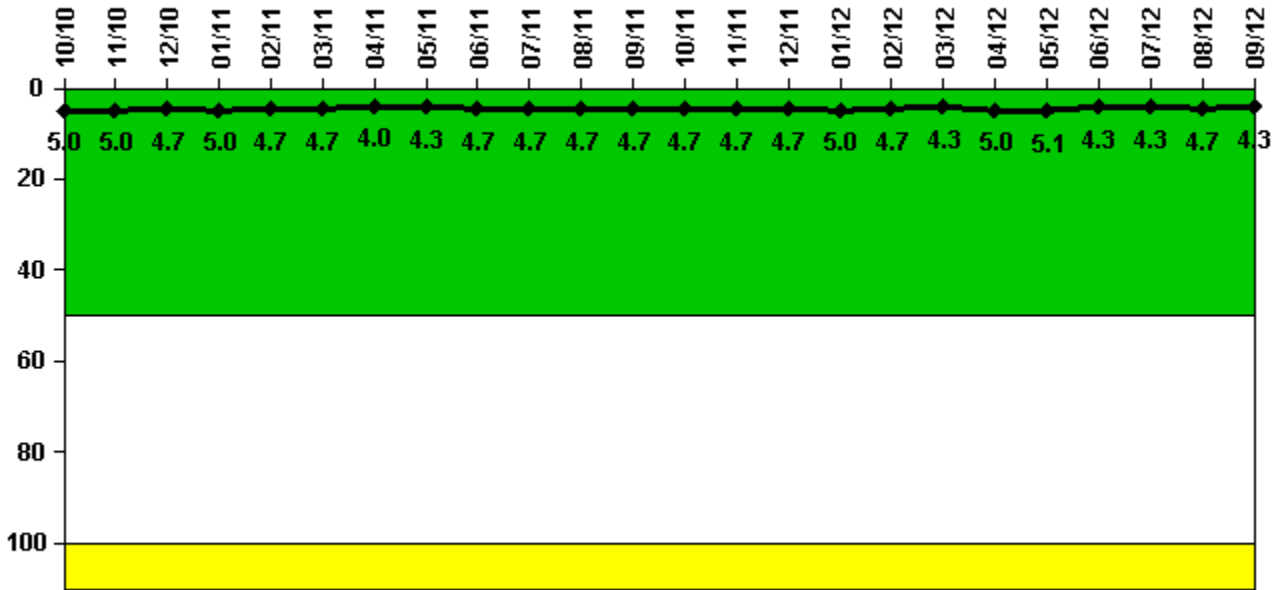
Thresholds: White > 50.0 Yellow > 100.0

#### Notes

| 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                | 0.000013 | 0.000014 | 0.000012 | 0.000014 | 0.000013 | 0.000015 | 0.000013 | 0.000010 | 0.000006 | 0.000008 | 0.000007 | 0.000008 |
| 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 | 10/11    | 11/11    | 12/11    | 1/12     | 2/12     | 3/12     | 4/12     | 5/12     | 6/12     | 7/12     | 8/12     | 9/12     |
| Maximum activity                | 0.000006 | 0.000006 | 0.000008 | 0.000006 | 0.000008 | 0.000008 | 0.000007 | 0.000008 | 0.000010 | 0.000008 | 0.000014 | 0.000008 |
| 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

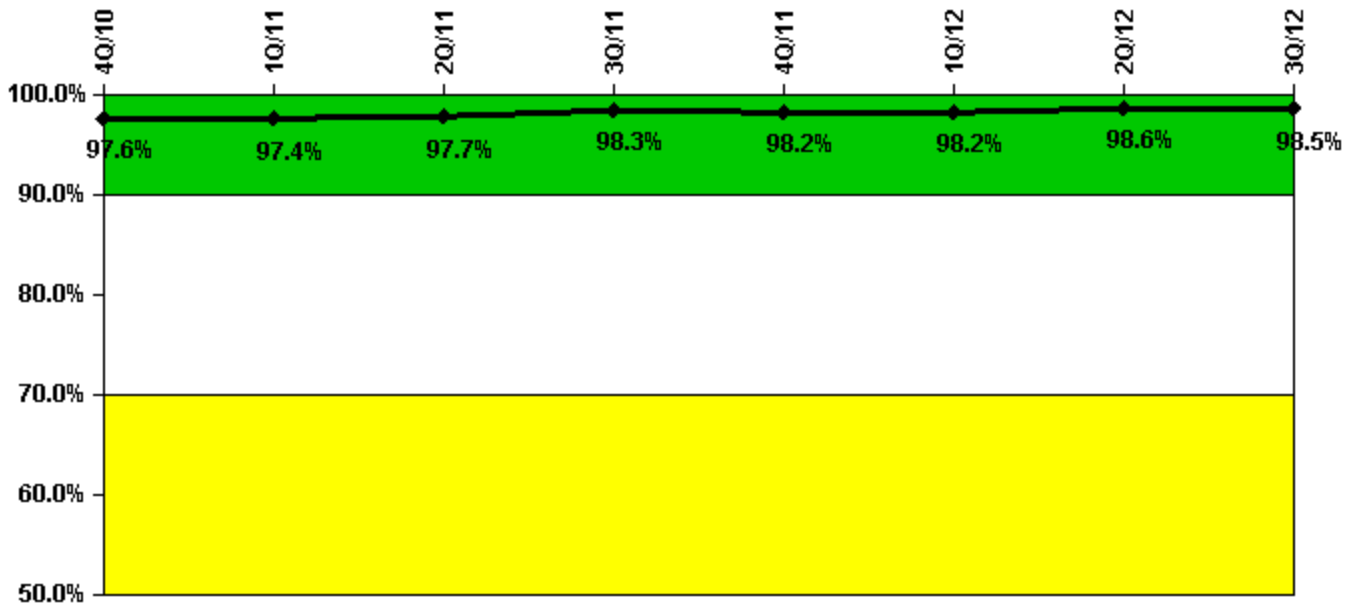
| Reactor Coolant System Leakage | 10/10 | 11/10 | 12/10 | 1/11  | 2/11  | 3/11  | 4/11  | 5/11  | 6/11  | 7/11  | 8/11  | 9/11  |
|--------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Maximum leakage                | 1.500 | 1.500 | 1.400 | 1.500 | 1.400 | 1.400 | 1.200 | 1.300 | 1.400 | 1.400 | 1.400 | 1.400 |
| Technical specification limit  | 30.0  | 30.0  | 30.0  | 30.0  | 30.0  | 30.0  | 30.0  | 30.0  | 30.0  | 30.0  | 30.0  | 30.0  |
| Indicator value                | 5.0   | 5.0   | 4.7   | 5.0   | 4.7   | 4.7   | 4.0   | 4.3   | 4.7   | 4.7   | 4.7   | 4.7   |

| Reactor Coolant System Leakage | 10/11 | 11/11 | 12/11 | 1/12  | 2/12  | 3/12  | 4/12  | 5/12  | 6/12  | 7/12  | 8/12  | 9/12  |
|--------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Maximum leakage                | 1.400 | 1.400 | 1.400 | 1.500 | 1.400 | 1.300 | 1.500 | 1.530 | 1.300 | 1.300 | 1.400 | 1.300 |
| Technical specification limit  | 30.0  | 30.0  | 30.0  | 30.0  | 30.0  | 30.0  | 30.0  | 30.0  | 30.0  | 30.0  | 30.0  | 30.0  |
| Indicator value                | 4.7   | 4.7   | 4.7   | 5.0   | 4.7   | 4.3   | 5.0   | 5.1   | 4.3   | 4.3   | 4.7   | 4.3   |

Licensee Comments: none

### Drill/Exercise Performance



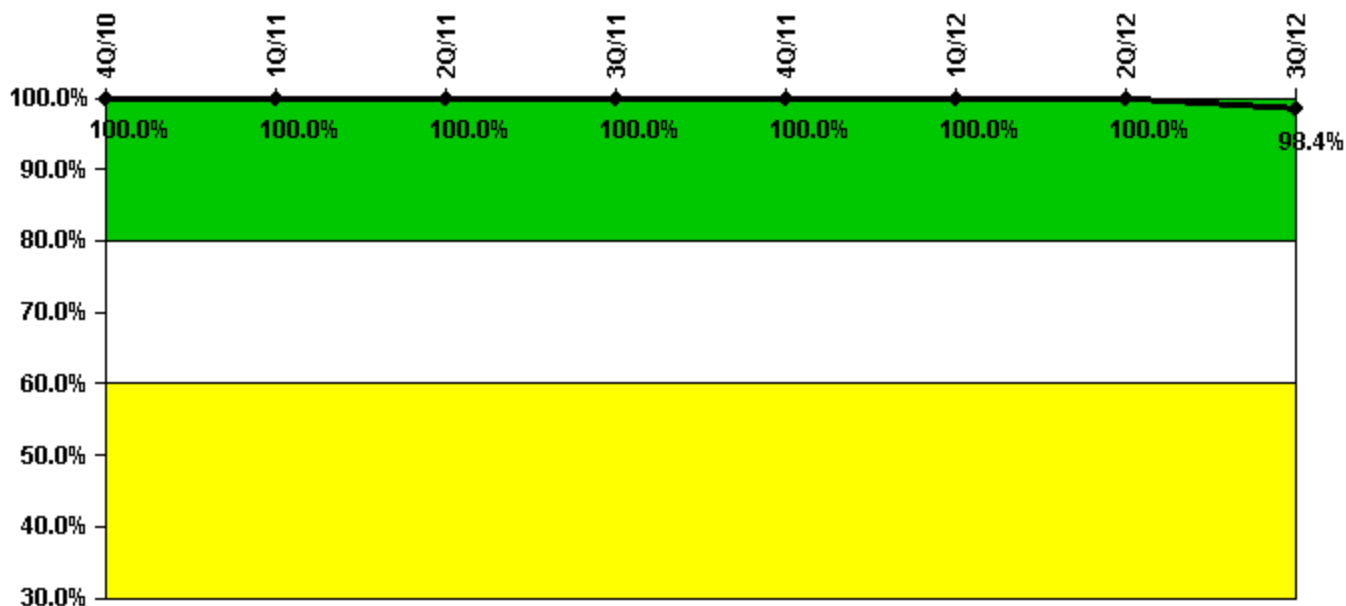
Thresholds: White < 90.0% Yellow < 70.0%

#### Notes

| Drill/Exercise Performance | 4Q/10 | 1Q/11 | 2Q/11 | 3Q/11 | 4Q/11 | 1Q/12 | 2Q/12 | 3Q/12 |
|----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| Successful opportunities   | 43.0  | 66.0  | 20.0  | 112.0 | 56.0  | 0     | 73.0  | 26.0  |
| Total opportunities        | 43.0  | 68.0  | 20.0  | 113.0 | 57.0  | 0     | 73.0  | 28.0  |
| Indicator value            | 97.6% | 97.4% | 97.7% | 98.3% | 98.2% | 98.2% | 98.6% | 98.5% |

Licensee Comments: none

### ERO Drill Participation



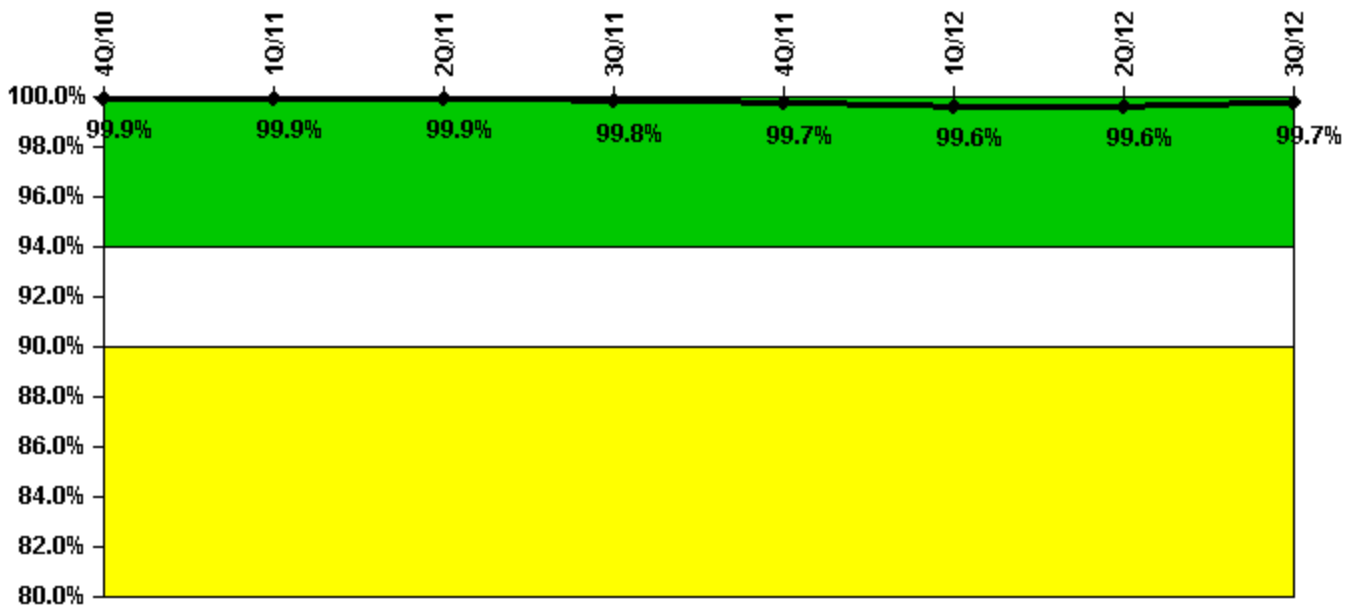
Thresholds: White < 80.0% Yellow < 60.0%

#### Notes

| ERO Drill Participation     | 4Q/10  | 1Q/11  | 2Q/11  | 3Q/11  | 4Q/11  | 1Q/12  | 2Q/12  | 3Q/12 |
|-----------------------------|--------|--------|--------|--------|--------|--------|--------|-------|
| Participating Key personnel | 65.0   | 65.0   | 64.0   | 63.0   | 65.0   | 64.0   | 66.0   | 62.0  |
| Total Key personnel         | 65.0   | 65.0   | 64.0   | 63.0   | 65.0   | 64.0   | 66.0   | 63.0  |
| Indicator value             | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 98.4% |

Licensee Comments: none

### Alert & Notification System



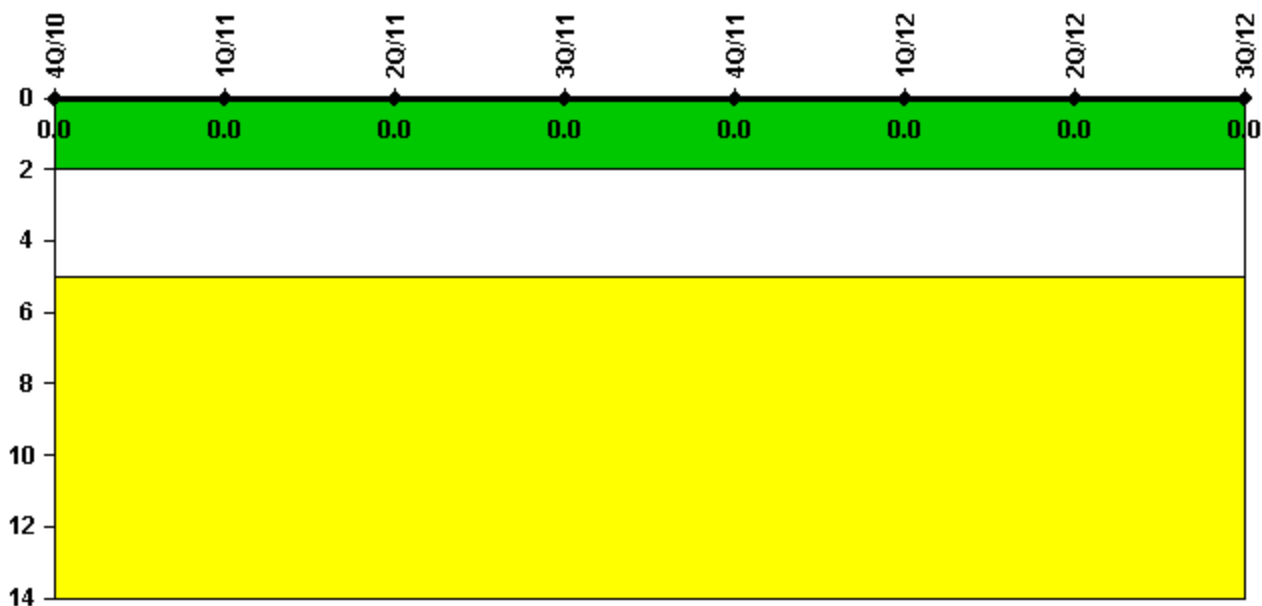
Thresholds: White < 94.0% Yellow < 90.0%

#### Notes

| Alert & Notification System | 4Q/10 | 1Q/11 | 2Q/11 | 3Q/11 | 4Q/11 | 1Q/12 | 2Q/12 | 3Q/12 |
|-----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| Successful siren-tests      | 2143  | 2144  | 2144  | 2136  | 2128  | 2141  | 2143  | 2141  |
| Total sirens-tests          | 2145  | 2145  | 2145  | 2145  | 2145  | 2145  | 2145  | 2145  |
| Indicator value             | 99.9% | 99.9% | 99.9% | 99.8% | 99.7% | 99.6% | 99.6% | 99.7% |

Licensee Comments: none

### Occupational Exposure Control Effectiveness



Thresholds: White > 2.0 Yellow > 5.0

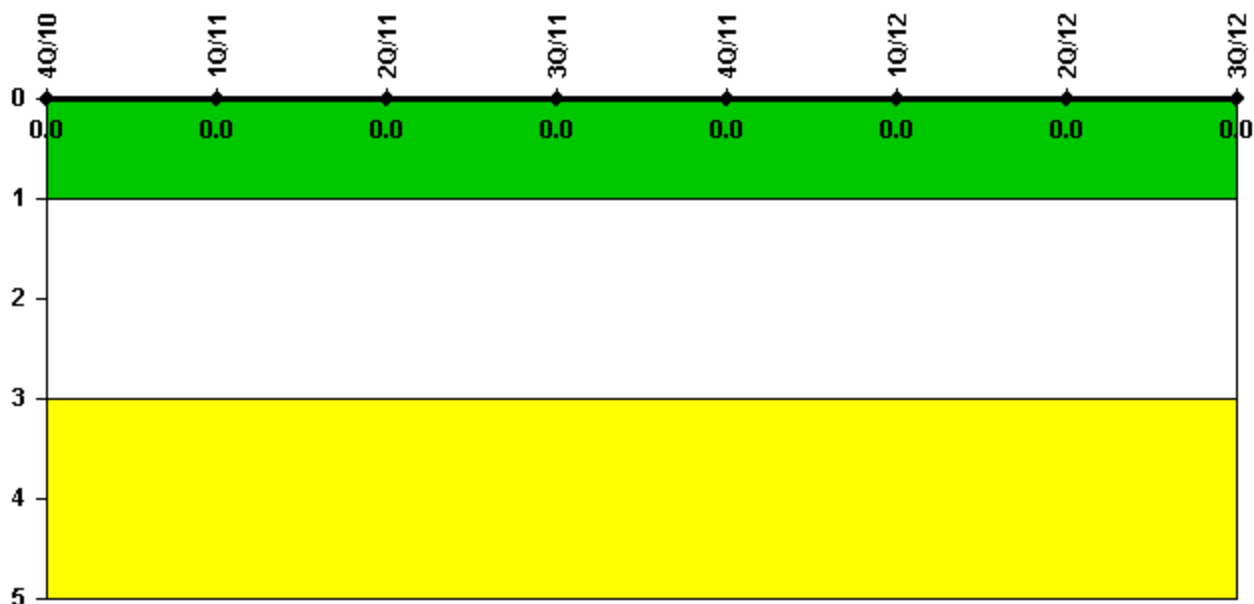
#### Notes

| Occupational Exposure Control Effectiveness | 4Q/10    | 1Q/11    | 2Q/11    | 3Q/11    | 4Q/11    | 1Q/12    | 2Q/12    | 3Q/12    |
|---|----------|----------|----------|----------|----------|----------|----------|----------|
| 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:

2Q/11: The NRC has determined that the event was not a performance indicator occurrence during the Limerick Radiation Instruments inspection from December 12-16, 2011. There is no Color Change associated with this event.

### RETS/ODCM Radiological Effluent



Thresholds: White > 1.0 Yellow > 3.0

#### Notes

| RETS/ODCM Radiological Effluent | 4Q/10 | 1Q/11 | 2Q/11 | 3Q/11 | 4Q/11 | 1Q/12 | 2Q/12 | 3Q/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

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: October 24, 2012*