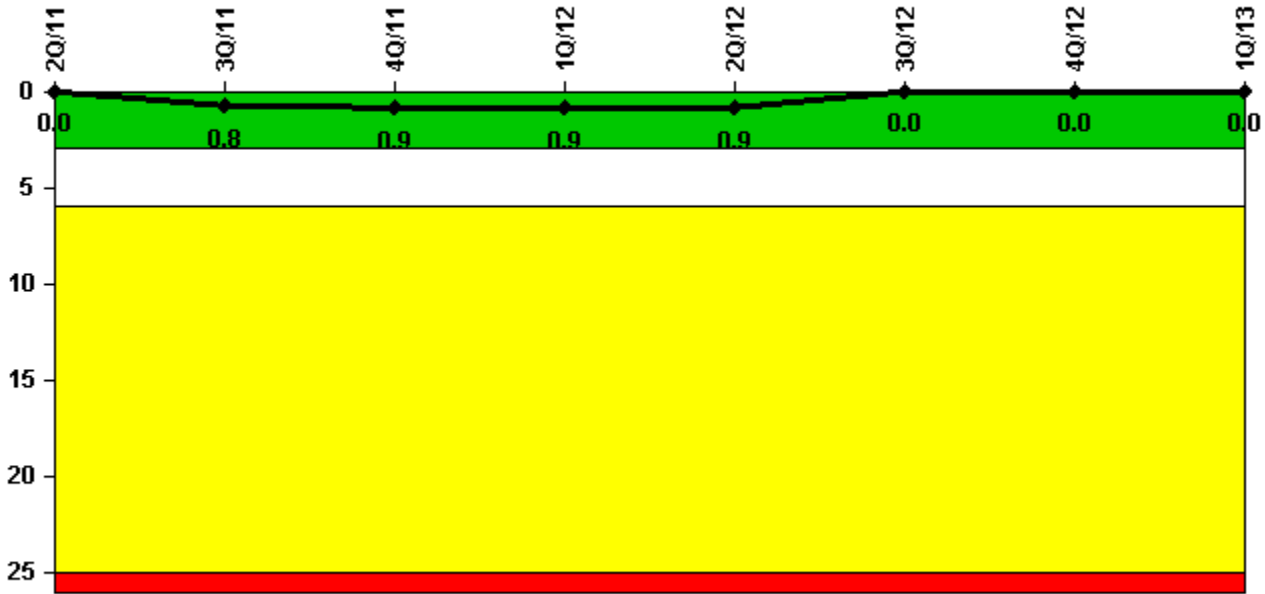


## D.C. Cook 1

### 1Q/2013 Performance Indicators

Licensee's General Comments: none

#### Unplanned Scrams per 7000 Critical Hrs



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

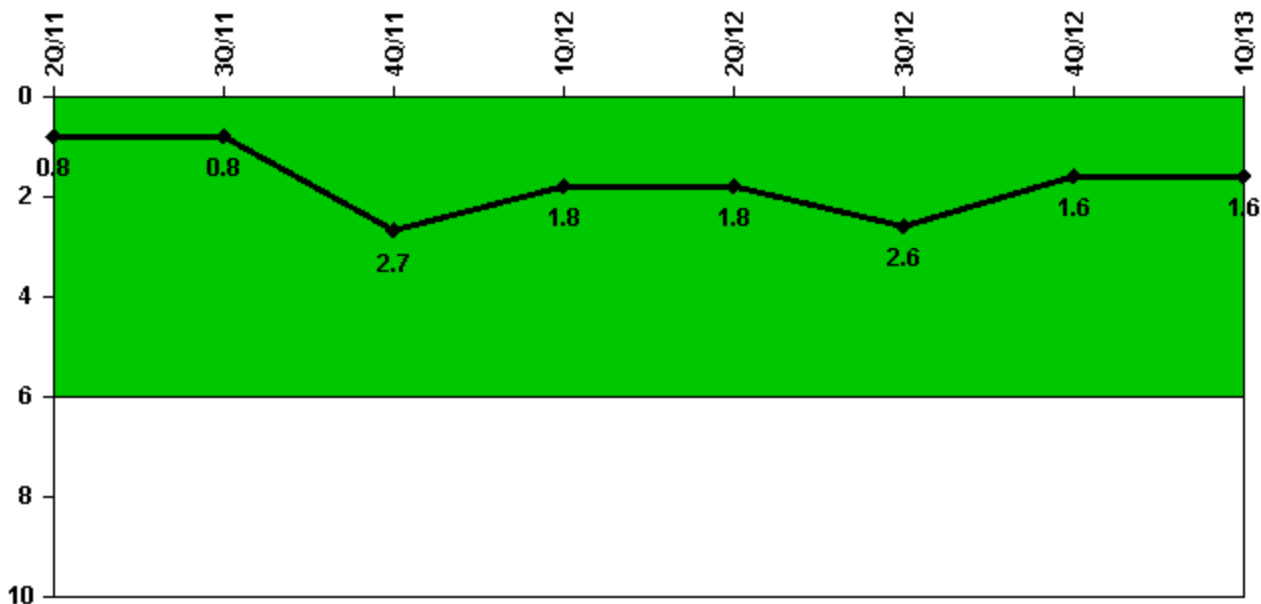
#### Notes

Unplanned Scrams per 7000 Critical Hrs	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13
Unplanned scrams	0	1.0	0	0	0	0	0	0
Critical hours	2184.0	1916.6	1617.1	2183.0	2184.0	2208.0	2209.0	2039.0
<b>Indicator value</b>	<b>0</b>	<b>0.8</b>	<b>0.9</b>	<b>0.9</b>	<b>0.9</b>	<b>0</b>	<b>0</b>	<b>0</b>

Licensee Comments:

3Q/11: One unplanned scram: Automatic trip of Unit 1 reactor on September 7 due to a main turbine trip initiated by thrust position circuitry.

### Unplanned Power Changes per 7000 Critical Hrs



Thresholds: White > 6.0

#### Notes

Unplanned Power Changes per 7000 Critical Hrs	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13
Unplanned power changes	0	0	2.0	0	0	1.0	1.0	0
Critical hours	2184.0	1916.6	1617.1	2183.0	2184.0	2208.0	2209.0	2039.0
<b>Indicator value</b>	<b>0.8</b>	<b>0.8</b>	<b>2.7</b>	<b>1.8</b>	<b>1.8</b>	<b>2.6</b>	<b>1.6</b>	<b>1.6</b>

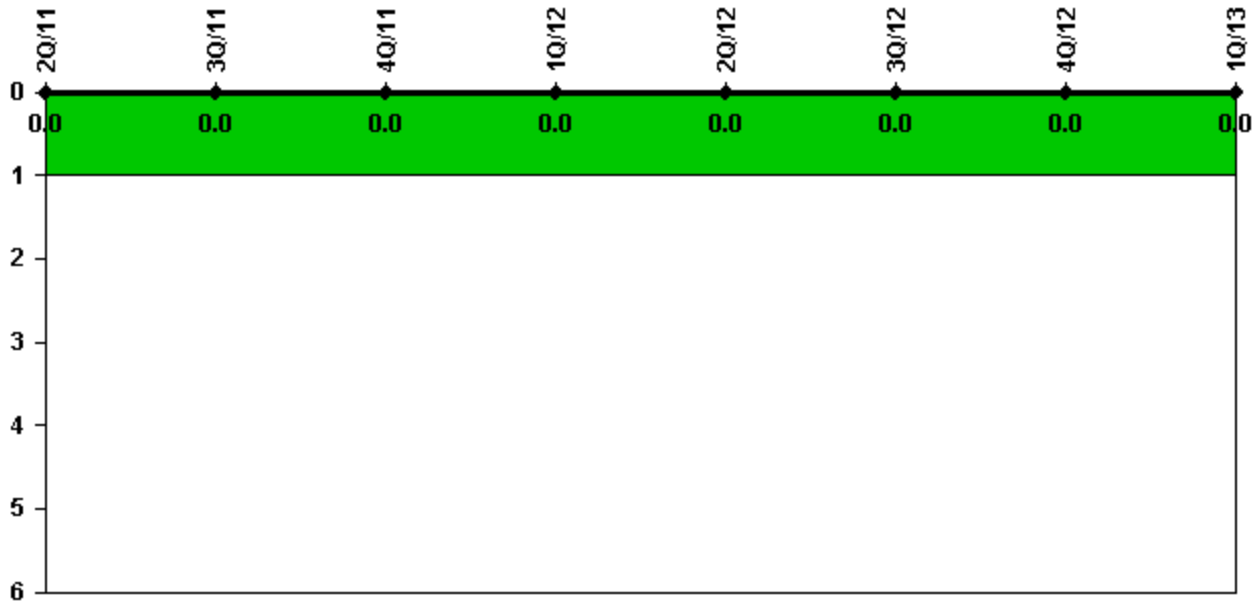
Licensee Comments:

4Q/12: Downpower to 54% due to hi vibration on East Main Feed Pump on 10/29/12.

3Q/12: One unplanned power change from 100% to approximately 49% on July 19 in accordance with Tech Spec action requirements for inoperable main steam line isolation function

4Q/11: Two unplanned power changes: November 25 - power reduced to approximately 54% due to East Main Feedwater Pump high vibrations (turbine shaft failure). December 21 - power reduced to approximately 57% due to EHC fluid leak on West Main Feedwater Pump.

### Unplanned Scrams with Complications



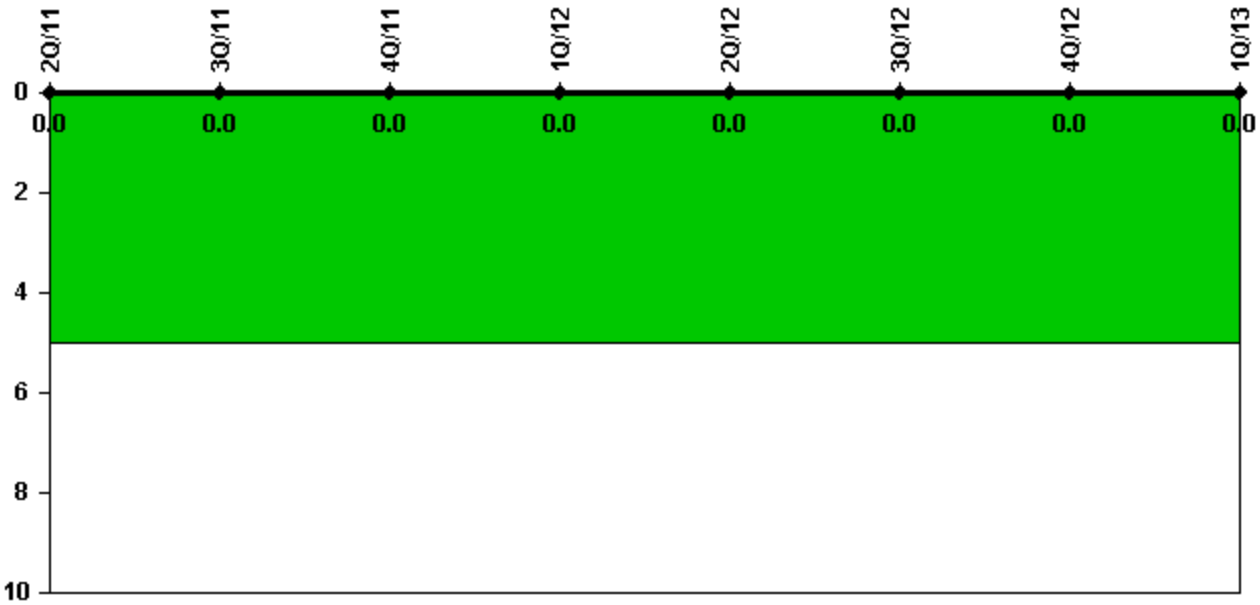
Thresholds: White > 1.0

#### Notes

Unplanned Scrams with Complications	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13
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)



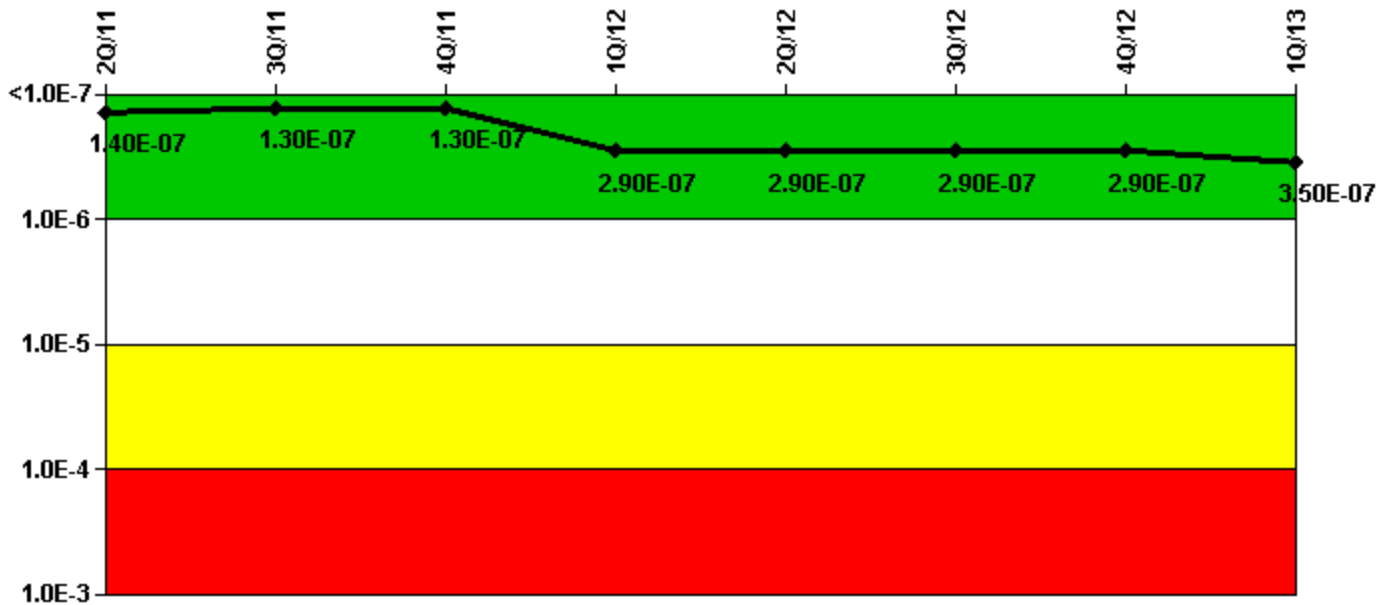
Thresholds: White > 5.0

#### Notes

Safety System Functional Failures (PWR)	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13
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

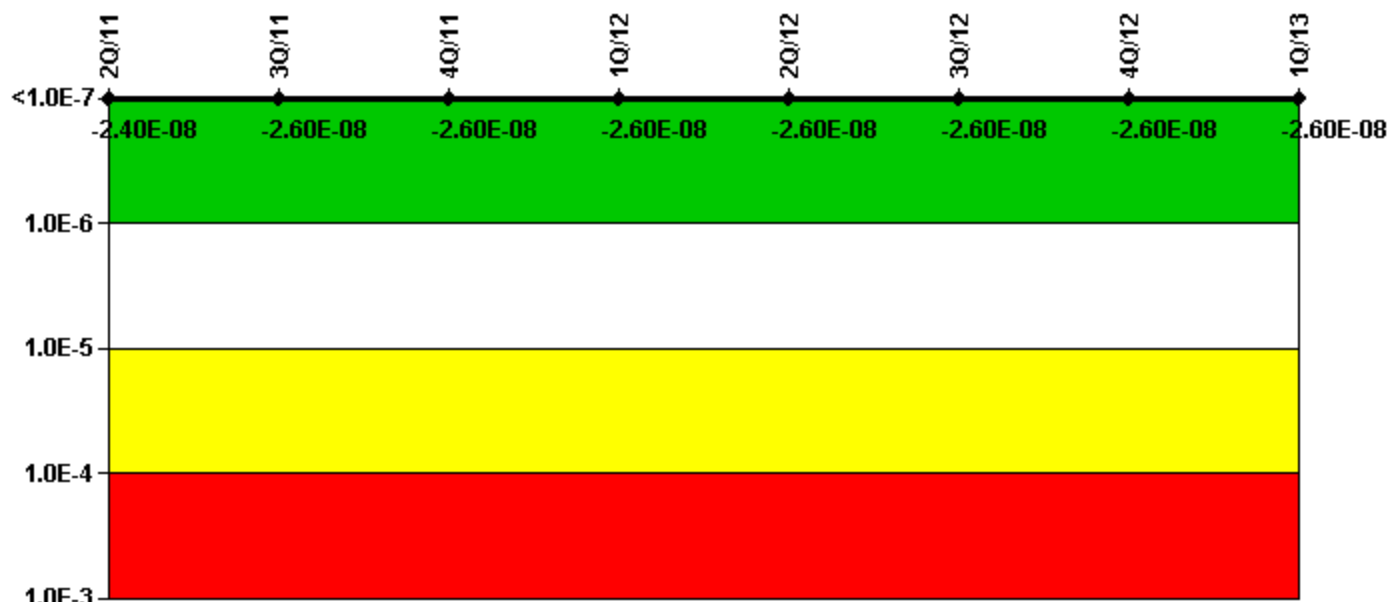
#### Notes

Mitigating Systems Performance Index, Emergency AC Power System	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13
UAI (ΔCDF)	5.74E-10	5.80E-10	4.86E-10	4.87E-10	4.00E-10	3.29E-10	2.79E-10	3.40E-10
URI (ΔCDF)	1.35E-07	1.33E-07	1.33E-07	2.85E-07	2.85E-07	2.85E-07	2.85E-07	3.50E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	1.40E-07	1.30E-07	1.30E-07	2.90E-07	2.90E-07	2.90E-07	2.90E-07	3.50E-07

#### Licensee Comments:

1Q/13: U1 CD EDG Fuel Injector failure during surveillance on 1/29/13. CD EDG available following repair on 1/30/13.

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



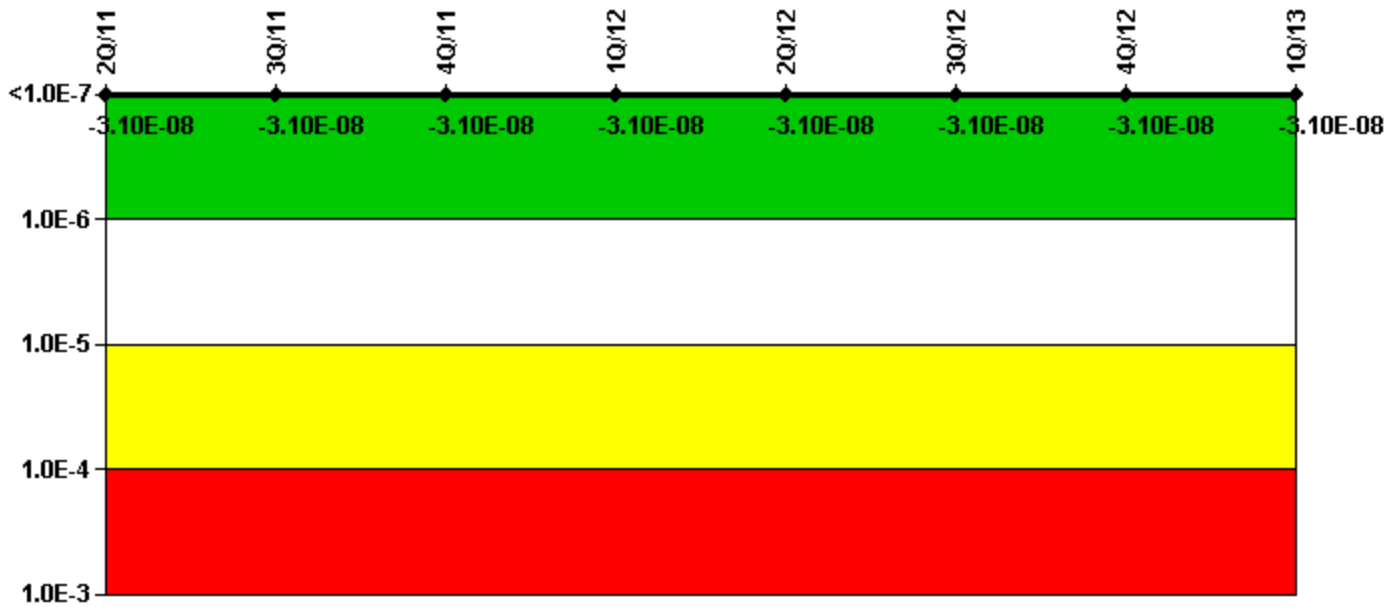
Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

#### Notes

Mitigating Systems Performance Index, High Pressure Injection System	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13
UAI ( $\Delta$ CDF)	-3.65E-12	-2.30E-12	-5.56E-12	-8.42E-12	-1.04E-11	-1.20E-11	-1.31E-11	-1.07E-11
URI ( $\Delta$ CDF)	-2.41E-08	-2.58E-08	-2.58E-08	-2.58E-08	-2.58E-08	-2.58E-08	-2.58E-08	-2.58E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-2.40E-08	-2.60E-08	-2.60E-08	-2.60E-08	-2.60E-08	-2.60E-08	-2.60E-08	-2.60E-08

Licensee Comments: none

### Mitigating Systems Performance Index, Heat Removal System



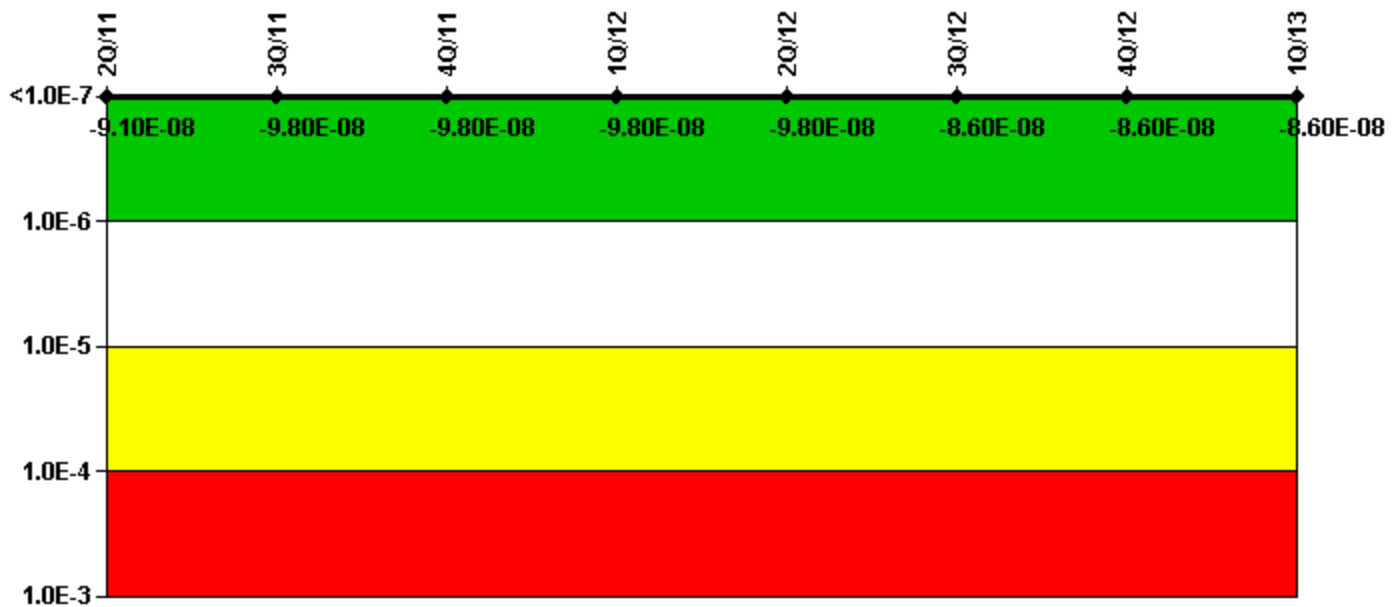
Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

#### Notes

Mitigating Systems Performance Index, Heat Removal System	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13
UAI ( $\Delta$ CDF)	-2.15E-11	-2.01E-11	-2.37E-11	-2.47E-11	-2.80E-11	-2.86E-11	-2.86E-11	-2.86E-11
URI ( $\Delta$ CDF)	-3.06E-08	-3.15E-08	-3.15E-08	-3.15E-08	-3.15E-08	-3.15E-08	-3.15E-08	-3.15E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-3.10E-08	-3.10E-08	-3.10E-08	-3.10E-08	-3.10E-08	-3.10E-08	-3.10E-08	-3.10E-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

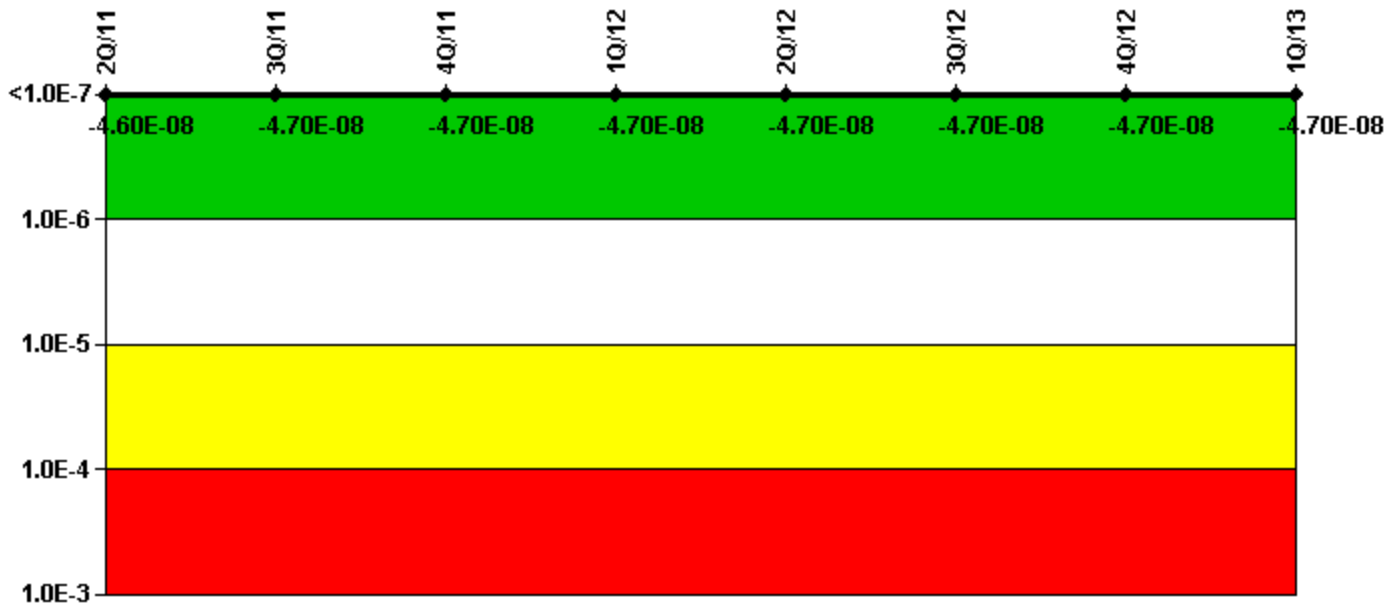
Mitigating Systems Performance Index, Residual Heat Removal System	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13
UAI ( $\Delta$ CDF)	-3.23E-13	-2.18E-13	-3.05E-13	-3.23E-13	-3.23E-13	-3.23E-13	-3.23E-13	-3.23E-13
URI ( $\Delta$ CDF)	-9.13E-08	-9.76E-08	-9.76E-08	-9.76E-08	-9.76E-08	-8.62E-08	-8.62E-08	-8.62E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-9.10E-08	-9.80E-08	-9.80E-08	-9.80E-08	-9.80E-08	-8.60E-08	-8.60E-08	-8.60E-08

#### Licensee Comments:

2Q/12: The MSPI Basis document was revised to exclude two Unit 1 RHR heat exchanger CCW outlet valves from monitoring based on their Birnbaum importance.



### Mitigating Systems Performance Index, Cooling Water Systems



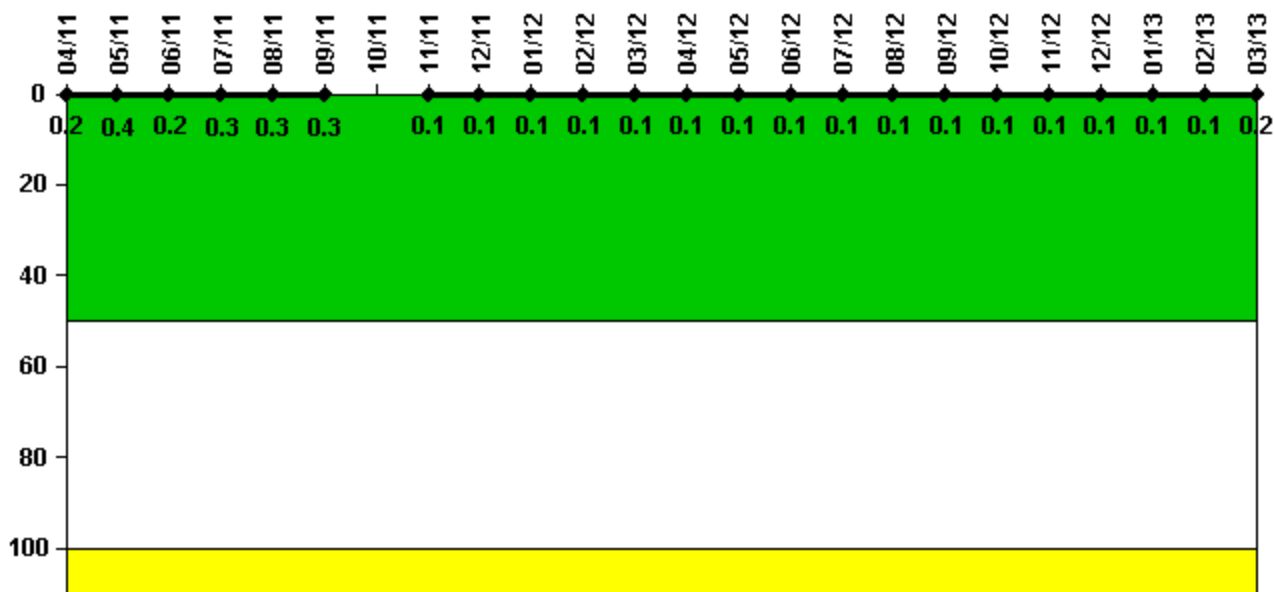
Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

#### Notes

Mitigating Systems Performance Index, Cooling Water Systems	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13
UAI ( $\Delta$ CDF)	6.25E-11	6.36E-11	4.62E-11	4.25E-11	2.77E-11	1.95E-11	1.57E-11	3.48E-11
URI ( $\Delta$ CDF)	-4.58E-08	-4.69E-08	-4.69E-08	-4.69E-08	-4.69E-08	-4.69E-08	-4.69E-08	-4.69E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-4.60E-08	-4.70E-08	-4.70E-08	-4.70E-08	-4.70E-08	-4.70E-08	-4.70E-08	-4.70E-08

Licensee Comments: none

### Reactor Coolant System Activity



Thresholds: White > 50.0 Yellow > 100.0

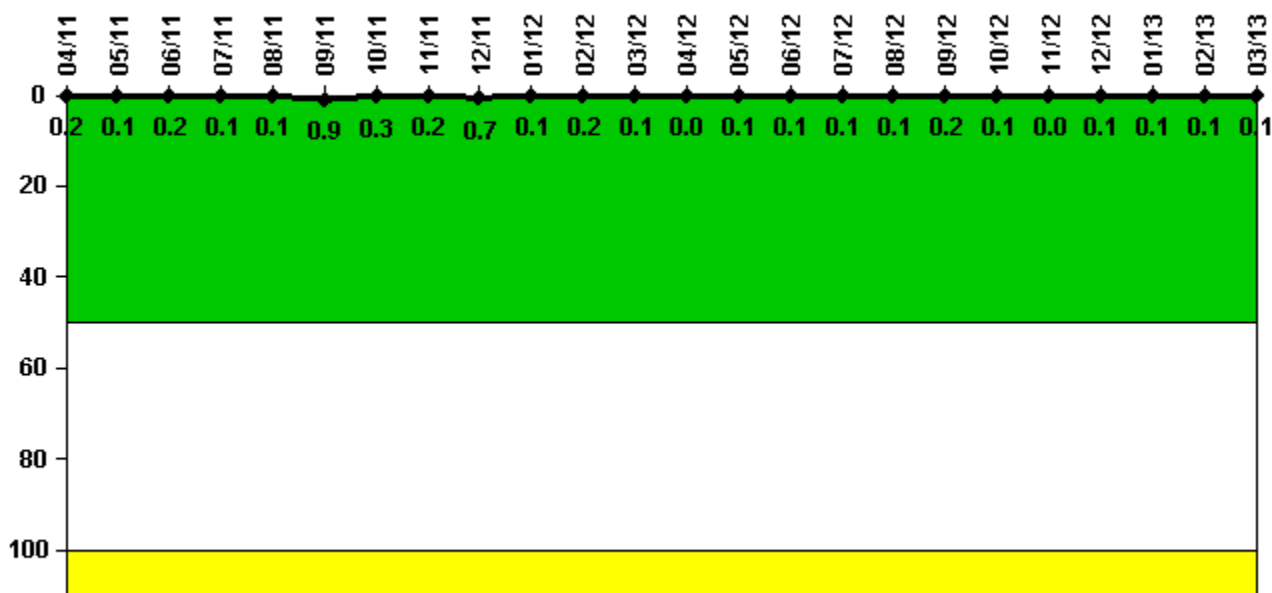
#### Notes

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	0.002300	0.003800	0.002470	0.002560	0.002610	0.003030	N/A	0.000843	0.000793	0.000850	0.000885	0.000932
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	0.4	0.2	0.3	0.3	0.3	N/A	0.1	0.1	0.1	0.1	0.1
Reactor Coolant System Activity	4/12	5/12	6/12	7/12	8/12	9/12	10/12	11/12	12/12	1/13	2/13	3/13
Maximum activity	0.000939	0.000977	0.001050	0.001100	0.001140	0.001170	0.001230	0.001320	0.001290	0.001350	0.001390	0.001590
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	0.1	0.2

#### Licensee Comments:

12/11: Due to a refueling outage followed by power escalation, RCS Activity data is not available for the month of October.

### Reactor Coolant System Leakage



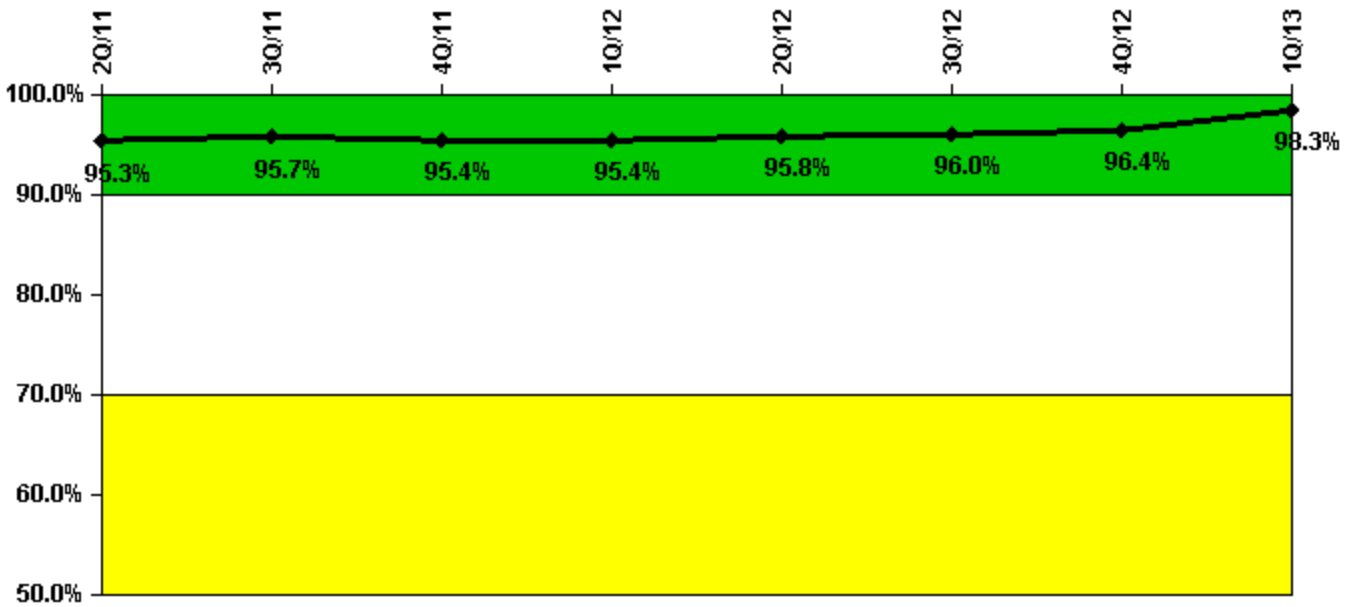
Thresholds: White > 50.0 Yellow > 100.0

**Notes**

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	0.026	0.015	0.024	0.012	0.009	0.094	0.036	0.020	0.075	0.009	0.017	0.012
Technical specification limit	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8
Indicator value	0.2	0.1	0.2	0.1	0.1	0.9	0.3	0.2	0.7	0.1	0.2	0.1
Reactor Coolant System Leakage	4/12	5/12	6/12	7/12	8/12	9/12	10/12	11/12	12/12	1/13	2/13	3/13
Maximum leakage	0.005	0.012	0.012	0.013	0.012	0.018	0.016	0.005	0.010	0.011	0.012	0.012
Technical specification limit	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8
Indicator value	0	0.1	0.1	0.1	0.1	0.2	0.1	0	0.1	0.1	0.1	0.1

Licensee Comments: none

### Drill/Exercise Performance



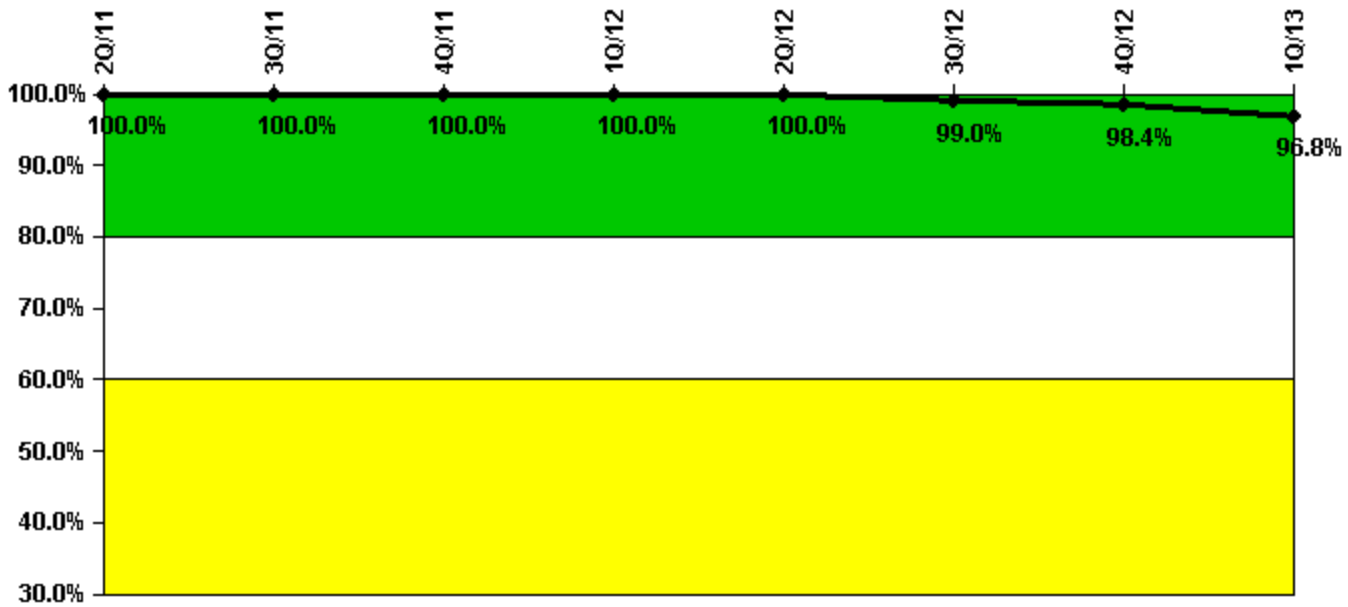
Thresholds: White < 90.0% Yellow < 70.0%

#### Notes

Drill/Exercise Performance	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13
Successful opportunities	16.0	41.0	0	34.0	24.0	41.0	66.0	68.0
Total opportunities	16.0	41.0	0	35.0	25.0	41.0	67.0	70.0
Indicator value	95.3%	95.7%	95.4%	95.4%	95.8%	96.0%	96.4%	98.3%

Licensee Comments: none

### ERO Drill Participation



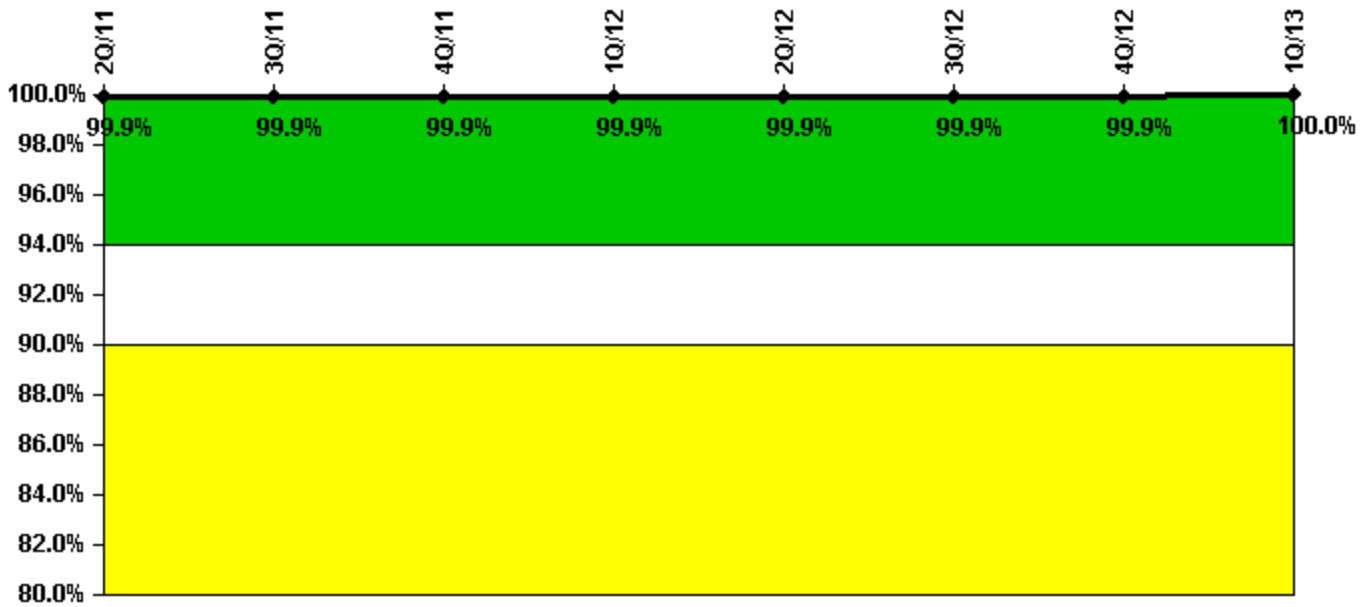
Thresholds: White < 80.0% Yellow < 60.0%

#### Notes

ERO Drill Participation	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13
Participating Key personnel	92.0	91.0	91.0	91.0	89.0	95.0	126.0	120.0
Total Key personnel	92.0	91.0	91.0	91.0	89.0	96.0	128.0	124.0
Indicator value	100.0%	100.0%	100.0%	100.0%	100.0%	99.0%	98.4%	96.8%

Licensee Comments: none

### Alert & Notification System



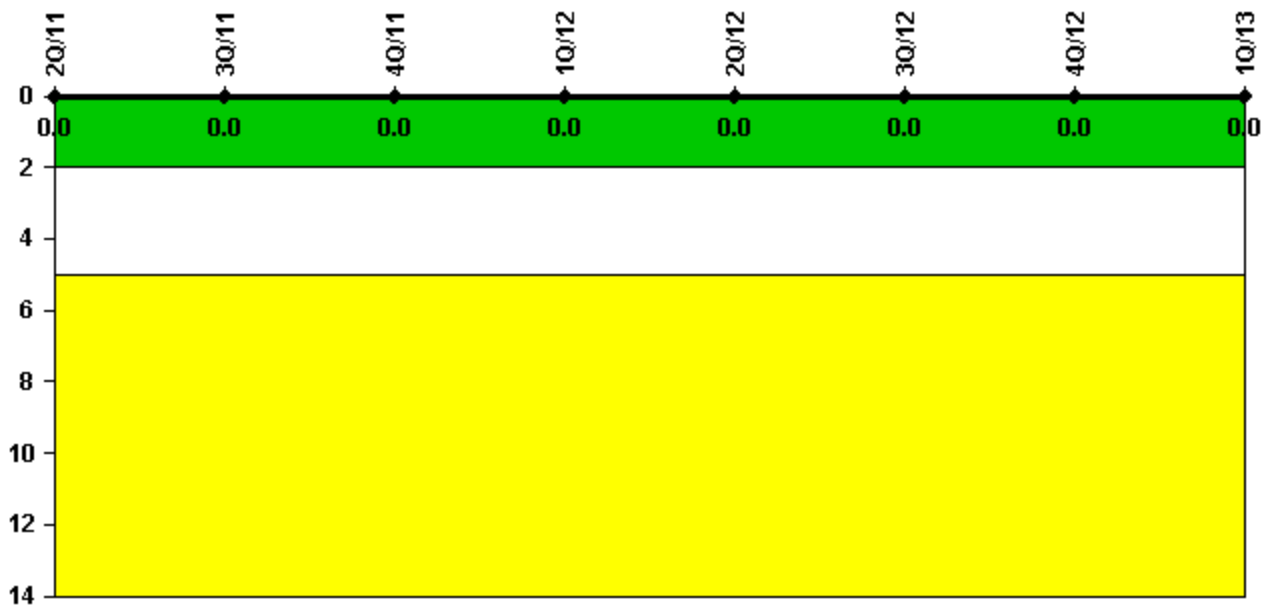
Thresholds: White < 94.0% Yellow < 90.0%

#### Notes

Alert & Notification System	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13
Successful siren-tests	1117	1120	1120	1118	1118	1120	1120	1120
Total sirens-tests	1119	1120	1120	1120	1119	1120	1120	1120
Indicator value	99.9%	99.9%	99.9%	99.9%	99.9%	99.9%	99.9%	100.0%

Licensee Comments: none

### Occupational Exposure Control Effectiveness



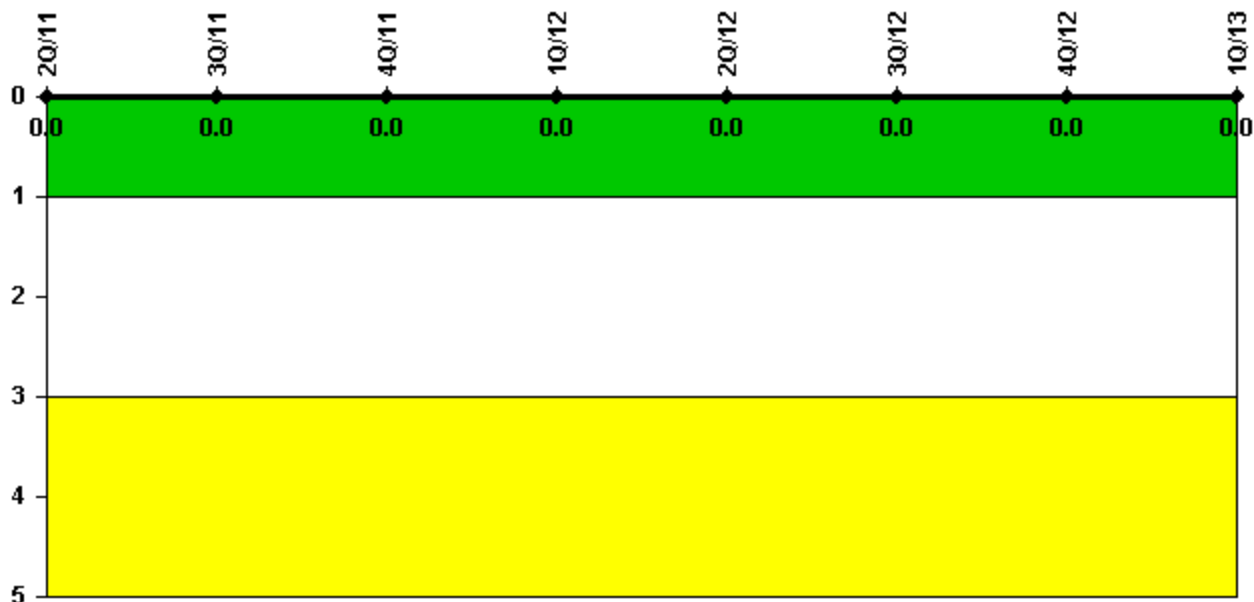
Thresholds: White > 2.0 Yellow > 5.0

#### Notes

Occupational Exposure Control Effectiveness	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/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>	<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	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13
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: April 23, 2013*