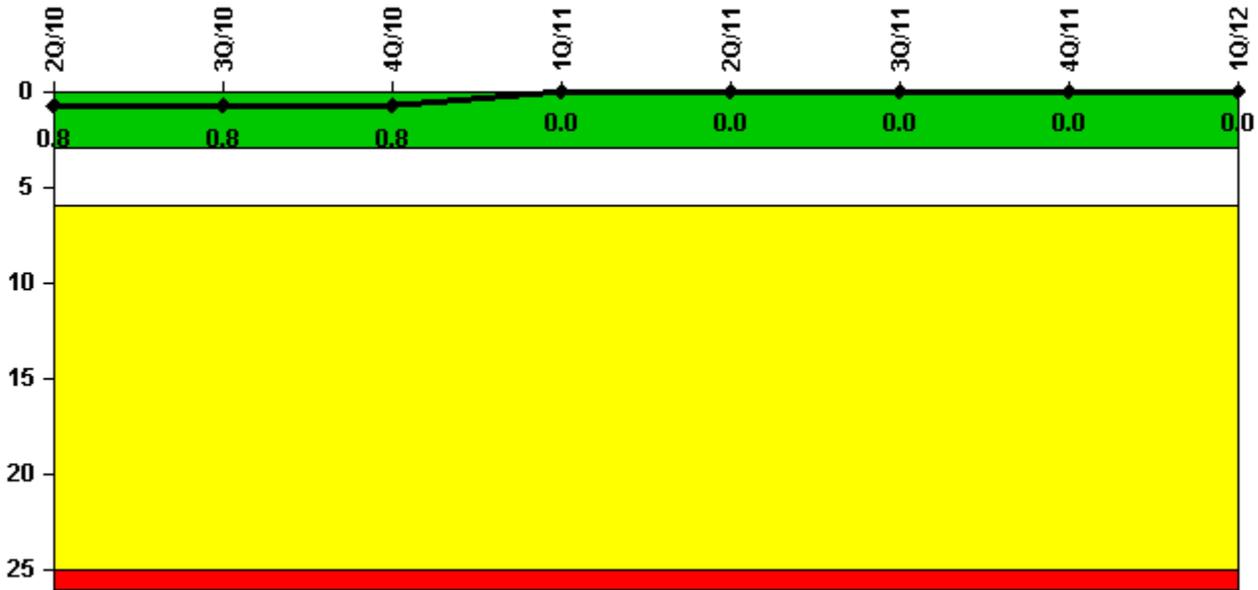# Calvert Cliffs 2

1Q/2012 Performance Indicators

Licensee's General Comments: none

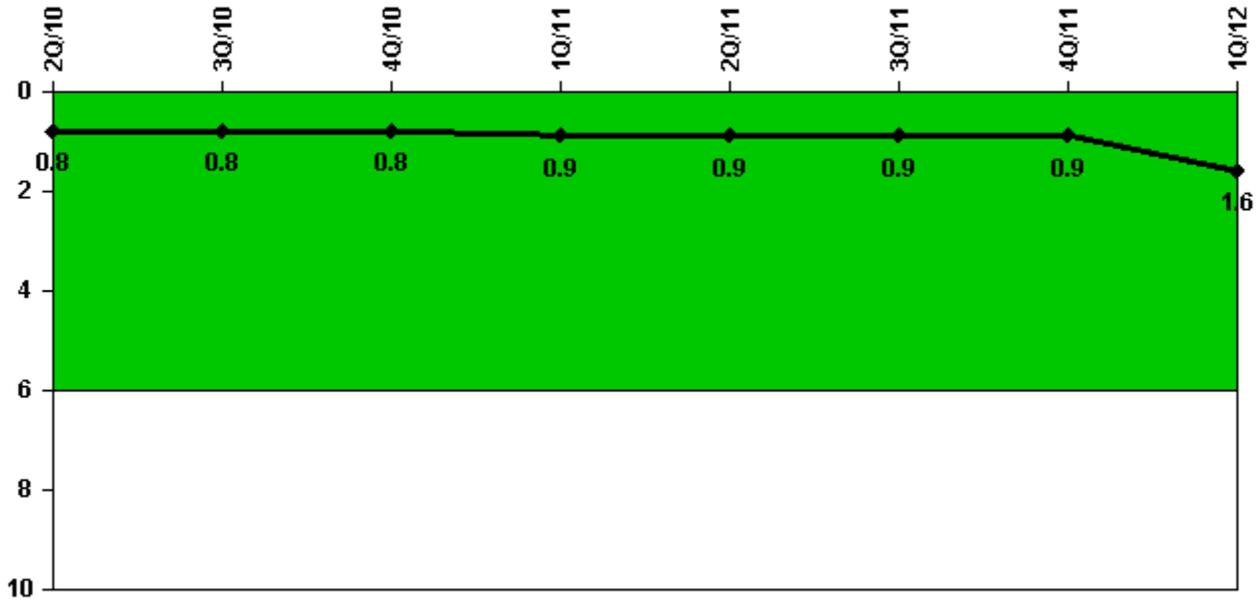## Unplanned Scrams per 7000 Critical Hrs

Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

Notes

Unplanned Scrams per 7000 Critical Hrs	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12
Unplanned scrams	0	0	0	0	0	0	0	0
Critical hours	2184.0	2208.0	2209.0	1475.6	2184.0	2208.0	2209.0	2183.0
Indicator value	0.8	0.8	0.8	0	0	0	0	0

Licensee Comments: none

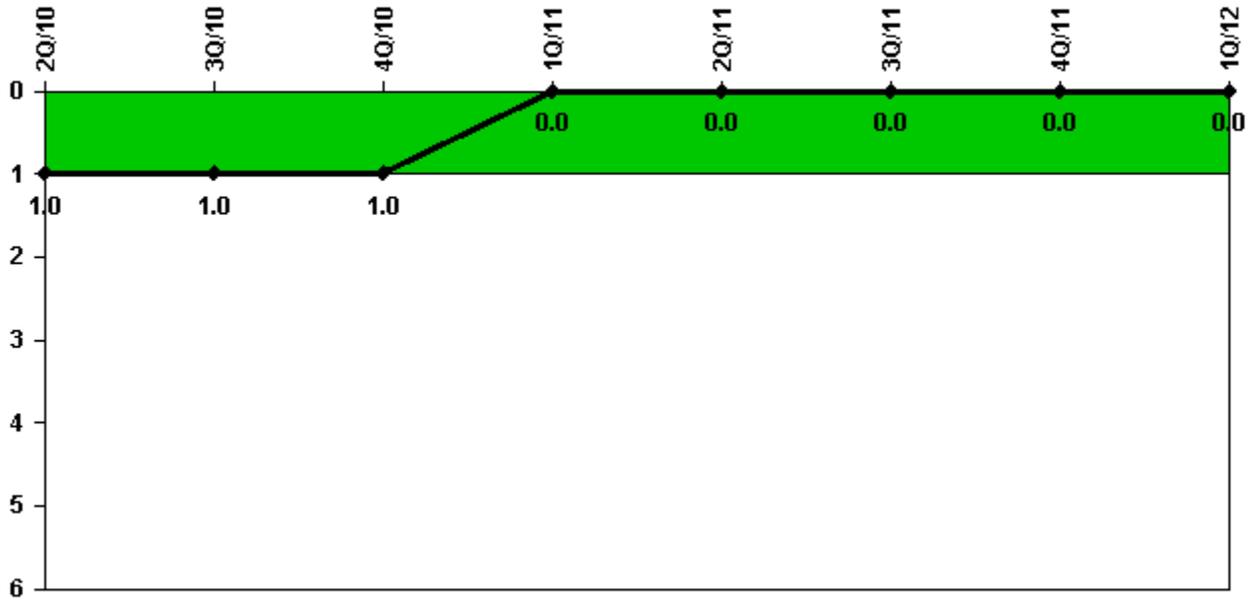## Unplanned Power Changes per 7000 Critical Hrs

Thresholds: White > 6.0

Notes

Unplanned Power Changes per 7000 Critical Hrs	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12
Unplanned power changes	1.0	0	0	0	1.0	0	0	1.0
Critical hours	2184.0	2208.0	2209.0	1475.6	2184.0	2208.0	2209.0	2183.0
Indicator value	**0.8**	**0.8**	**0.8**	**0.9**	**0.9**	**0.9**	**0.9**	**1.6**

Licensee Comments: none

Unplanned Scrams with Complications
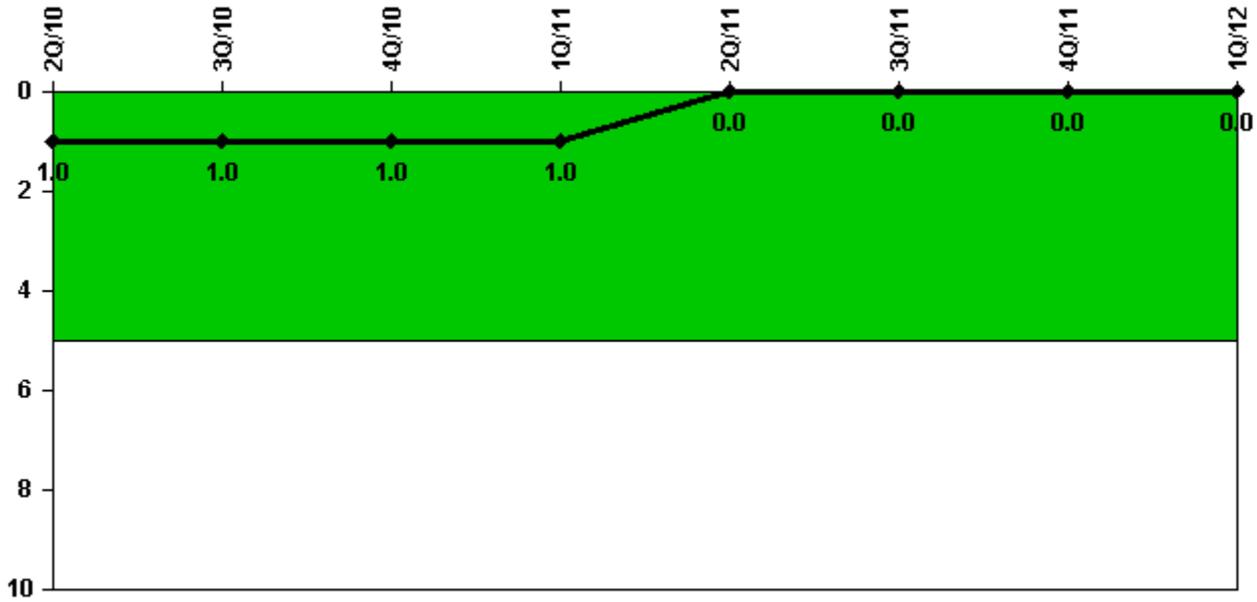

Thresholds: White > 1.0

Notes

Unplanned Scrams with Complications	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12
Scrams with complications	0	0	0	0	0	0	0	0
Indicator value	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0

Licensee Comments: none
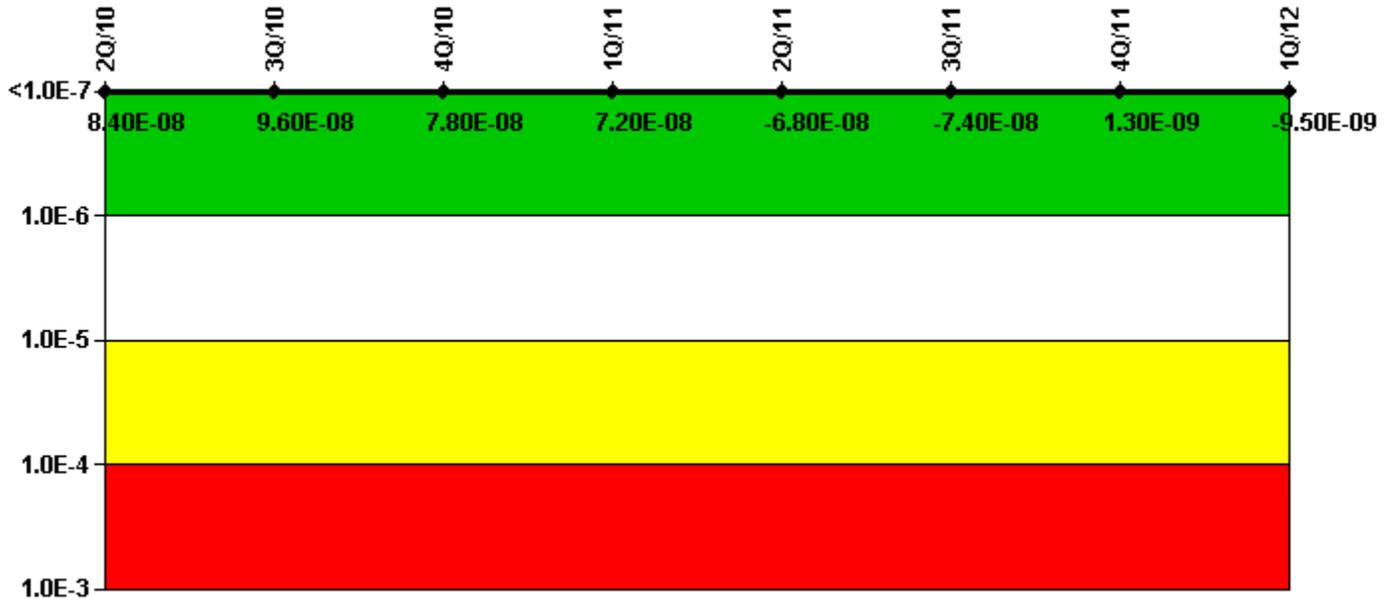
Safety System Functional Failures (PWR)

Thresholds: White > 5.0

Notes

Safety System Functional Failures (PWR)	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12
Safety System Functional Failures	1	0	0	0	0	0	0	0
Indicator value	1	1	1	1	0	0	0	0

Licensee Comments: none

Mitigating Systems Performance Index, Emergency AC Power System

	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12
	8.40E-08	9.60E-08	7.80E-08	7.20E-08	-6.80E-08	-7.40E-08	1.30E-09	-9.50E-09

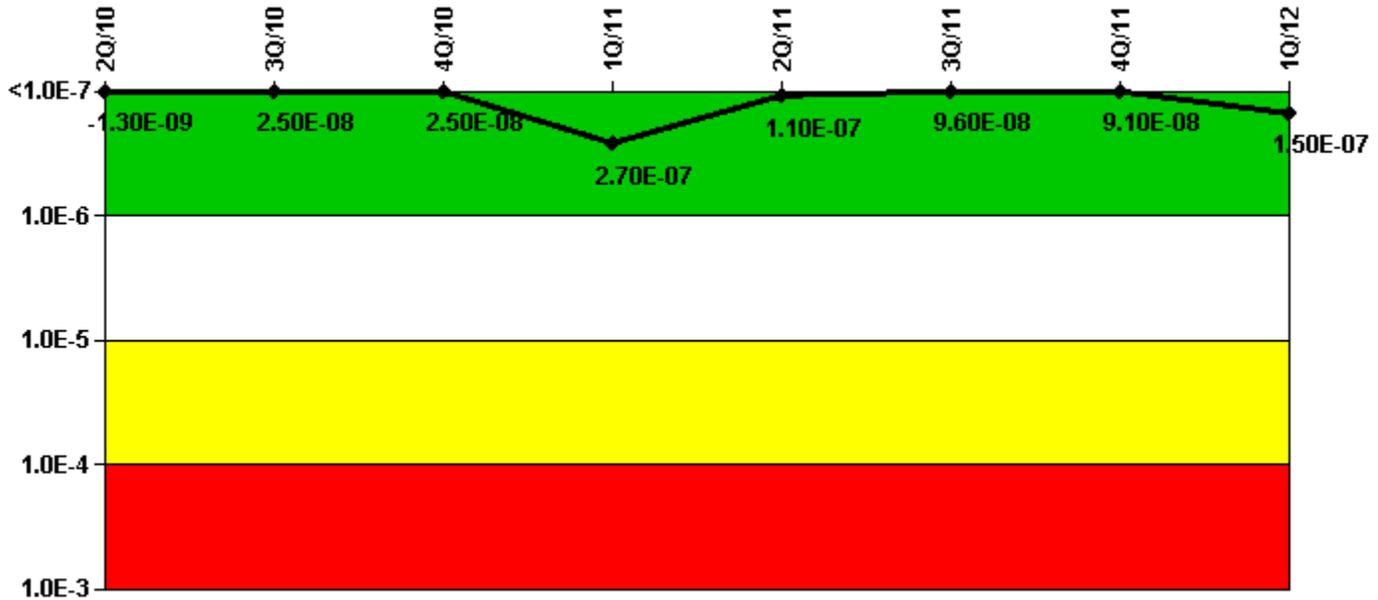**Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4**

Notes

Mitigating Systems Performance Index, Emergency AC Power System	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12
UAI (ΔCDF)	9.77E-08	1.11E-07	9.08E-08	8.65E-08	2.82E-09	-4.23E-09	8.01E-08	6.53E-08
URI (ΔCDF)	-1.40E-08	-1.45E-08	-1.29E-08	-1.42E-08	-7.07E-08	-6.94E-08	-7.88E-08	-7.48E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	8.40E-08	9.60E-08	7.80E-08	7.20E-08	-6.80E-08	-7.40E-08	1.30E-09	-9.50E-09

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)

1Q/11: Revisions effective Q2 2011: PRA parameters due to model update and UA Base Lines due to change in maintenance strategy from work in outage to on-line.

Mitigating Systems Performance Index, High Pressure Injection System

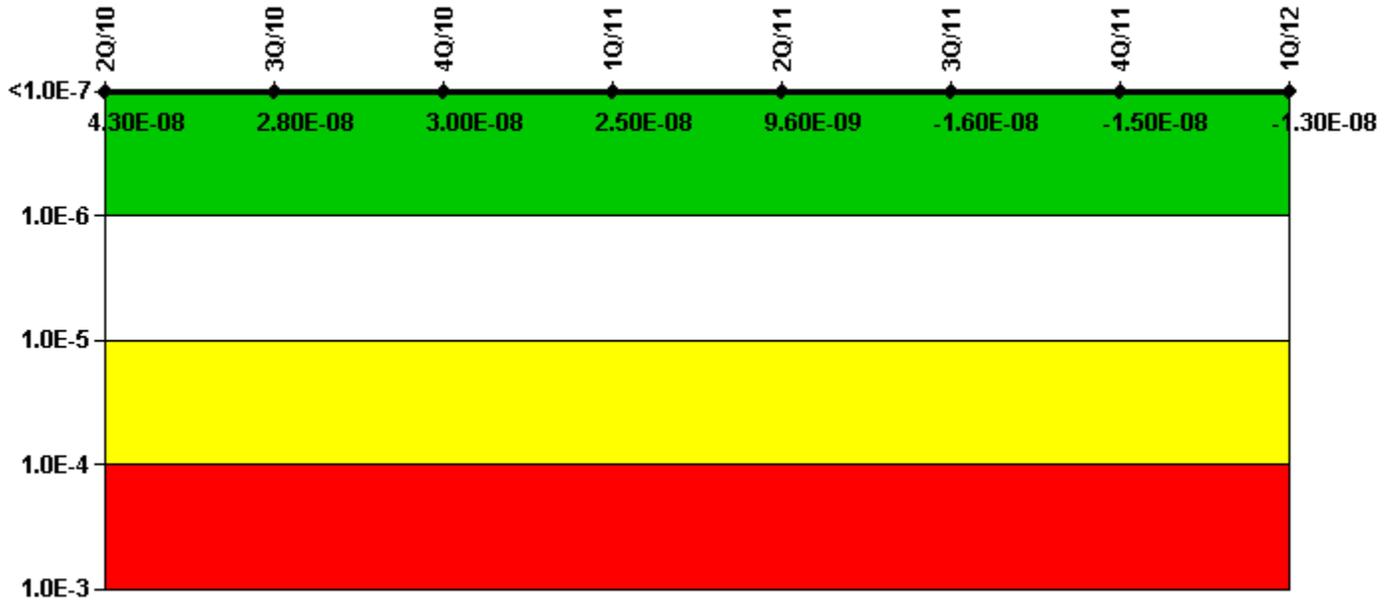Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, High Pressure Injection System	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12
UAI (ΔCDF)	6.19E-08	8.72E-08	8.65E-08	1.33E-07	1.64E-08	5.59E-09	-8.25E-10	4.27E-08
URI (ΔCDF)	-6.31E-08	-6.18E-08	-6.16E-08	1.33E-07	9.42E-08	9.06E-08	9.14E-08	1.09E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-1.30E-09	2.50E-08	2.50E-08	2.70E-07	1.10E-07	9.60E-08	9.10E-08	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)

1Q/11: Revisions effective Q2 2011: PRA parameters due to model update and UA Base Lines due to change in maintenance strategy from work in outage to on-line.

Mitigating Systems Performance Index, Heat Removal System

	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12
	4.30E-08	2.80E-08	3.00E-08	2.50E-08	9.60E-09	-1.60E-08	-1.50E-08	-1.30E-08

<1.0E-7

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

Notes

Mitigating Systems Performance Index, Heat Removal System	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12
UAI (ΔCDF)	1.24E-08	-6.25E-09	-6.61E-09	-4.83E-09	-2.80E-09	-2.77E-09	-2.06E-09	-2.46E-09
URI (ΔCDF)	3.06E-08	3.41E-08	3.62E-08	3.00E-08	1.24E-08	-1.28E-08	-1.26E-08	-1.06E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	4.30E-08	2.80E-08	3.00E-08	2.50E-08	9.60E-09	-1.60E-08	-1.50E-08	-1.30E-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)

1Q/11: Revisions effective Q2 2011: PRA parameters due to model update and UA Base Lines due to change in maintenance strategy from work in outage to on-line.
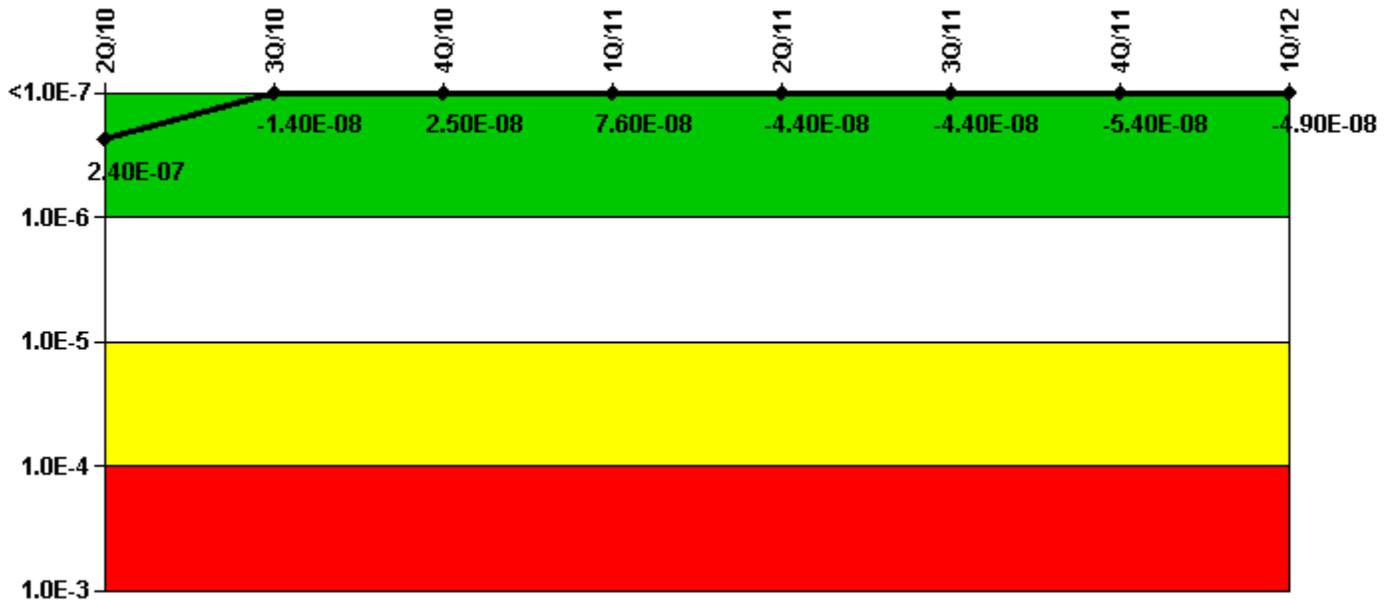
1Q/11: Changed PRA Parameter(s). Revisions effective Q2 2011: PRA parameters due to model update and UA Base Lines due to change in maintenance strategy from work in outage to on-line. 10-11-11: Allocation of Unit cross-connect valve to affected Unit (Ref: CR-2011-008850)

4Q/10: Changed PRA Parameter(s). 10-11-11: Allocation of Unit cross-connect valve to affected Unit (Ref: CR-2011-008850)

3Q/10: Changed PRA Parameter(s). 10-11-11: Allocation of Unit cross-connect valve to affected Unit (Ref: CR-2011-008850)

2Q/10: 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
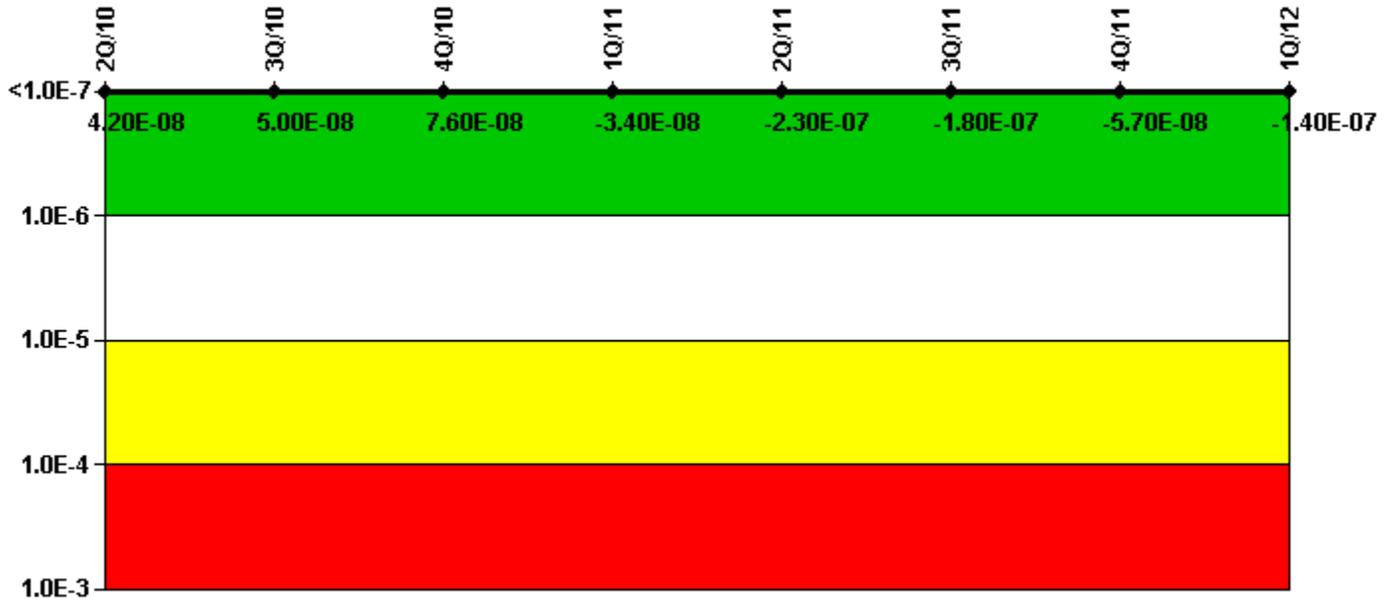
Notes

Mitigating Systems Performance Index, Residual Heat Removal System	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12
UAI (ΔCDF)	2.23E-07	-1.86E-08	2.06E-08	7.31E-08	-4.54E-08	-4.51E-08	-5.46E-08	-4.43E-08
URI (ΔCDF)	1.39E-08	4.19E-09	4.10E-09	2.91E-09	9.15E-10	6.91E-10	4.25E-10	-4.61E-09
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	2.40E-07	-1.40E-08	2.50E-08	7.60E-08	-4.40E-08	-4.40E-08	-5.40E-08	-4.90E-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)

1Q/11: Revisions effective Q2 2011: PRA parameters due to model update and UA Base Lines due to change in maintenance strategy from work in outage to on-line.

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/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12
UAI (ΔCDF)	5.85E-08	6.56E-08	9.20E-08	9.29E-08	7.52E-09	5.79E-08	1.81E-07	9.35E-08
URI (ΔCDF)	-1.60E-08	-1.59E-08	-1.56E-08	-1.27E-07	-2.35E-07	-2.39E-07	-2.39E-07	-2.38E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	4.20E-08	5.00E-08	7.60E-08	-3.40E-08	-2.30E-07	-1.80E-07	-5.70E-08	-1.40E-07

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)

1Q/11: Revisions effective Q2 2011: PRA parameters due to model update and UA Base Lines due to change in maintenance strategy from work in outage to on-line and for preventive maintenance optimization

1Q/11: Revisions effective Q2 2011: PRA parameters due to model update and UA Base Lines due to change in maintenance strategy from work in outage to on-line and for preventive maintenance optimization. 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)
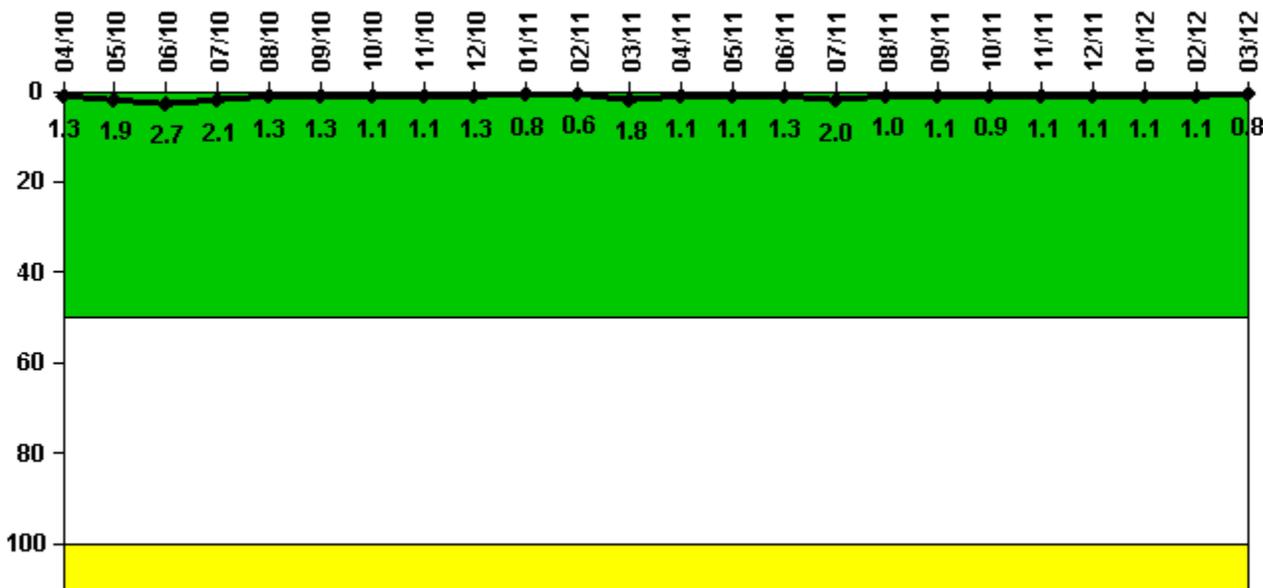
1Q/11: Revisions effective Q2 2011: PRA parameters due to model update and UA Base Lines due to change in maintenance strategy from work in outage to on-line and for preventive maintenance optimization. 10-12-11: Correction to PRA and planned baseline unavailability data due to errors made when entering updated RPA model data in March 2011 (Ref: CR-2011-008850)

4Q/10: 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)

3Q/10: 10-11-11: Allocation of Unit cross-connect valve to affected Unit (Ref: CR-2011-008850)

3Q/10: 10-11-11: Allocation of Unit cross-connect valve to affected Unit (Ref: CR-2011-008850). 4-11-12: Two CWS2 AOVs added due to current inability to validate their exclusion during the original MSPI scoping.

3Q/10: 10-11-11: Allocation of Unit cross-connect valve to affected Unit (Ref: CR-2011-008850)

2Q/10: 4-11-12: Two CWS2 AOVs added due to current inability to validate their exclusion during the original MSPI scoping.

Reactor Coolant System Activity

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Activity	4/10	5/10	6/10	7/10	8/10	9/10	10/10	11/10	12/10	1/11	2/11	3/11
Maximum activity	0.003500	0.003240	0.003420	0.003610	0.003970	0.004170	0.003950	0.003620	0.003710	0.003190	0.003230	0.000800
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.5	0.5	0.5
Indicator value	0.4	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.6	0.6	0.2
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

Licensee Comments: none
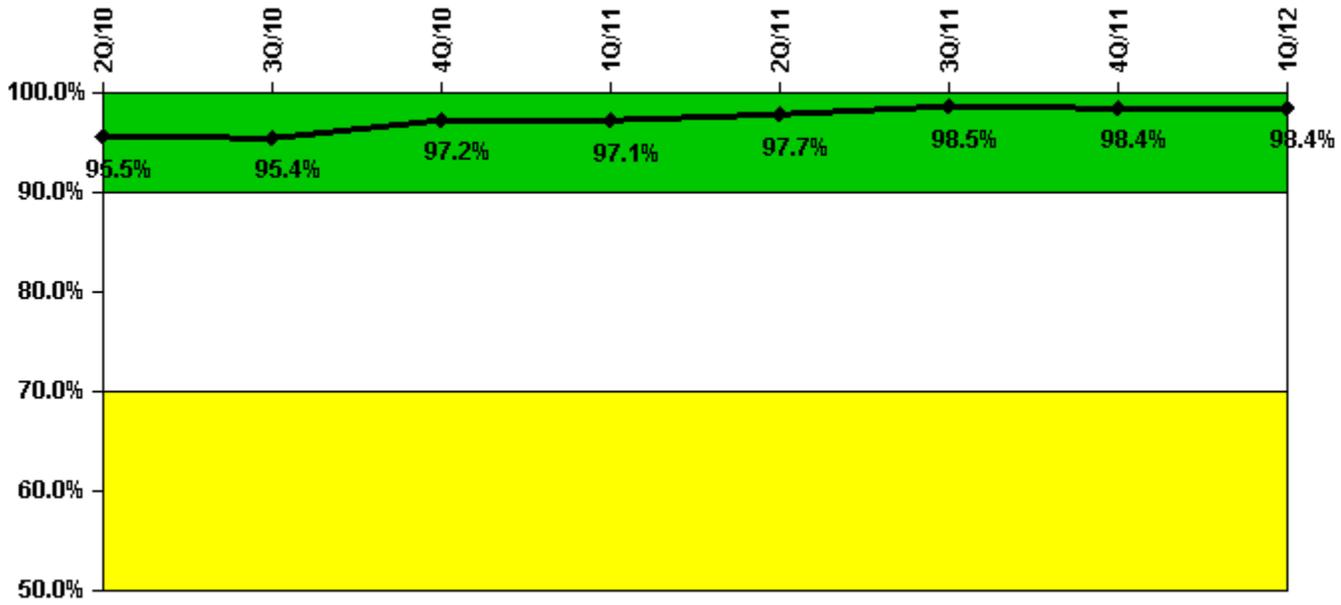
Reactor Coolant System Leakage

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Leakage	4/10	5/10	6/10	7/10	8/10	9/10	10/10	11/10	12/10	1/11	2/11	3/11
Maximum leakage	0.134	0.190	0.270	0.210	0.130	0.130	0.110	0.110	0.130	0.080	0.060	0.180
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	1.3	1.9	2.7	2.1	1.3	1.3	1.1	1.1	1.3	0.8	0.6	1.8

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	0.110	0.110	0.130	0.200	0.100	0.110	0.090	0.110	0.110	0.110	0.110	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
Indicator value	1.1	1.1	1.3	2.0	1.0	1.1	0.9	1.1	1.1	1.1	1.1	0.8

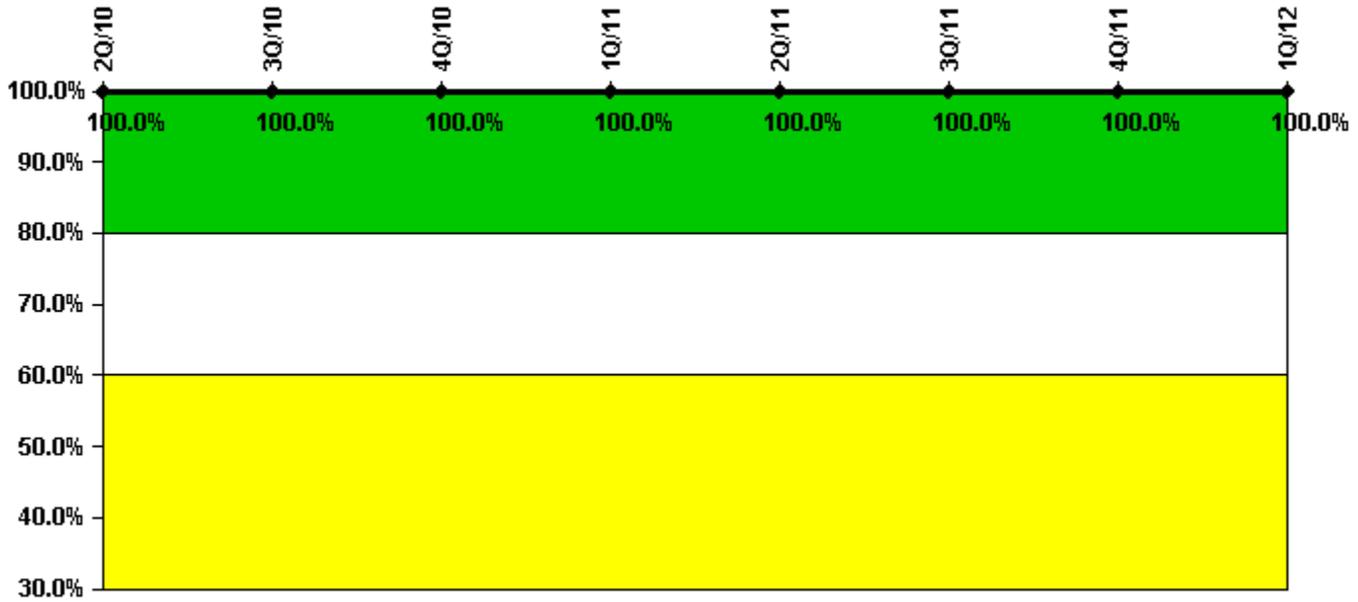Licensee Comments: none

Drill/Exercise Performance

Thresholds: White < 90.0% Yellow < 70.0%

Notes

Drill/Exercise Performance	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12
Successful opportunities	23.0	76.0	53.0	4.0	58.0	30.0	56.0	5.0
Total opportunities	23.0	78.0	54.0	4.0	59.0	30.0	57.0	5.0
Indicator value	**95.5%**	**95.4%**	**97.2%**	**97.1%**	**97.7%**	**98.5%**	**98.4%**	**98.4%**

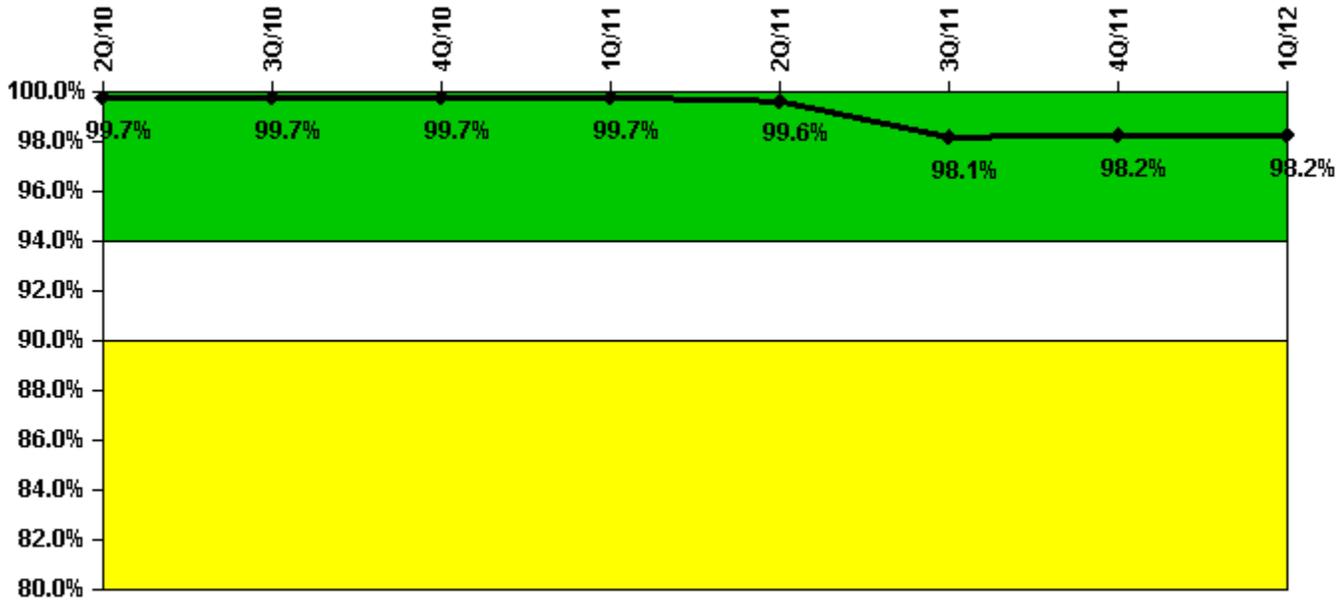Licensee Comments: none

ERO Drill Participation

Thresholds: White < 80.0% Yellow < 60.0%

Notes

ERO Drill Participation	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12
Participating Key personnel	87.0	86.0	88.0	85.0	88.0	83.0	84.0	86.0
Total Key personnel	87.0	86.0	88.0	85.0	88.0	83.0	84.0	86.0
Indicator value	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Licensee Comments: none

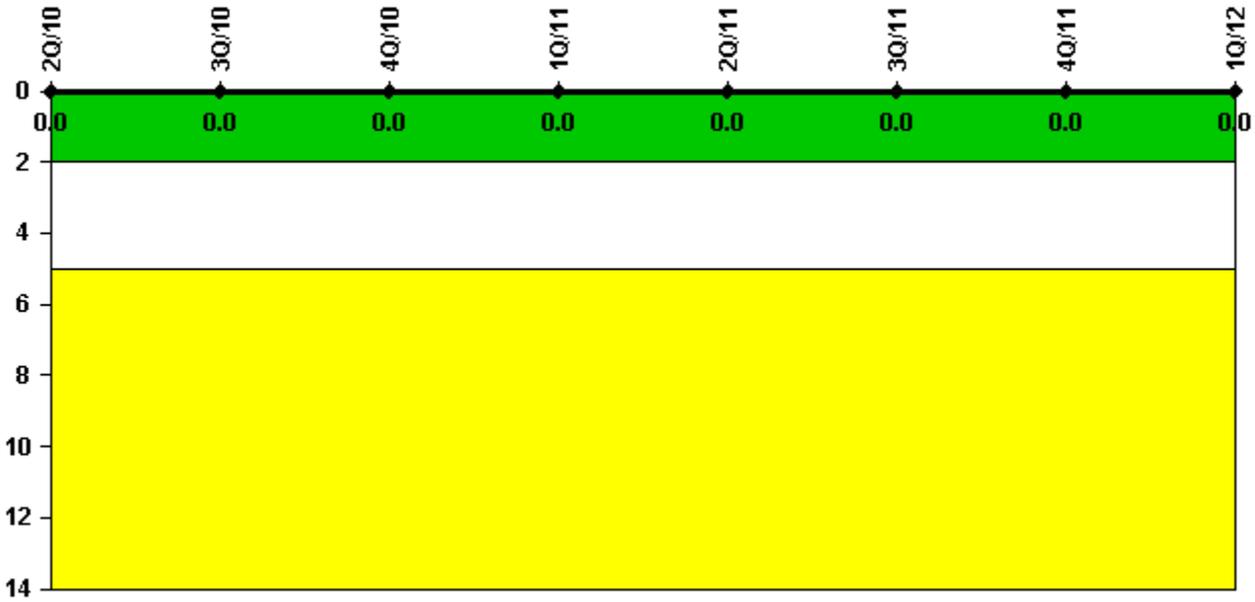## Alert & Notification System

Thresholds: White < 94.0% Yellow < 90.0%

Notes

Alert & Notification System	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12
Successful siren-tests	948	948	940	949	945	889	946	947
Total sirens-tests	949	949	949	949	949	949	949	949
Indicator value	99.7%	99.7%	99.7%	99.7%	99.6%	98.1%	98.2%	98.2%

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.
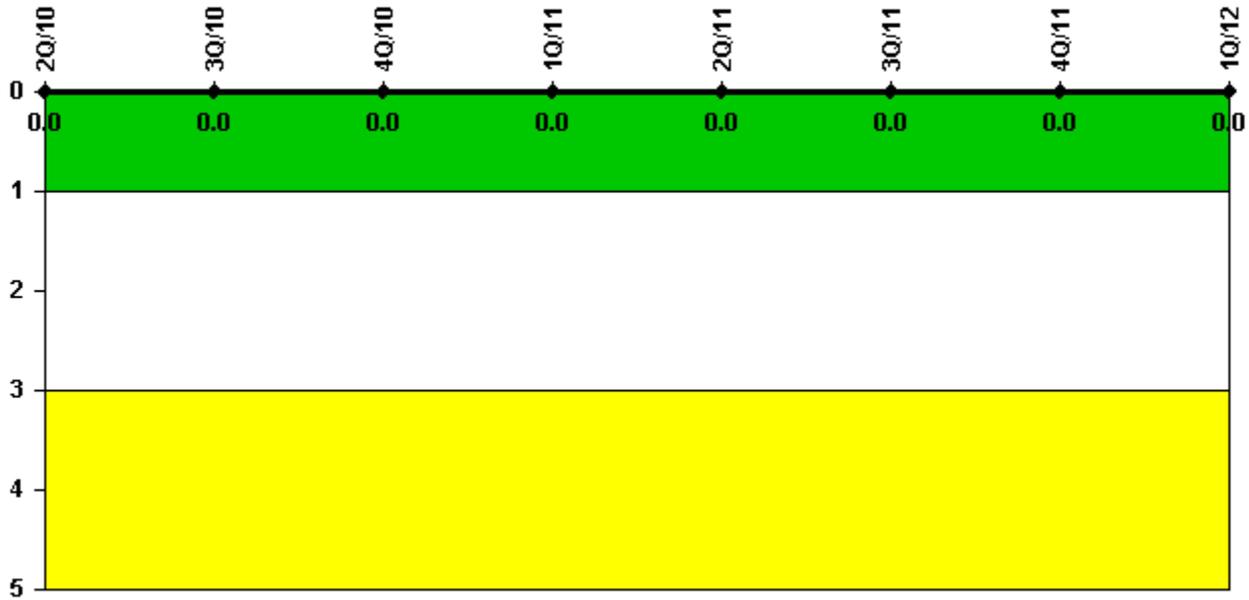
Occupational Exposure Control Effectiveness

Thresholds: White > 2.0 Yellow > 5.0

Notes

Occupational Exposure Control Effectiveness	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12
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

RETS/ODCM Radiological Effluent

Thresholds: White > 1.0 Yellow > 3.0

Notes

RETS/ODCM Radiological Effluent	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12
RETS/ODCM occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Security information not publicly available.

Last Modified: April 24, 2012