

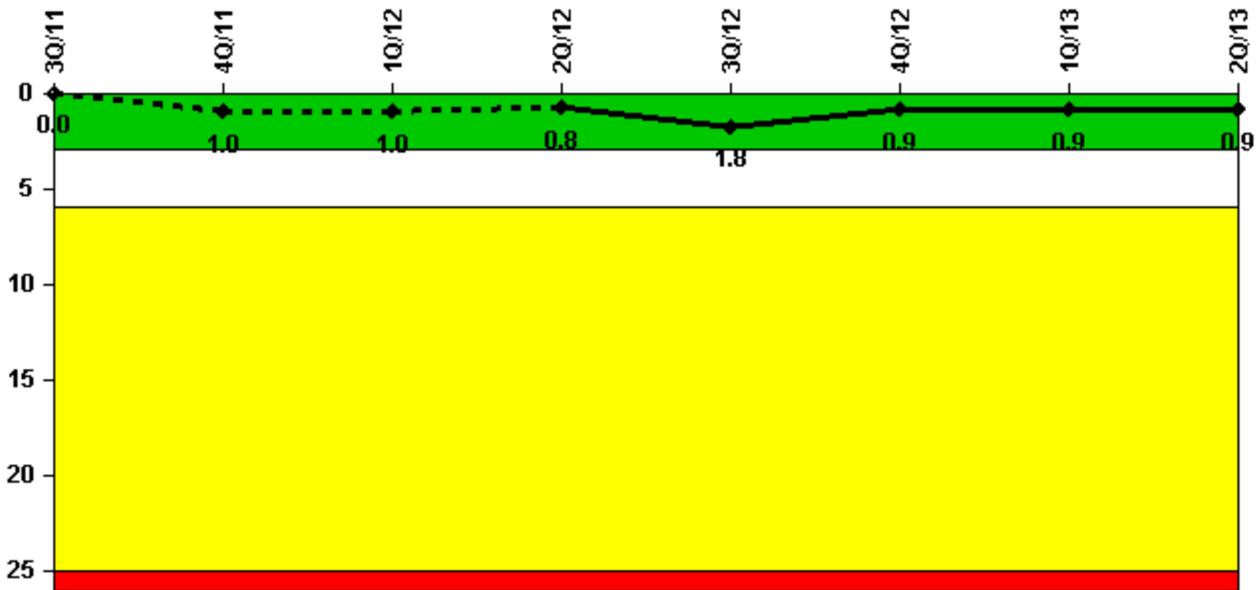
# Seabrook 1

## 2Q/2013 Performance Indicators

The solid trend line represents the current reporting period.

Licensee's General Comments: none

### Unplanned Scrams per 7000 Critical Hrs



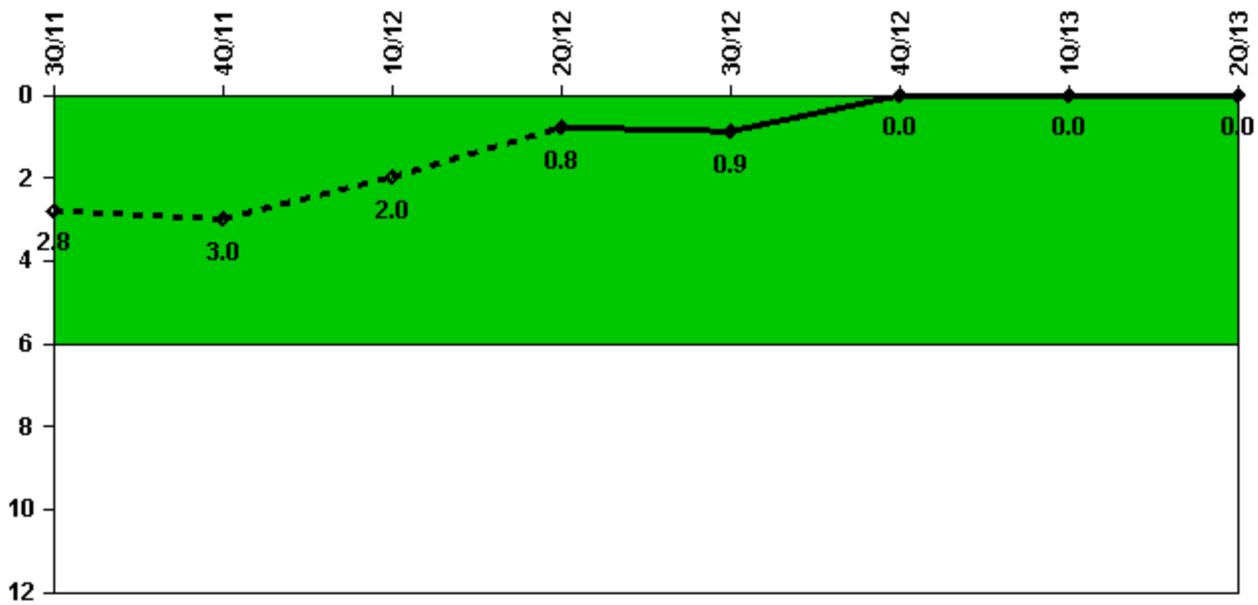
Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

### Notes

| Unplanned Scrams per 7000 Critical Hrs | 3Q/11  | 4Q/11  | 1Q/12  | 2Q/12  | 3Q/12  | 4Q/12  | 1Q/13  | 2Q/13  |
|--|--------|--------|--------|--------|--------|--------|--------|--------|
| Unplanned scrams                       | 0      | 1.0    | 0      | 0      | 1.0    | 0      | 0      | 0      |
| Critical hours                         | 2208.0 | 1747.1 | 2183.0 | 2184.0 | 1820.4 | 1523.9 | 2159.0 | 2184.0 |
| Indicator value                        | 0      | 1.0    | 1.0    | 0.8    | 1.8    | 0.9    | 0.9    | 0.9    |

Licensee Comments: none

### Unplanned Power Changes per 7000 Critical Hrs



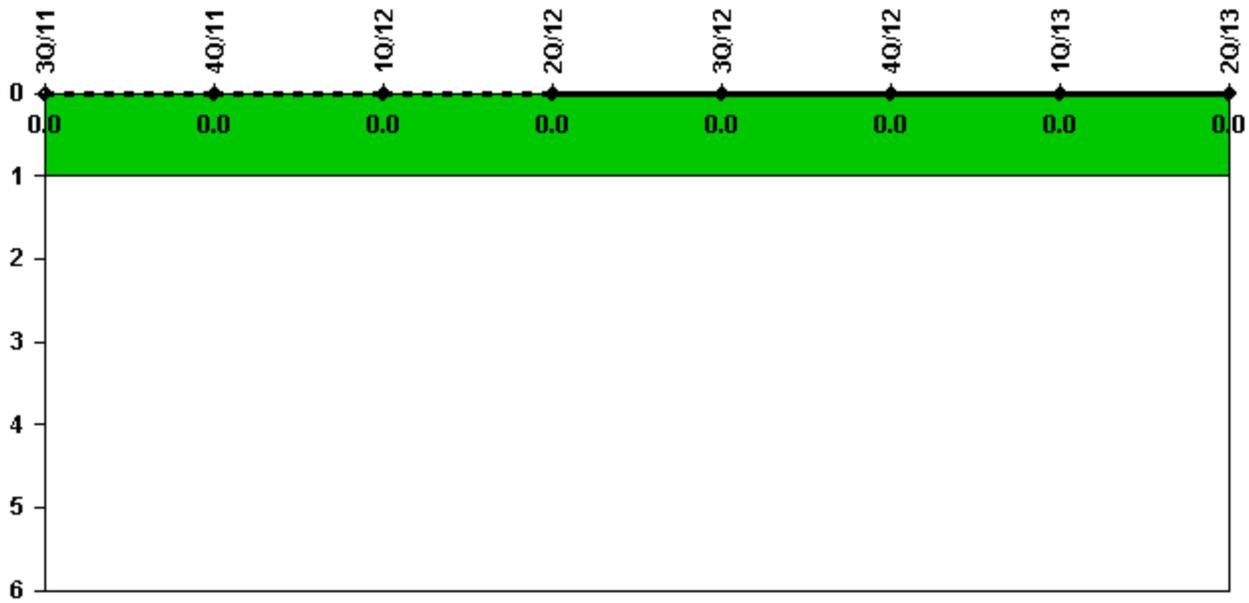
Thresholds: White > 6.0

#### Notes

| Unplanned Power Changes per 7000 Critical Hrs | 3Q/11      | 4Q/11      | 1Q/12      | 2Q/12      | 3Q/12      | 4Q/12    | 1Q/13    | 2Q/13    |
|---|------------|------------|------------|------------|------------|----------|----------|----------|
| Unplanned power changes                       | 0          | 1.0        | 0          | 0          | 0          | 0        | 0        | 0        |
| Critical hours                                | 2208.0     | 1747.1     | 2183.0     | 2184.0     | 1820.4     | 1523.9   | 2159.0   | 2184.0   |
| <b>Indicator value</b>                        | <b>2.8</b> | <b>3.0</b> | <b>2.0</b> | <b>0.8</b> | <b>0.9</b> | <b>0</b> | <b>0</b> | <b>0</b> |

Licensee Comments: none

### Unplanned Scrams with Complications



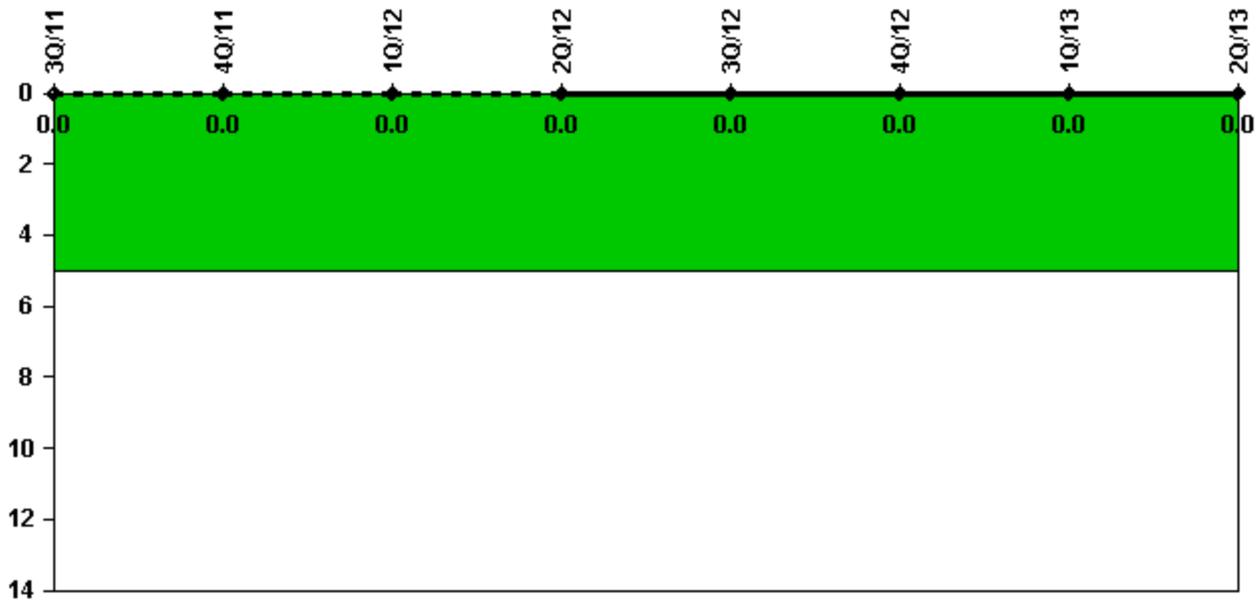
Thresholds: White > 1.0

#### Notes

| Unplanned Scrams with Complications | 3Q/11      | 4Q/11      | 1Q/12      | 2Q/12      | 3Q/12      | 4Q/12      | 1Q/13      | 2Q/13      |
|-------------------------------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Scrams with complications           | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          |
|                                     |            |            |            |            |            |            |            |            |
| <b>Indicator value</b>              | <b>0.0</b> |

Licensee Comments: none

### Safety System Functional Failures (PWR)



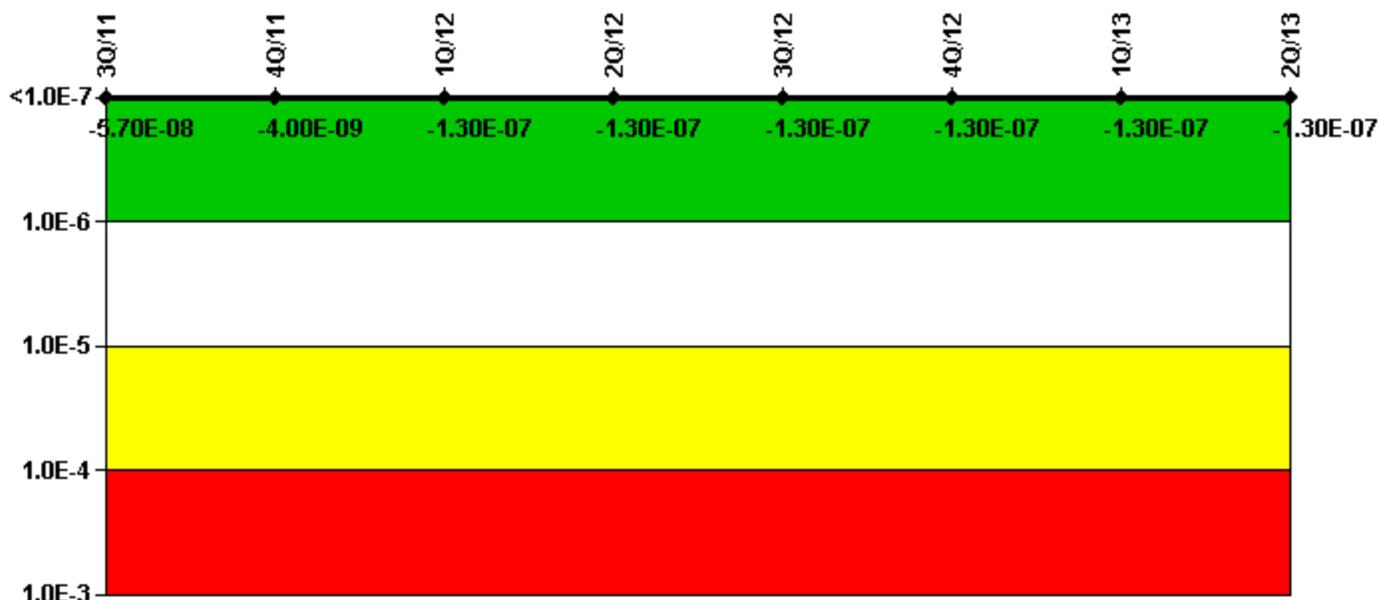
Thresholds: White > 5.0

#### Notes

| Safety System Functional Failures (PWR) | 3Q/11    | 4Q/11    | 1Q/12    | 2Q/12    | 3Q/12    | 4Q/12    | 1Q/13    | 2Q/13    |
|---|----------|----------|----------|----------|----------|----------|----------|----------|
| Safety System Functional Failures       | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        |
| <b>Indicator value</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 | 3Q/11     | 4Q/11     | 1Q/12     | 2Q/12     | 3Q/12     | 4Q/12     | 1Q/13     | 2Q/13     |
|---|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| UAI ( $\Delta$ CDF)   | -3.28E-09 | -1.78E-09 | -3.32E-08 | -3.32E-08 | -3.32E-08 | -3.32E-08 | -3.32E-08 | -3.32E-08 |
| URI ( $\Delta$ CDF)   | -5.37E-08 | -2.24E-09 | -9.82E-08 | -9.77E-08 | -9.83E-08 | -9.72E-08 | -9.53E-08 | -9.85E-08 |
| PLE   | NO        |
| Indicator value   | -5.70E-08 | -4.00E-09 | -1.30E-07 | -1.30E-07 | -1.30E-07 | -1.30E-07 | -1.30E-07 | -1.30E-07 |

#### Licensee Comments:

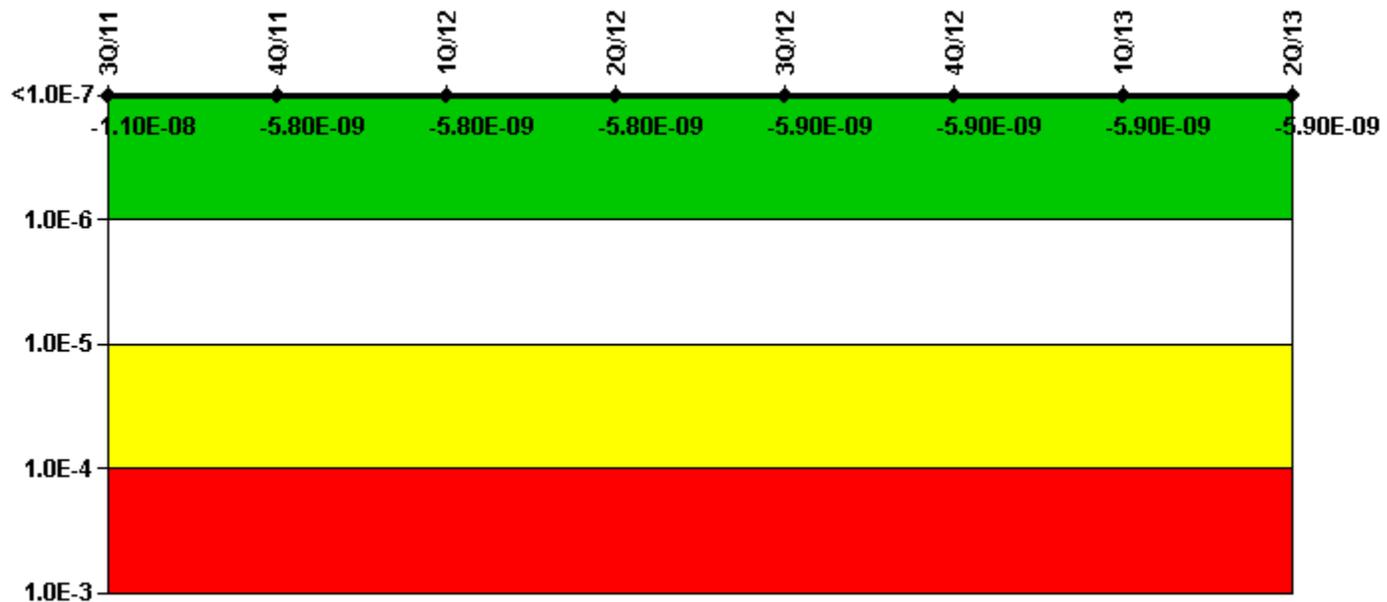
2Q/12: FAQ 10-06, which provides clarification on the guidance for what constitutes cascading became effective in April 2012 and has been incorporated into the basis document which was revised in December 2011. There were no 2Q12 PRA changes as a result of this FAQ.

1Q/12: Basis document was updated with the following: To reflect the Seabrook EDG fuel oil transfers pumps now are part of the EDG super component. The EAC boundary drawing has been updated on page 17. Failure of the FO transfer pump may be considered a failure of the EDG super component. (FAQ 11-07). Changes made to the basis document on page 22. Crosstie ability exists between transfer systems. Day tank low level alarm occurs at 702 gallons (D6565/D6615) and alarms in the control room. EDG failure is assumed at 91 minutes given full load usage of 7.7 gpm. The fuel oil transfer pumps can be cross-connected to supply either EDGs day tank. One FOTP can supply 20 gpm. This is enough fuel oil for both EDGs running at full load. The cross-connection is a manual action performed by an operator in the field using procedure OX1426.33. Operator action to crosstie the fuel oil transfer system is not explicitly modeled in the PRA. Therefore the PRA assumes a failure of the fuel oil transfer pump fails the EDG. A single fuel storage tank has enough fuel to last 7 days per technical specification

requirements. This allows for both diesels to meet the 24-hour mission time requirement if only supplied from one storage tank. Suction can be taken from either storage tank. Justification exists for screening out FOTP failures. The screening determination will be made by the individual failure investigation (FAQ 11-08). Changes are effective beginning with 1st quarter 2012 data.

4Q/11: The PRA values were revised on 9/26/11 to support 4Q11 implementation. This was a general model update.

### 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/11     | 4Q/11     | 1Q/12     | 2Q/12     | 3Q/12     | 4Q/12     | 1Q/13     | 2Q/13     |
|--|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| UAI (ΔCDF)   | -7.10E-09 | -3.13E-09 |
| URI (ΔCDF)   | -4.14E-09 | -2.69E-09 | -2.68E-09 | -2.68E-09 | -2.81E-09 | -2.79E-09 | -2.80E-09 | -2.78E-09 |
| PLE  | NO        |
| Indicator value  | -1.10E-08 | -5.80E-09 | -5.80E-09 | -5.80E-09 | -5.90E-09 | -5.90E-09 | -5.90E-09 | -5.90E-09 |

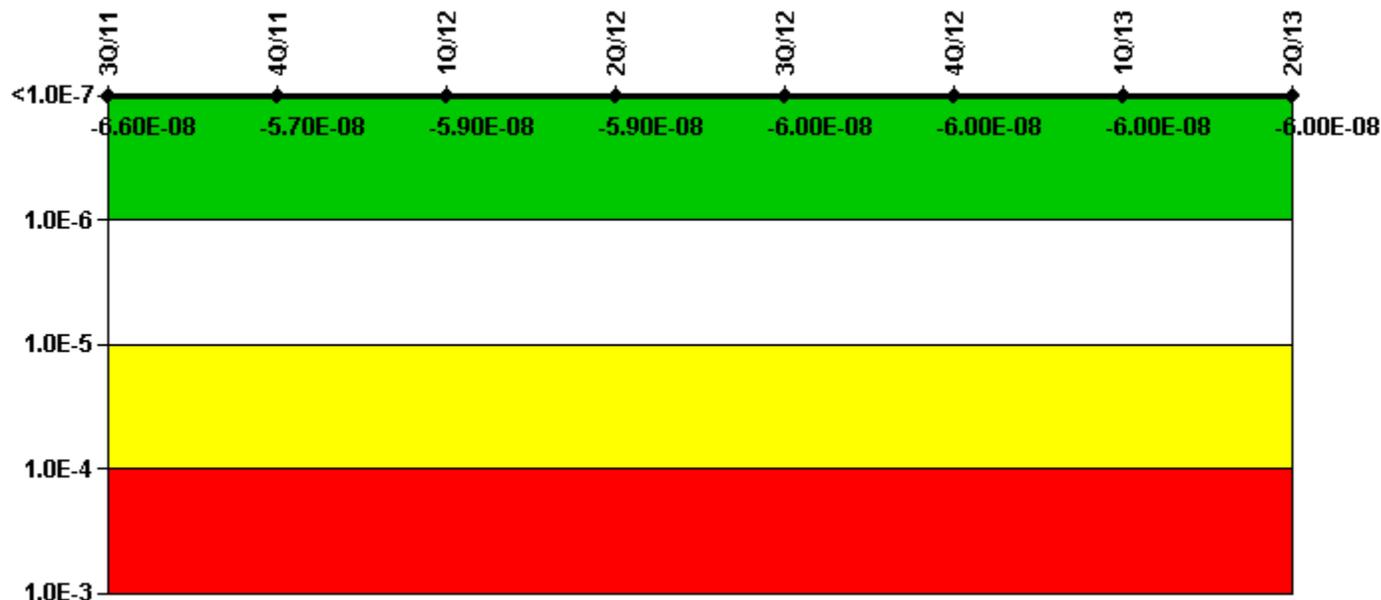
Licensee Comments:

2Q/12: FAQ 10-06, which provides clarification on the guidance for what constitutes cascading became effective

in April 2012 and has been incorporated into the basis document which was revised in December 2011. There were no 2Q12 PRA changes as a result of this FAQ.

4Q/11: The PRA values were revised on 9/26/11 to support 4Q11 implementation. This was a general model update.

### Mitigating Systems Performance Index, Heat Removal System



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

#### Notes

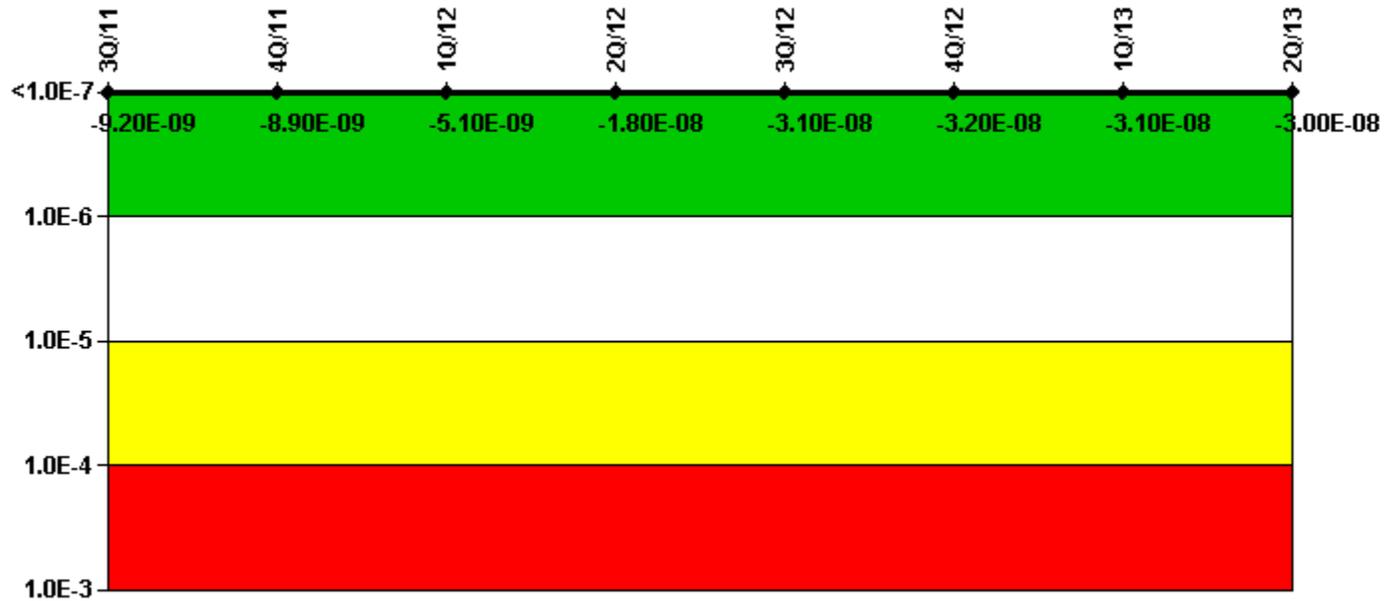
| Mitigating Systems Performance Index, Heat Removal System | 3Q/11     | 4Q/11     | 1Q/12     | 2Q/12     | 3Q/12     | 4Q/12     | 1Q/13     | 2Q/13     |
|---|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| UAI ( $\Delta$ CDF)                                       | -2.24E-08 | -1.86E-08 | -2.01E-08 | -2.02E-08 | -1.98E-08 | -2.02E-08 | -2.02E-08 | -2.02E-08 |
| URI ( $\Delta$ CDF)                                       | -4.32E-08 | -3.89E-08 | -3.88E-08 | -3.88E-08 | -4.01E-08 | -3.99E-08 | -3.99E-08 | -3.98E-08 |
| PLE   | NO        |
| Indicator value   | -6.60E-08 | -5.70E-08 | -5.90E-08 | -5.90E-08 | -6.00E-08 | -6.00E-08 | -6.00E-08 | -6.00E-08 |

Licensee Comments:

2Q/12: FAQ 10-06, which provides clarification on the guidance for what constitutes cascading became effective in April 2012 and has been incorporated into the basis document which was revised in December 2011. There were no 2Q12 PRA changes as a result of this FAQ.

4Q/11: The PRA values were revised on 9/26/11 to support 4Q11 implementation. This was a general model update.

### 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/11     | 4Q/11     | 1Q/12     | 2Q/12     | 3Q/12     | 4Q/12     | 1Q/13     | 2Q/13     |
|--|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| UAI (ΔCDF)   | 2.27E-08  | 1.89E-08  | 2.27E-08  | 9.98E-09  | -1.80E-09 | -3.09E-09 | -2.11E-09 | -1.78E-09 |
| URI (ΔCDF)   | -3.19E-08 | -2.78E-08 | -2.78E-08 | -2.78E-08 | -2.93E-08 | -2.85E-08 | -2.85E-08 | -2.84E-08 |
| PLE  | NO        |
| Indicator value  | -9.20E-09 | -8.90E-09 | -5.10E-09 | -1.80E-08 | -3.10E-08 | -3.20E-08 | -3.10E-08 | -3.00E-08 |

Licensee Comments:

2Q/12: FAQ 10-06, which provides clarification on the guidance for what constitutes cascading became effective in April 2012 and has been incorporated into the basis document which was revised in December 2011. There were no 2Q12 PRA changes as a result of this FAQ.

4Q/11: The PRA values were revised on 9/26/11 to support 4Q11 implementation. This was a general model update.

### Mitigating Systems Performance Index, Cooling Water Systems



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

#### Notes

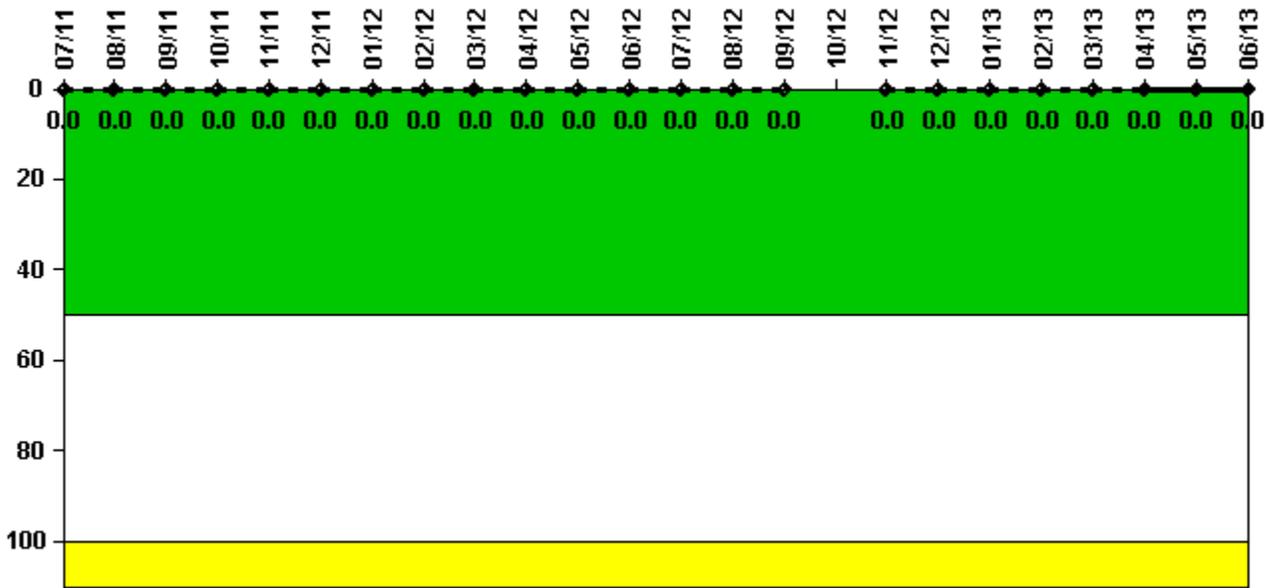
| Mitigating Systems Performance Index, Cooling Water Systems | 3Q/11    | 4Q/11     | 1Q/12     | 2Q/12     | 3Q/12     | 4Q/12     | 1Q/13     | 2Q/13     |
|---|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| UAI ( $\Delta$ CDF)   | 4.25E-10 | 3.54E-10  | 3.54E-10  | 3.54E-10  | 3.60E-10  | 3.52E-10  | -1.93E-14 | -1.93E-14 |
| URI ( $\Delta$ CDF)   | 3.95E-09 | -4.09E-08 | -4.05E-08 | -4.03E-08 | -4.04E-08 | -3.97E-08 | -3.97E-08 | -3.95E-08 |
| PLE   | NO       | NO        | NO        | NO        | NO        | NO        | NO        | NO        |
| Indicator value   | 4.40E-09 | -4.10E-08 | -4.00E-08 | -4.00E-08 | -4.00E-08 | -3.90E-08 | -4.00E-08 | -3.90E-08 |

#### Licensee Comments:

2Q/12: FAQ 10-06, which provides clarification on the guidance for what constitutes cascading became effective in April 2012 and has been incorporated into the basis document which was revised in December 2011. There were no 2Q12 PRA changes as a result of this FAQ.

4Q/11: The PRA values were revised on 9/26/11 to support 4Q11 implementation. This was a general model update.

### Reactor Coolant System Activity



Thresholds: White > 50.0 Yellow > 100.0

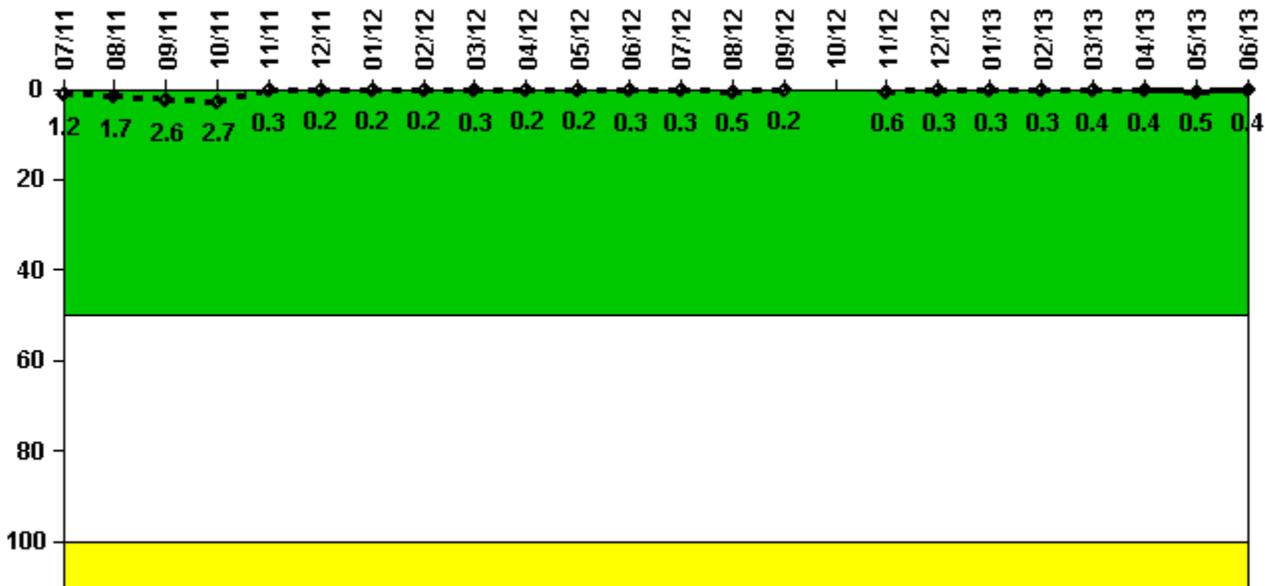
#### Notes

| Reactor Coolant System Activity | 7/11     | 8/11     | 9/11     | 10/11    | 11/11    | 12/11    | 1/12     | 2/12     | 3/12     | 4/12     | 5/12     | 6/12     |
|---------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Maximum activity                | 0.000054 | 0.000067 | 0.000074 | 0.000066 | 0.000086 | 0.000059 | 0.000042 | 0.000062 | 0.000062 | 0.000056 | 0.000060 | 0.000056 |
| 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        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        |
| 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                | 0.000062 | 0.000080 | 0.000059 | N/A      | 0.000039 | 0.000062 | 0.000045 | 0.000045 | 0.000052 | 0.000062 | 0.000047 | 0.000064 |
| 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        | 0        | 0        | N/A      | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        |

Licensee Comments:

12/12: Reactor Coolant System Activity data was unavailable for the month of October as the unit was shutdown for refueling and RCS activity was not required to be calculated.

### Reactor Coolant System Leakage



Thresholds: White > 50.0 Yellow > 100.0

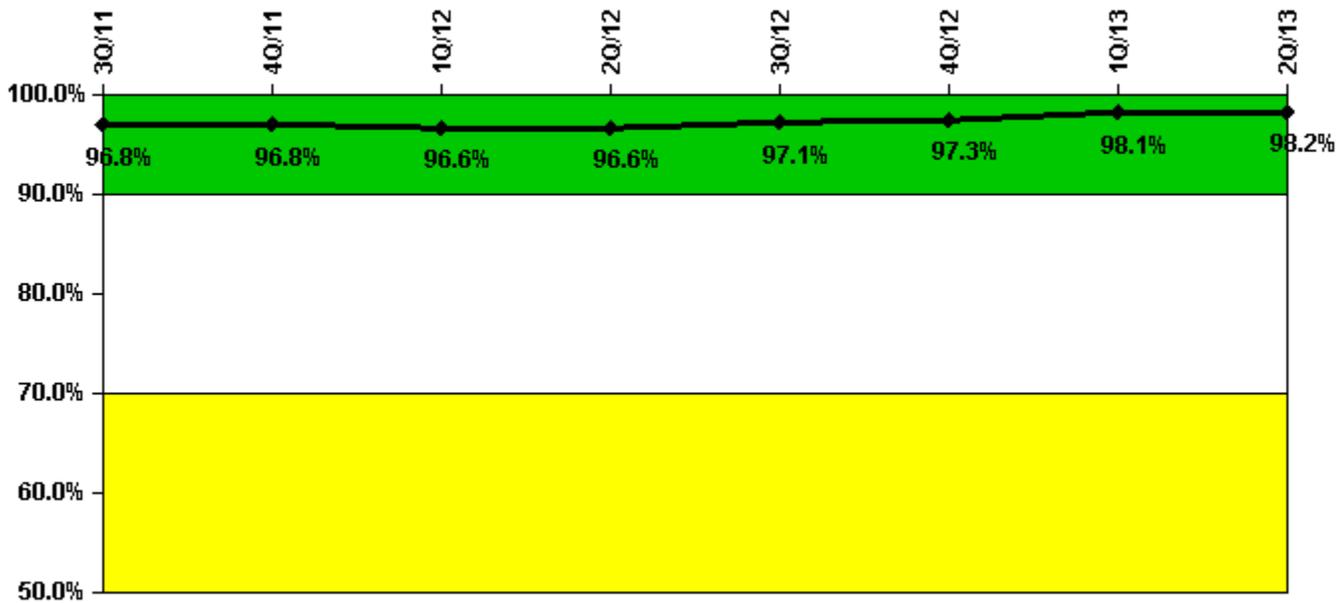
**Notes**

| Reactor Coolant System Leakage | 7/11       | 8/11       | 9/11       | 10/11      | 11/11      | 12/11      | 1/12       | 2/12       | 3/12       | 4/12       | 5/12       | 6/12       |
|--------------------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Maximum leakage                | 0.124      | 0.168      | 0.258      | 0.272      | 0.029      | 0.024      | 0.024      | 0.024      | 0.027      | 0.022      | 0.024      | 0.025      |
| 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>1.2</b> | <b>1.7</b> | <b>2.6</b> | <b>2.7</b> | <b>0.3</b> | <b>0.2</b> | <b>0.2</b> | <b>0.2</b> | <b>0.3</b> | <b>0.2</b> | <b>0.2</b> | <b>0.3</b> |
| 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                | 0.028      | 0.047      | 0.021      | N/A        | 0.056      | 0.029      | 0.027      | 0.029      | 0.039      | 0.040      | 0.045      | 0.035      |
| 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>0.3</b> | <b>0.5</b> | <b>0.2</b> | <b>N/A</b> | <b>0.6</b> | <b>0.3</b> | <b>0.3</b> | <b>0.3</b> | <b>0.4</b> | <b>0.4</b> | <b>0.5</b> | <b>0.4</b> |

Licensee Comments:

12/12: Reactor Coolant Identified Leak Rate data was unavailable for the month of October as the unit was shutdown for refueling and RCS leakage was not required to be calculated.

### Drill/Exercise Performance



Thresholds: White < 90.0% Yellow < 70.0%

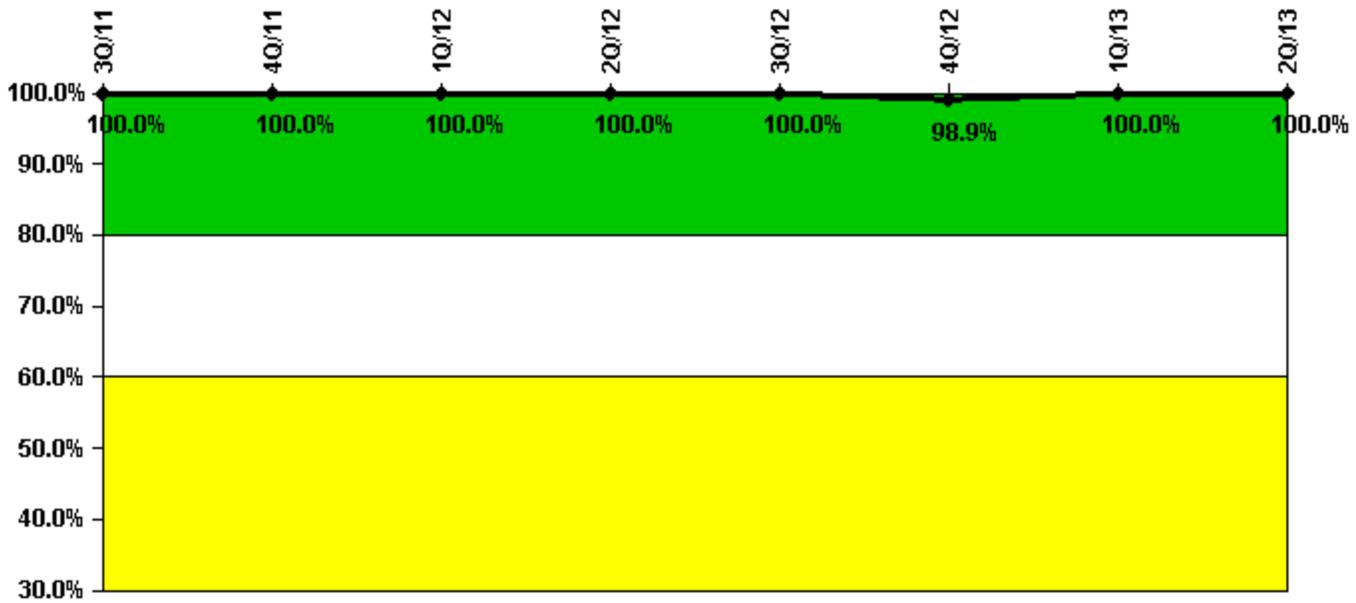
#### Notes

| Drill/Exercise Performance | 3Q/11 | 4Q/11 | 1Q/12 | 2Q/12 | 3Q/12 | 4Q/12 | 1Q/13 | 2Q/13 |
|----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| Successful opportunities   | 26.0  | 57.0  | 41.0  | 29.0  | 22.0  | 36.0  | 29.0  | 27.0  |
| Total opportunities        | 27.0  | 58.0  | 42.0  | 31.0  | 22.0  | 36.0  | 29.0  | 27.0  |
| Indicator value            | 96.8% | 96.8% | 96.6% | 96.6% | 97.1% | 97.3% | 98.1% | 98.2% |

#### Licensee Comments:

4Q/11: Successful and total drill opportunities changed from 21 to 23 for 2011-11. Two opportunities were not reported in time for 4Q 2011 data due to annual exam security. Change submitted with 1Q 2012 data.

### ERO Drill Participation



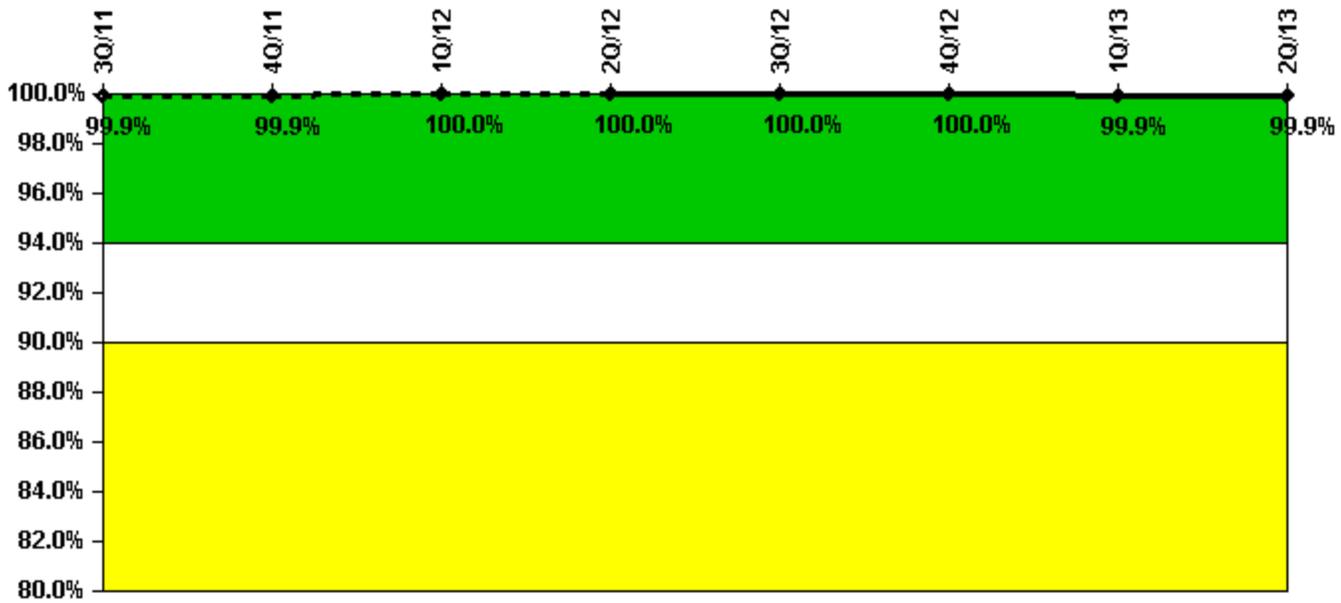
Thresholds: White < 80.0% Yellow < 60.0%

#### Notes

| ERO Drill Participation     | 3Q/11  | 4Q/11  | 1Q/12  | 2Q/12  | 3Q/12  | 4Q/12 | 1Q/13  | 2Q/13  |
|-----------------------------|--------|--------|--------|--------|--------|-------|--------|--------|
| Participating Key personnel | 89.0   | 87.0   | 95.0   | 94.0   | 94.0   | 89.0  | 91.0   | 94.0   |
| Total Key personnel         | 89.0   | 87.0   | 95.0   | 94.0   | 94.0   | 90.0  | 91.0   | 94.0   |
| Indicator value             | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 98.9% | 100.0% | 100.0% |

Licensee Comments: none

### Alert & Notification System



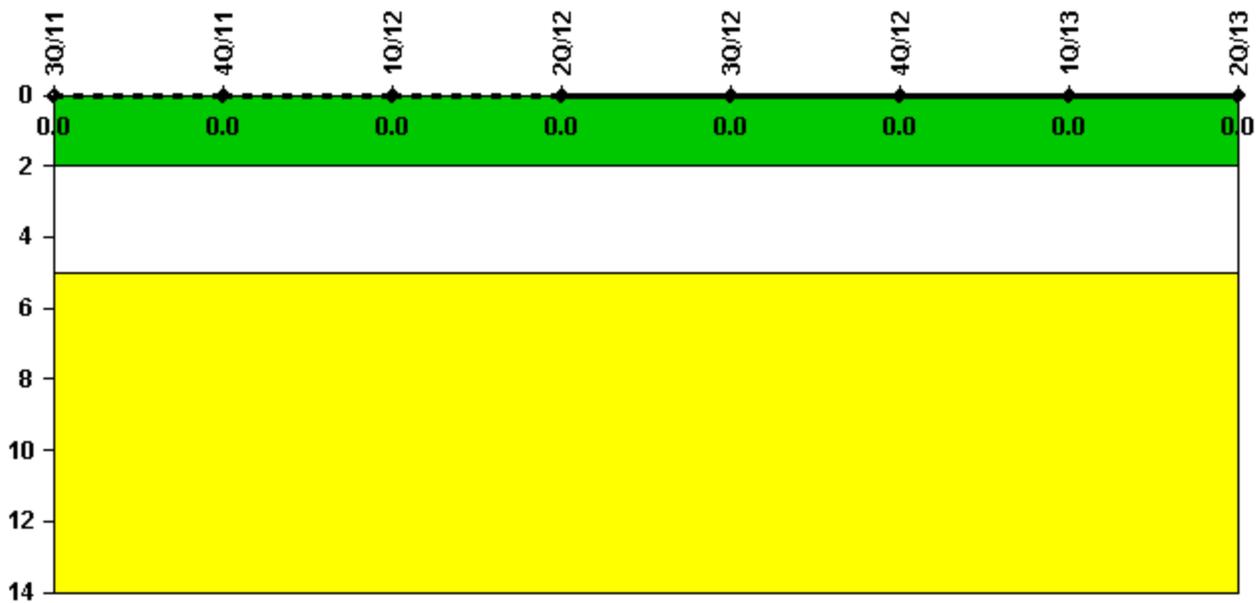
Thresholds: White < 94.0% Yellow < 90.0%

#### Notes

| Alert & Notification System | 3Q/11 | 4Q/11 | 1Q/12  | 2Q/12  | 3Q/12  | 4Q/12  | 1Q/13 | 2Q/13 |
|-----------------------------|-------|-------|--------|--------|--------|--------|-------|-------|
| Successful siren-tests      | 847   | 846   | 726    | 847    | 726    | 846    | 724   | 847   |
| Total sirens-tests          | 847   | 847   | 726    | 847    | 726    | 847    | 726   | 847   |
| Indicator value             | 99.9% | 99.9% | 100.0% | 100.0% | 100.0% | 100.0% | 99.9% | 99.9% |

Licensee Comments: none

### Occupational Exposure Control Effectiveness



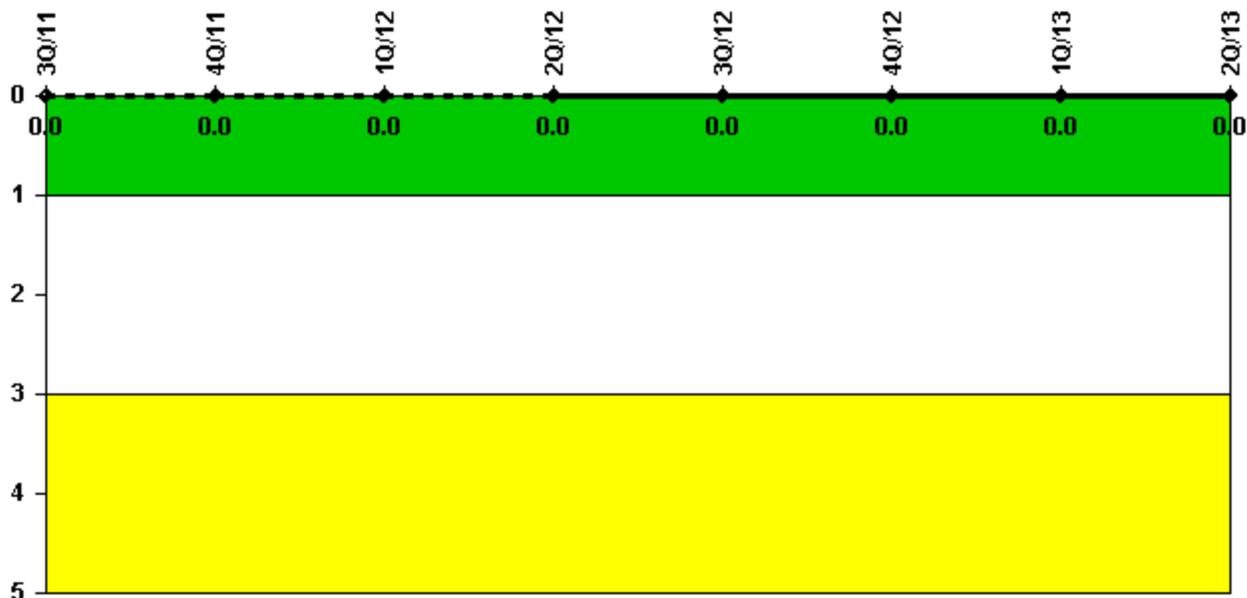
Thresholds: White > 2.0 Yellow > 5.0

#### Notes

| Occupational Exposure Control Effectiveness | 3Q/11    | 4Q/11    | 1Q/12    | 2Q/12    | 3Q/12    | 4Q/12    | 1Q/13    | 2Q/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> |

Licensee Comments: none

### RETS/ODCM Radiological Effluent



Thresholds: White > 1.0 Yellow > 3.0

#### Notes

| RETS/ODCM Radiological Effluent | 3Q/11    | 4Q/11    | 1Q/12    | 2Q/12    | 3Q/12    | 4Q/12    | 1Q/13    | 2Q/13    |
|---------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|
| RETS/ODCM occurrences           | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        |
| <b>Indicator value</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: August 19, 2013*