

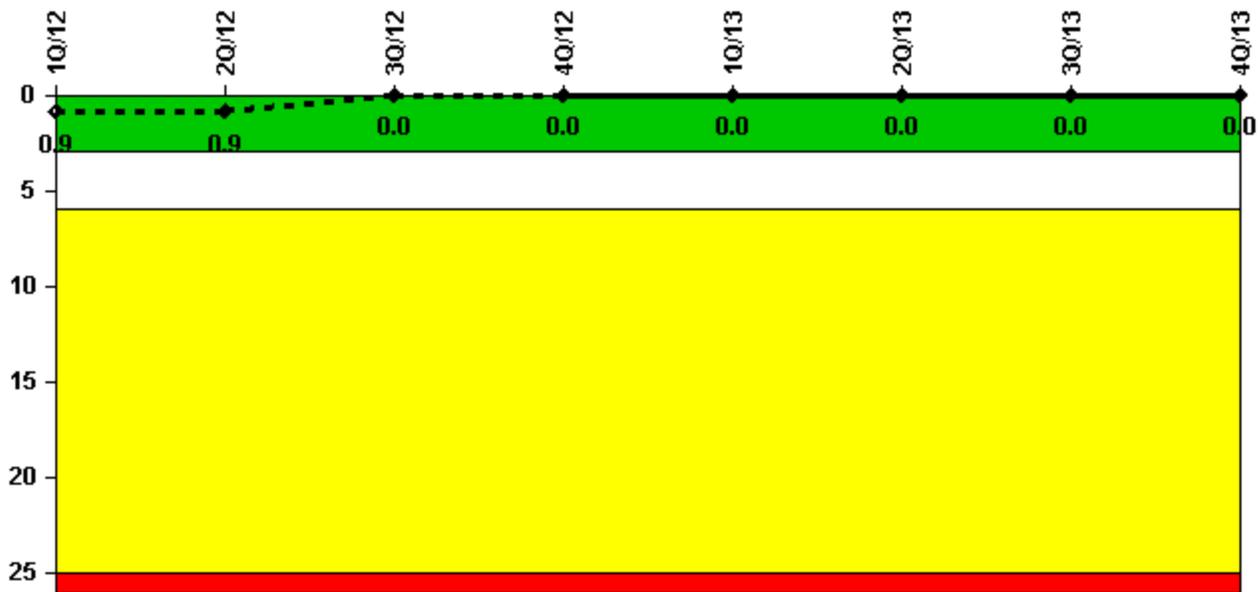
D.C. Cook 1

4Q/2013 Performance Indicators

The solid trend line represents the current reporting period.

Licensee's General Comments: none

Unplanned Scrams per 7000 Critical Hrs



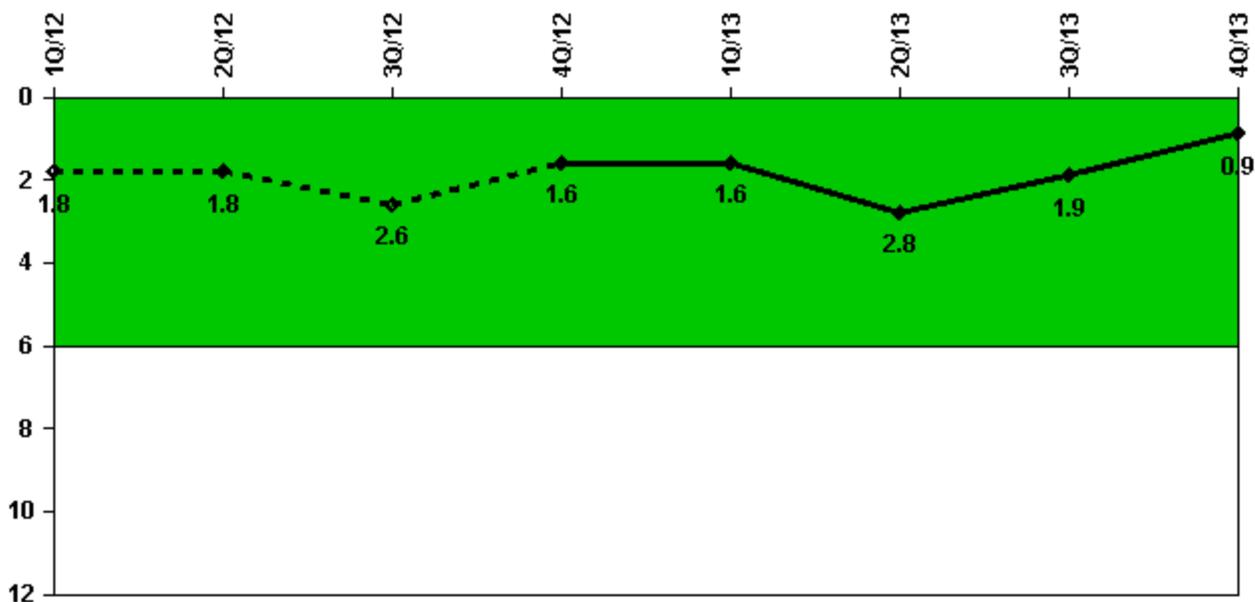
Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

Notes

Unplanned Scrams per 7000 Critical Hrs	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13
Unplanned scrams	0	0	0	0	0	0	0	0
Critical hours	2183.0	2184.0	2208.0	2209.0	2039.0	1052.9	2208.0	2209.0
Indicator value	0.9	0.9	0	0	0	0	0	0

Licensee Comments: none

Unplanned Power Changes per 7000 Critical Hrs



Thresholds: White > 6.0

Notes

Unplanned Power Changes per 7000 Critical Hrs	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13
Unplanned power changes	0	0	1.0	1.0	0	1.0	0	0
Critical hours	2183.0	2184.0	2208.0	2209.0	2039.0	1052.9	2208.0	2209.0
Indicator value	1.8	1.8	2.6	1.6	1.6	2.8	1.9	0.9

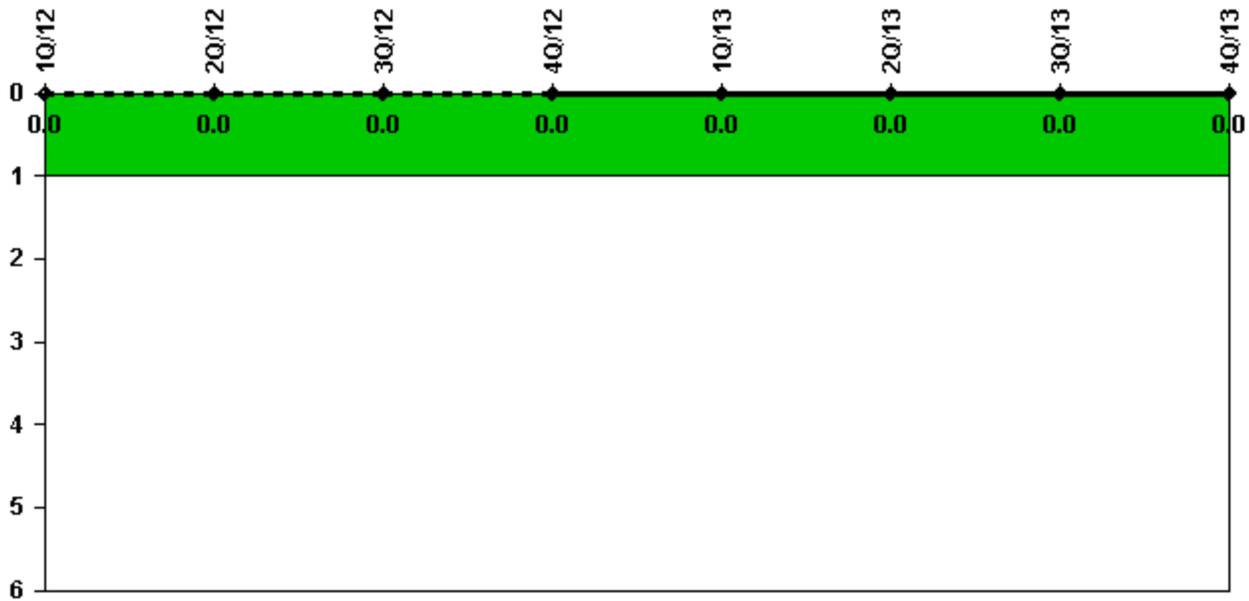
Licensee Comments:

2Q/13: Unplanned power change on May 22, 2013, from 88% to 48% due to electrohydraulic control fluid leak on East Main Feed Pump.

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

Unplanned Scrams with Complications



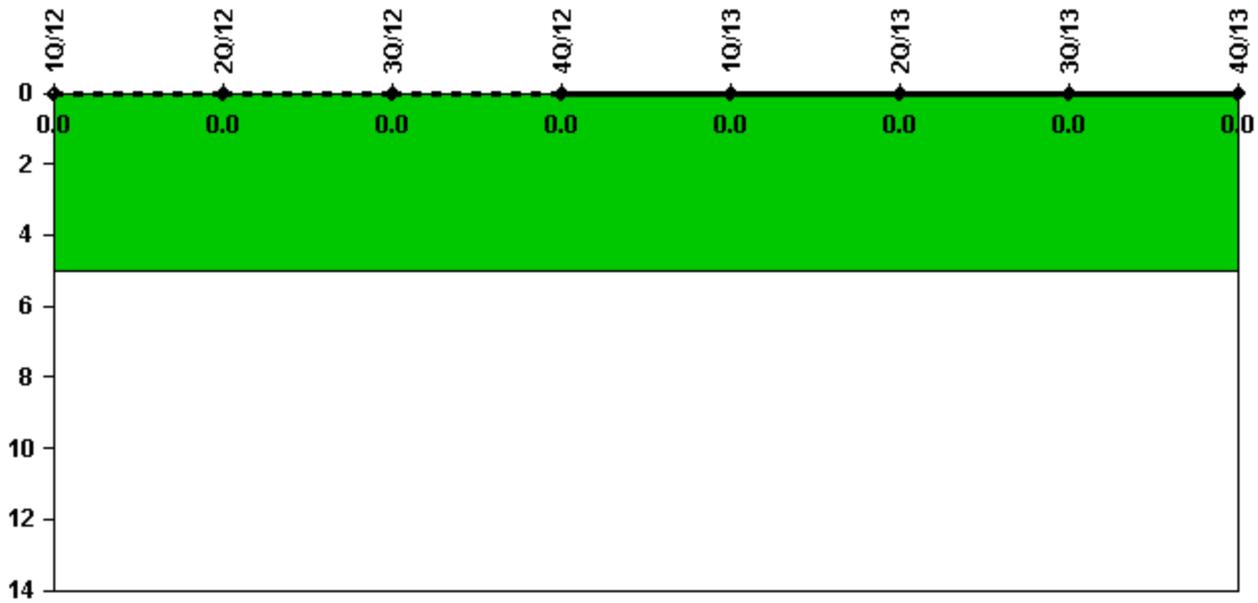
Thresholds: White > 1.0

Notes

Unplanned Scrams with Complications	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13
Scrams with complications	0	0	0	0	0	0	0	0
Indicator value	0.0							

Licensee Comments: none

Safety System Functional Failures (PWR)



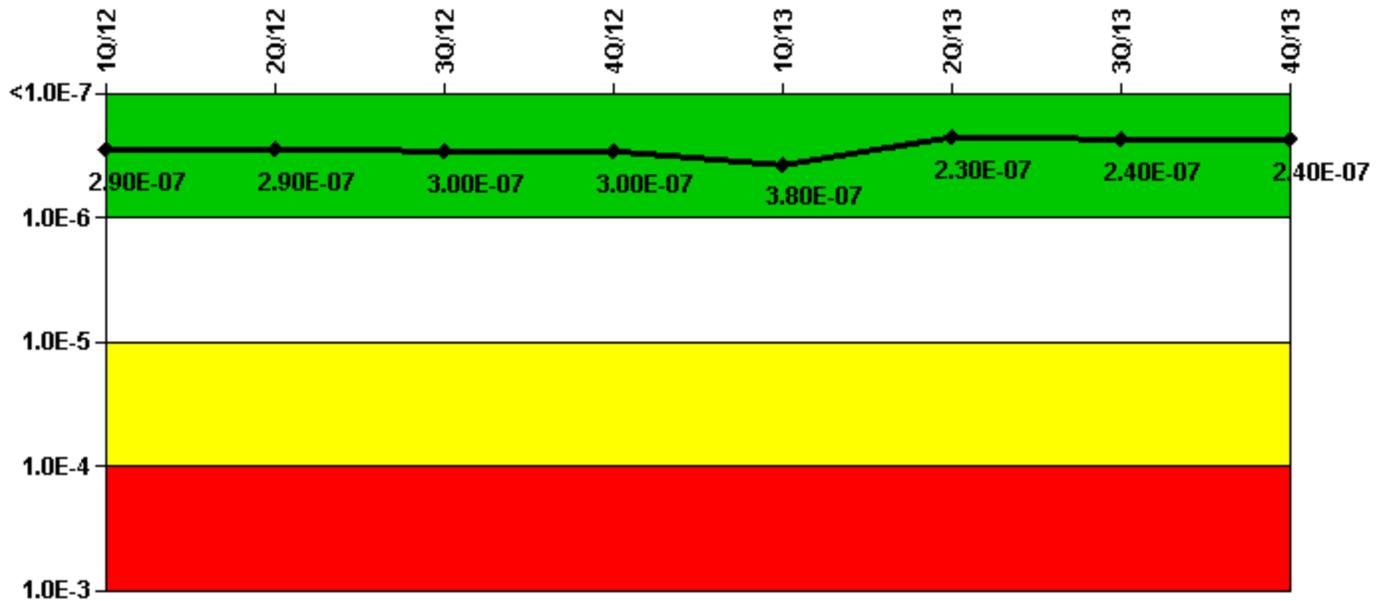
Thresholds: White > 5.0

Notes

Safety System Functional Failures (PWR)	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13
Safety System Functional Failures	0	0	0	0	0	0	0	0
Indicator value	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	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13
UAI (ΔCDF)	4.87E-10	4.00E-10	3.29E-10	2.79E-10	3.40E-10	-1.71E-10	1.33E-10	1.78E-10
URI (ΔCDF)	2.89E-07	2.93E-07	2.96E-07	3.00E-07	3.81E-07	2.31E-07	2.35E-07	2.40E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	2.90E-07	2.90E-07	3.00E-07	3.00E-07	3.80E-07	2.30E-07	2.40E-07	2.40E-07

Licensee Comments:

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

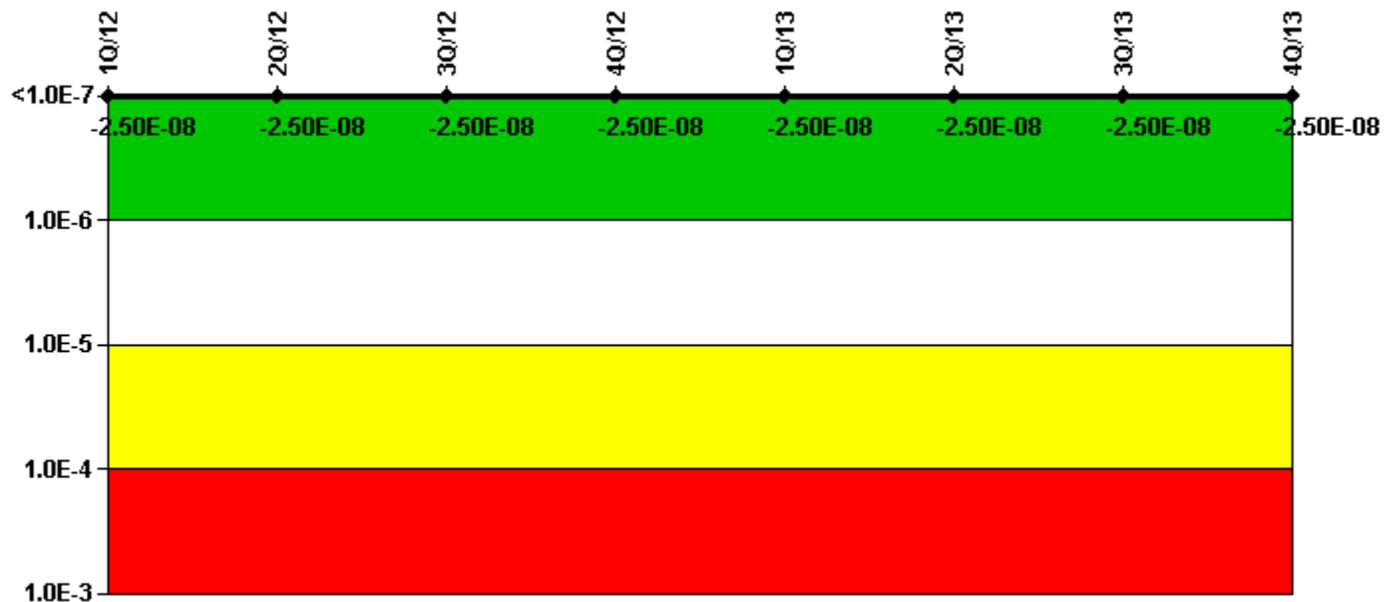
4Q/12: Revised MSPI basis document to update Emergency Diesel Generator run hour estimates to exclude the run hours associated with (1) the first hour of run time after breaker closure and (2) unloaded run hours. This change does not affect the "color" of this indicator from 1st Quarter 2012 to present.

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1Q/12: 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								
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Pressure Injection System	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13
UAI (Δ CDF)	-8.42E-12	-1.04E-11	-1.20E-11	-1.31E-11	-1.07E-11	-9.00E-12	-5.00E-12	-4.15E-12
URI (Δ CDF)	-2.46E-08							
PLE	NO							
Indicator value	-2.50E-08							

Licensee Comments:

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.

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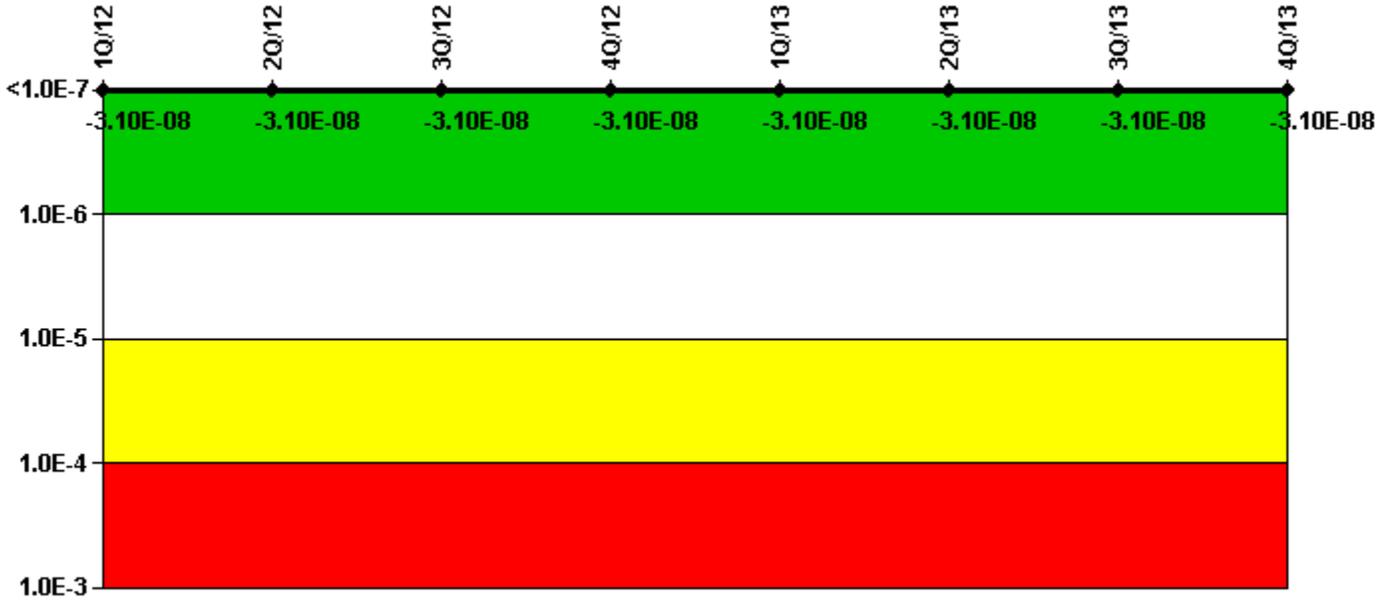
4Q/12: Revised the MSPI scope of monitored components for High Pressure Safety Injection HPSI to remove two injection pathway boundary valves, which was effective 2nd Quarter 2008. MSPI Basis document excludes these valves from the MSPI scope based on Birnbaum value < 1.0 E-06. The MSPI basis document 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.

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Mitigating Systems Performance Index, Heat Removal System



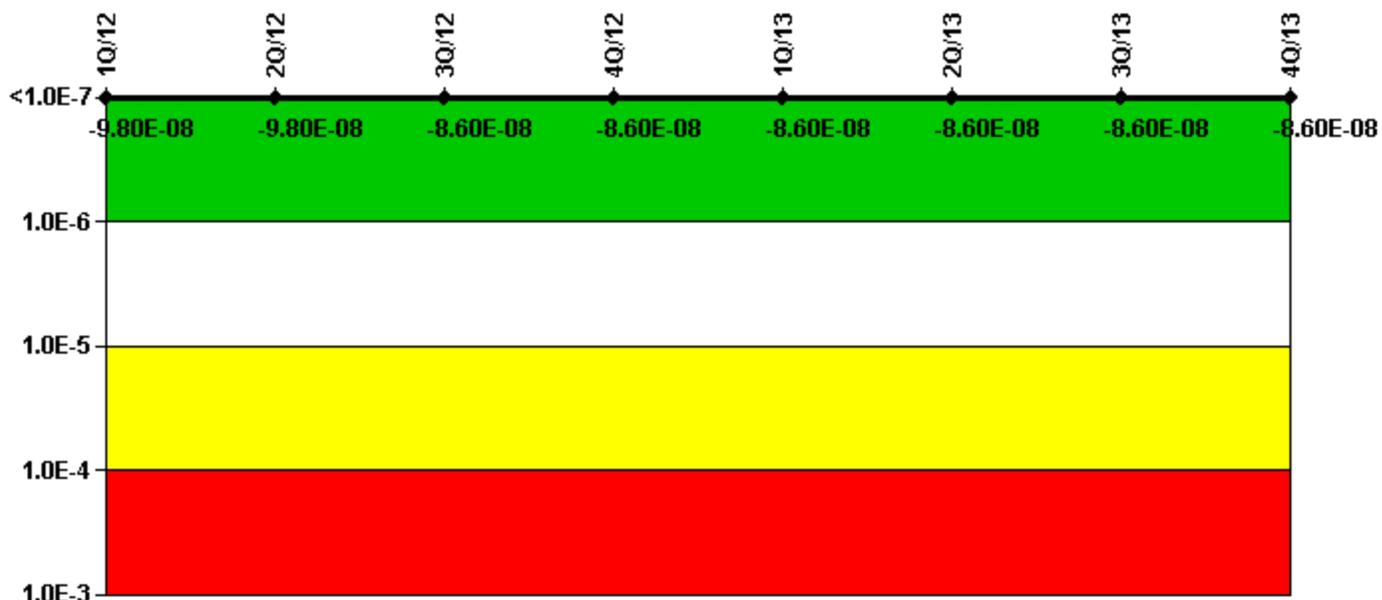
Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Heat Removal System	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13
UAI (Δ CDF)	-2.47E-11	-2.80E-11	-2.86E-11	-2.86E-11	-2.86E-11	-2.78E-11	-2.84E-11	-2.84E-11
URI (Δ CDF)	-3.15E-08							
PLE	NO							
Indicator value	-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

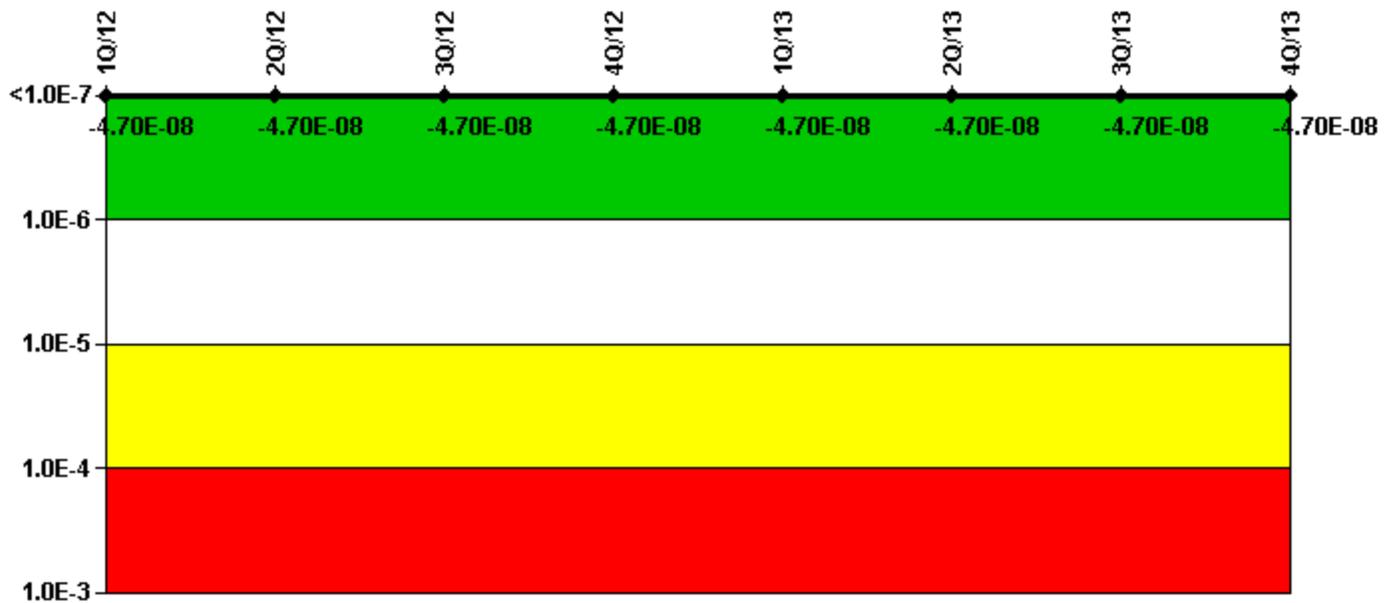
Notes

Mitigating Systems Performance Index, Residual Heat Removal System	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13
UAI (Δ CDF)	-3.23E-13							
URI (Δ CDF)	-9.76E-08	-9.76E-08	-8.62E-08	-8.62E-08	-8.62E-08	-8.62E-08	-8.62E-08	-8.62E-08
PLE	NO							
Indicator value	-9.80E-08	-9.80E-08	-8.60E-08	-8.60E-08	-8.60E-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



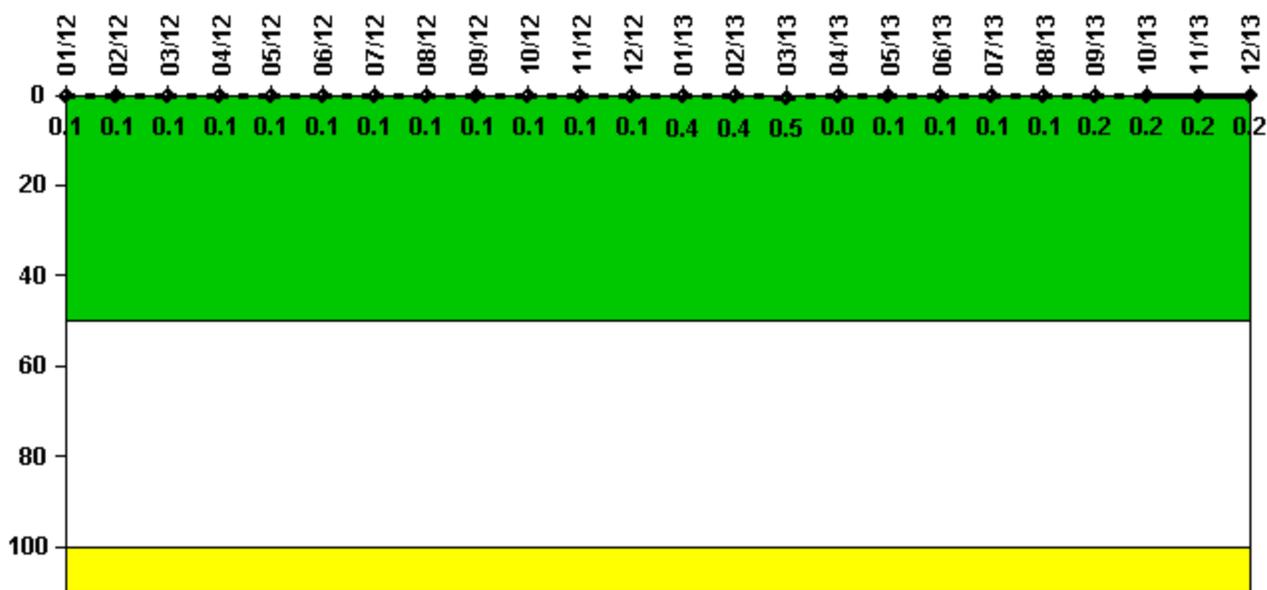
Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Cooling Water Systems	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13
UAI (Δ CDF)	4.25E-11	2.77E-11	1.95E-11	1.57E-11	3.48E-11	7.02E-11	7.02E-11	7.02E-11
URI (Δ CDF)	-4.69E-08							
PLE	NO							
Indicator value	-4.70E-08							

Licensee Comments: none

Reactor Coolant System Activity



Thresholds: White > 50.0 Yellow > 100.0

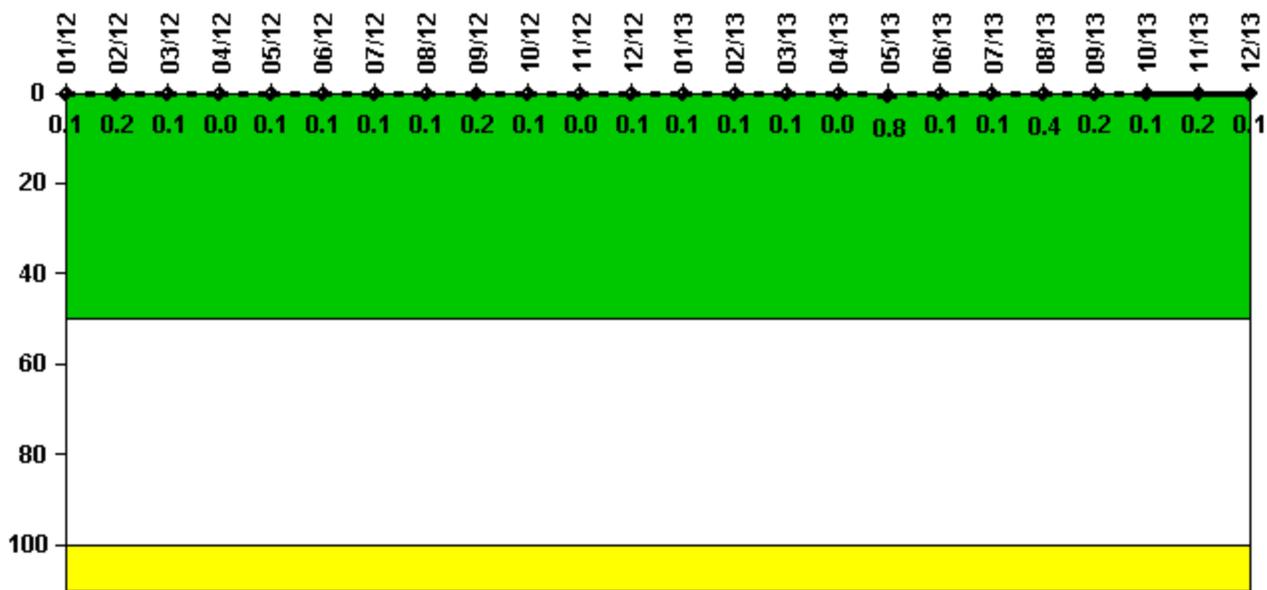
Notes

Reactor Coolant System Activity	1/12	2/12	3/12	4/12	5/12	6/12	7/12	8/12	9/12	10/12	11/12	12/12
Maximum activity	0.000850	0.000885	0.000932	0.000939	0.000977	0.001050	0.001100	0.001140	0.001170	0.001230	0.001320	0.001290
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	0.1

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	0.001350	0.001390	0.001590	0	0.000329	0.000484	0.000491	0.000510	0.000551	0.000541	0.000591	0.000629
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	0.4	0.4	0.5	0	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2

Licensee Comments: none

Reactor Coolant System Leakage



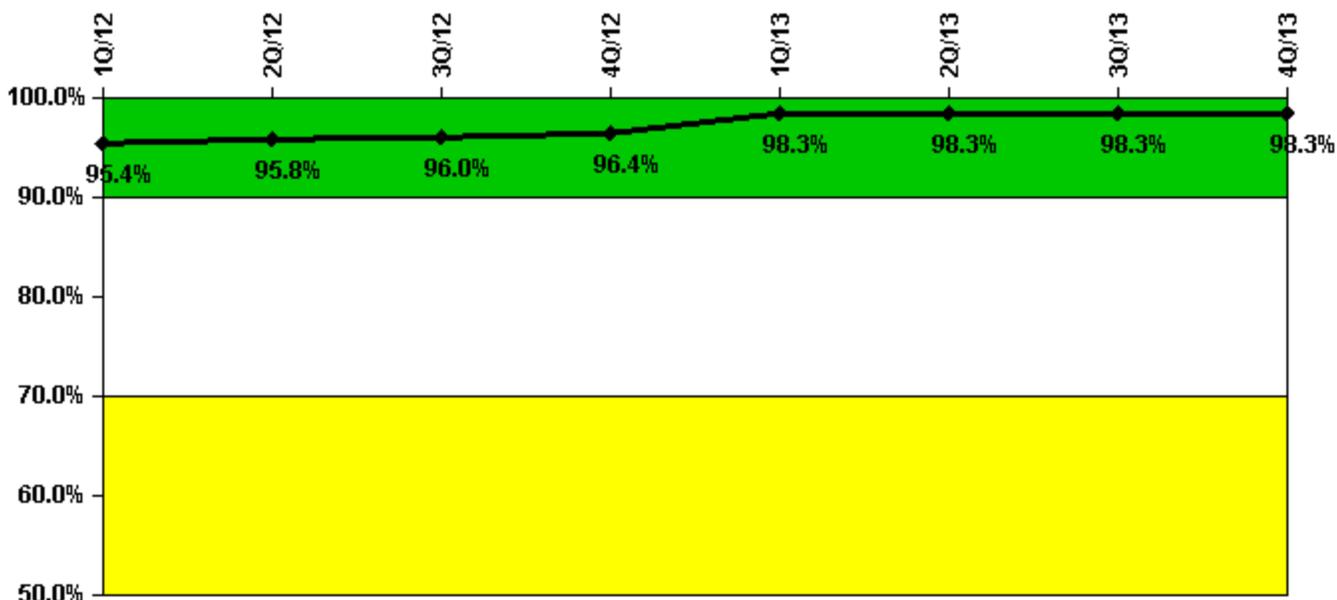
Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Leakage	1/12	2/12	3/12	4/12	5/12	6/12	7/12	8/12	9/12	10/12	11/12	12/12
Maximum leakage	0.009	0.017	0.012	0.005	0.012	0.012	0.013	0.012	0.018	0.016	0.005	0.010
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	0.1	0.2	0.1	0	0.1	0.1	0.1	0.1	0.2	0.1	0	0.1
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	0.011	0.012	0.012	0	0.091	0.011	0.009	0.043	0.020	0.008	0.018	0.013
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	0.1	0.1	0.1	0	0.8	0.1	0.1	0.4	0.2	0.1	0.2	0.1

Licensee Comments: none

Drill/Exercise Performance



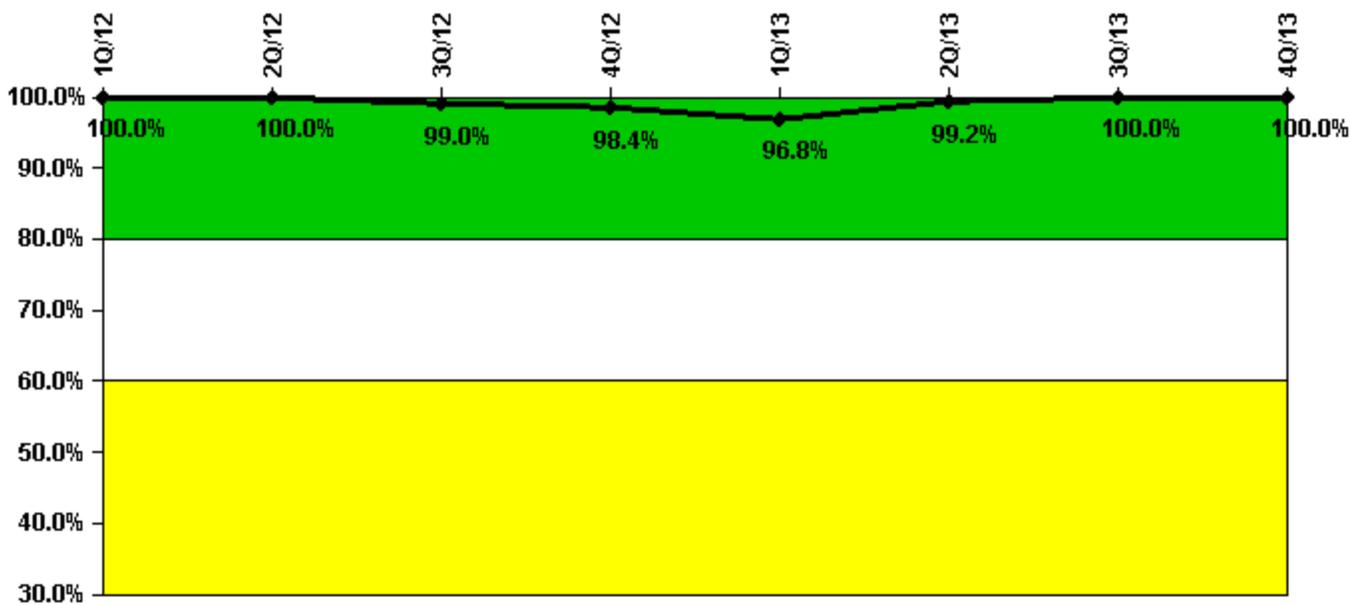
Thresholds: White < 90.0% Yellow < 70.0%

Notes

Drill/Exercise Performance	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13
Successful opportunities	34.0	24.0	41.0	66.0	68.0	20.0	44.0	0
Total opportunities	35.0	25.0	41.0	67.0	70.0	20.0	44.0	0
Indicator value	95.4%	95.8%	96.0%	96.4%	98.3%	98.3%	98.3%	98.3%

Licensee Comments: none

ERO Drill Participation



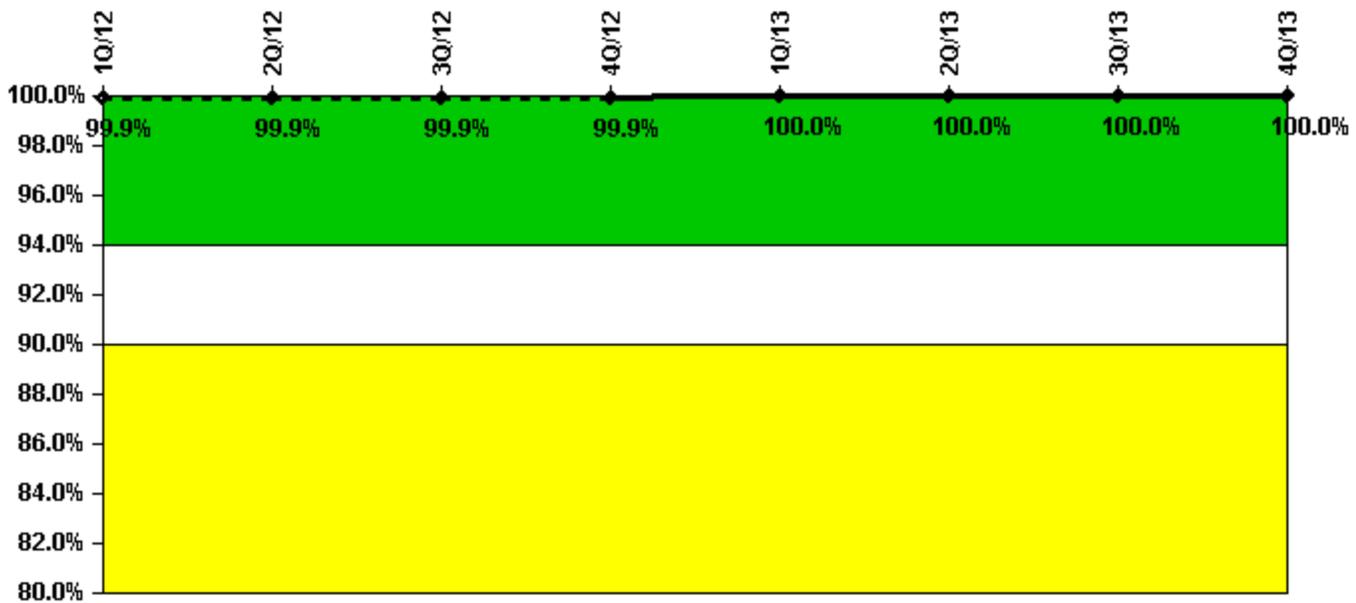
Thresholds: White < 80.0% Yellow < 60.0%

Notes

ERO Drill Participation	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13
Participating Key personnel	91.0	89.0	95.0	126.0	120.0	121.0	118.0	118.0
Total Key personnel	91.0	89.0	96.0	128.0	124.0	122.0	118.0	118.0
Indicator value	100.0%	100.0%	99.0%	98.4%	96.8%	99.2%	100.0%	100.0%

Licensee Comments: none

Alert & Notification System



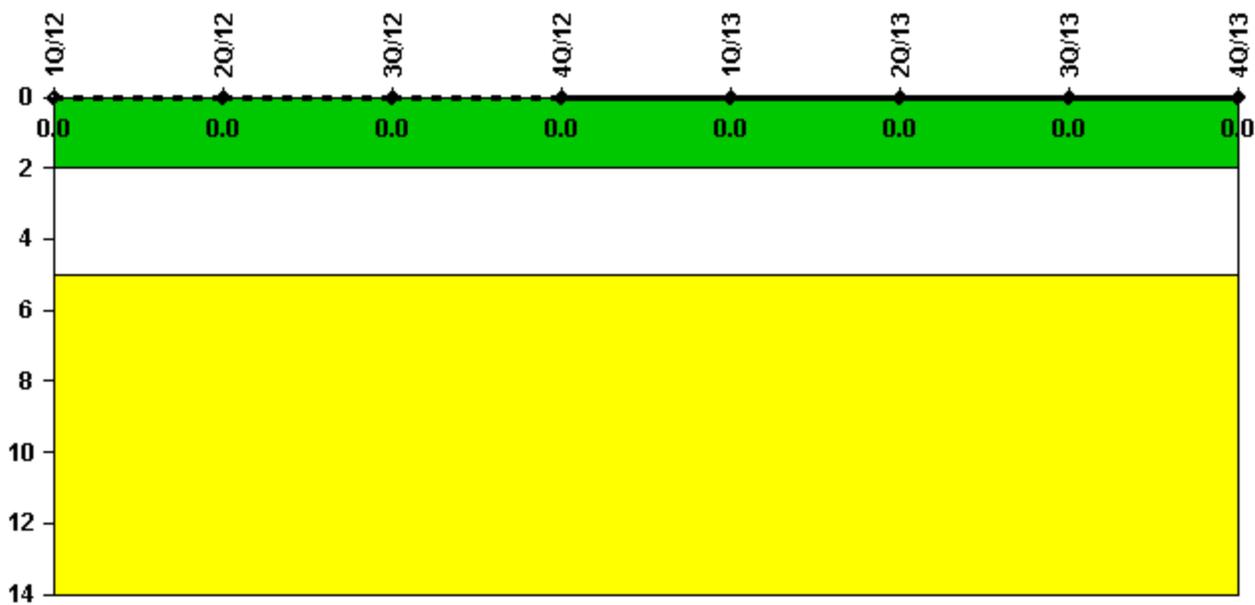
Thresholds: White < 94.0% Yellow < 90.0%

Notes

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

Licensee Comments: none

Occupational Exposure Control Effectiveness



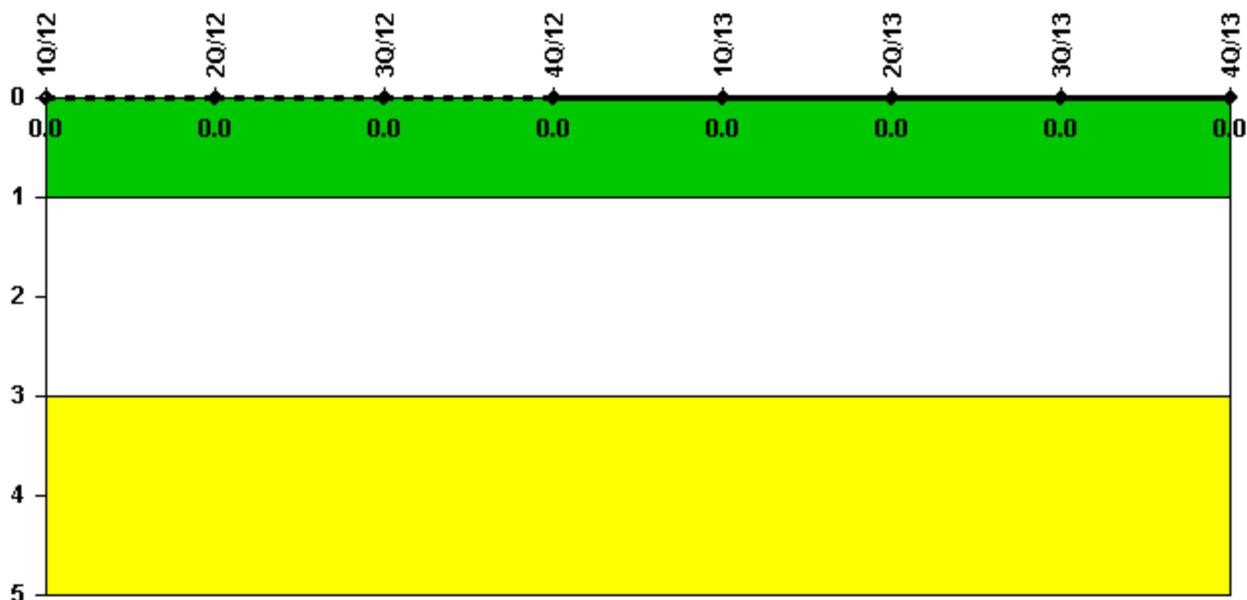
Thresholds: White > 2.0 Yellow > 5.0

Notes

Occupational Exposure Control Effectiveness	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13	4Q/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
Indicator value	0							

Licensee Comments: none

RETS/ODCM Radiological Effluent



Thresholds: White > 1.0 Yellow > 3.0

Notes

RETS/ODCM Radiological Effluent	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13	4Q/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: January 22, 2014