

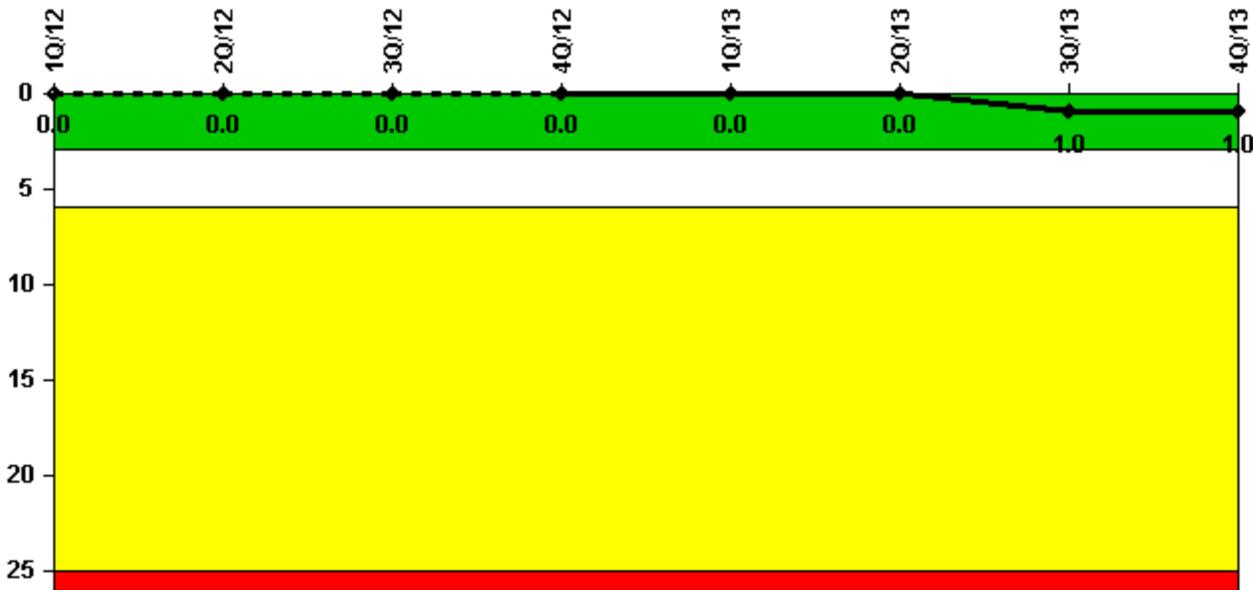
Callaway

4Q/2013 Performance Indicators

The solid trend line represents the current reporting period.

Licensee's General Comments: none

Unplanned Scrams per 7000 Critical Hrs



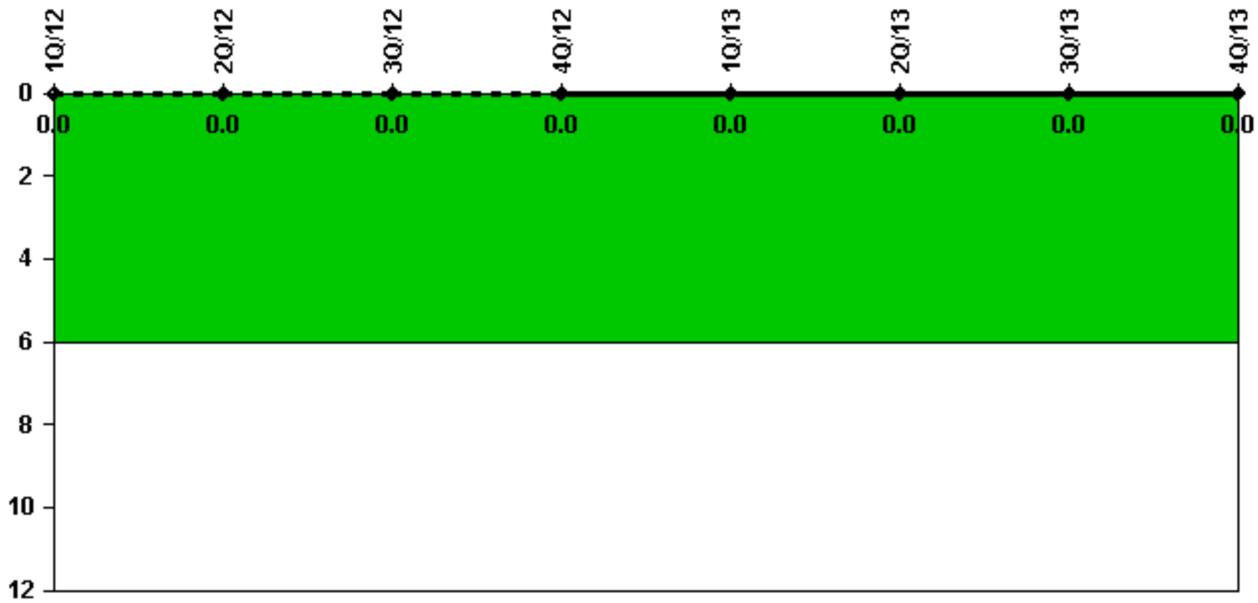
Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

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	1.0	0
Critical hours	2183.0	2184.0	2208.0	2209.0	2159.0	1008.1	1714.0	2209.0
Indicator value	0	0	0	0	0	0	1.0	1.0

Licensee Comments: none

Unplanned Power Changes per 7000 Critical Hrs



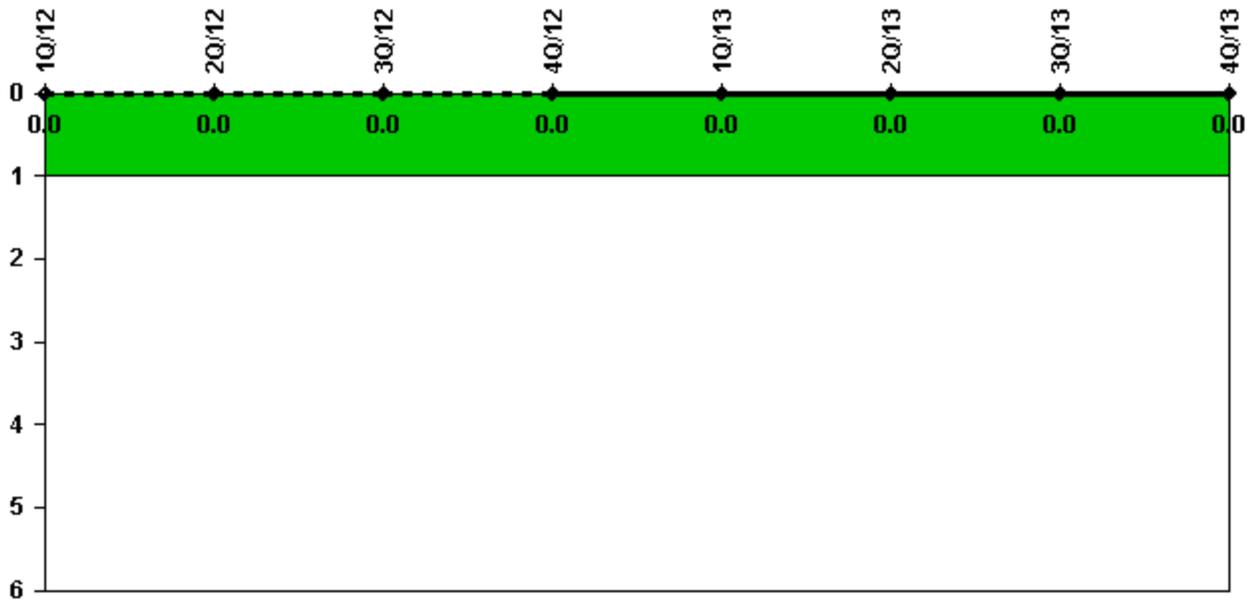
Thresholds: White > 6.0

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	0	0	0	0	0	0
Critical hours	2183.0	2184.0	2208.0	2209.0	2159.0	1008.1	1714.0	2209.0
Indicator value	0							

Licensee Comments: none

Unplanned Scrams with Complications



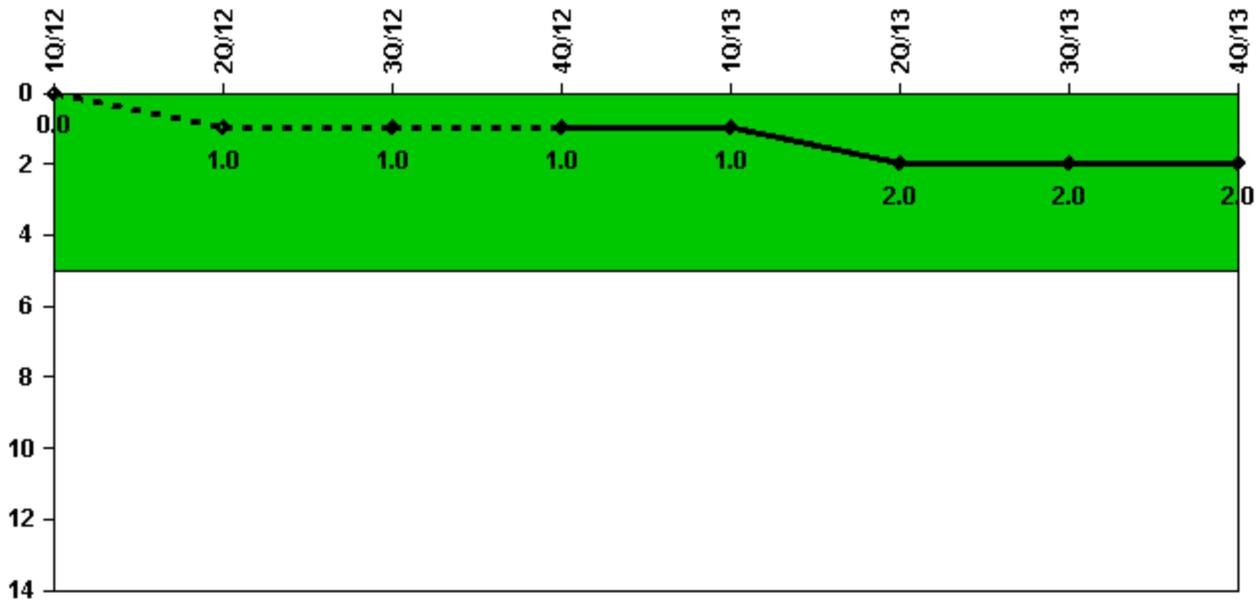
Thresholds: White > 1.0

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

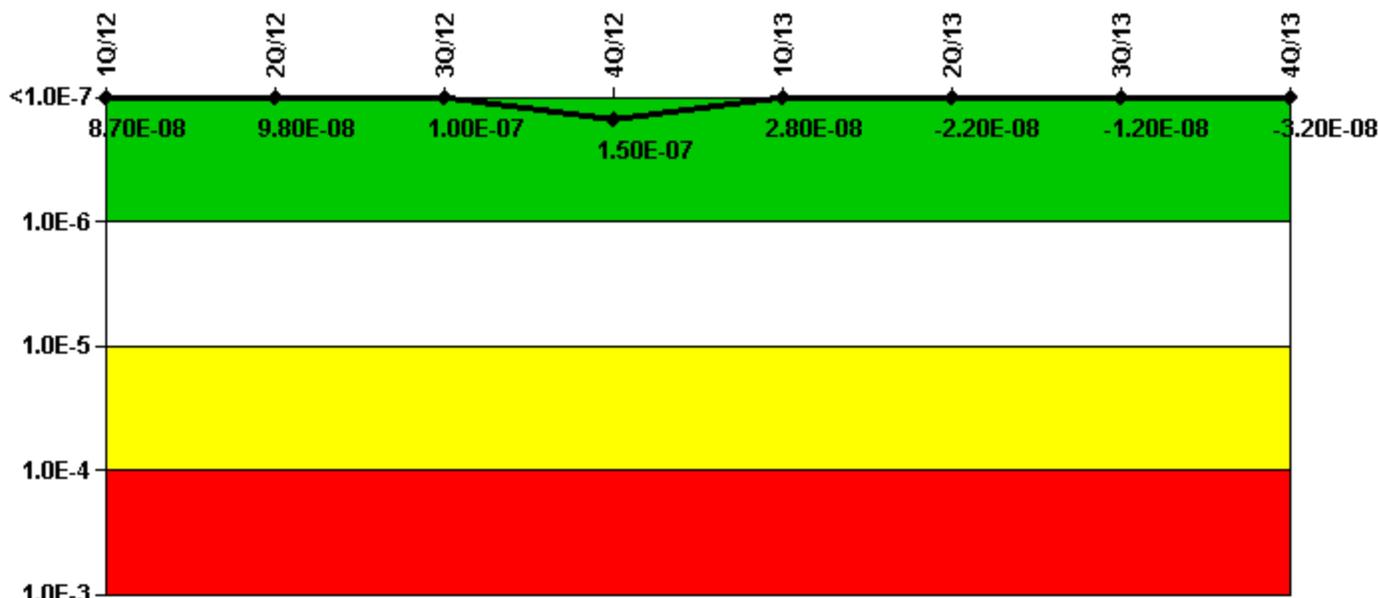
Safety System Functional Failures (PWR)	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13
Safety System Functional Failures	0	1	0	0	0	2	0	0
Indicator value	0	1	1	1	1	2	2	2

Licensee Comments:

2Q/13: LER 2013-002-00, B ESW Pump Lower Motor Bearing Oil Appears Darker Than Normal. The LER was submitted on 2012.04.08. A revision was submitted on 2013.06.17. LER 2013-005-00, ESW-SW cross-connect valve leakage. The LER was submitted on 2012.06.03.

2Q/12: LER 2012-001-00 was submitted 2012.05.23 as a SSFF.

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 (Δ CDF)	8.43E-08	9.44E-08	9.80E-08	7.91E-08	2.85E-08	-2.15E-08	-1.15E-08	-3.16E-08
URI (Δ CDF)	2.49E-09	3.58E-09	4.68E-09	6.81E-08	-6.59E-10	-2.24E-10	-1.98E-10	-4.31E-10
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	8.70E-08	9.80E-08	1.00E-07	1.50E-07	2.80E-08	-2.20E-08	-1.20E-08	-3.20E-08

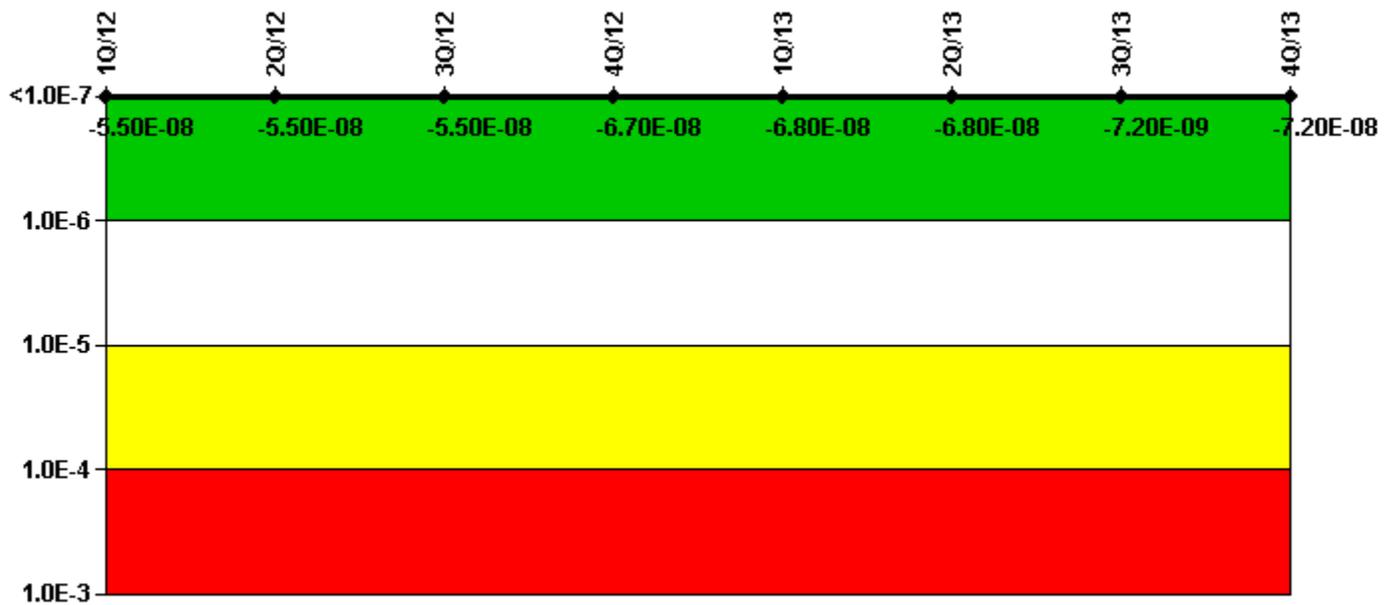
Licensee Comments:

4Q/13: Changed PRA Parameter(s).

3Q/13: Changed PRA Parameter(s). PRA values were updated to reflect changes made to Callaway's PRA model #5A. Changes were made in accordance with Revision #11 of Callaway's MSPI Basis Document.

1Q/12: MSPI evaluations from events in November 2011 that were not able to be completed for the 4Q2011 data submittal have now been finalized. Based on the results of these evaluations, the data for 4Q2011 now reflects one MSPI failure (changed from zero failures). This did not result in a PI color change. Additionally, an evaluation for an event in February 2012 that could affect the Emergency AC Power MSPI indicator has not yet been completed. The final results of this pending evaluation are not expected to affect PI color.

Mitigating Systems Performance Index, High Pressure Injection System



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

Notes

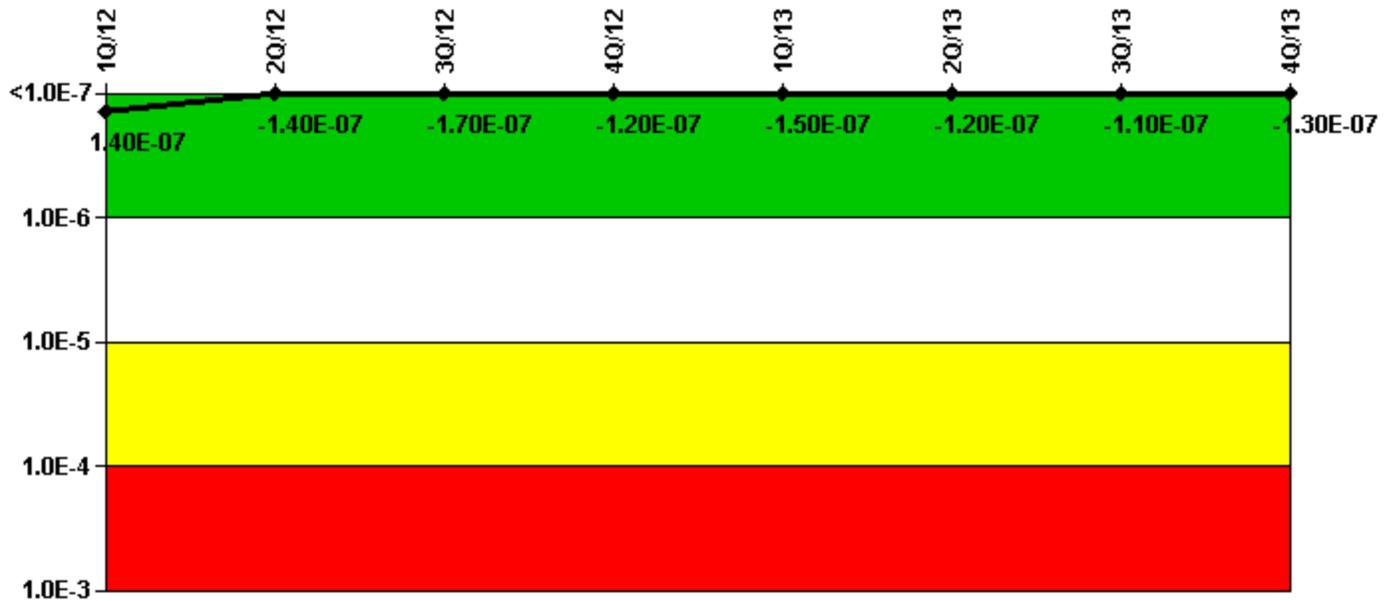
Mitigating Systems Performance Index, High Pressure Injection System	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13
UAI (Δ CDF)	-6.33E-09	-6.33E-09	-6.33E-09	-1.81E-08	-1.83E-08	-1.85E-08	-2.17E-09	-1.84E-08
URI (Δ CDF)	-4.91E-08	-4.91E-08	-4.91E-08	-4.94E-08	-4.94E-08	-4.94E-08	-5.03E-09	-5.34E-08
PLE	NO							
Indicator value	-5.50E-08	-5.50E-08	-5.50E-08	-6.70E-08	-6.80E-08	-6.80E-08	-7.20E-09	-7.20E-08

Licensee Comments:

4Q/13: Changed PRA Parameter(s).

3Q/13: Changed PRA Parameter(s). PRA values were updated to reflect changes made to Callaway's PRA model #5A. Changes were made in accordance with Revision #11 of Callaway's MSPI Basis Document.

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 (ΔCDF)	1.77E-08	4.63E-08	9.38E-09	4.57E-10	-2.57E-08	-8.94E-10	-1.21E-09	3.29E-08
URI (ΔCDF)	1.22E-07	-1.83E-07	-1.83E-07	-1.24E-07	-1.22E-07	-1.22E-07	-1.07E-07	-1.59E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	1.40E-07	-1.40E-07	-1.70E-07	-1.20E-07	-1.50E-07	-1.20E-07	-1.10E-07	-1.30E-07

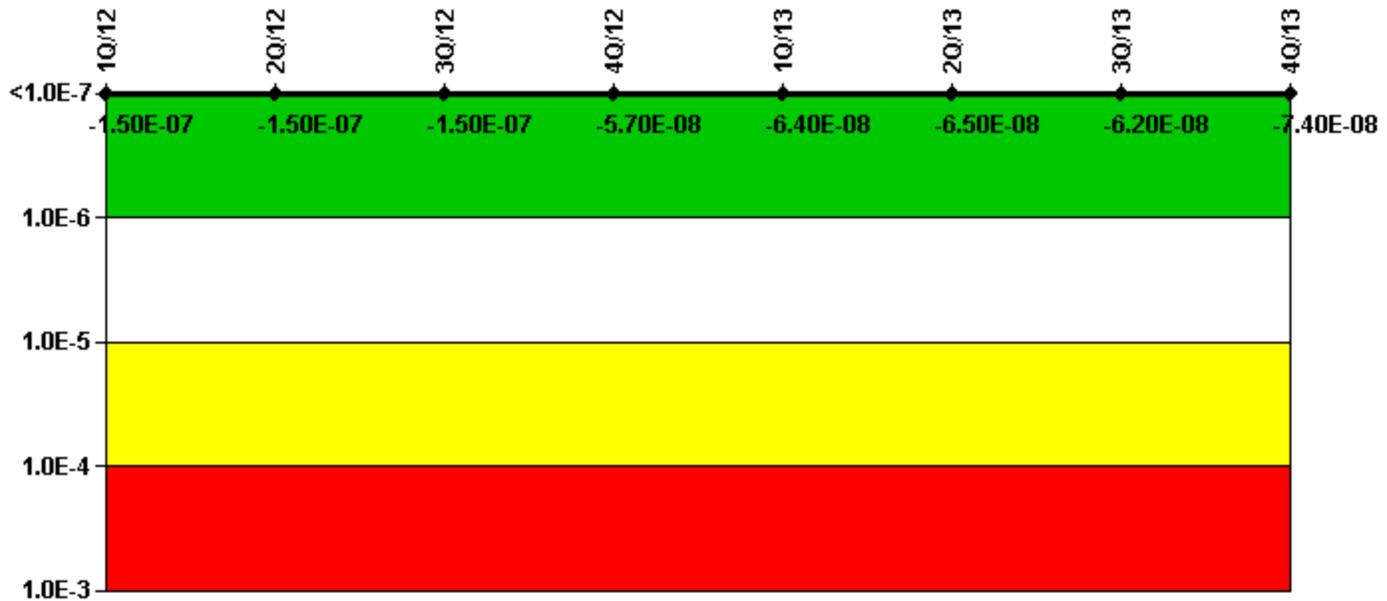
Licensee Comments:

4Q/13: Changed PRA Parameter(s).

3Q/13: Changed PRA Parameter(s). PRA values were updated to reflect changes made to Callaway's PRA model #5A. Changes were made in accordance with Revision #11 of Callaway's MSPI Basis Document.

4Q/12: MSPI Bases Document updated to revise baseline unavailability. The document change was approved on 9/28/2012 to be effective for 4th quarter 2012.

Mitigating Systems Performance Index, Residual Heat Removal System



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

Notes

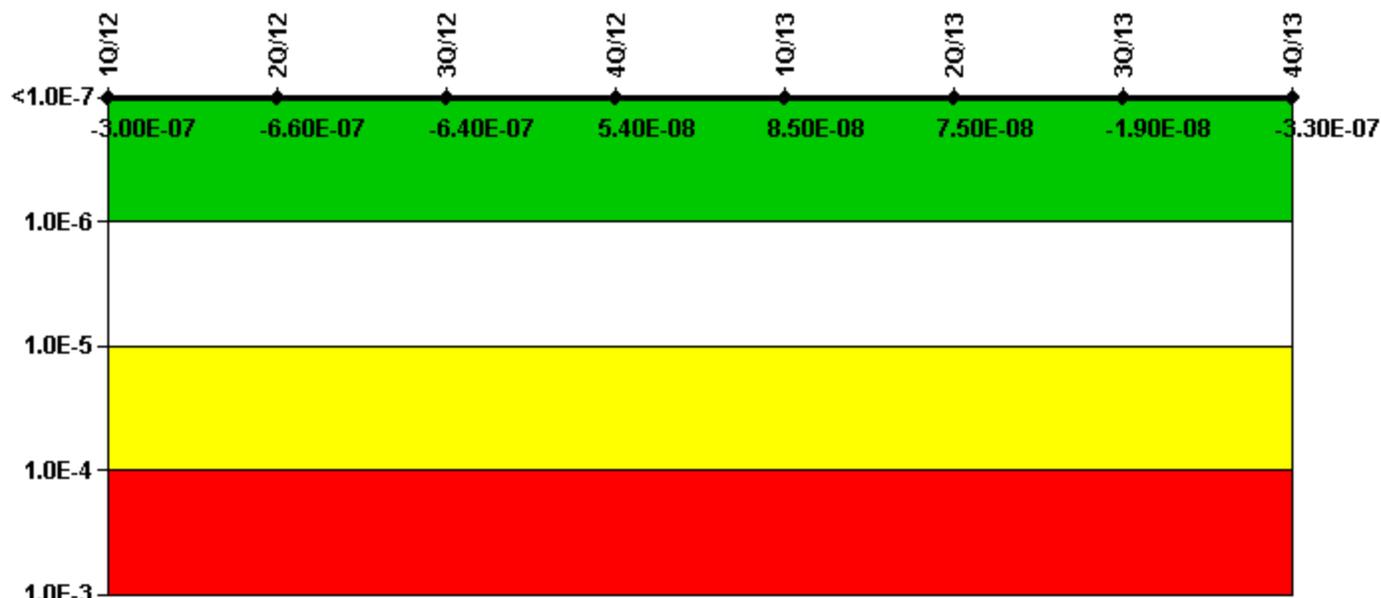
Mitigating Systems Performance Index, Residual Heat Removal System	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13
UAI (Δ CDF)	-2.05E-08	-2.05E-08	-2.05E-08	2.59E-09	-4.92E-09	-5.33E-09	-5.50E-09	-6.60E-09
URI (Δ CDF)	-1.31E-07	-1.31E-07	-1.31E-07	-5.93E-08	-5.93E-08	-5.93E-08	-5.61E-08	-6.70E-08
PLE	NO							
Indicator value	-1.50E-07	-1.50E-07	-1.50E-07	-5.70E-08	-6.40E-08	-6.50E-08	-6.20E-08	-7.40E-08

Licensee Comments:

4Q/13: Changed PRA Parameter(s).

3Q/13: Changed PRA Parameter(s). PRA values were updated to reflect changes made to Callaway's PRA model #5A. Changes were made in accordance with Revision #11 of Callaway's MSPI Basis Document.

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 (ΔCDF)	6.18E-07	2.59E-07	2.78E-07	1.55E-07	1.86E-07	1.76E-07	3.45E-08	3.17E-07
URI (ΔCDF)	-9.15E-07	-9.15E-07	-9.15E-07	-1.01E-07	-1.01E-07	-1.01E-07	-5.40E-08	-6.50E-07
PLE	NO							
Indicator value	-3.00E-07	-6.60E-07	-6.40E-07	5.40E-08	8.50E-08	7.50E-08	-1.90E-08	-3.30E-07

Licensee Comments:

4Q/13: Risk Cap Invoked. Changed PRA Parameter(s).

3Q/13: Changed PRA Parameter(s). PRA values were updated to reflect changes made to Callaway's PRA model #5A. Changes were made in accordance with Revision #11 of Callaway's MSPI Basis Document.

2Q/13: Risk Cap Invoked.

1Q/13: Risk Cap Invoked. An evaluation for an event in February 2013 that could affect the Cooling Water Systems MSPI indicator has not been completed.

4Q/12: Risk Cap Invoked. Changed PRA Parameter(s). MSPI Bases Document updated to revise baseline demand changes. The document change was approved on 9/28/2012 to be effective for 4th quarter 2012.

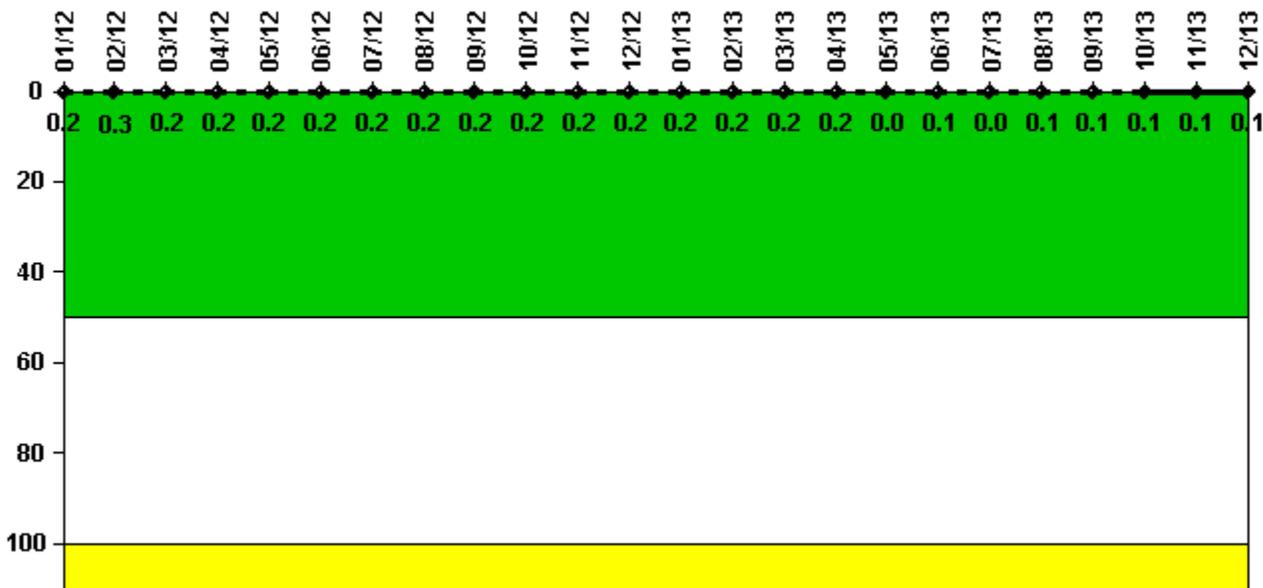
3Q/12: Risk Cap Invoked.

2Q/12: Risk Cap Invoked.

1Q/12: Risk Cap Invoked. An evaluation for an event in March 2012 that could affect the Cooling Water Systems MSPI indicator has not yet been completed. The final results of this pending evaluation are not expected to affect PI color. (The following added in 2Q2012): The evaluation was completed during 2Q2012. The color of the PI was not affected.

1Q/12: Risk Cap Invoked. An evaluation for an event in March 2012 that could affect the Cooling Water Systems MSPI indicator has not yet been completed. The final results of this pending evaluation are not expected to affect PI color.

Reactor Coolant System Activity



Thresholds: White > 50.0 Yellow > 100.0

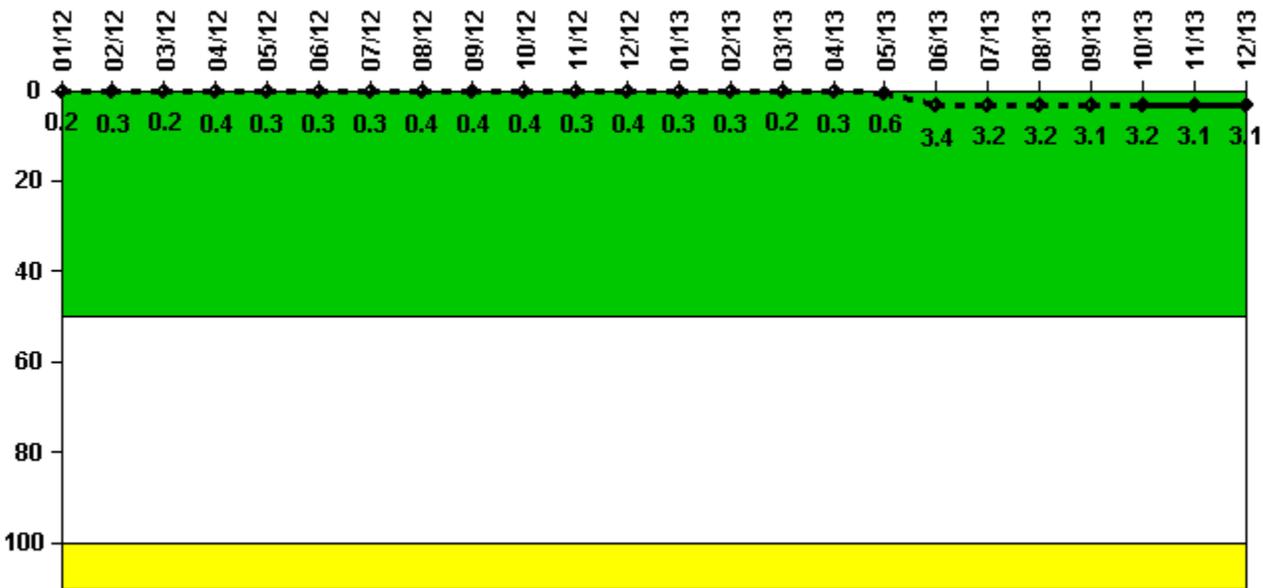
Notes

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	0.001530	0.002580	0.001530	0.001580	0.001550	0.001680	0.001710	0.001790	0.001710	0.001770	0.001900	0.001840
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	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2

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	0.002010	0.002010	0.002120	0.001730	0.000315	0.000636	0.000393	0.000566	0.000633	0.000708	0.000610	0.000706
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	0.2	0.2	0.2	0	0.1	0	0.1	0.1	0.1	0.1	0.1

Licensee Comments: none

Reactor Coolant System Leakage



Thresholds: White > 50.0 Yellow > 100.0

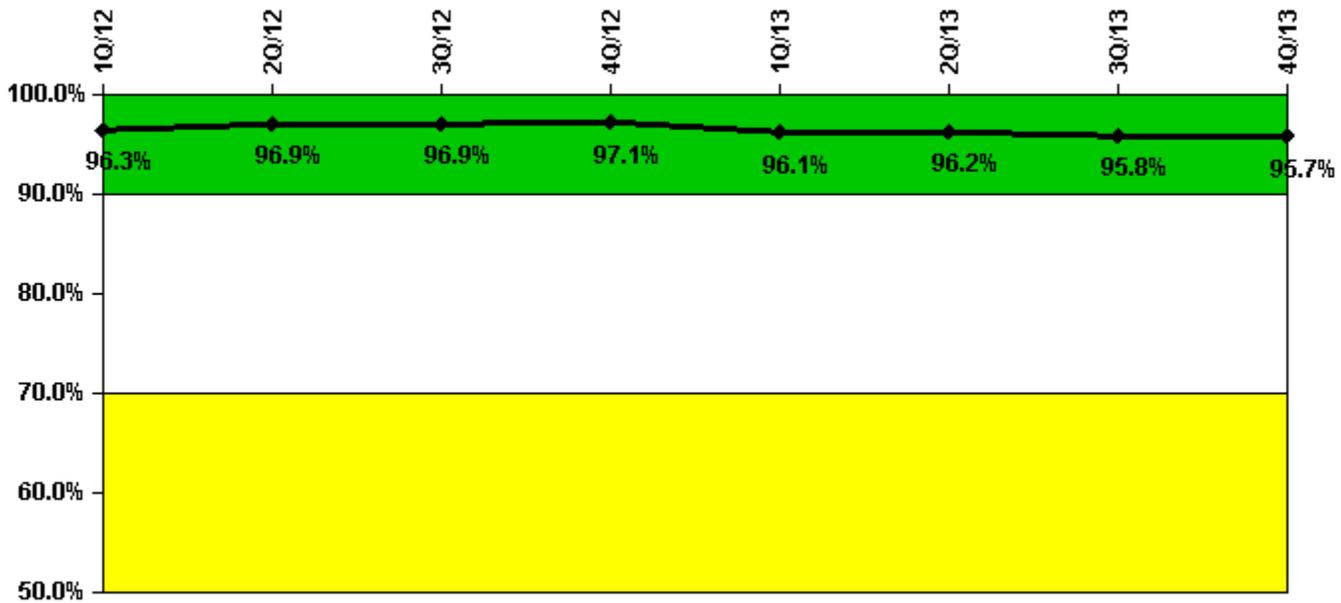
Notes

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	0.022	0.028	0.023	0.039	0.027	0.028	0.032	0.037	0.038	0.036	0.034	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
Indicator value	0.2	0.3	0.2	0.4	0.3	0.3	0.3	0.4	0.4	0.4	0.3	0.4
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	0.031	0.028	0.022	0.029	0.061	0.338	0.324	0.315	0.313	0.323	0.305	0.312
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
Indicator value	0.3	0.3	0.2	0.3	0.6	3.4	3.2	3.2	3.1	3.2	3.1	3.1

Licensee Comments: none

Drill/Exercise Performance



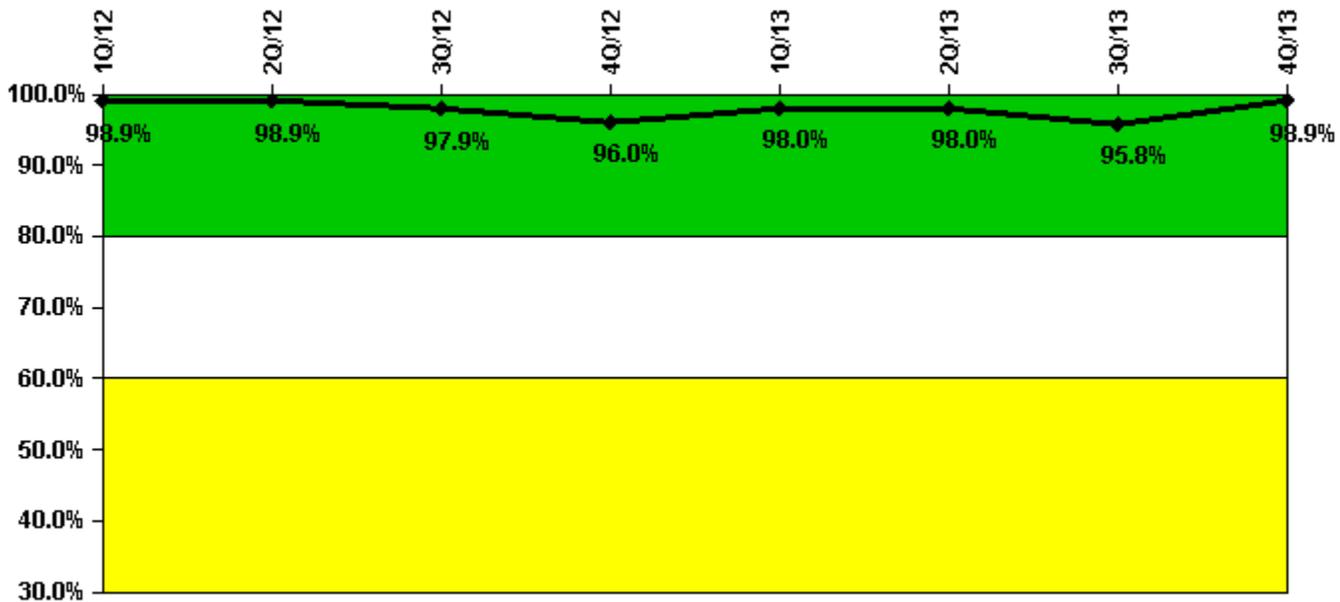
Thresholds: White < 90.0% Yellow < 70.0%

Notes

Drill/Exercise Performance	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13
Successful opportunities	25.0	6.0	39.0	45.0	16.0	0	21.0	26.0
Total opportunities	26.0	6.0	41.0	46.0	17.0	0	22.0	28.0
Indicator value	96.3%	96.9%	96.9%	97.1%	96.1%	96.2%	95.8%	95.7%

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	93.0	88.0	93.0	95.0	97.0	96.0	92.0	93.0
Total Key personnel	94.0	89.0	95.0	99.0	99.0	98.0	96.0	94.0
Indicator value	98.9%	98.9%	97.9%	96.0%	98.0%	98.0%	95.8%	98.9%

Licensee Comments:

3Q/13: Changed Participating Key personnel values for 3Q2012, 4Q2012, 1Q2013 and 2Q2013 due to discovery (during an inspection) of an inputting error. The changes did not affect the color of the indicator. Comments added to each quarter that was adjusted.

2Q/13: 2Q2013 (updated 2013.10.21) ERO Drill Participation was changed from 98 to 96 due to an inputting error which was discovered during an inspection. This change did not affect the color of the indicator.

1Q/13: 1Q2013 (updated 2013.10.21) ERO Drill Participation was changed from 99 to 97 due to an inputting error which was discovered during an inspection. This change did not affect the color of the indicator.

4Q/12: 4Q2012 (updated 2013.10.21) ERO Drill Participation was changed from 98 to 95 due to an inputting error which was discovered during an inspection. This change did not affect the color of the indicator.

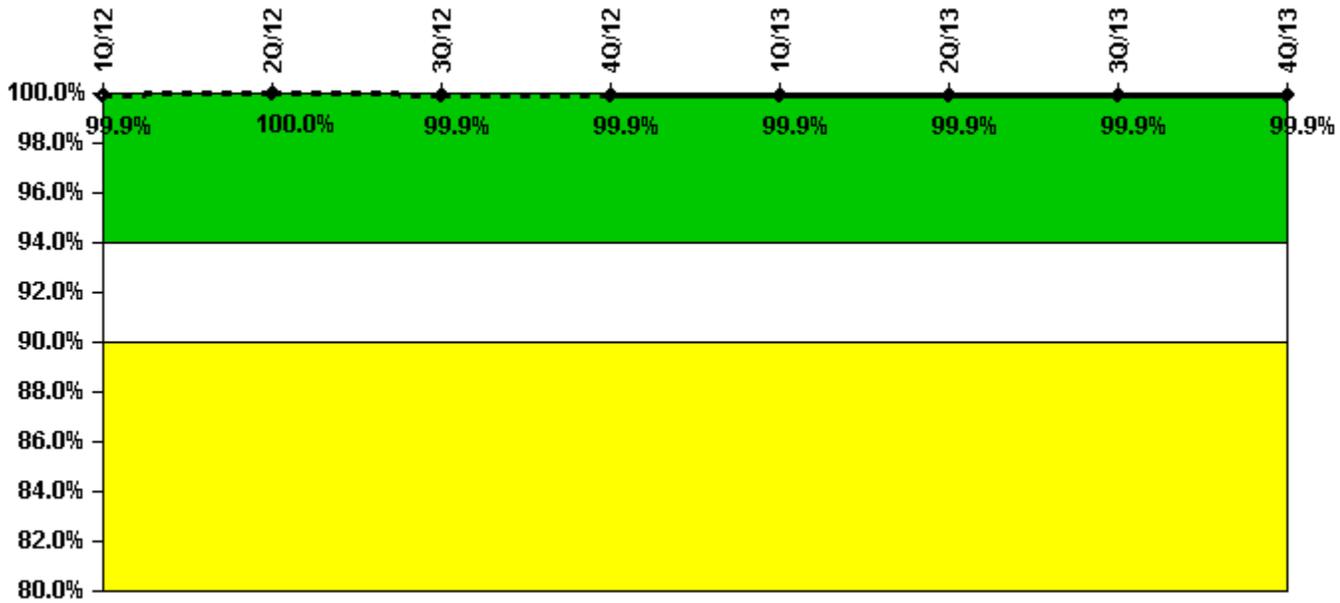
3Q/12: 2012.10.15: adjusted data for 2Q2011, 4Q2011, 1Q2012, and 2Q2012. Comments added to each quarter that was adjusted. The adjustments did not affect the color of the indicator. 3Q2012 (updated 2013.10.21) ERO Drill Participation was changed from 95 to 93 due to an inputting error which was discovered during an inspection. This change did not affect the color of the indicator.

3Q/12: 2012.10.15: adjusted data for 2Q2011, 4Q2011, 1Q2012, and 2Q2012. Comments added to each quarter that was adjusted. The adjustments did not affect the color of the indicator.

2Q/12: 2Q2012 (updated 2012.10.15) ERO Drill Participation was changed from 89 to 88 due to an inputting error which was discovered during an inspection. This change did not affect the color of the indicator.

1Q/12: 1Q2012 (updated 2012.10.15) ERO Drill Participation was changed from 94 to 93 due to an inputting error which was discovered during an inspection. This change did not affect the color of the indicator.

Alert & Notification System



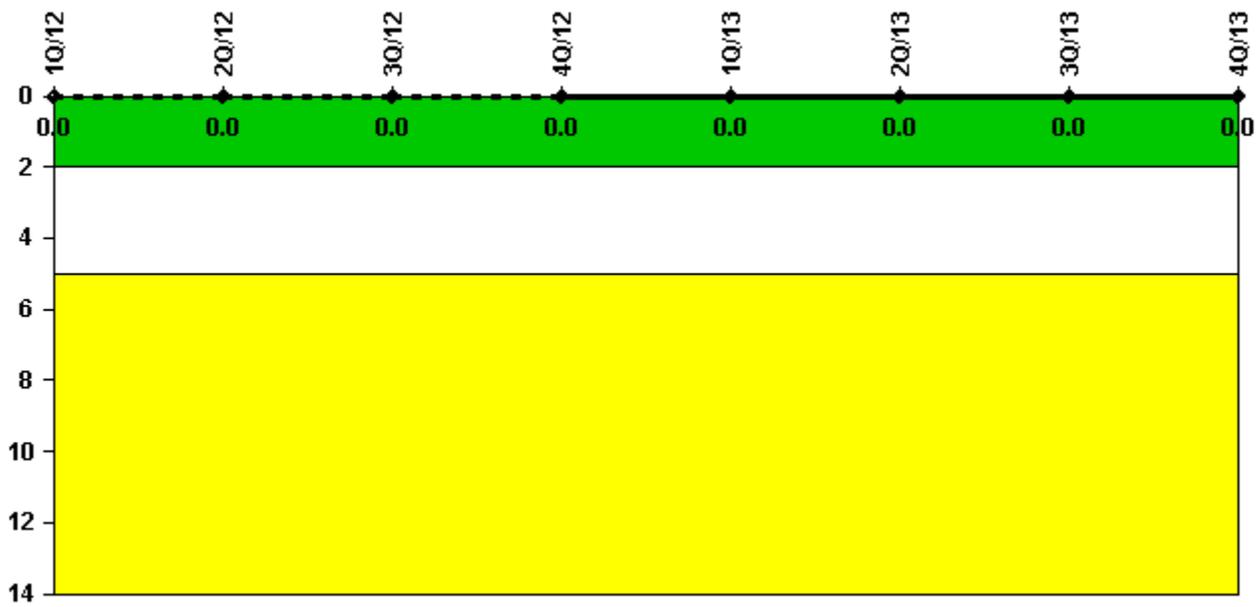
Thresholds: White < 94.0% Yellow < 90.0%

Notes

Alert & Notification System	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13
Successful siren-tests	377	377	376	376	377	377	377	405
Total sirens-tests	377	377	377	377	377	377	377	406
Indicator value	99.9%	100.0%	99.9%	99.9%	99.9%	99.9%	99.9%	99.9%

Licensee Comments: none

Occupational Exposure Control Effectiveness



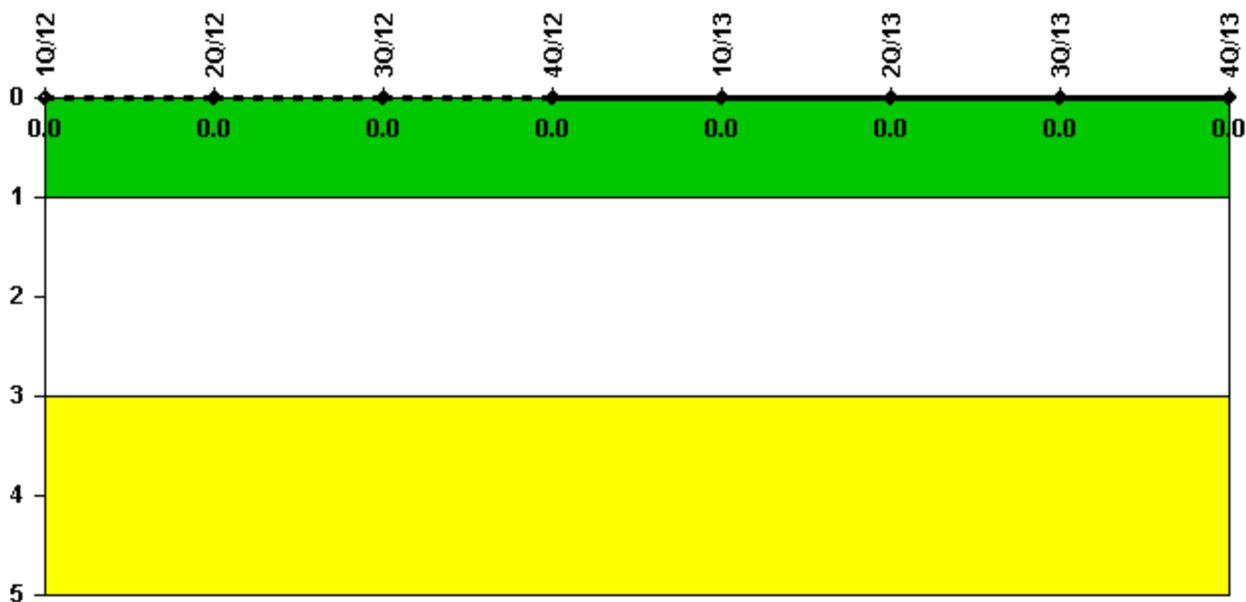
Thresholds: White > 2.0 Yellow > 5.0

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