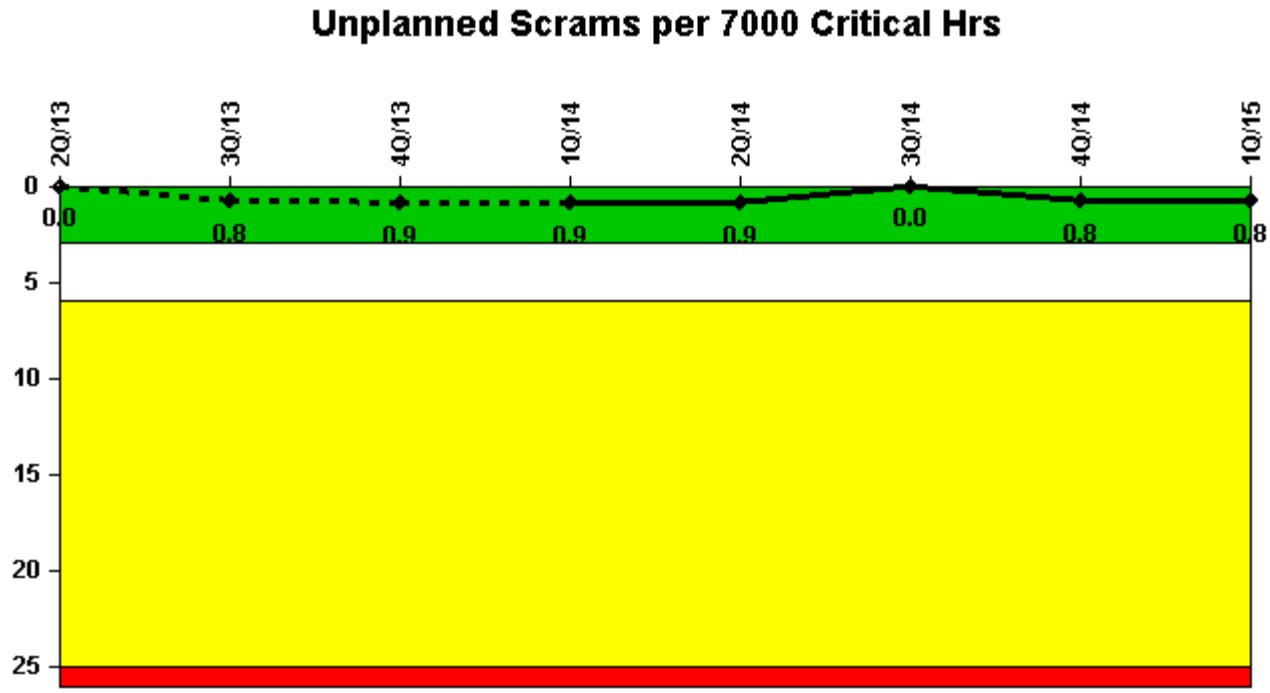
D.C. Cook 2

1Q/2015 Performance Indicators

The solid trend line represents the current reporting period.

Licensee's General Comments: none



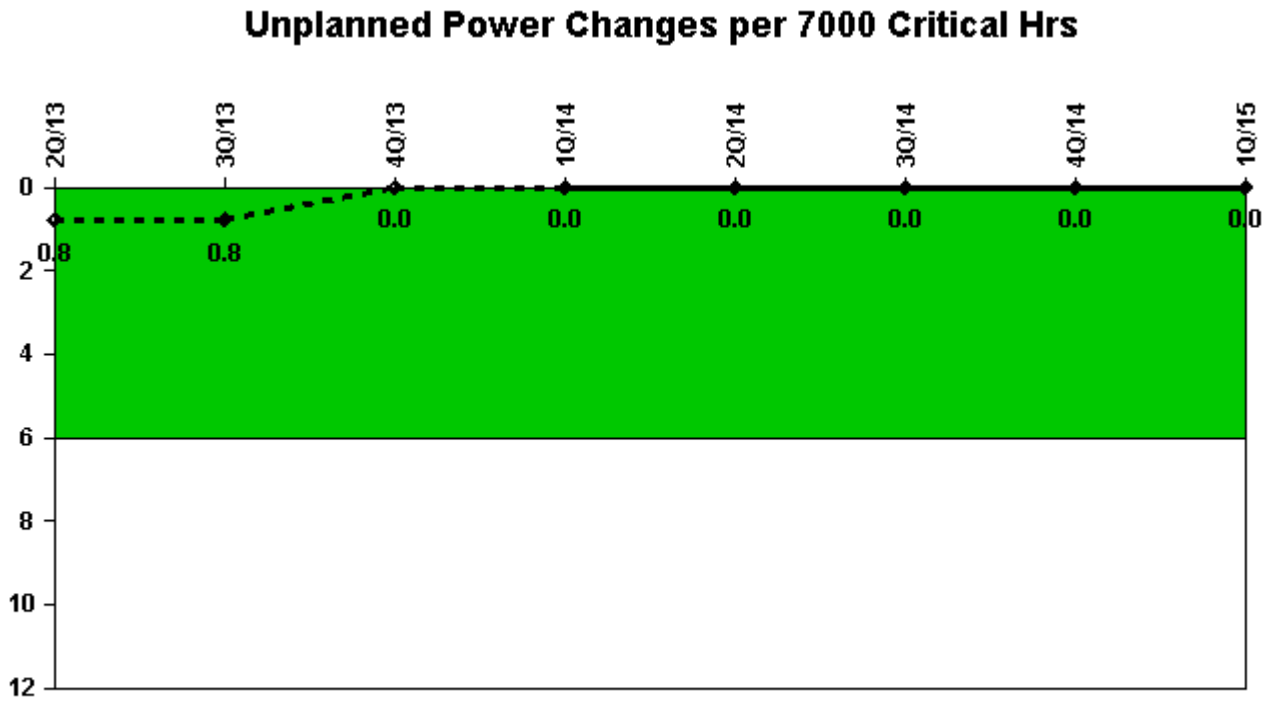
Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

Notes

Unplanned Scrams per 7000 Critical Hrs	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15
Unplanned scrams	0	1.0	0	0	0	0	1.0	0
Critical hours	2184.0	2161.1	1238.6	2159.0	2184.0	2208.0	1975.7	1991.0
Indicator value	**0**	**0.8**	**0.9**	**0.9**	**0.9**	**0**	**0.8**	**0.8**

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.

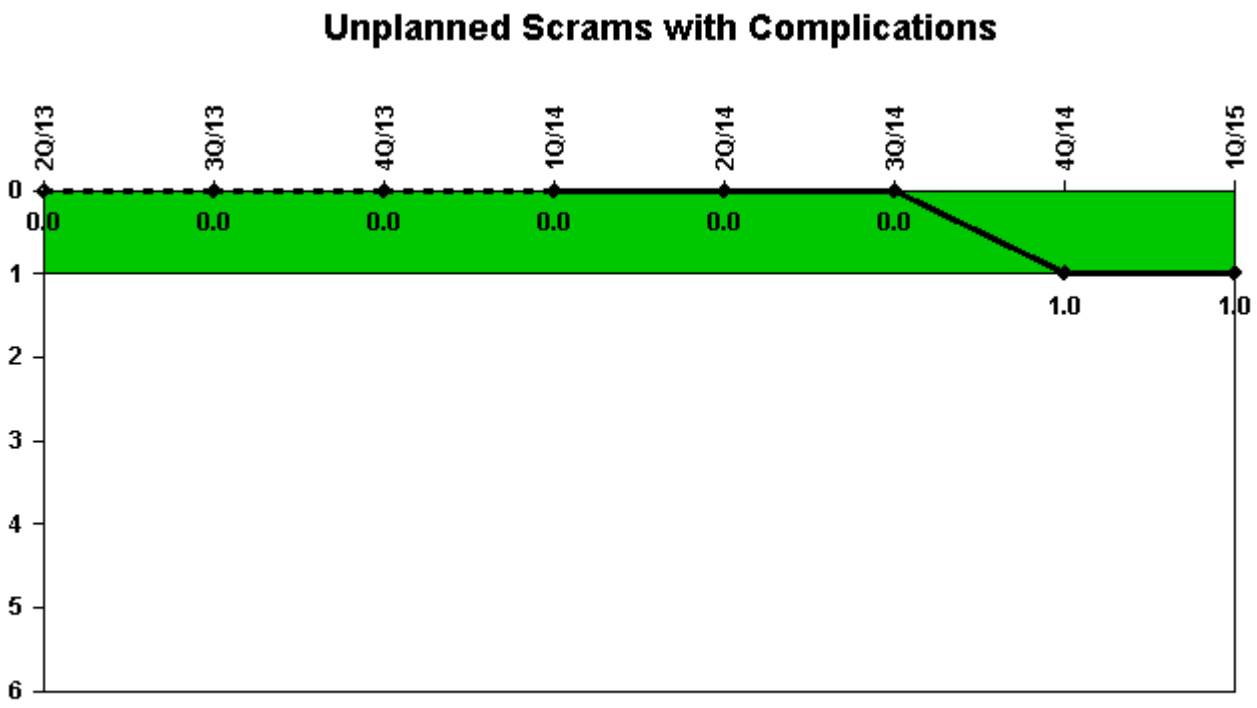


Thresholds: White > 6.0

Notes

Unplanned Power Changes per 7000 Critical Hrs	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15
Unplanned power changes	0	0	0	0	0	0	0	0
Critical hours	2184.0	2161.1	1238.6	2159.0	2184.0	2208.0	1975.7	1991.0
Indicator value	**0.8**	**0.8**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

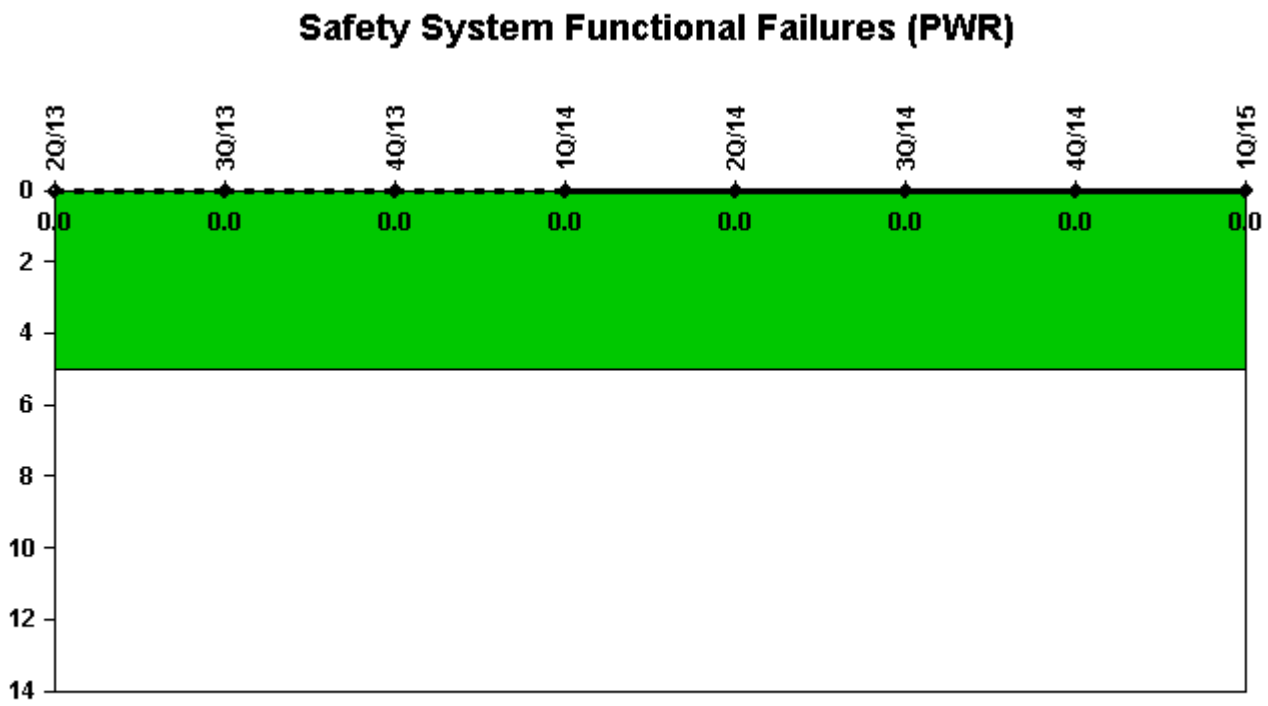


Thresholds: White > 1.0

Notes

Unplanned Scrams with Complications	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15
Scrams with complications	0	0	0	0	0	0	1.0	0
Indicator value	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**1.0**	**1.0**

Licensee Comments: none



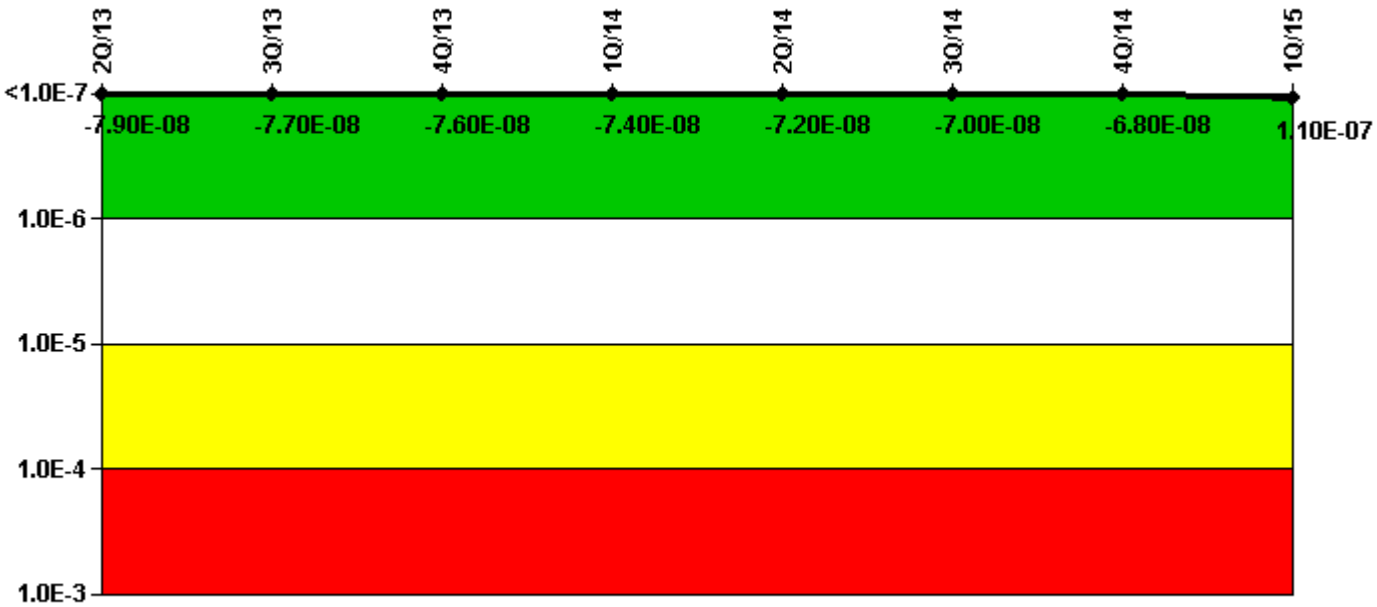
Thresholds: White > 5.0

Notes

Safety System Functional Failures (PWR)	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15
Safety System Functional Failures	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

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/13**	**3Q/13**	**4Q/13**	**1Q/14**	**2Q/14**	**3Q/14**	**4Q/14**	**1Q/15**
UAI (ΔCDF)	-4.69E-11	-2.43E-10	-2.54E-10	-2.69E-10	2.45E-10	3.29E-10	4.27E-10	4.20E-10
URI (ΔCDF)	-7.86E-08	-7.71E-08	-7.56E-08	-7.41E-08	-7.25E-08	-7.00E-08	-6.83E-08	1.13E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-7.90E-08**	**-7.70E-08**	**-7.60E-08**	**-7.40E-08**	**-7.20E-08**	**-7.00E-08**	**-6.80E-08**	**1.10E-07**

Licensee Comments:

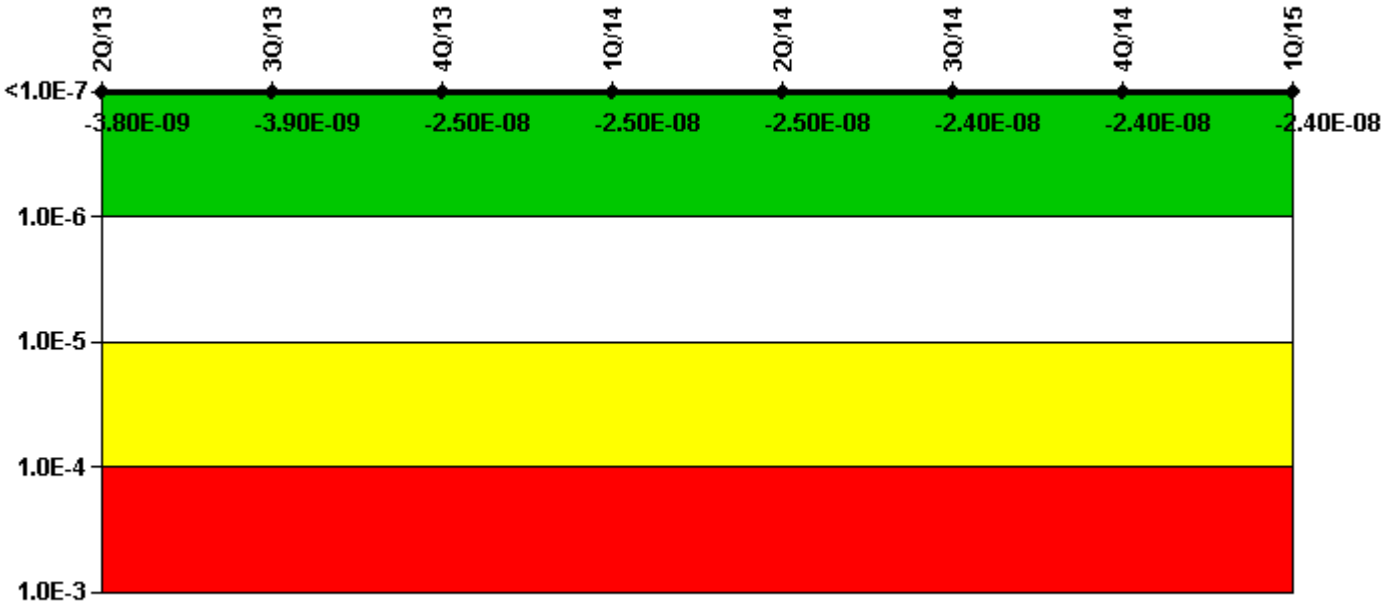
1Q/14: Revised MSPI Basis Document to update Emergency Diesel Generator Load Run Test Demand estimates.

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.

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/13**	**3Q/13**	**4Q/13**	**1Q/14**	**2Q/14**	**3Q/14**	**4Q/14**	**1Q/15**
UAI (ΔCDF)	-2.44E-11	-2.66E-11	-2.66E-11	-2.66E-11	-2.66E-11	-2.12E-11	-2.11E-11	-2.11E-11
URI (ΔCDF)	-3.82E-09	-3.82E-09	-2.54E-08	-2.54E-08	-2.54E-08	-2.39E-08	-2.39E-08	-2.39E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-3.80E-09**	**-3.90E-09**	**-2.50E-08**	**-2.50E-08**	**-2.50E-08**	**-2.40E-08**	**-2.40E-08**	**-2.40E-08**

Licensee Comments:

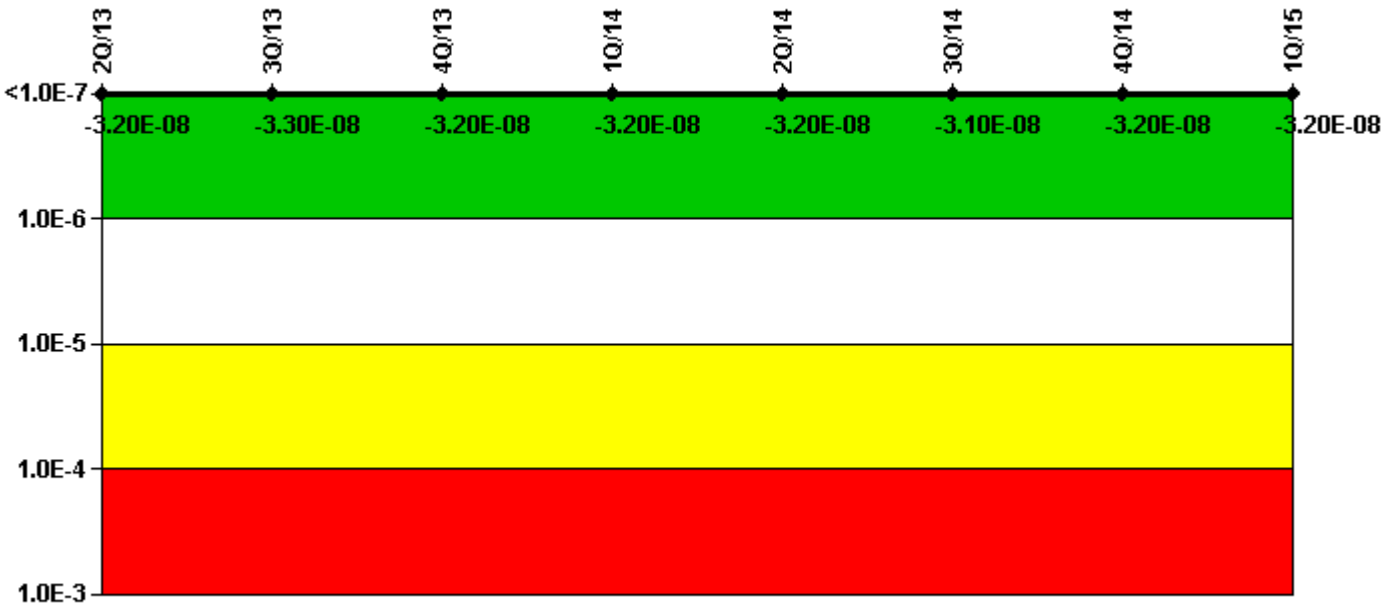
2Q/14: The High Pressure Injection System MS07 data has been corrected to include an additional 16.62 hours of unavailability for Unit 2 A East CCP Train that were not reported in the 2Q14 submittal. This data change did not result in a change to the indicator color.

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 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 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 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.

Mitigating Systems Performance Index, Heat Removal System



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

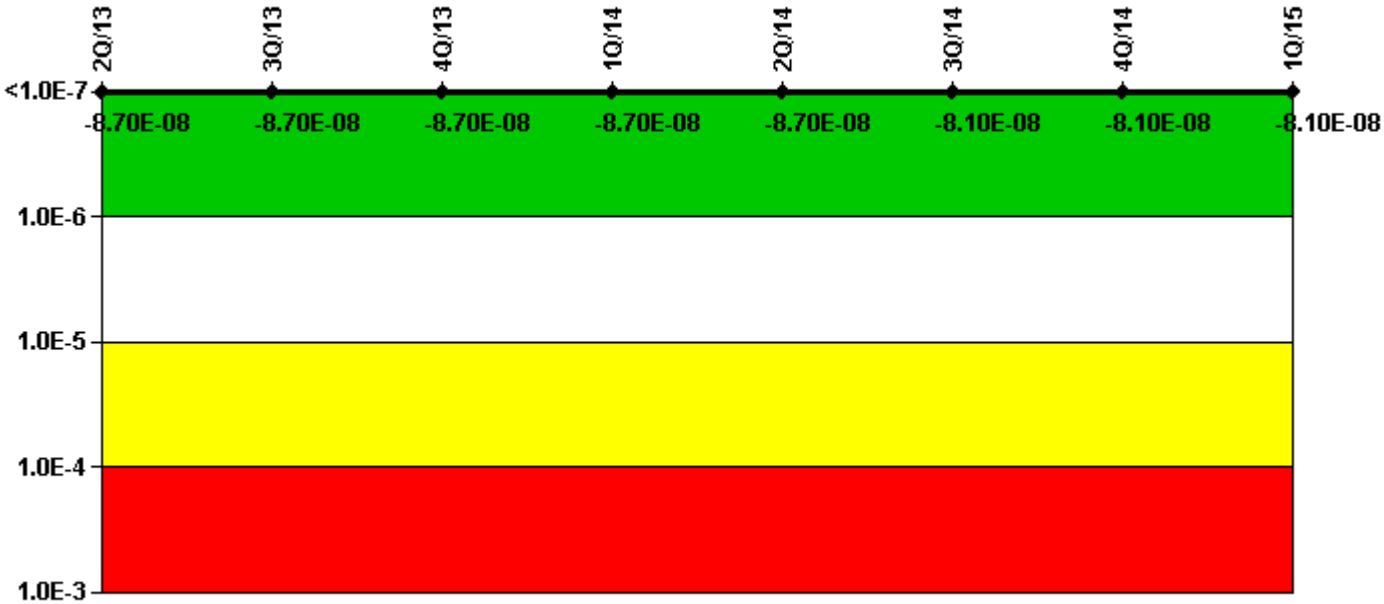
Notes

Mitigating Systems Performance Index, Heat Removal System	**2Q/13**	**3Q/13**	**4Q/13**	**1Q/14**	**2Q/14**	**3Q/14**	**4Q/14**	**1Q/15**
UAI (ΔCDF)	-9.86E-12	-1.28E-11	-1.34E-11	-1.34E-11	8.06E-12	1.64E-11	1.79E-11	8.84E-12
URI (ΔCDF)	-3.20E-08	-3.30E-08	-3.23E-08	-3.23E-08	-3.23E-08	-3.15E-08	-3.23E-08	-3.23E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
	-3.20E-	**-3.30E-**	**-3.20E-**	**-3.20E-**	**-3.20E-**	**-3.10E-**	**-3.20E-**	**-3.20E-**

Indicator value	**08**	**08**	**08**	**08**	**08**	**08**	**08**	**08**

Licensee Comments: none

Mitigating Systems Performance Index, Residual Heat Removal System



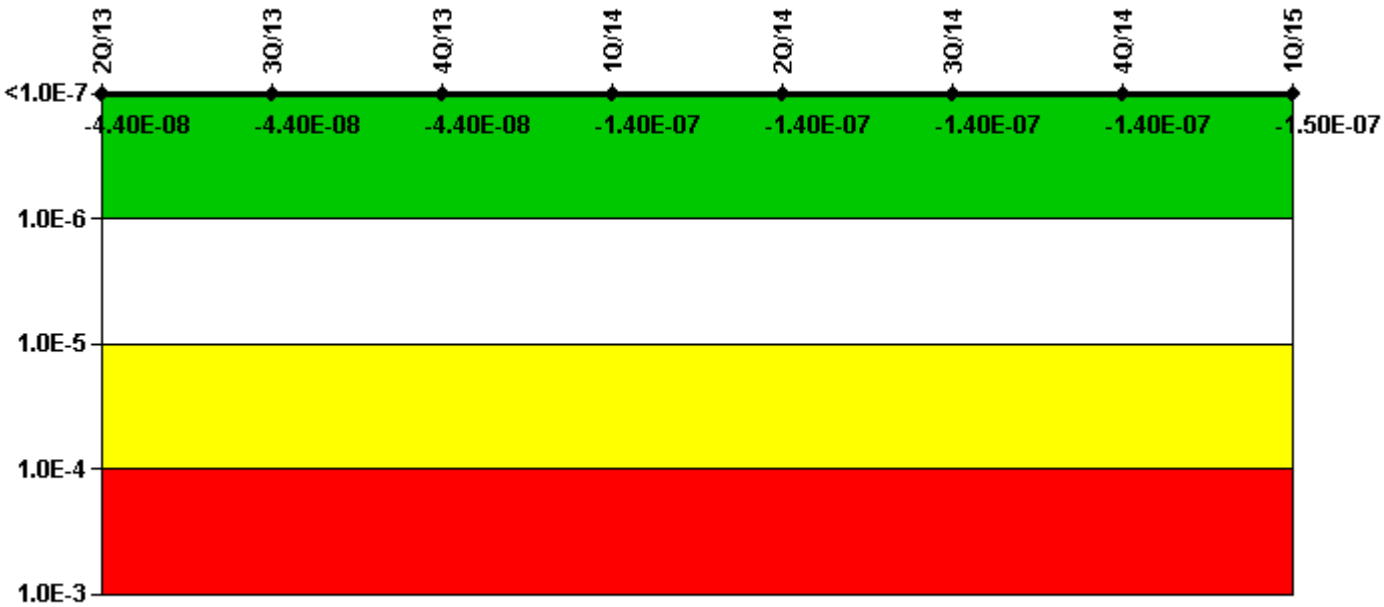
Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Residual Heat Removal System	**2Q/13**	**3Q/13**	**4Q/13**	**1Q/14**	**2Q/14**	**3Q/14**	**4Q/14**	**1Q/15**
UAI (ΔCDF)	-3.23E-13	-3.23E-13	-3.23E-13	-3.23E-13	-2.16E-13	7.55E-13	7.84E-13	7.46E-13
URI (ΔCDF)	-8.69E-08	-8.69E-08	-8.69E-08	-8.69E-08	-8.69E-08	-8.12E-08	-8.12E-08	-8.12E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-8.70E-08**	**-8.70E-08**	**-8.70E-08**	**-8.70E-08**	**-8.70E-08**	**-8.10E-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

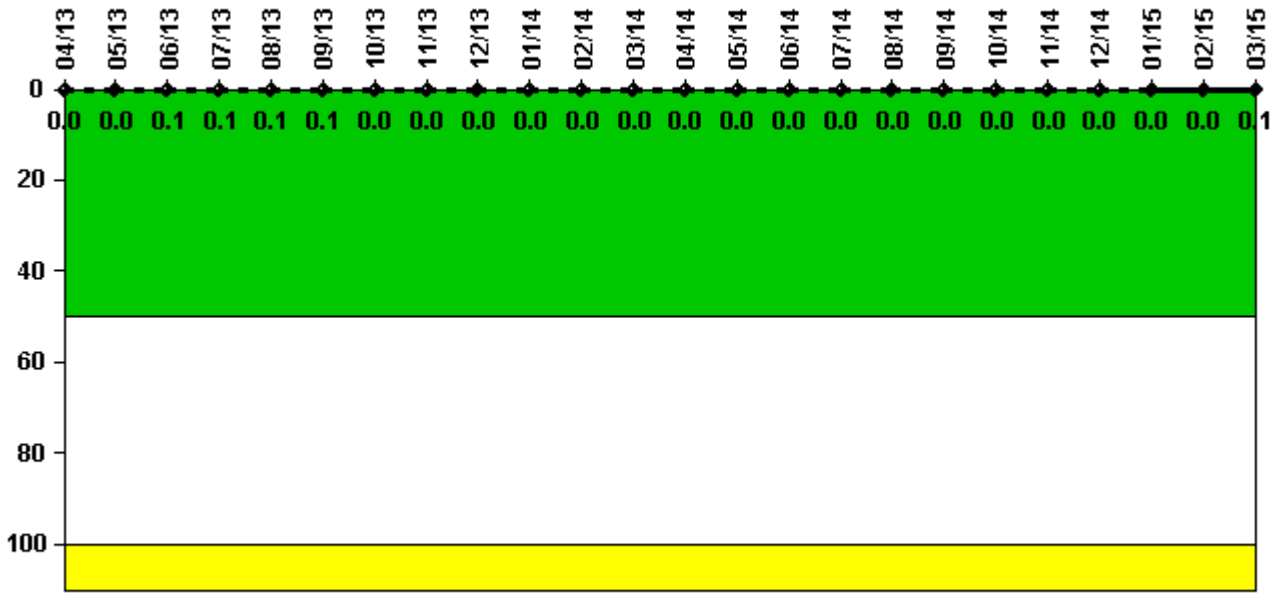
Notes

Mitigating Systems Performance Index, Cooling Water Systems	**2Q/13**	**3Q/13**	**4Q/13**	**1Q/14**	**2Q/14**	**3Q/14**	**4Q/14**	**1Q/15**
UAI (ΔCDF)	-2.61E-12	-2.33E-12	1.17E-12	-3.82E-11	-3.82E-11	-3.78E-11	-3.46E-11	-5.33E-11
URI (ΔCDF)	-4.36E-08	-4.36E-08	-4.36E-08	-1.40E-07	-1.40E-07	-1.39E-07	-1.39E-07	-1.48E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-4.40E-08**	**-4.40E-08**	**-4.40E-08**	**-1.40E-07**	**-1.40E-07**	**-1.40E-07**	**-1.40E-07**	**-1.50E-07**

Licensee Comments:

1Q/15: The MSPI Basis Document was updated in the 4th Quarter 2014 to reflect 2009 PRA model of record error that the PRA model incorrectly removed cutsets associated with failure of the CCW heat exchanger CCW outlet valves (2-CMO-410 & 420) opening from model results. As a result, these valves have been incorporated in the Unit 2 Cooling Water System scope of monitored components.

Reactor Coolant System Activity



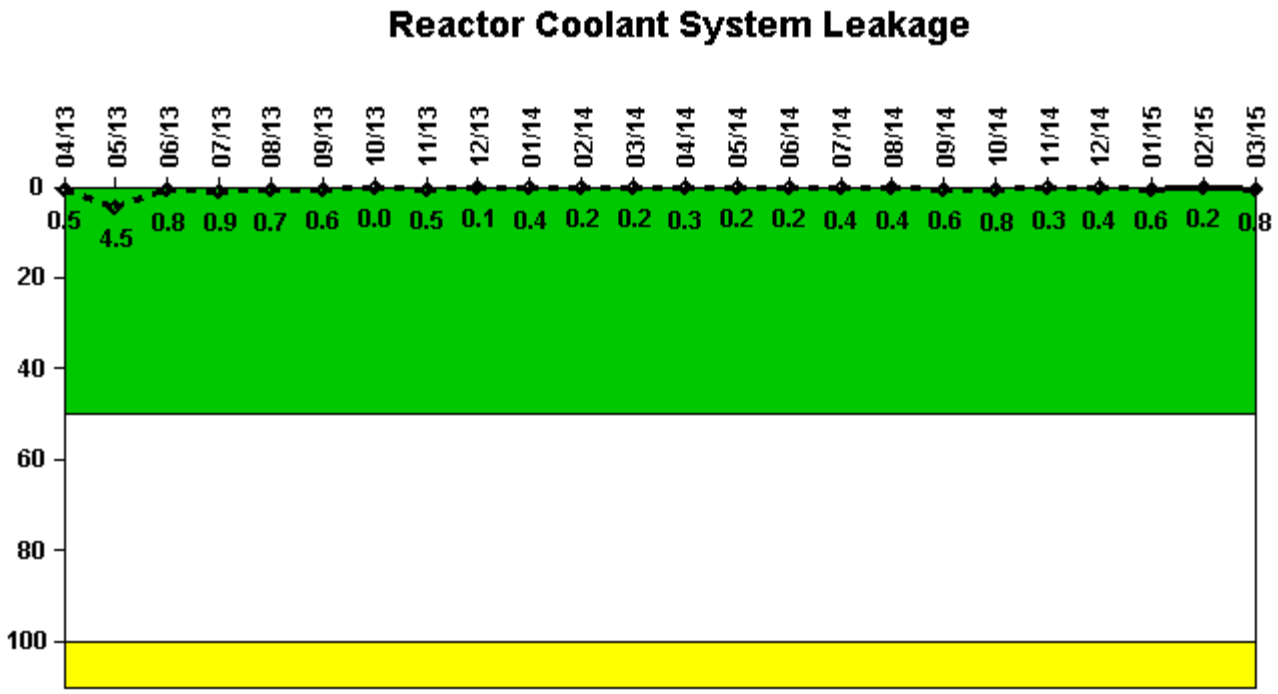
Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Activity	**4/13**	**5/13**	**6/13**	**7/13**	**8/13**	**9/13**	**10/13**	**11/13**	**12/13**	**1/14**	**2/14**	**3/14**
Maximum activity	0.000162	0.000168	0.000175	0.000183	0.000191	0.000382	0.000164	0.000068	0.000090	0.000095	0.000099	0.000102
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**	**0.1**	**0.1**	**0.1**	**0.1**	**0**	**0**	**0**	**0**	**0**	**0**

Reactor Coolant System Activity	**4/14**	**5/14**	**6/14**	**7/14**	**8/14**	**9/14**	**10/14**	**11/14**	**12/14**	**1/15**	**2/15**	**3/15**
Maximum activity	0.000115	0.000111	0.000114	0.000121	0.000125	0.000127	0.000131	0.000137	0.000162	0.000145	0.000149	0.000197
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**	**0.1**

Licensee Comments: none

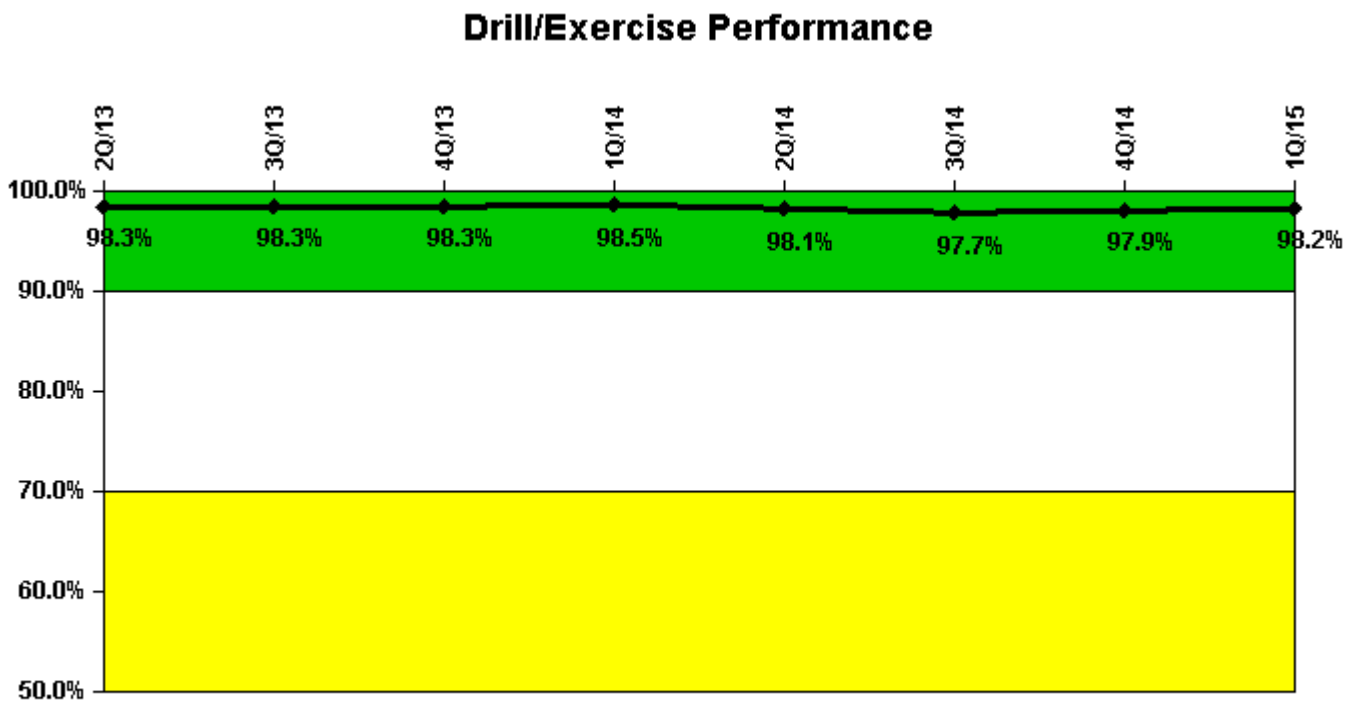


Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Leakage	**4/13**	**5/13**	**6/13**	**7/13**	**8/13**	**9/13**	**10/13**	**11/13**	**12/13**	**1/14**	**2/14**	**3/14**
Maximum leakage	0.050	0.490	0.085	0.096	0.073	0.067	0	0.052	0.010	0.045	0.026	0.024
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	**0.5**	**4.5**	**0.8**	**0.9**	**0.7**	**0.6**	**0**	**0.5**	**0.1**	**0.4**	**0.2**	**0.2**
Reactor Coolant System Leakage	**4/14**	**5/14**	**6/14**	**7/14**	**8/14**	**9/14**	**10/14**	**11/14**	**12/14**	**1/15**	**2/15**	**3/15**
Maximum leakage	0.028	0.023	0.024	0.039	0.048	0.071	0.084	0.028	0.041	0.064	0.025	0.085
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	**0.3**	**0.2**	**0.2**	**0.4**	**0.4**	**0.6**	**0.8**	**0.3**	**0.4**	**0.6**	**0.2**	**0.8**

Licensee Comments: none

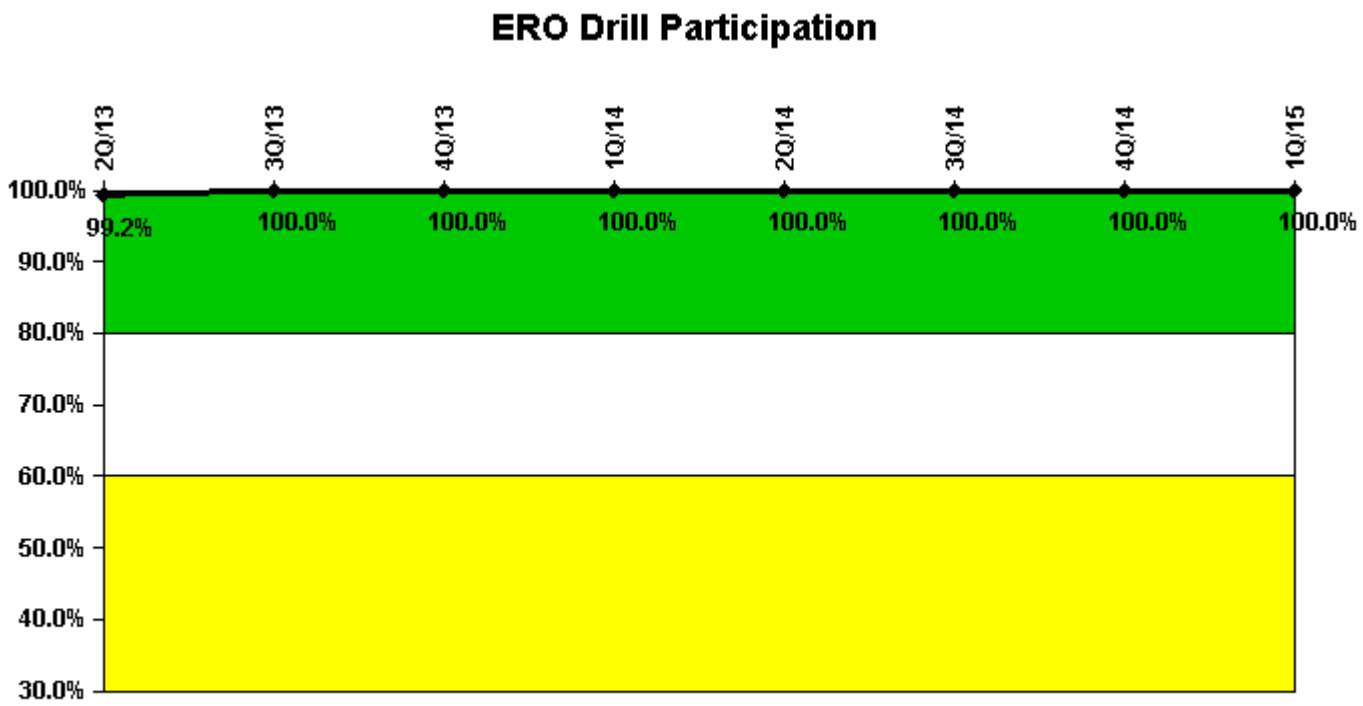


Thresholds: White < 90.0% Yellow < 70.0%

Notes

Drill/Exercise Performance	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15
Successful opportunities	20.0	44.0	0	55.0	23.0	59.0	56.0	68.0
Total opportunities	20.0	44.0	0	56.0	25.0	61.0	56.0	69.0
Indicator value	**98.3%**	**98.3%**	**98.3%**	**98.5%**	**98.1%**	**97.7%**	**97.9%**	**98.2%**

Licensee Comments: none

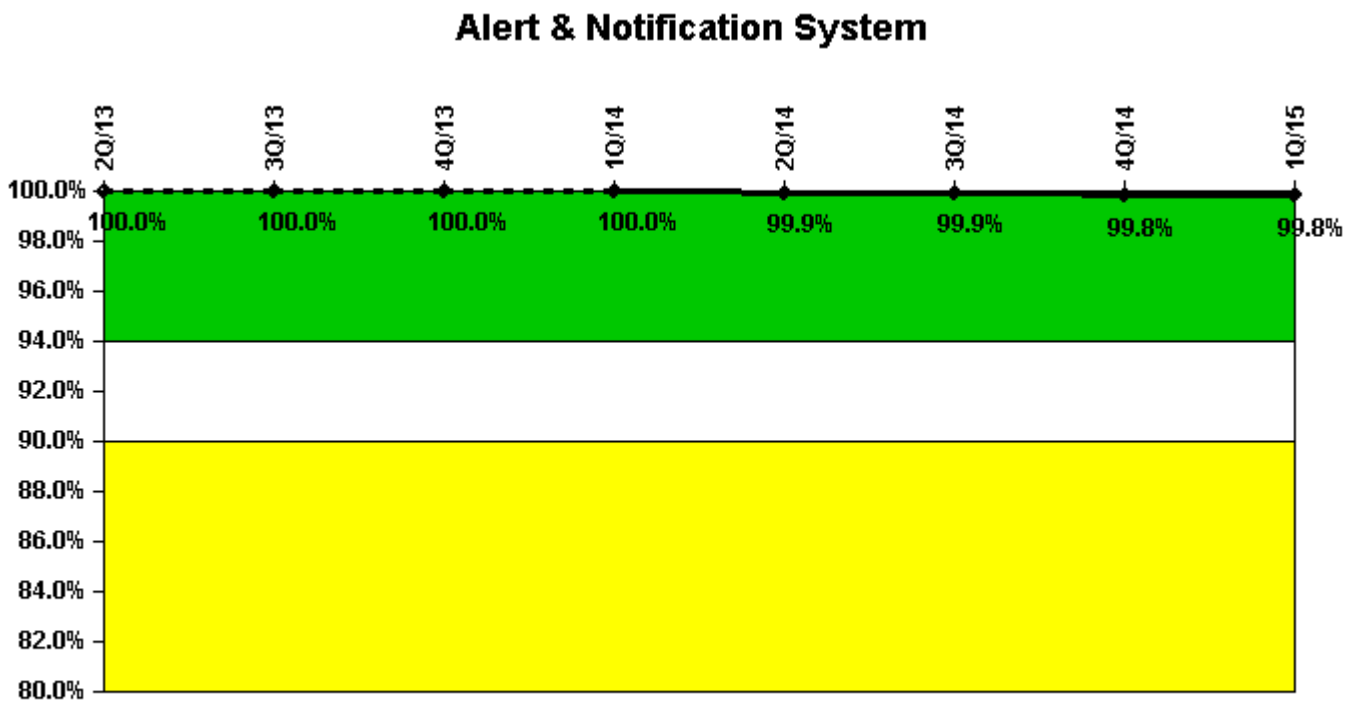


Thresholds: White < 80.0% Yellow < 60.0%

Notes

ERO Drill Participation	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15
Participating Key personnel	121.0	118.0	118.0	120.0	118.0	123.0	128.0	133.0
Total Key personnel	122.0	118.0	118.0	120.0	118.0	123.0	128.0	133.0
Indicator value	**99.2%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Licensee Comments: none

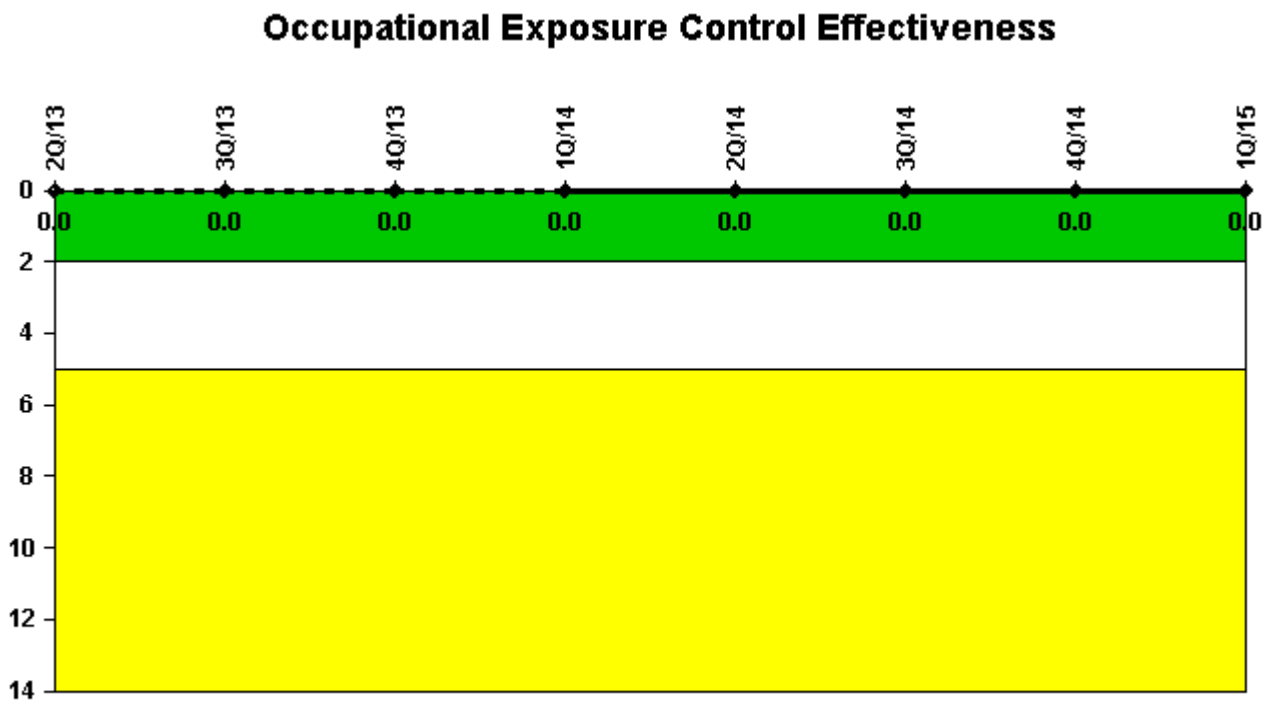


Thresholds: White < 94.0% Yellow < 90.0%

Notes

Alert & Notification System	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15
Successful siren-tests	1119	1120	1120	1119	1116	1119	1187	1050
Total sirens-tests	1119	1120	1120	1120	1119	1120	1190	1050
Indicator value	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**99.9%**	**99.9%**	**99.8%**	**99.8%**

Licensee Comments: none

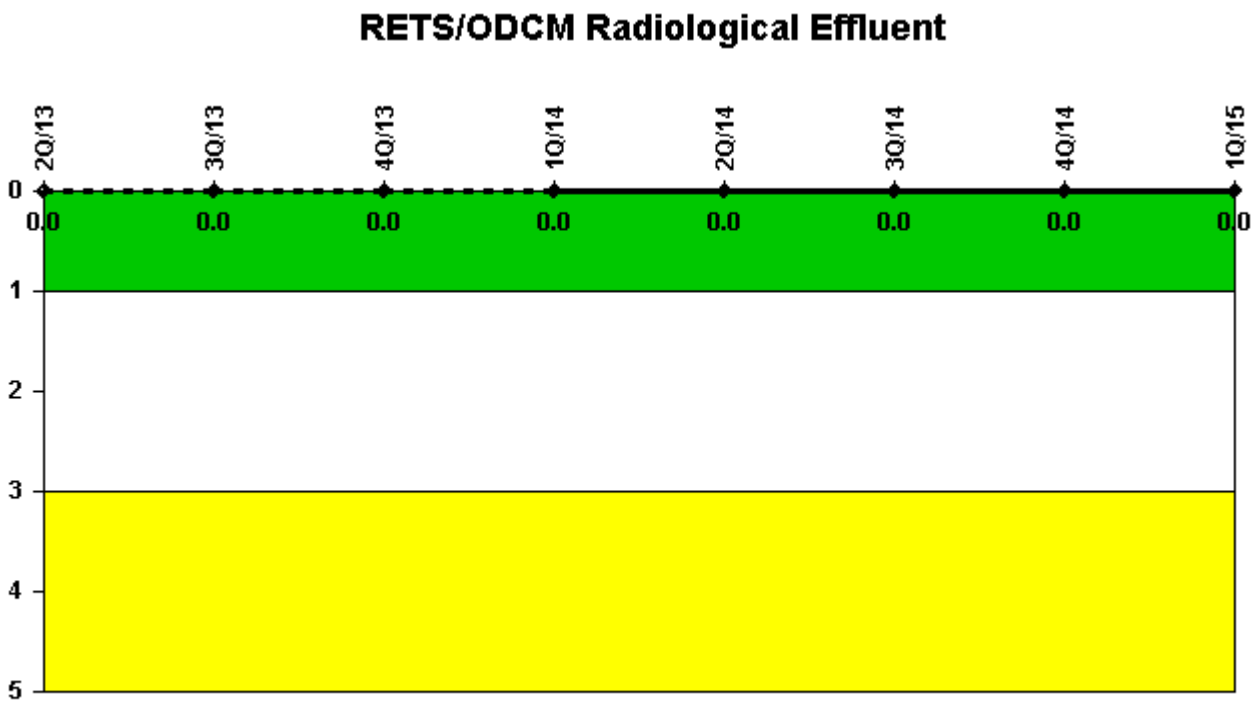


Thresholds: White > 2.0 Yellow > 5.0

Notes

Occupational Exposure Control Effectiveness	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15
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
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none



Thresholds: White > 1.0 Yellow > 3.0

Notes

RETS/ODCM Radiological Effluent	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15
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, 2015