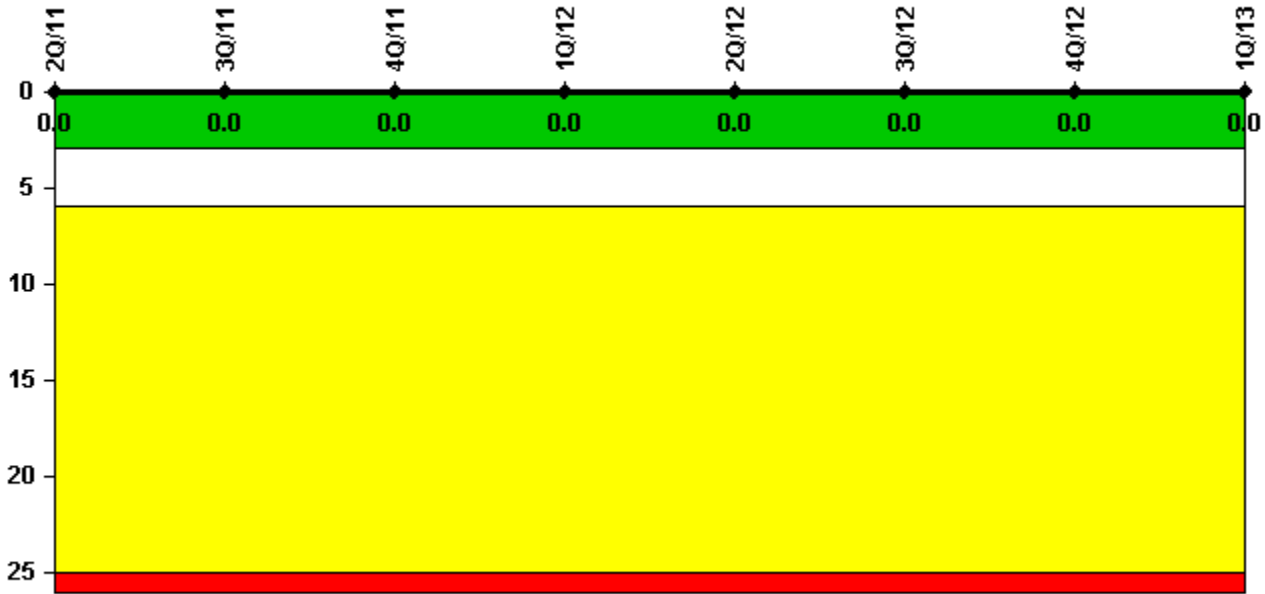


## Calvert Cliffs 2

### 1Q/2013 Performance Indicators

Licensee's General Comments: none

#### Unplanned Scrams per 7000 Critical Hrs



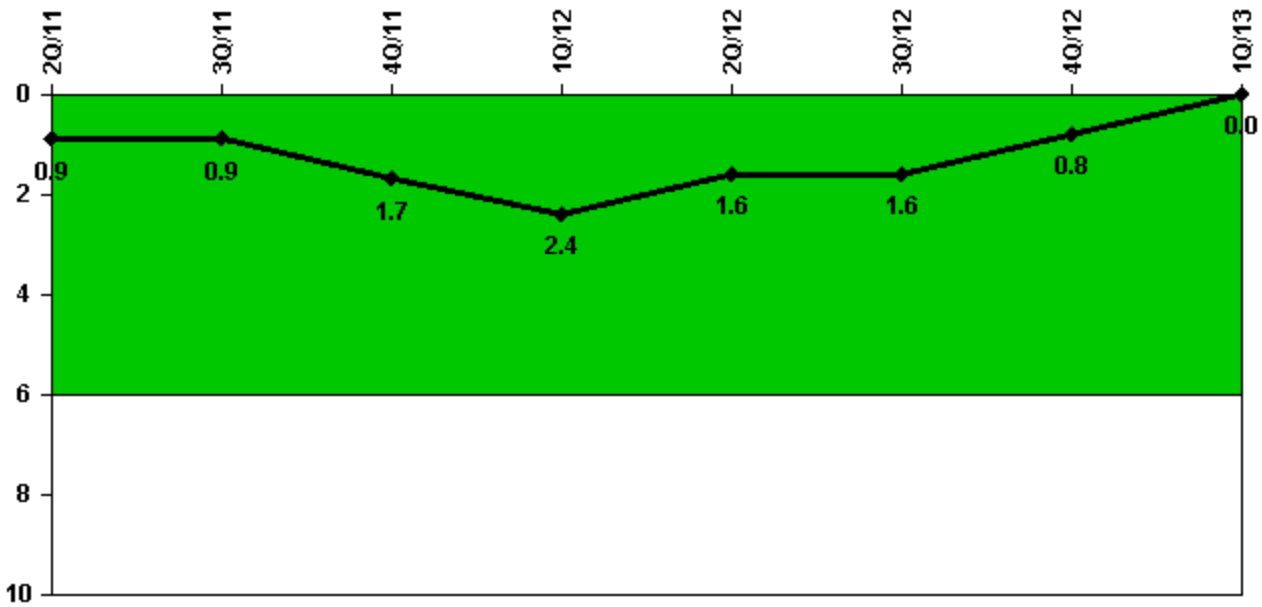
Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

#### 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	0	0	0	0	0	0	0
Critical hours	2184.0	2208.0	2209.0	2183.0	2184.0	2208.0	2209.0	1323.2
<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

### Unplanned Power Changes per 7000 Critical Hrs



Thresholds: White > 6.0

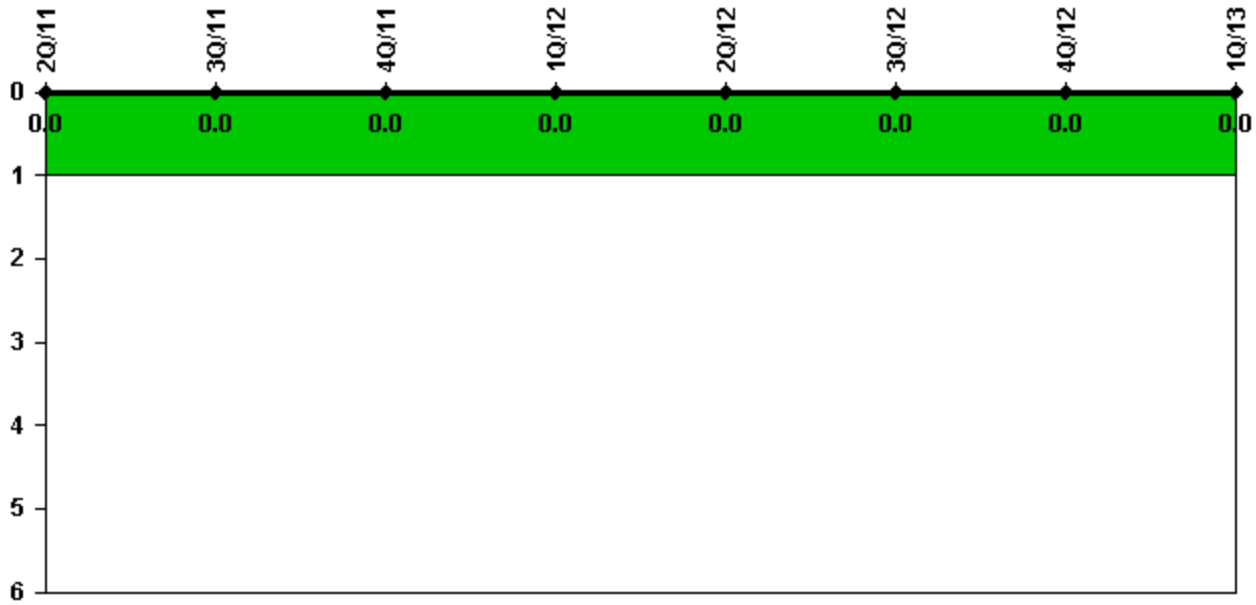
#### Notes

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	1.0	0	1.0	1.0	0	0	0	0
Critical hours	2184.0	2208.0	2209.0	2183.0	2184.0	2208.0	2209.0	1323.2
<b>Indicator value</b>	<b>0.9</b>	<b>0.9</b>	<b>1.7</b>	<b>2.4</b>	<b>1.6</b>	<b>1.6</b>	<b>0.8</b>	<b>0</b>

#### Licensee Comments:

4Q/11: Power change occurrence selected during data entry in 11-2011 should have been "unplanned, NOT excluded per NEI 99-02" vs. incorrect selection "unplanned, excluded per NEI 99-02". Error discovered in October 2012 and corrected, CR-2012-009097 written. No thresholds or color changes were crossed as a result of including these power changes.

### Unplanned Scrams with Complications



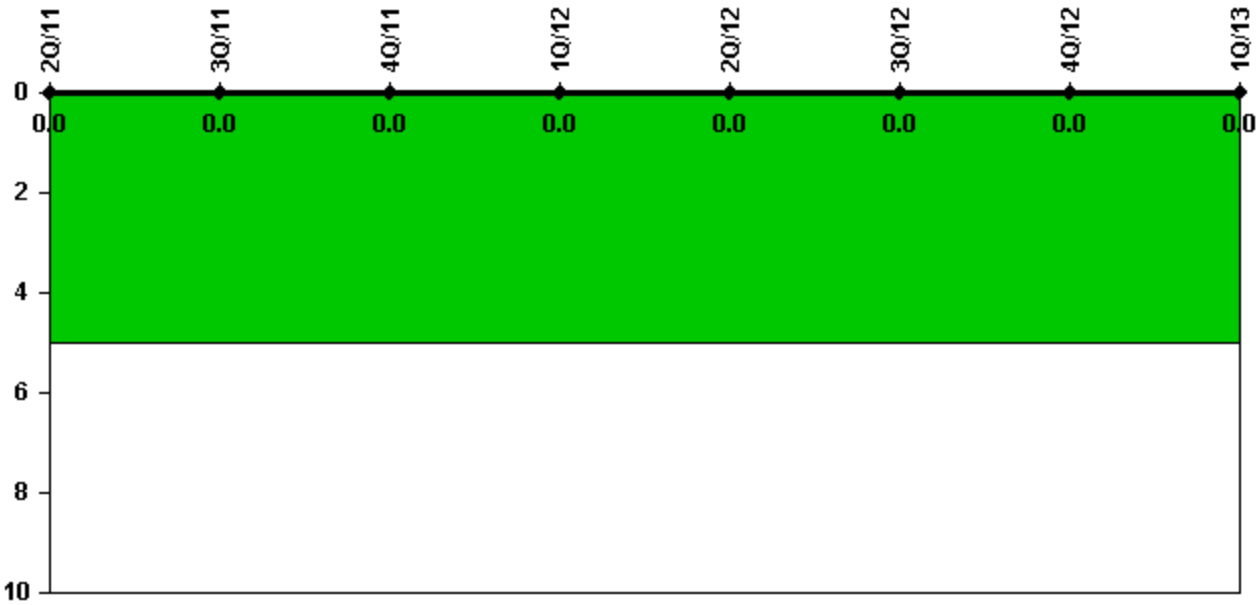
Thresholds: White > 1.0

#### 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)



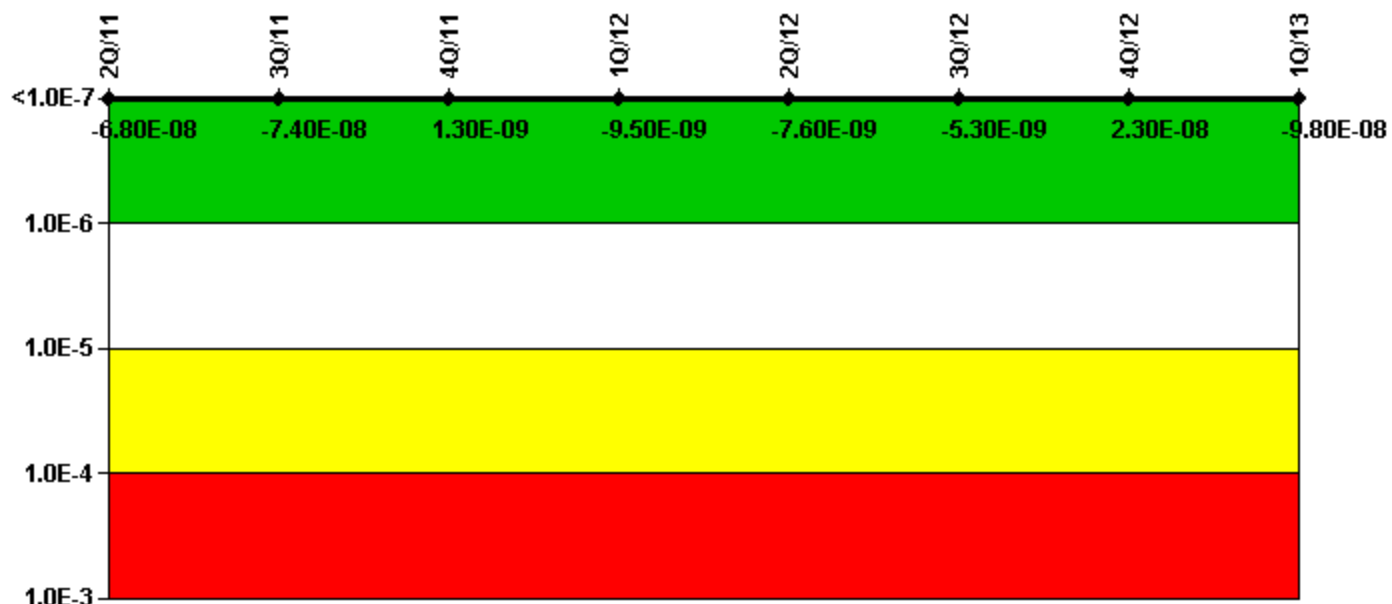
Thresholds: White > 5.0

#### 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

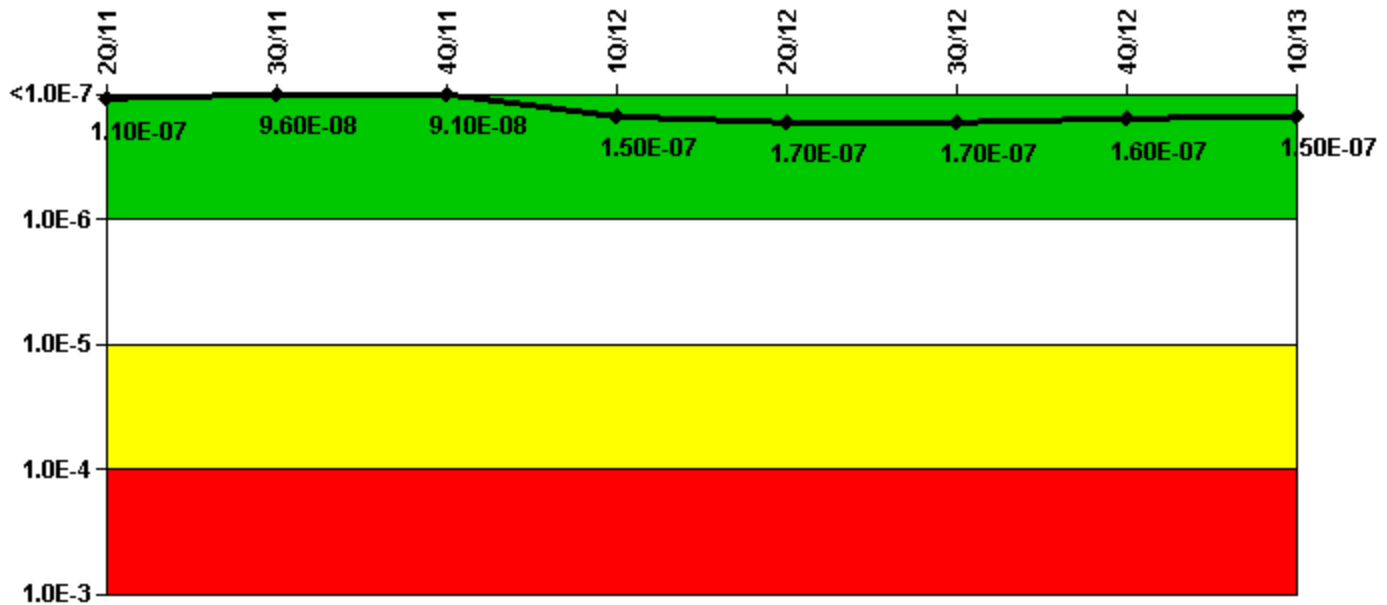
#### Notes

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 ( $\Delta$ CDF)	2.82E-09	-4.23E-09	8.01E-08	6.53E-08	6.53E-08	6.38E-08	8.52E-08	3.93E-08
URI ( $\Delta$ CDF)	-7.07E-08	-6.94E-08	-7.88E-08	-7.48E-08	-7.29E-08	-6.91E-08	-6.22E-08	-1.38E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-6.80E-08	-7.40E-08	1.30E-09	-9.50E-09	-7.60E-09	-5.30E-09	2.30E-08	-9.80E-08

#### Licensee Comments:

2Q/11: Changed PRA Parameter(s). 10-11-11: Correction to PRA and planned baseline unavailability data due to errors made when entering updated PRA model data in March 2011 (Ref: CR-2011-008850)

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



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

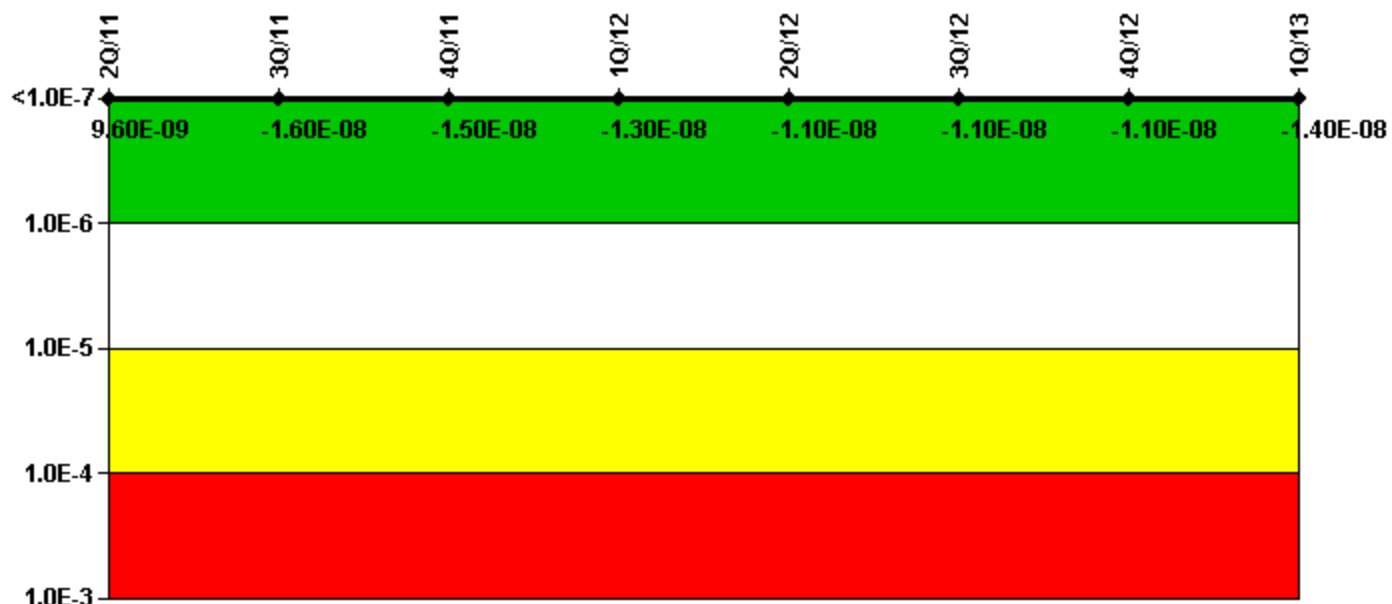
#### Notes

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)	1.64E-08	5.59E-09	-8.25E-10	4.27E-08	5.53E-08	6.19E-08	4.62E-08	5.50E-08
URI ( $\Delta$ CDF)	9.42E-08	9.06E-08	9.14E-08	1.09E-07	1.11E-07	1.12E-07	1.09E-07	9.58E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	1.10E-07	9.60E-08	9.10E-08	1.50E-07	1.70E-07	1.70E-07	1.60E-07	1.50E-07

Licensee Comments:

2Q/11: Changed PRA Parameter(s). 10-11-11: Correction to PRA and planned baseline unavailability data due to errors made when entering updated PRA model data in March 2011 (Ref: CR-2011-008850)

### Mitigating Systems Performance Index, Heat Removal System



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

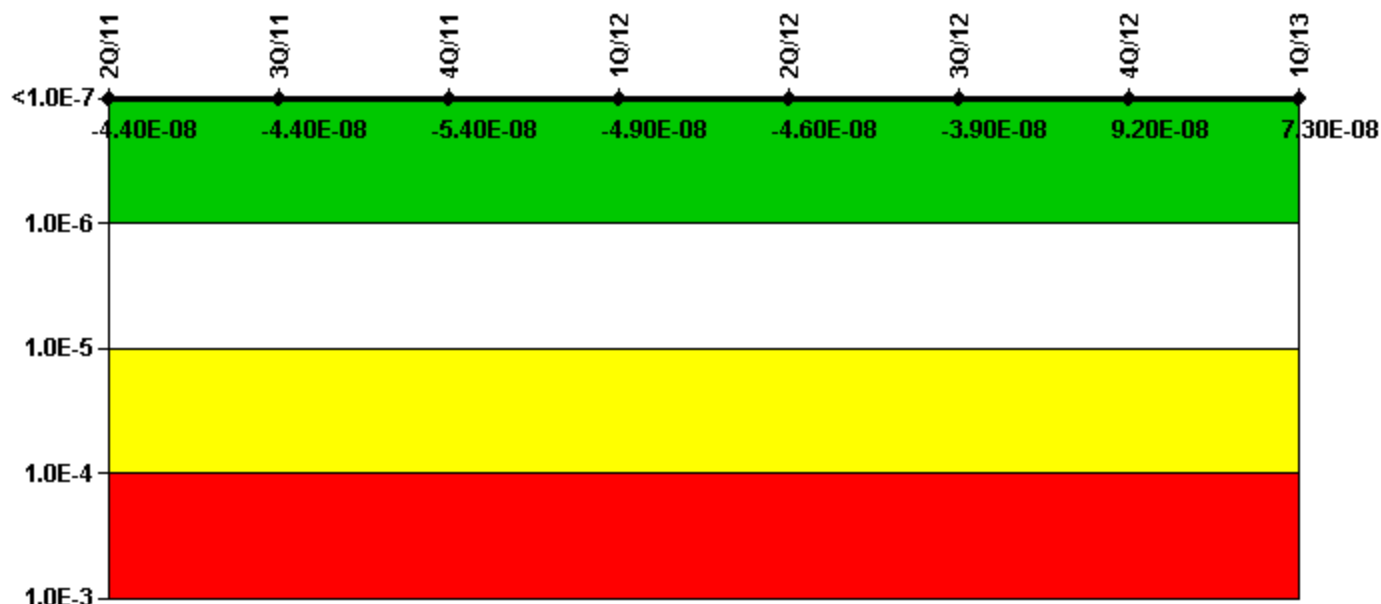
#### Notes

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)	-2.80E-09	-2.77E-09	-2.06E-09	-2.46E-09	-8.59E-10	-8.25E-10	-7.43E-10	-2.88E-09
URI ( $\Delta$ CDF)	1.24E-08	-1.28E-08	-1.26E-08	-1.06E-08	-1.03E-08	-1.02E-08	-1.02E-08	-1.06E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	9.60E-09	-1.60E-08	-1.50E-08	-1.30E-08	-1.10E-08	-1.10E-08	-1.10E-08	-1.40E-08

Licensee Comments:

2Q/11: Changed PRA Parameter(s). 10-11-11: Allocation of Unit cross-connect valve to affected Unit (Ref: CR-2011-008850)

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



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

#### Notes

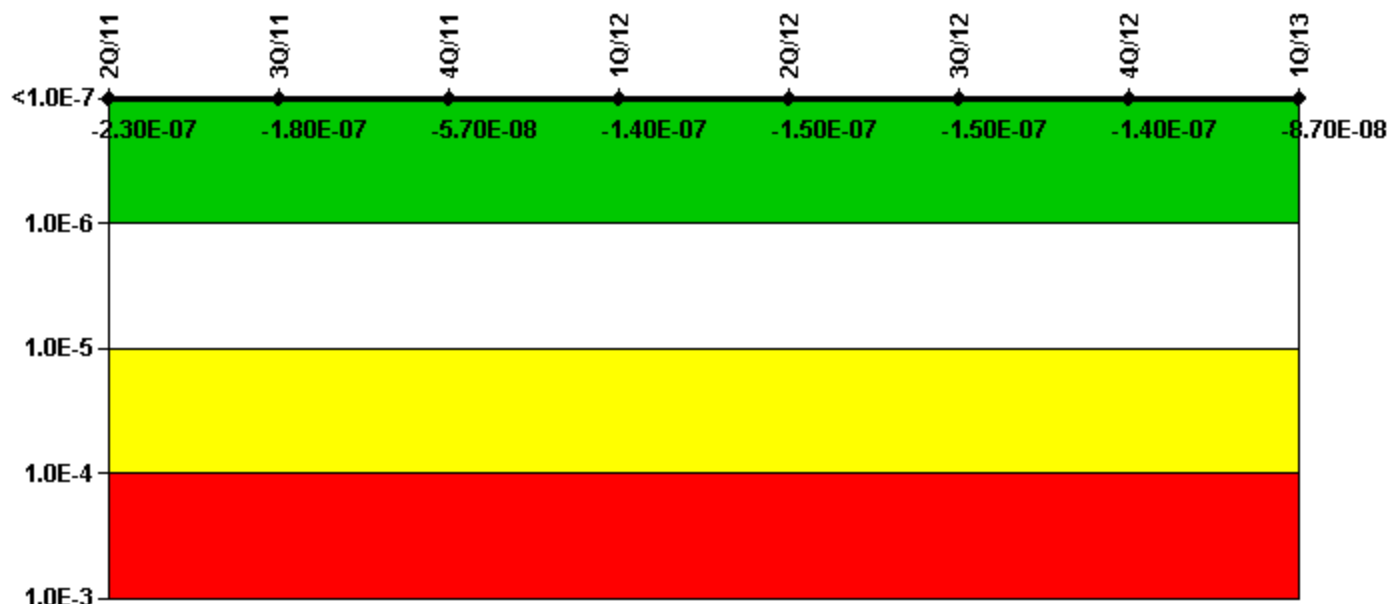
Mitigating Systems Performance Index, Residual Heat Removal System	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13
UAI ( $\Delta$ CDF)	-4.54E-08	-4.51E-08	-5.46E-08	-4.43E-08	-4.10E-08	-3.45E-08	9.07E-08	7.29E-08
URI ( $\Delta$ CDF)	9.15E-10	6.91E-10	4.25E-10	-4.61E-09	-4.62E-09	-4.47E-09	1.39E-09	-1.28E-10
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-4.40E-08	-4.40E-08	-5.40E-08	-4.90E-08	-4.60E-08	-3.90E-08	9.20E-08	7.30E-08

#### Licensee Comments:

2Q/11: Changed PRA Parameter(s). 10-11-11: Correction to PRA and planned baseline unavailability data due to errors made when entering updated PRA model data in March 2011 (Ref: CR-2011-008850)



### 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)	7.52E-09	5.79E-08	1.81E-07	9.35E-08	8.44E-08	9.11E-08	9.61E-08	1.51E-07
URI ( $\Delta$ CDF)	-2.35E-07	-2.39E-07	-2.39E-07	-2.38E-07	-2.38E-07	-2.38E-07	-2.38E-07	-2.38E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-2.30E-07	-1.80E-07	-5.70E-08	-1.40E-07	-1.50E-07	-1.50E-07	-1.40E-07	-8.70E-08

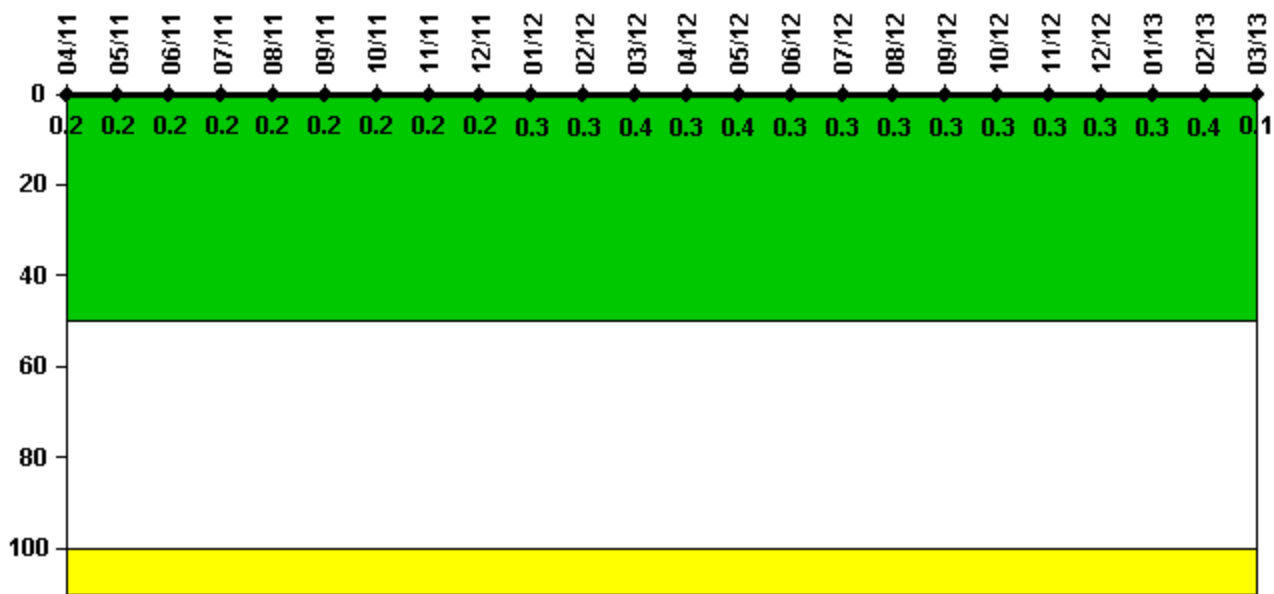
Licensee Comments:

4Q/11: Two CWS2 AOVs added due to current inability to validate their exclusion during the original MSPI scoping. CR-2011-008863

2Q/11: 10-12-11: Correction to PRA and planned baseline unavailability data due to errors made when entering updated RPA model data in March 2011 (Ref: CR-2011-008850)

2Q/11: 10-12-11: Correction to PRA and planned baseline unavailability data due to errors made when entering updated RPA model data in March 2011 (Ref: CR-2011-008850)

### Reactor Coolant System Activity



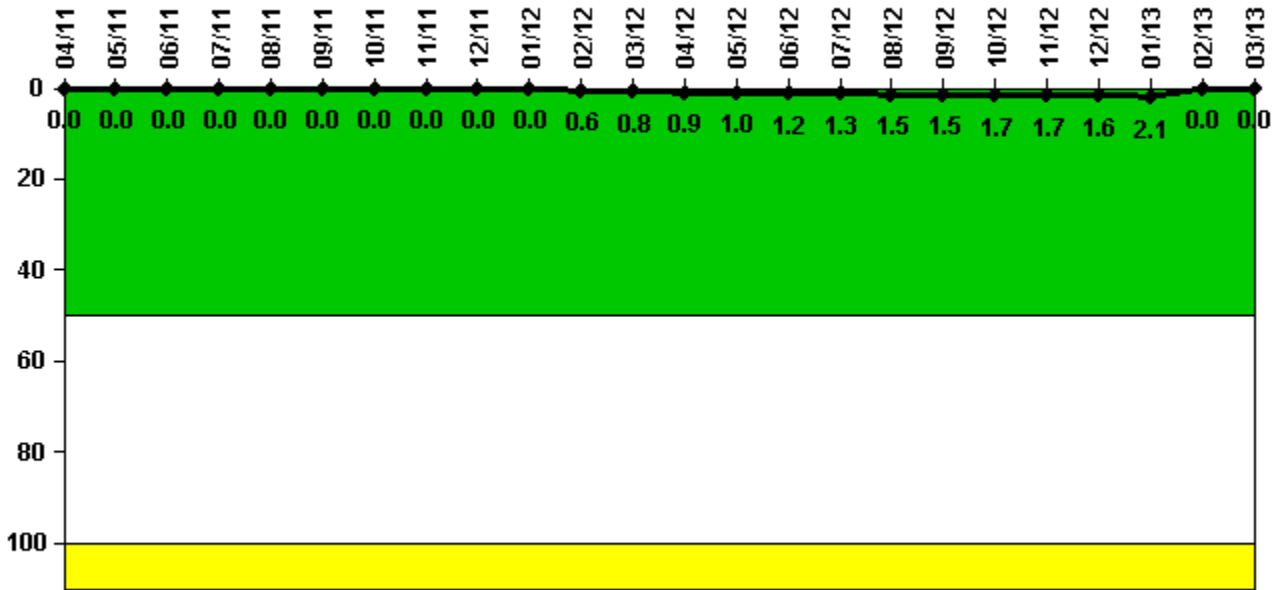
Thresholds: White > 50.0 Yellow > 100.0

#### 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	0.000863	0.000877	0.000842	0.000878	0.000956	0.001090	0.001170	0.001080	0.001240	0.001270	0.001420	0.001770
Technical specification limit	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Indicator value	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.4
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	0.001310	0.001780	0.001430	0.001370	0.001400	0.001460	0.001550	0.001540	0.001590	0.001660	0.001760	0.000316
Technical specification limit	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Indicator value	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.1

Licensee Comments: none

### 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	0	0	0	0	0	0	0	0	0	0.060	0.080
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
<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>	<b>0</b>	<b>0</b>	<b>0.6</b>	<b>0.8</b>

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	0.090	0.100	0.120	0.130	0.150	0.150	0.170	0.170	0.160	0.210	0	0
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
<b>Indicator value</b>	<b>0.9</b>	<b>1.0</b>	<b>1.2</b>	<b>1.3</b>	<b>1.5</b>	<b>1.5</b>	<b>1.7</b>	<b>1.7</b>	<b>1.6</b>	<b>2.1</b>	<b>0</b>	<b>0</b>

Licensee Comments:

6/12: CR-2012-009203. There was conflicting direction in station procedure vs. NEI and TS definitions for RCS Leakage. The corrected method to determine leakage relies exclusively on the NEI TS. 01/04/2013.

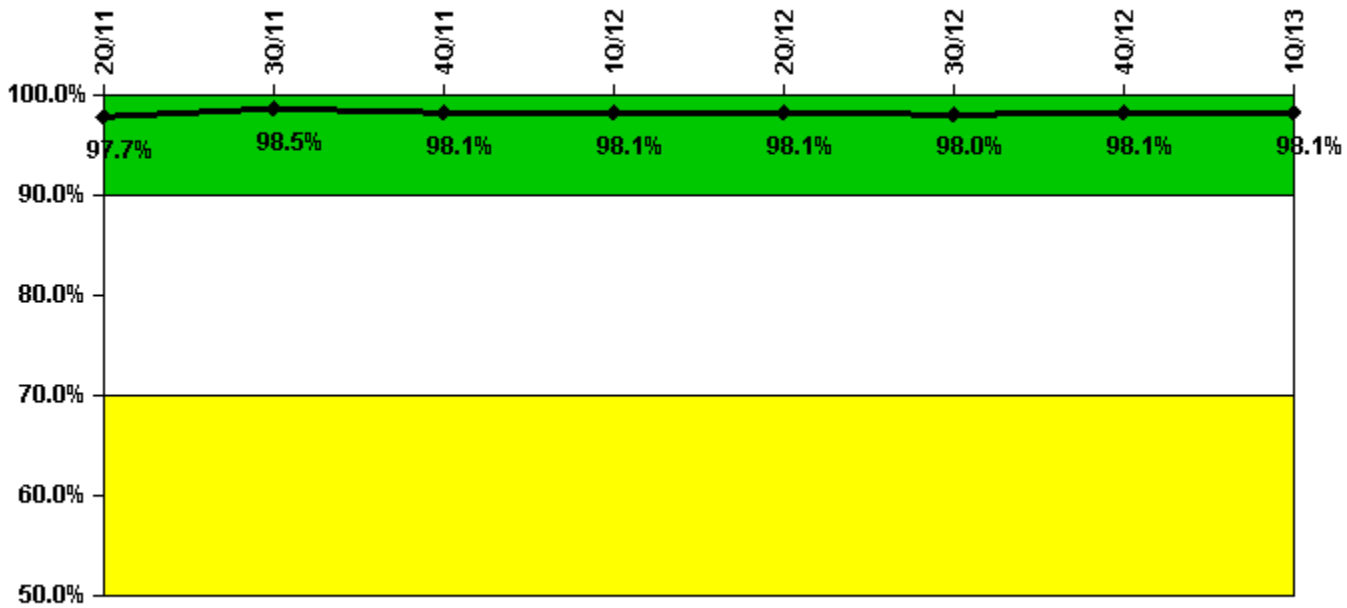
3/12: CR-2012-009203. There was conflicting direction in station procedure vs. NEI and TS definitions for RCS Leakage. The corrected method to determine leakage relies exclusively on the NEI TS. 01/04/2013.

12/11: CR-2012-009203. There was conflicting direction in station procedure vs. NEI and TS definitions for RCS Leakage. The corrected method to determine leakage relies exclusively on the NEI TS. 01/04/2013.

9/11: CR-2012-009203. There was conflicting direction in station procedure vs. NEI and TS definitions for RCS Leakage. The corrected method to determine leakage relies exclusively on the NEI TS. 01/04/2013.

6/11: CR-2012-009203. There was conflicting direction in station procedure vs. NEI and TS definitions for RCS Leakage. The corrected method to determine leakage relies exclusively on the NEI TS. 01/04/2013.

### Drill/Exercise Performance



Thresholds: White < 90.0% Yellow < 70.0%

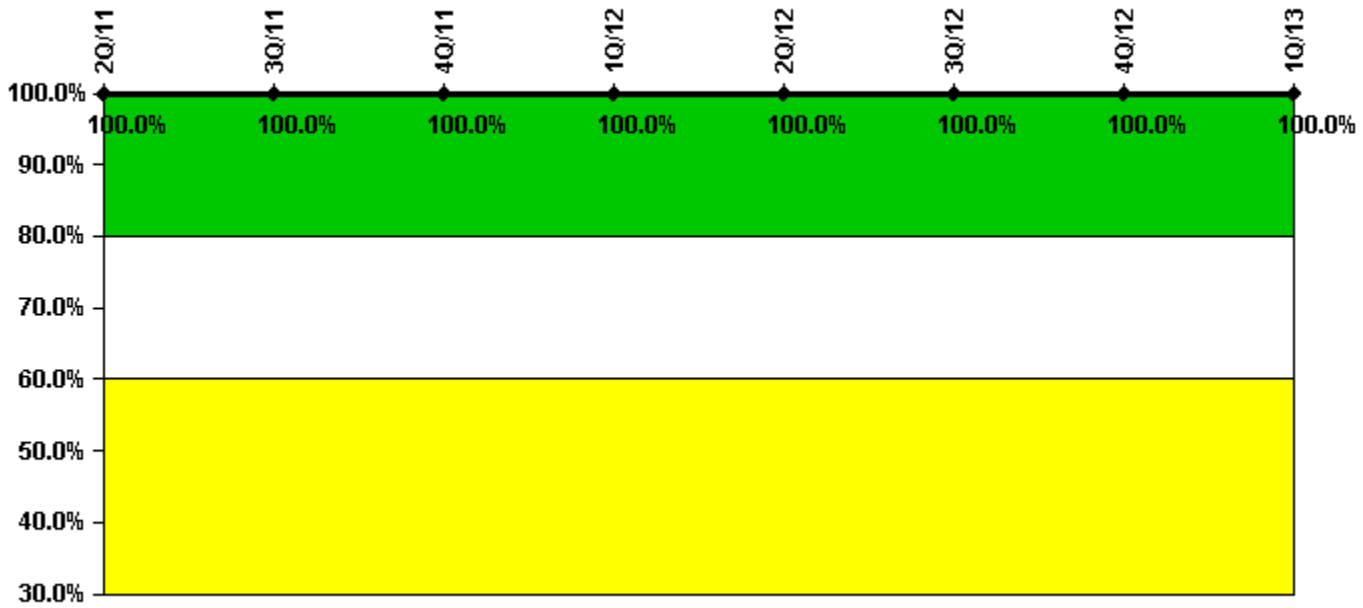
### Notes

Drill/Exercise Performance	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13
Successful opportunities	58.0	30.0	55.0	5.0	25.0	12.0	67.0	2.0
Total opportunities	59.0	30.0	57.0	5.0	25.0	13.0	68.0	2.0
Indicator value	97.7%	98.5%	98.1%	98.1%	98.1%	98.0%	98.1%	98.1%

### Licensee Comments:

4Q/11: CR-2012-007357: While reviewing the 10/04/2011 crew competency work sheet and initial notification form, EP found setps A.4 and A.7 were incorrect. EP removed the notification performance success from the statistics and corrected the 4Q2011 data record.

### ERO Drill Participation



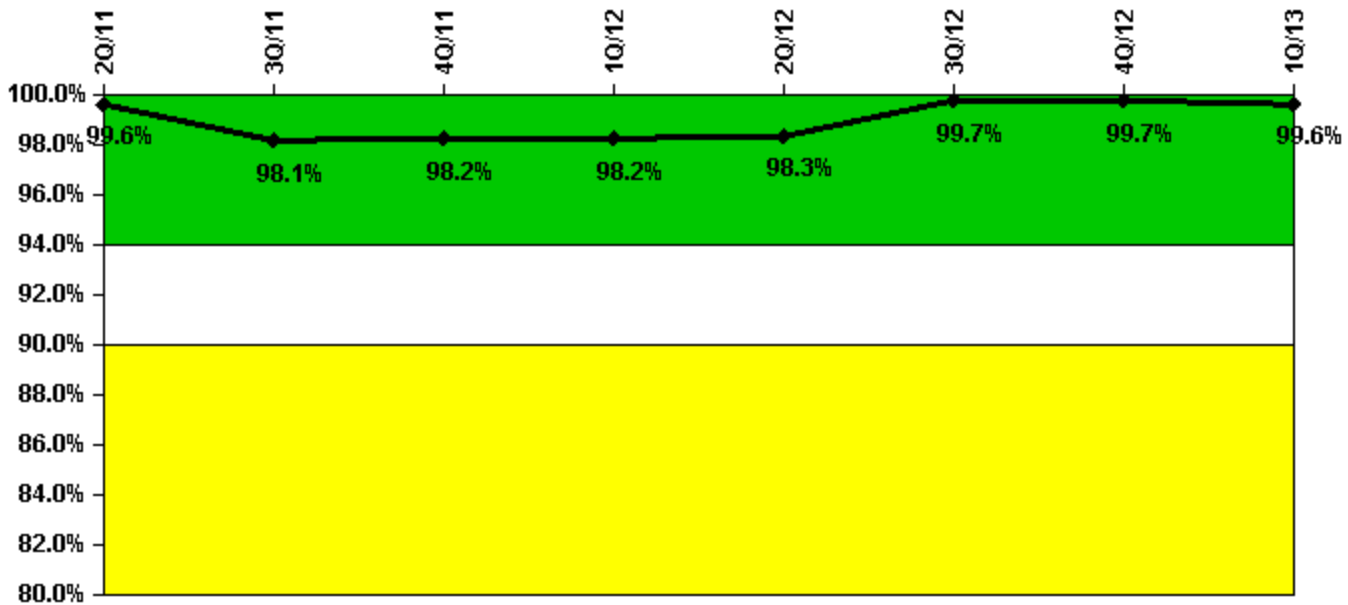
Thresholds: White < 80.0% Yellow < 60.0%

#### Notes

ERO Drill Participation	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13
Participating Key personnel	88.0	83.0	84.0	86.0	80.0	83.0	84.0	79.0
Total Key personnel	88.0	83.0	84.0	86.0	80.0	83.0	84.0	79.0
<b>Indicator value</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>

Licensee Comments: none

### Alert & Notification System



Thresholds: White < 94.0% Yellow < 90.0%

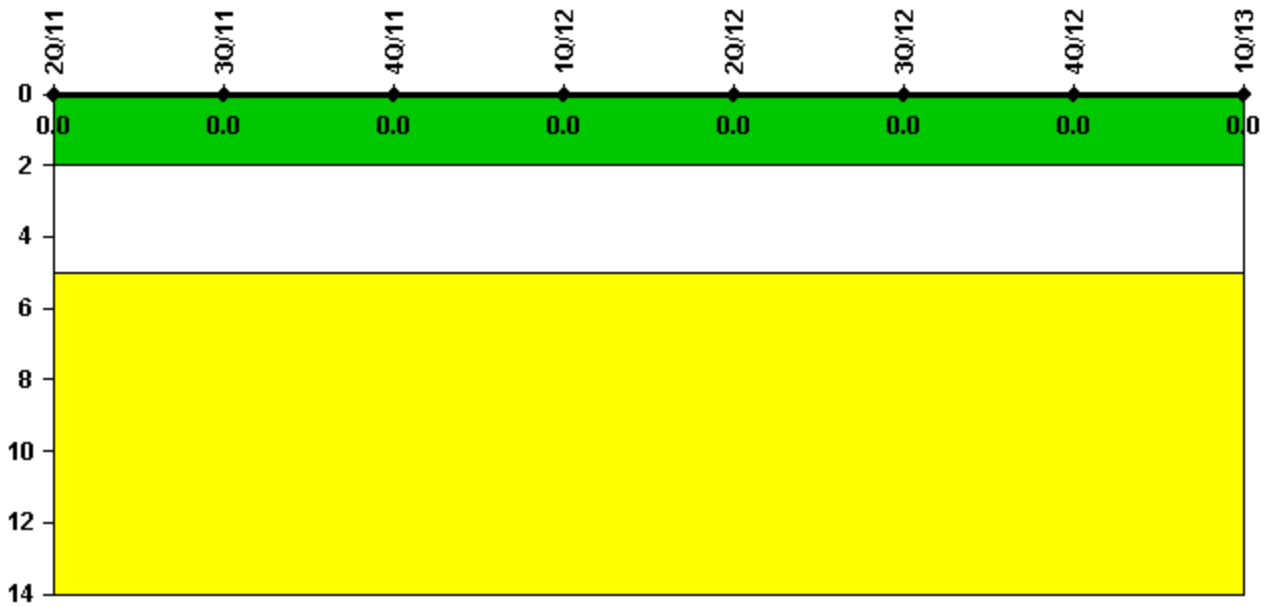
#### Notes

Alert & Notification System	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13
Successful siren-tests	945	889	946	947	948	945	1016	871
Total sirens-tests	949	949	949	949	949	949	1022	876
Indicator value	99.6%	98.1%	98.2%	98.2%	98.3%	99.7%	99.7%	99.6%

#### Licensee Comments:

3Q/11: ANS test was misinterpreted and incorrectly reported in 3Q2011. The system engineer caught the error and Licensing corrected in CDE in 1Q2012. CR-2012-000541.

### Occupational Exposure Control Effectiveness



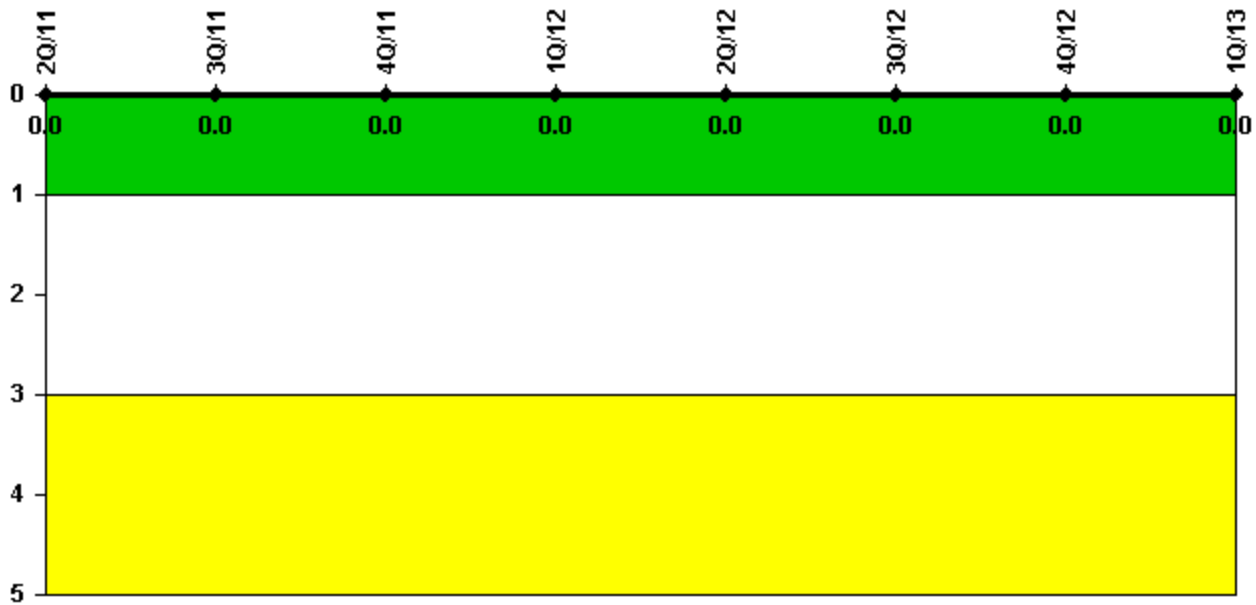
Thresholds: White > 2.0 Yellow > 5.0

#### 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
<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

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*