

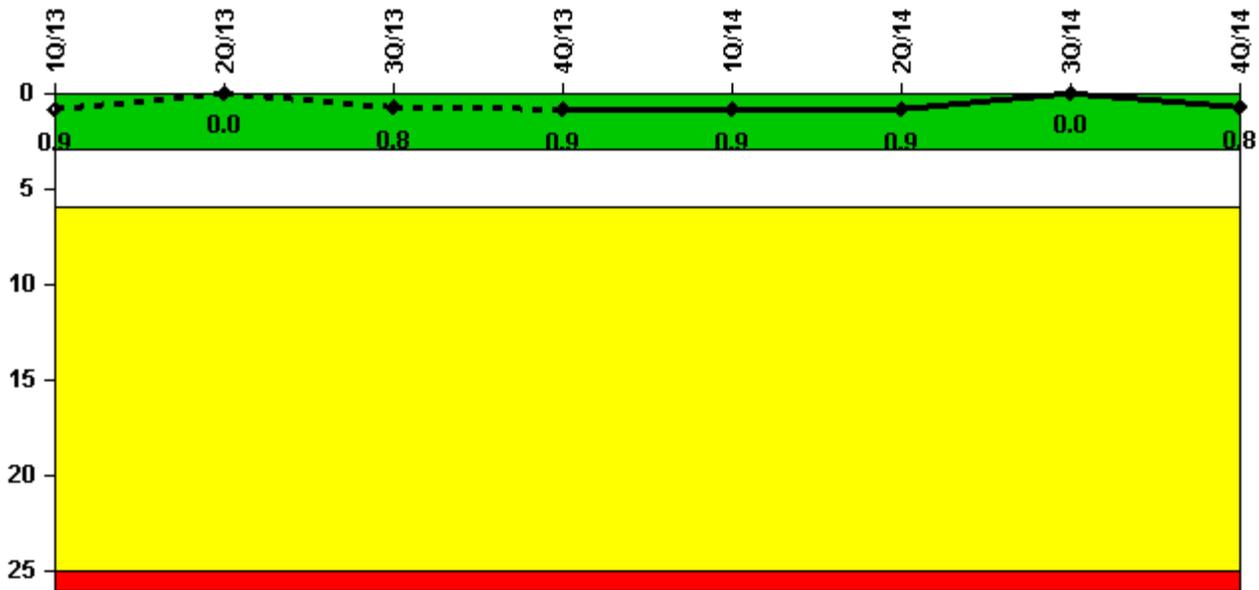
## D.C. Cook 2

### 4Q/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

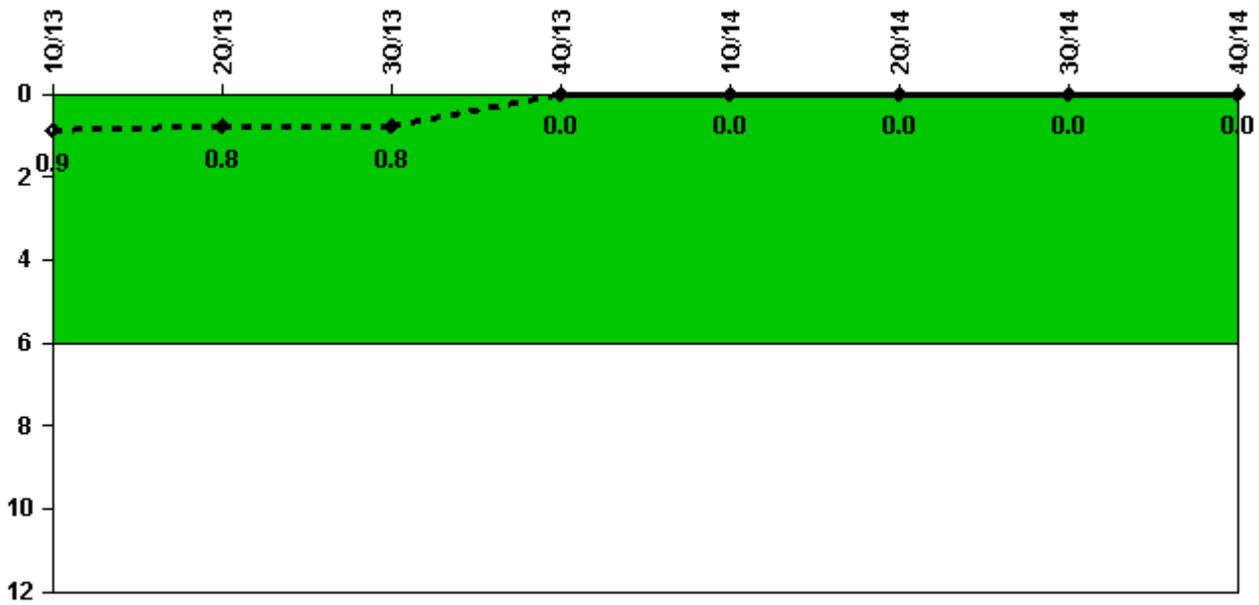
#### Notes

Unplanned Scrams per 7000 Critical Hrs	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14
Unplanned scrams	0	0	1.0	0	0	0	0	1.0
Critical hours	2159.0	2184.0	2161.1	1238.6	2159.0	2184.0	2208.0	1975.7
<b>Indicator value</b>	<b>0.9</b>	<b>0</b>	<b>0.8</b>	<b>0.9</b>	<b>0.9</b>	<b>0.9</b>	<b>0</b>	<b>0.8</b>

Licensee Comments:

3Q/13: A reactor trip due to a turbine generator trip occurred on 7/28/2013 at 1018 due to an incorrect controller setpoint on the Condensate Heater Bypass Control Valve. Subsequently, the reactor was taken critical on 7/30/2013 at 0914.

### Unplanned Power Changes per 7000 Critical Hrs



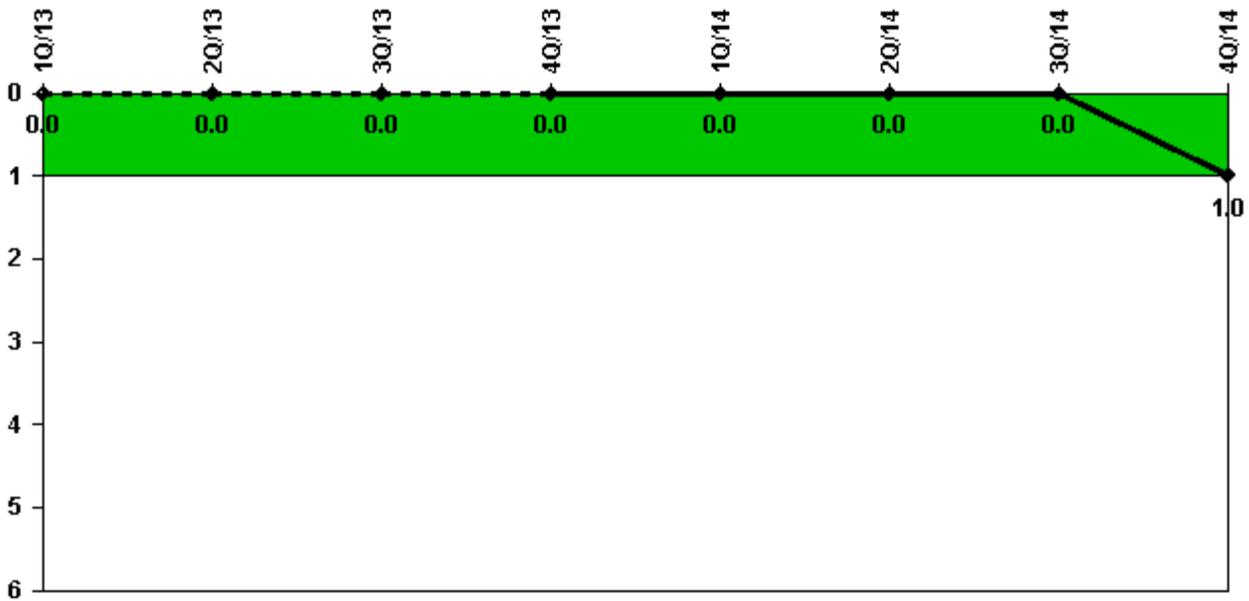
Thresholds: White > 6.0

#### Notes

Unplanned Power Changes per 7000 Critical Hrs	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14
Unplanned power changes	0	0	0	0	0	0	0	0
Critical hours	2159.0	2184.0	2161.1	1238.6	2159.0	2184.0	2208.0	1975.7
<b>Indicator value</b>	<b>0.9</b>	<b>0.8</b>	<b>0.8</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

Licensee Comments: none

### Unplanned Scrams with Complications



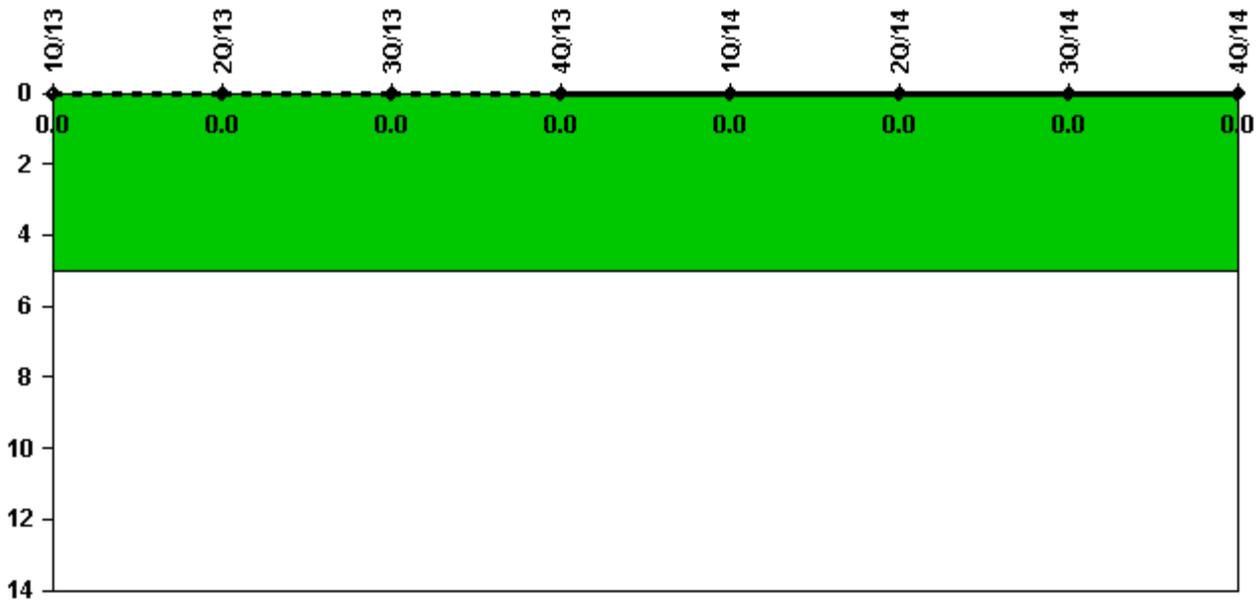
Thresholds: White > 1.0

#### Notes

Unplanned Scrams with Complications	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14
Scrams with complications	0	0	0	0	0	0	0	1.0
Indicator value	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0

Licensee Comments: none

### Safety System Functional Failures (PWR)



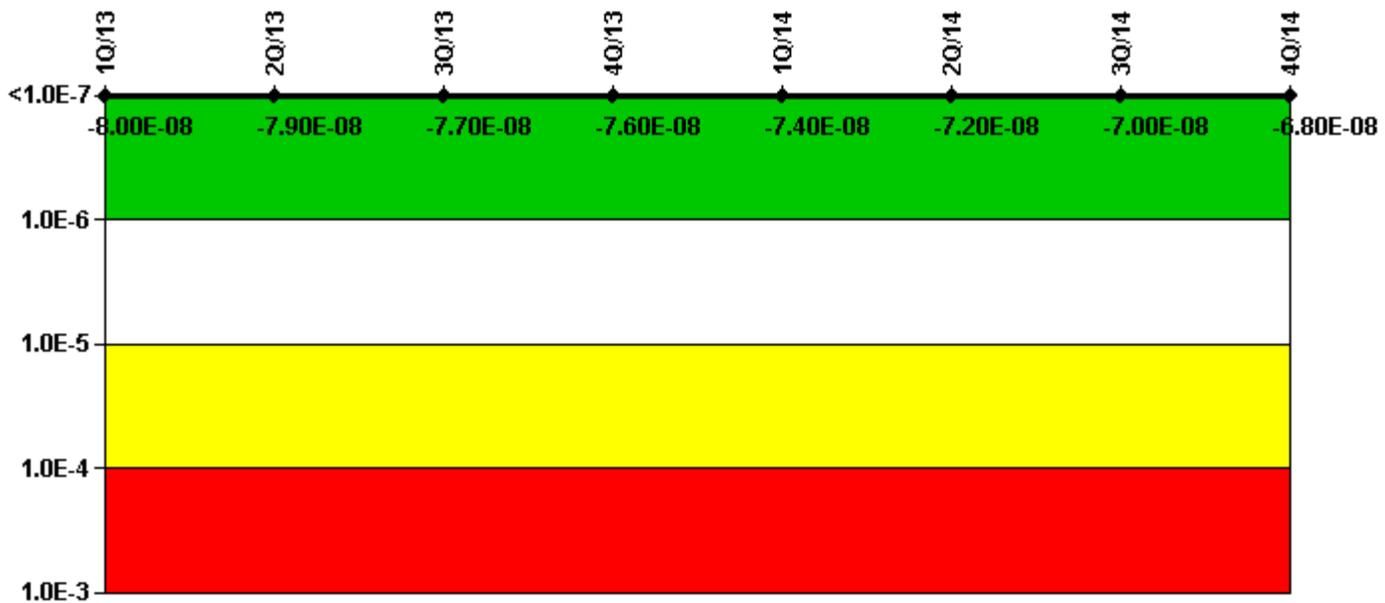
Thresholds: White > 5.0

#### Notes

Safety System Functional Failures (PWR)	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14
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	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14
UAI ( $\Delta$ CDF)	-4.62E-11	-4.69E-11	-2.43E-10	-2.54E-10	-2.69E-10	2.45E-10	3.29E-10	4.27E-10
URI ( $\Delta$ CDF)	-8.00E-08	-7.86E-08	-7.71E-08	-7.56E-08	-7.41E-08	-7.25E-08	-7.00E-08	-6.83E-08
PLE	NO							
Indicator value	-8.00E-08	-7.90E-08	-7.70E-08	-7.60E-08	-7.40E-08	-7.20E-08	-7.00E-08	-6.80E-08

Licensee Comments:

1Q/14: Revised MSPI Basis Document to update Emergency Diesel Generator Load Run Test Demand estimates.

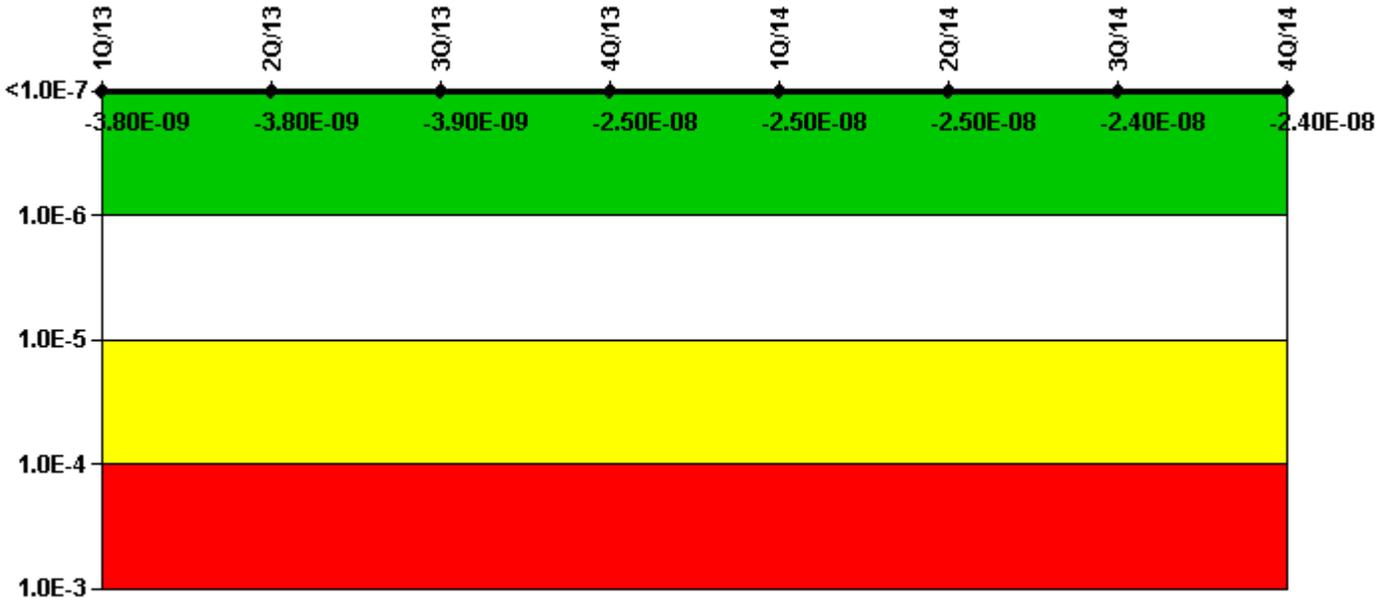
4Q/13: Revised MSPI basis document to update Emergency Diesel Generator run hour estimates to exclude the run hours associated with (1) the first hour of run time after breaker closure and (2) unloaded run hours. This change does not affect the "color" of this indicator from 1st Quarter 2012 to present.

3Q/13: Revised MSPI basis document to update Emergency Diesel Generator run hour estimates to exclude the run hours associated with (1) the first hour of run time after breaker closure and (2) unloaded run hours. This change does not affect the "color" of this indicator from 1st Quarter 2012 to present.

2Q/13: Revised MSPI basis document to update Emergency Diesel Generator run hour estimates to exclude the run hours associated with (1) the first hour of run time after breaker closure and (2) unloaded run hours. This change does not affect the "color" of this indicator from 1st Quarter 2012 to present.

1Q/13: Revised MSPI basis document to update Emergency Diesel Generator run hour estimates to exclude the run hours associated with (1) the first hour of run time after breaker closure and (2) unloaded run hours. This change does not affect the "color" of this indicator from 1st Quarter 2012 to present.

### 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	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14
UAI (ΔCDF)	-2.44E-11	-2.44E-11	-2.66E-11	-2.66E-11	-2.66E-11	-2.66E-11	-2.12E-11	-2.11E-11
URI (ΔCDF)	-3.82E-09	-3.82E-09	-3.82E-09	-2.54E-08	-2.54E-08	-2.54E-08	-2.39E-08	-2.39E-08
PLE	NO							
Indicator value	-3.80E-09	-3.80E-09	-3.90E-09	-2.50E-08	-2.50E-08	-2.50E-08	-2.40E-08	-2.40E-08

Licensee Comments:

2Q/14: The High Pressure Injection System MS07 data has been corrected to include an additional 16.62 hours of unavailability for Unit 2 A East CCP Train that were not reported in the 2Q14 submittal. This data change did not result in a change to the indicator color.

3Q/13: Revised the MSPI scope of monitored components for High Pressure Safety Injection HPSI to remove

two injection pathway boundary valves, which was effective 2nd Quarter 2008. MSPI Basis document excludes these valves from the MSPI scope based on Birnbaum value  $< 1.0 \text{ E-06}$ . The MSPI basis document was revised to make this change in the 1st Quarter 2008. This change does not affect "color" of the indicator from 2nd Quarter 2008 to present.

2Q/13: Revised the MSPI scope of monitored components for High Pressure Safety Injection HPSI to remove two injection pathway boundary valves, which was effective 2nd Quarter 2008. MSPI Basis document excludes these valves from the MSPI scope based on Birnbaum value  $< 1.0 \text{ E-06}$ . The MSPI basis document was revised to make this change in the 1st Quarter 2008. This change does not affect "color" of the indicator from 2nd Quarter 2008 to present.

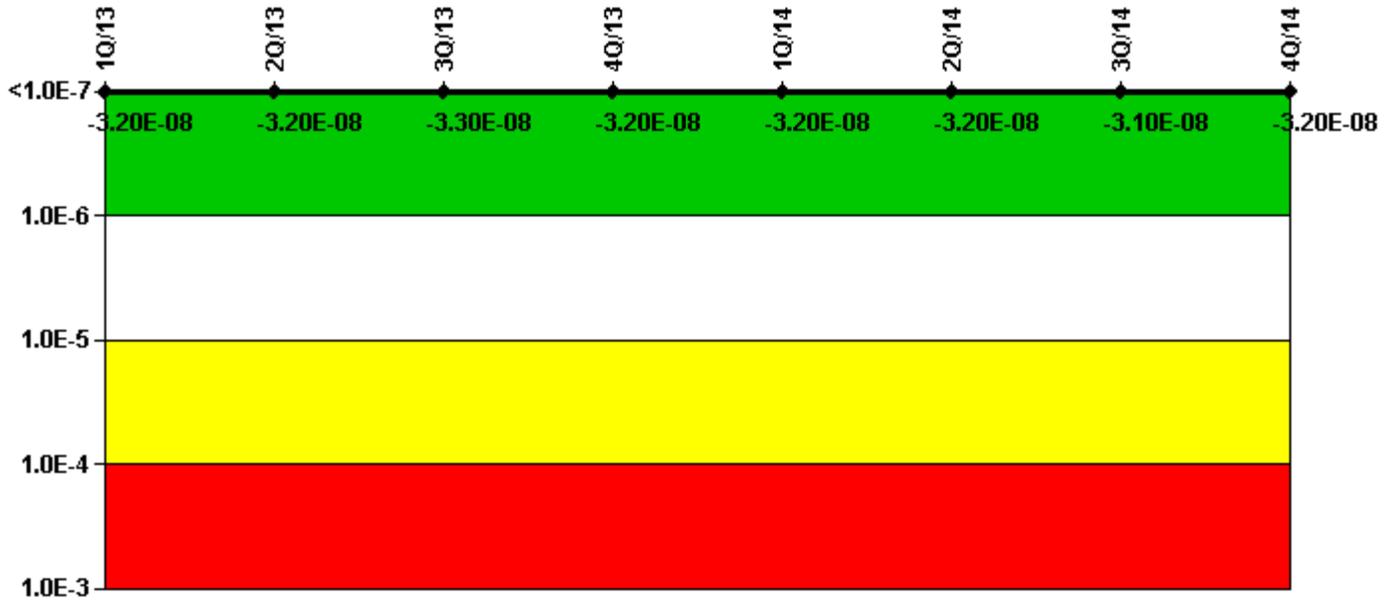
2Q/13: Revised the MSPI scope of monitored components for High Pressure Safety Injection HPSI to remove two injection pathway boundary valves, which was effective 2nd Quarter 2008. MSPI Basis document excludes these valves from the MSPI scope based on Birnbaum value  $< 1.0 \text{ E-06}$ . The MSPI basis document was revised to make this change in the 1st Quarter 2008. This change does not affect "color" of the indicator from 2nd Quarter 2008 to present.

1Q/13: The High Pressure Injection System MS07 data has been corrected to include additional unavailability hours that were not reported in the 1Q13 submittal. An additional 2.07 hours of unavailability in February 2013 were counted for Unit 2 A North SI Train and B West CCP Train. These changes did not result in a change in indicator color.

1Q/13: Revised the MSPI scope of monitored components for High Pressure Safety Injection HPSI to remove two injection pathway boundary valves, which was effective 2nd Quarter 2008. MSPI Basis document excludes these valves from the MSPI scope based on Birnbaum value  $< 1.0 \text{ E-06}$ . The MSPI basis document was revised to make this change in the 1st Quarter 2008. This change does not affect "color" of the indicator from 2nd Quarter 2008 to present.

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### Mitigating Systems Performance Index, Heat Removal System



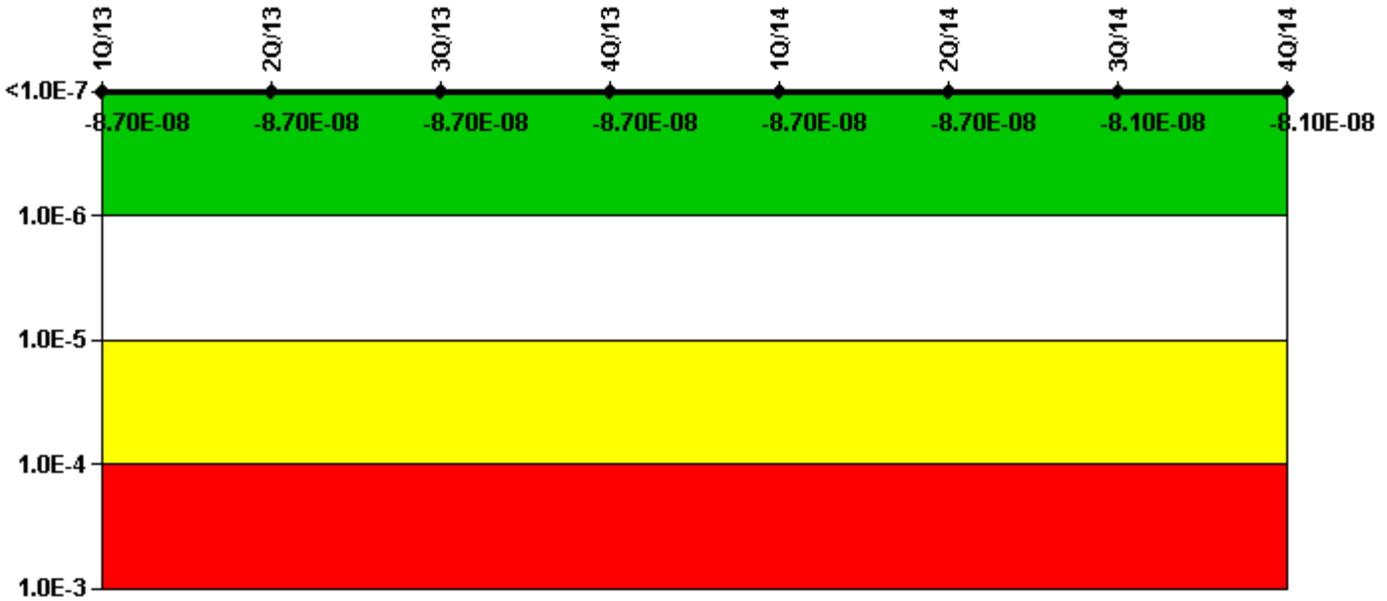
Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

#### Notes

Mitigating Systems Performance Index, Heat Removal System	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14
UAI ( $\Delta$ CDF)	-9.86E-12	-9.86E-12	-1.28E-11	-1.34E-11	-1.34E-11	8.06E-12	1.64E-11	1.79E-11
URI ( $\Delta$ CDF)	-3.20E-08	-3.20E-08	-3.30E-08	-3.23E-08	-3.23E-08	-3.23E-08	-3.15E-08	-3.23E-08
PLE	NO							
Indicator value	-3.20E-08	-3.20E-08	-3.30E-08	-3.20E-08	-3.20E-08	-3.20E-08	-3.10E-08	-3.20E-08

Licensee Comments: none

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



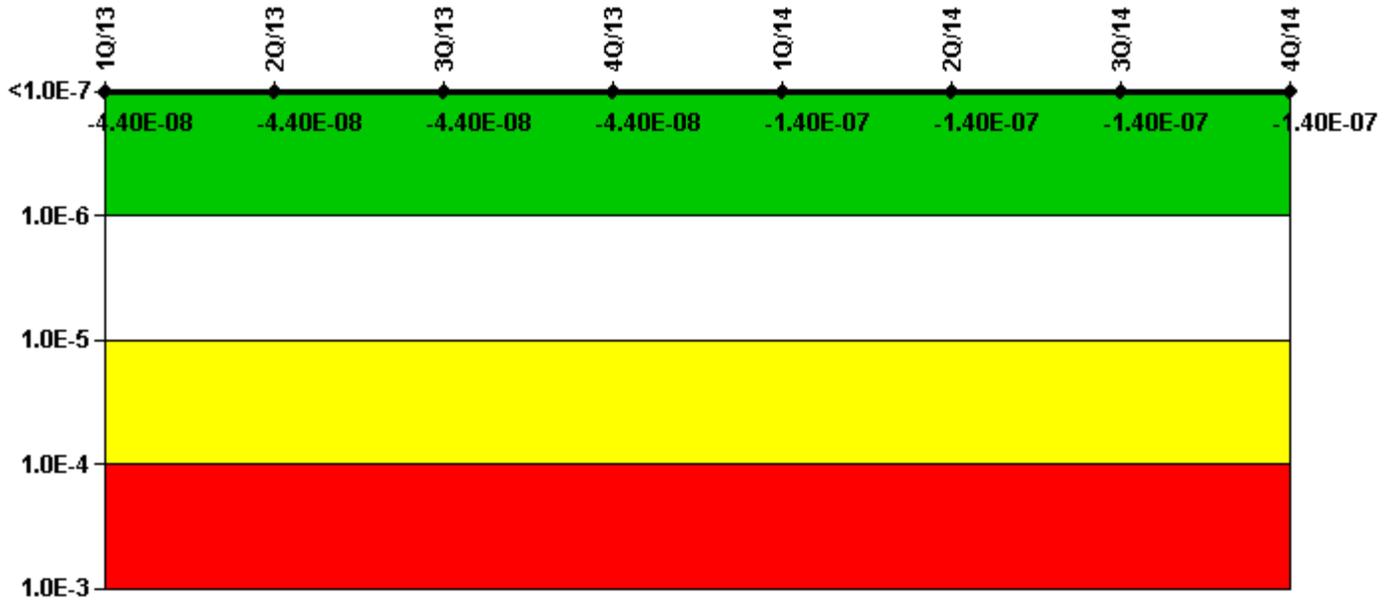
Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

#### Notes

Mitigating Systems Performance Index, Residual Heat Removal System	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14
UAI ( $\Delta$ CDF)	-2.07E-13	-3.23E-13	-3.23E-13	-3.23E-13	-3.23E-13	-2.16E-13	7.55E-13	7.84E-13
URI ( $\Delta$ CDF)	-8.69E-08	-8.69E-08	-8.69E-08	-8.69E-08	-8.69E-08	-8.69E-08	-8.12E-08	-8.12E-08
PLE	NO							
Indicator value	-8.70E-08	-8.70E-08	-8.70E-08	-8.70E-08	-8.70E-08	-8.70E-08	-8.10E-08	-8.10E-08

Licensee Comments: none

### Mitigating Systems Performance Index, Cooling Water Systems



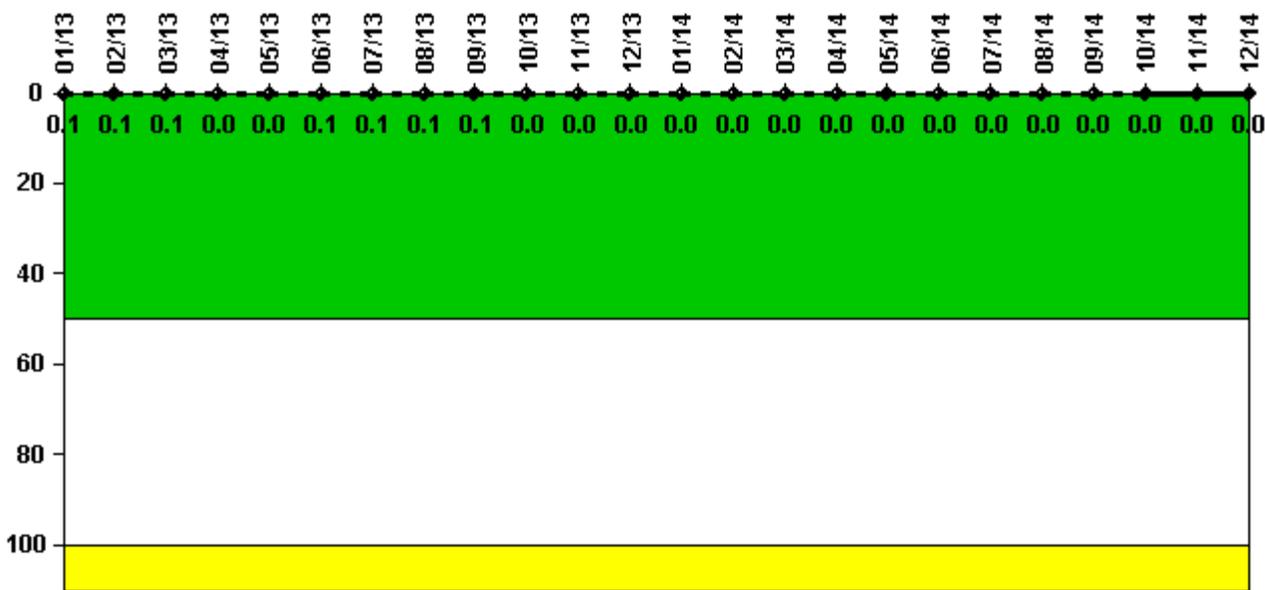
Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

#### Notes

Mitigating Systems Performance Index, Cooling Water Systems	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14
UAI ( $\Delta$ CDF)	-2.61E-12	-2.61E-12	-2.33E-12	1.17E-12	-3.82E-11	-3.82E-11	-3.78E-11	-3.46E-11
URI ( $\Delta$ CDF)	-4.36E-08	-4.36E-08	-4.36E-08	-4.36E-08	-1.40E-07	-1.40E-07	-1.39E-07	-1.39E-07
PLE	NO							
Indicator value	-4.40E-08	-4.40E-08	-4.40E-08	-4.40E-08	-1.40E-07	-1.40E-07	-1.40E-07	-1.40E-07

Licensee Comments: none

### Reactor Coolant System Activity



Thresholds: White > 50.0 Yellow > 100.0

#### Notes

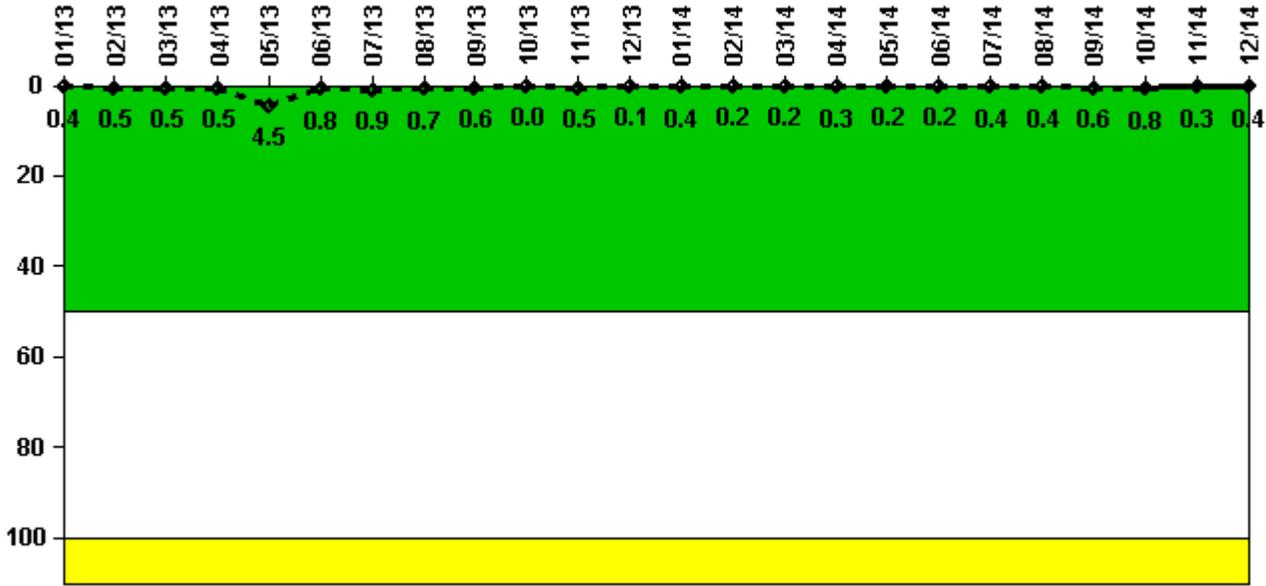
Reactor Coolant System Activity	1/13	2/13	3/13	4/13	5/13	6/13	7/13	8/13	9/13	10/13	11/13	12/13
Maximum activity	0.000213	0.000190	0.000176	0.000162	0.000168	0.000175	0.000183	0.000191	0.000382	0.000164	0.000068	0.000090
Technical specification limit	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Indicator value	0.1	0.1	0.1	0	0	0.1	0.1	0.1	0.1	0	0	0

Reactor Coolant System Activity	1/14	2/14	3/14	4/14	5/14	6/14	7/14	8/14	9/14	10/14	11/14	12/14
Maximum activity	0.000095	0.000099	0.000102	0.000115	0.000111	0.000114	0.000121	0.000125	0.000127	0.000131	0.000137	0.000162
Technical specification limit	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Indicator value	0	0	0	0	0	0	0	0	0	0	0	0

Licensee Comments: none

### Reactor Coolant System Leakage



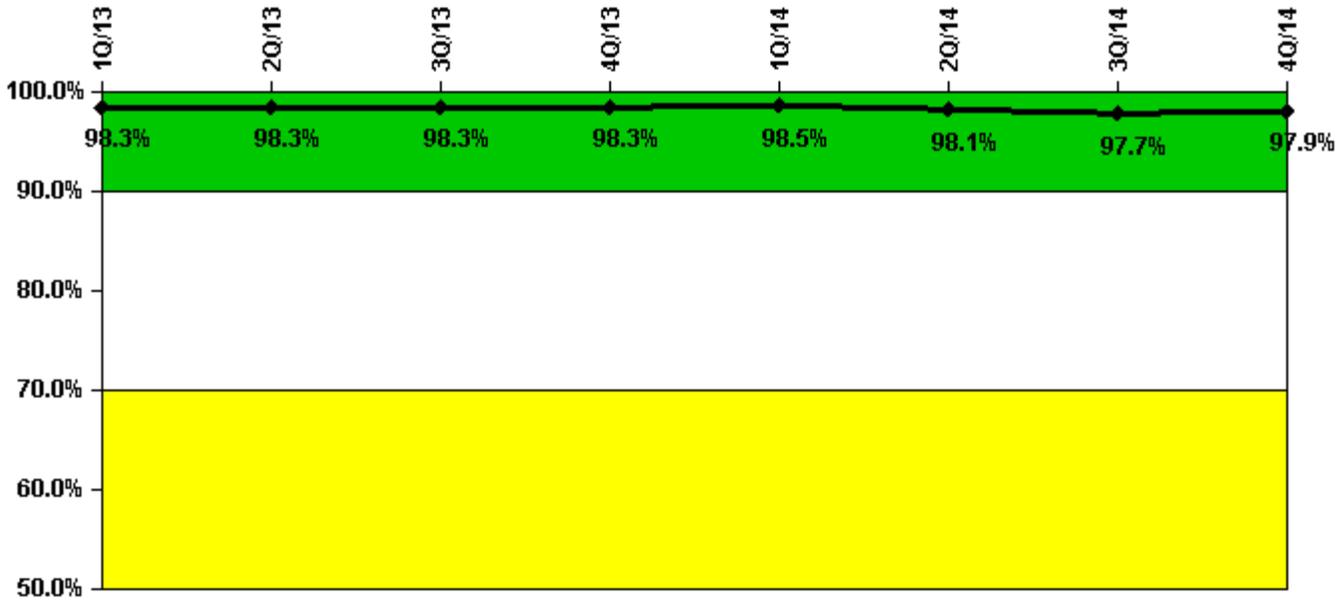
Thresholds: White > 50.0 Yellow > 100.0

#### Notes

Reactor Coolant System Leakage	1/13	2/13	3/13	4/13	5/13	6/13	7/13	8/13	9/13	10/13	11/13	12/13
Maximum leakage	0.039	0.054	0.056	0.050	0.490	0.085	0.096	0.073	0.067	0	0.052	0.010
Technical specification limit	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0
Indicator value	0.4	0.5	0.5	0.5	4.5	0.8	0.9	0.7	0.6	0	0.5	0.1
Reactor Coolant System Leakage	1/14	2/14	3/14	4/14	5/14	6/14	7/14	8/14	9/14	10/14	11/14	12/14
Maximum leakage	0.045	0.026	0.024	0.028	0.023	0.024	0.039	0.048	0.071	0.084	0.028	0.041
Technical specification limit	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0
Indicator value	0.4	0.2	0.2	0.3	0.2	0.2	0.4	0.4	0.6	0.8	0.3	0.4

Licensee Comments: none

### Drill/Exercise Performance



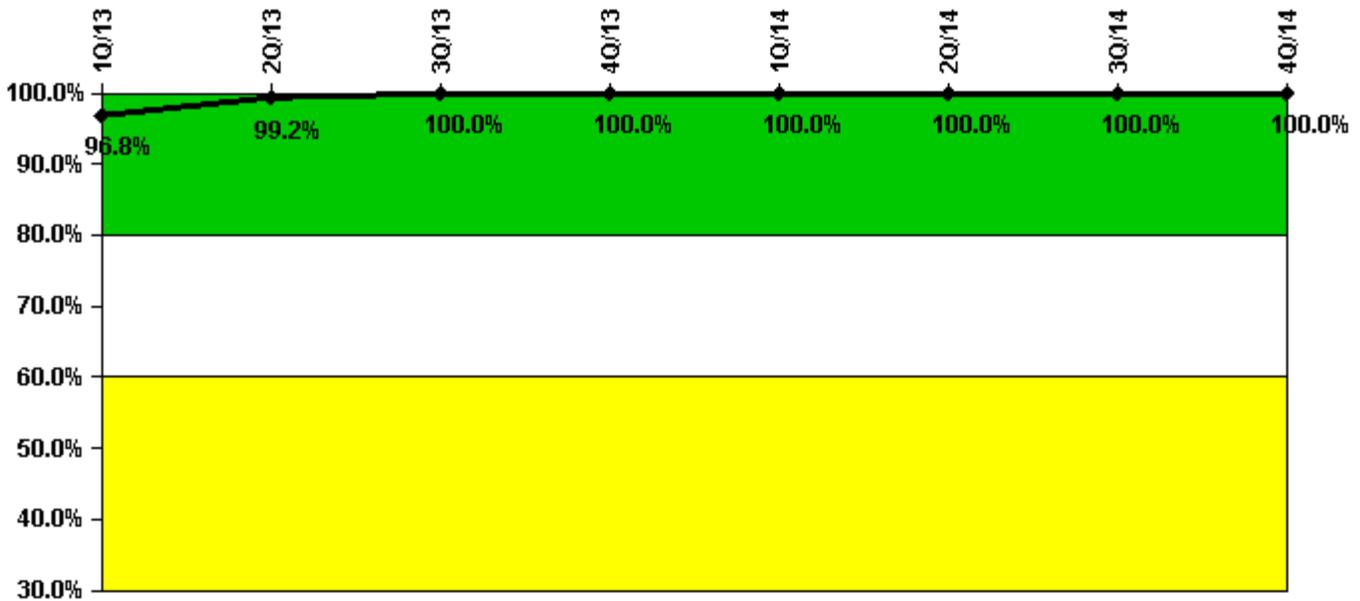
Thresholds: White < 90.0% Yellow < 70.0%

#### Notes

Drill/Exercise Performance	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14
Successful opportunities	68.0	20.0	44.0	0	55.0	23.0	59.0	56.0
Total opportunities	70.0	20.0	44.0	0	56.0	25.0	61.0	56.0
Indicator value	98.3%	98.3%	98.3%	98.3%	98.5%	98.1%	97.7%	97.9%

Licensee Comments: none

### ERO Drill Participation



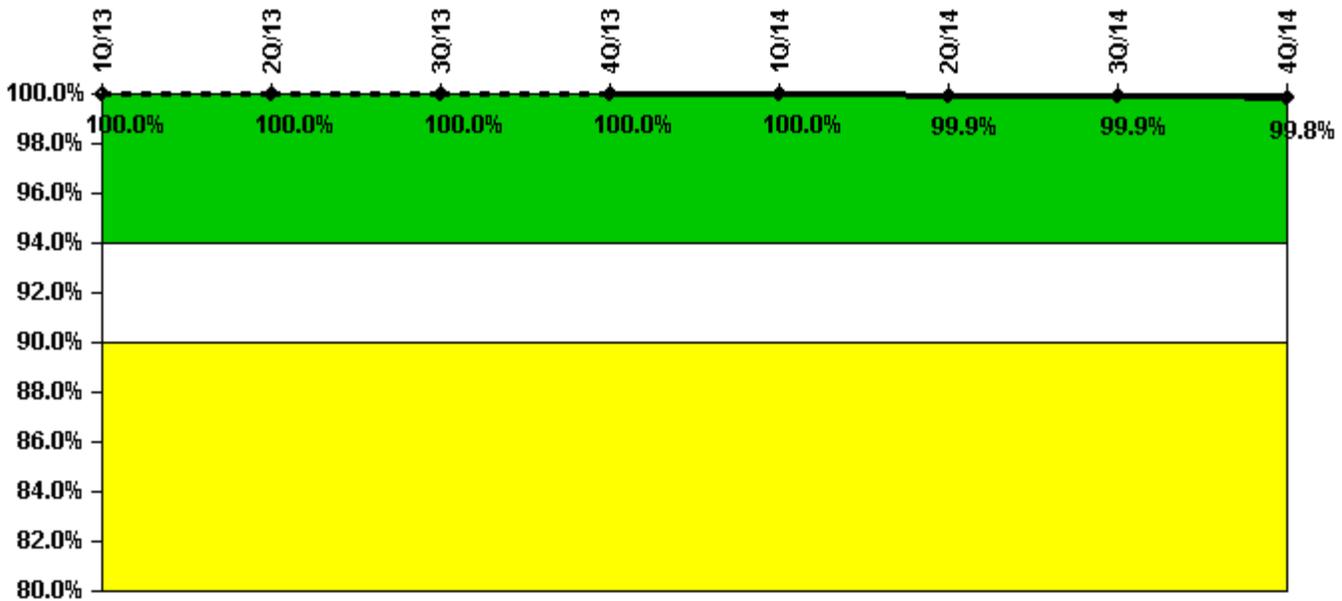
Thresholds: White < 80.0% Yellow < 60.0%

#### Notes

ERO Drill Participation	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14
Participating Key personnel	120.0	121.0	118.0	118.0	120.0	118.0	123.0	128.0
Total Key personnel	124.0	122.0	118.0	118.0	120.0	118.0	123.0	128.0
Indicator value	96.8%	99.2%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Licensee Comments: none

### Alert & Notification System



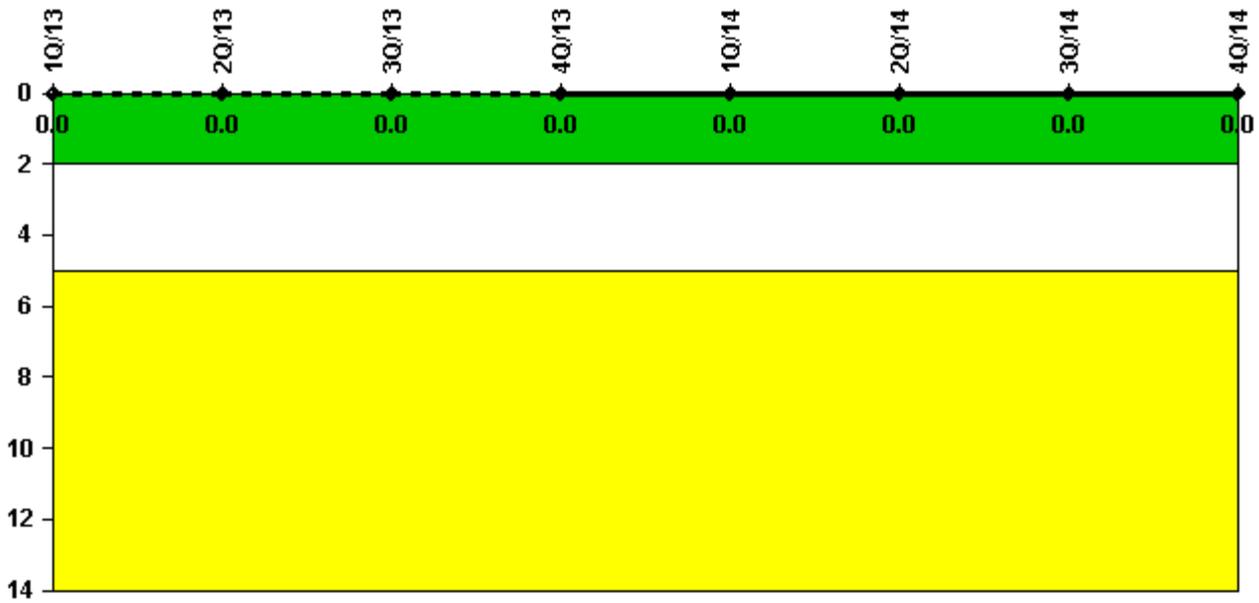
Thresholds: White < 94.0% Yellow < 90.0%

#### Notes

Alert & Notification System	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14
Successful siren-tests	1120	1119	1120	1120	1119	1116	1119	1187
Total sirens-tests	1120	1119	1120	1120	1120	1119	1120	1190
Indicator value	100.0%	100.0%	100.0%	100.0%	100.0%	99.9%	99.9%	99.8%

Licensee Comments: none

### Occupational Exposure Control Effectiveness



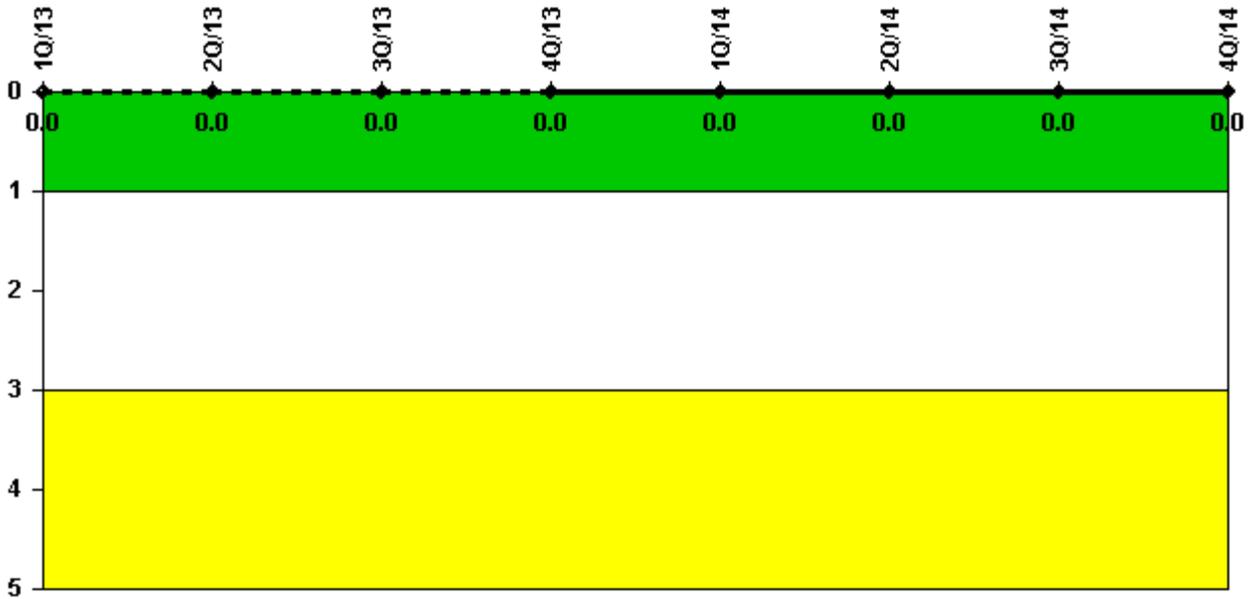
Thresholds: White > 2.0 Yellow > 5.0

#### Notes

Occupational Exposure Control Effectiveness	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/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>							

Licensee Comments: none

### RETS/ODCM Radiological Effluent



Thresholds: White > 1.0 Yellow > 3.0

#### Notes

RETS/ODCM Radiological Effluent	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14
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: February 3, 2015*