

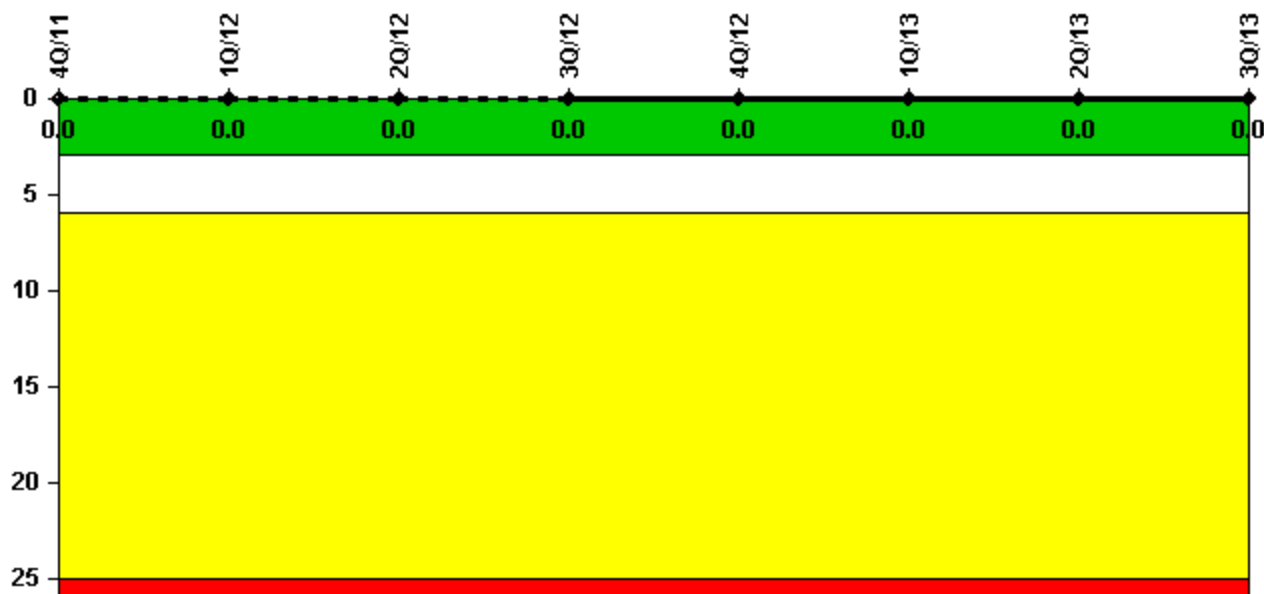
Columbia Generating Station

3Q/2013 Performance Indicators

The solid trend line represents the current reporting period.

Licensee's General Comments: none

Unplanned Scrams per 7000 Critical Hrs



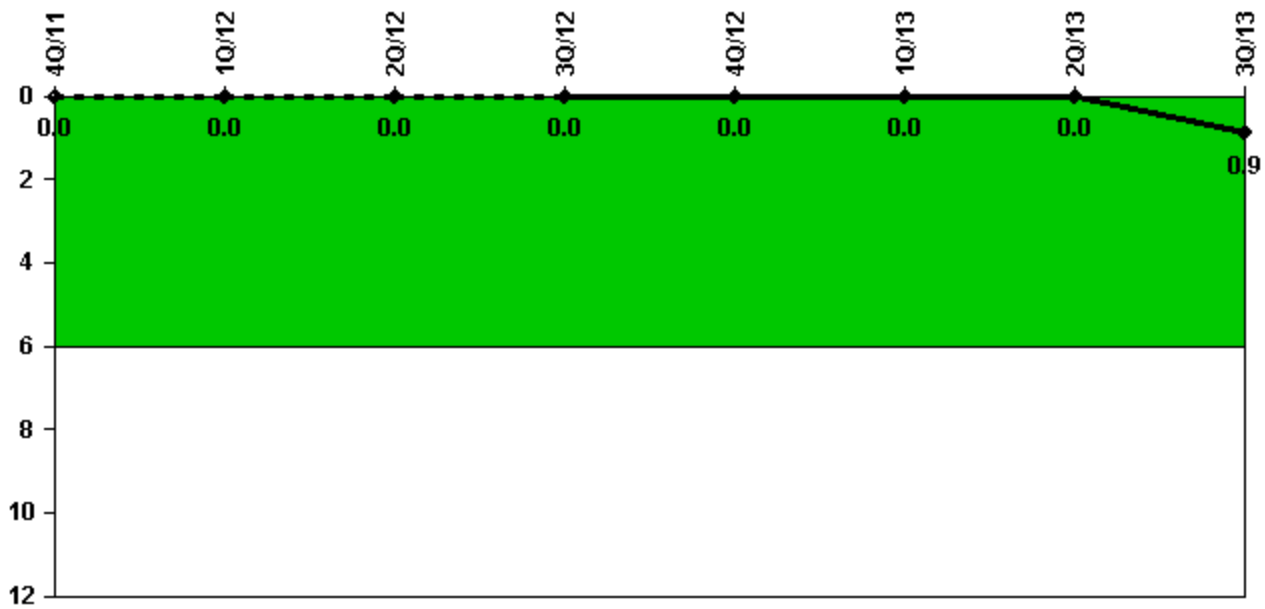
Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

Notes

Unplanned Scrams per 7000 Critical Hrs	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13
Unplanned scrams	0	0	0	0	0	0	0	0
Critical hours	2209.0	2183.0	1977.3	2208.0	2209.0	2159.0	1163.8	2208.0
Indicator value	0	0	0	0	0	0	0	0

Licensee Comments: none

Unplanned Power Changes per 7000 Critical Hrs



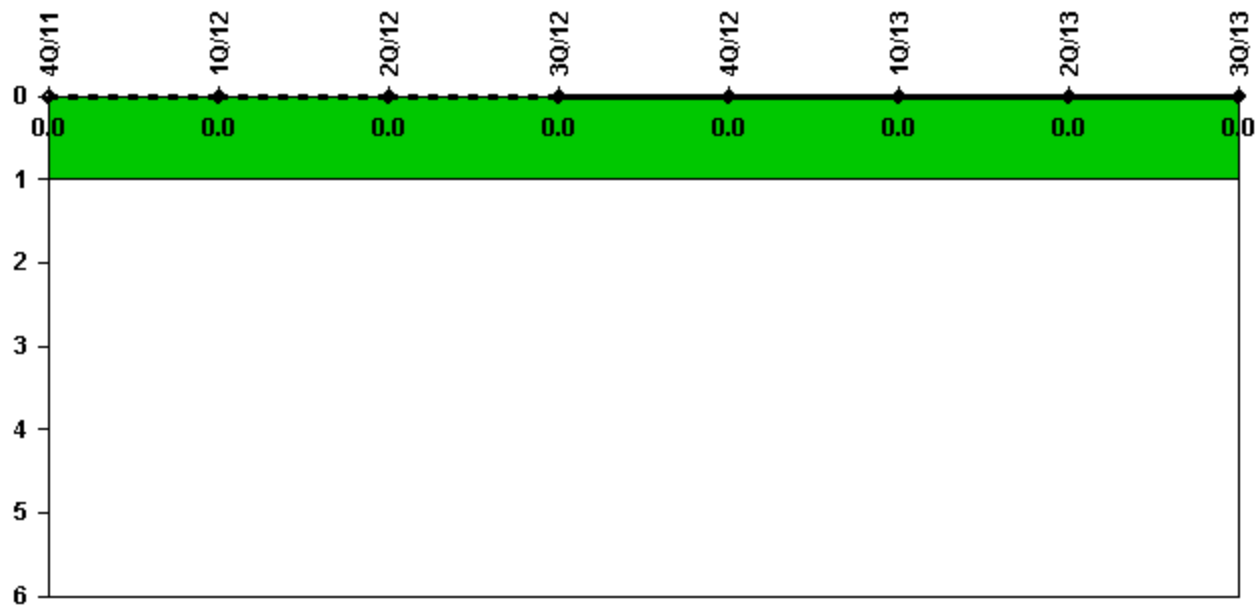
Thresholds: White > 6.0

Notes

Unplanned Power Changes per 7000 Critical Hrs	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13
Unplanned power changes	0	0	0	0	0	0	0	1.0
Critical hours	2209.0	2183.0	1977.3	2208.0	2209.0	2159.0	1163.8	2208.0
Indicator value	0	0	0	0	0	0	0	0.9

Licensee Comments: none

Unplanned Scrams with Complications



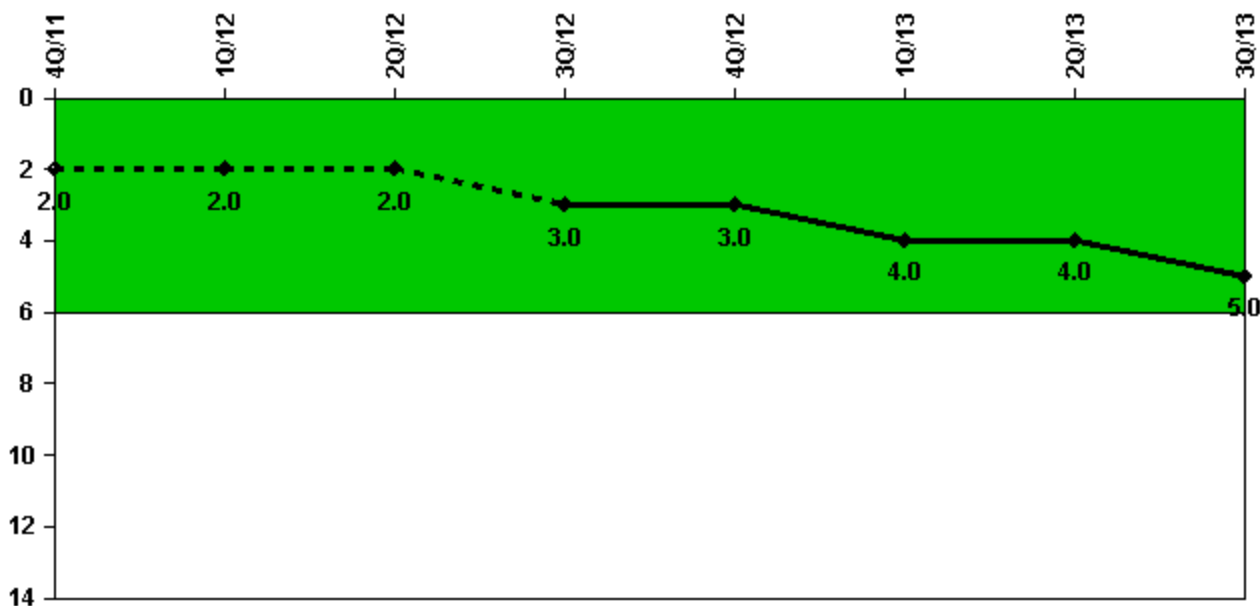
Thresholds: White > 1.0

Notes

Unplanned Scrams with Complications	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13
Scrams with complications	0	0	0	0	0	0	0	0
Indicator value	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Licensee Comments: none

Safety System Functional Failures (BWR)



Thresholds: White > 6.0

Notes

Safety System Functional Failures (BWR)	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13
Safety System Functional Failures	1	1	0	1	1	2	0	2
Indicator value	2	2	2	3	3	4	4	5

Licensee Comments:

1Q/13: Licensee Event Report No. 2012-007-00, Secondary Containment being inoperable due to both Airlock Doors being open. Reportable under 10 CFR 50.73 (a)(2)(v)(C) and (D). LER 2013-001-00 Secondary Containment Inoperable due to both Airlock Doors being Open

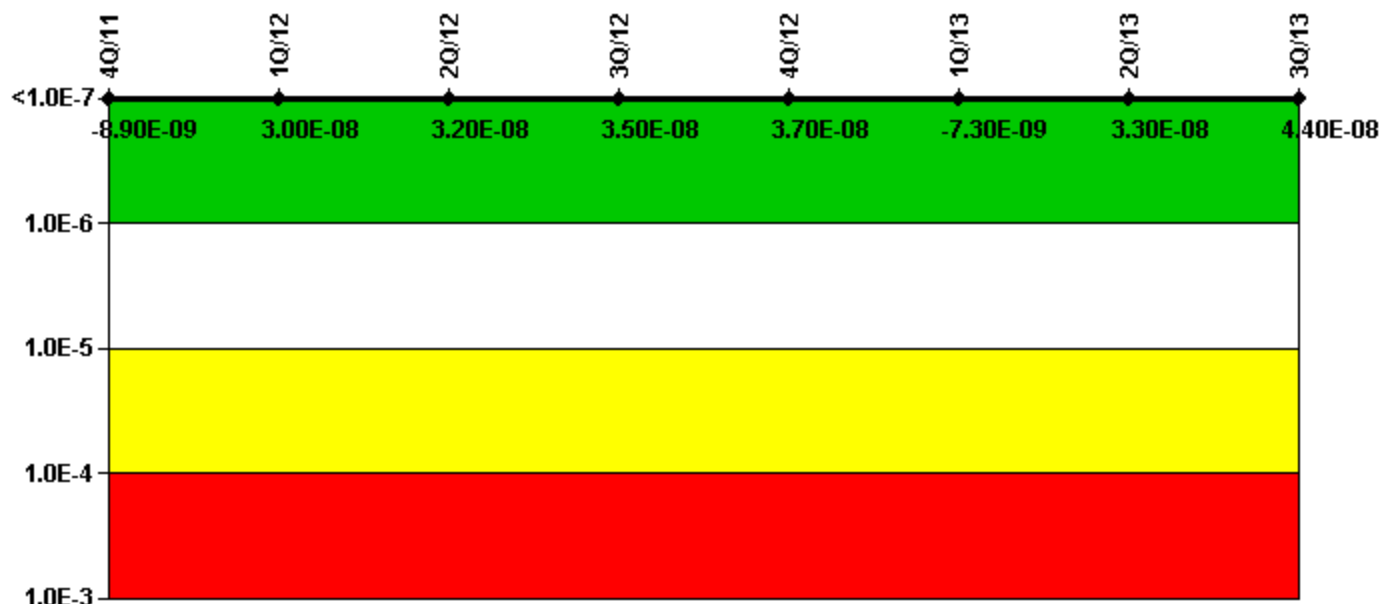
4Q/12: LER 2012-006-00 (Both Divisions of SDC Isolation Valves Made Inoperable). N. Apodaca 12/12/12

3Q/12: LER 2012-003-00 (Secondary Containment Pressure Exceeded During Plant Maintenance). D. Johnson 10/8/2012

1Q/12: LER 2011-004 Secondary Containment Low Differential Pressure due to Ice Buildup 12/10/2011

4Q/11: LER 2011-02-011 -- Loss of shutdown cooling due to logic card failure.

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	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13
UAI (Δ CDF)	5.70E-09	9.48E-09	1.05E-08	1.20E-08	1.20E-08	6.80E-09	6.12E-09	1.54E-08
URI (Δ CDF)	-1.46E-08	2.06E-08	2.19E-08	2.33E-08	2.47E-08	-1.41E-08	2.68E-08	2.83E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-8.90E-09	3.00E-08	3.20E-08	3.50E-08	3.70E-08	-7.30E-09	3.30E-08	4.40E-08

Licensee Comments:

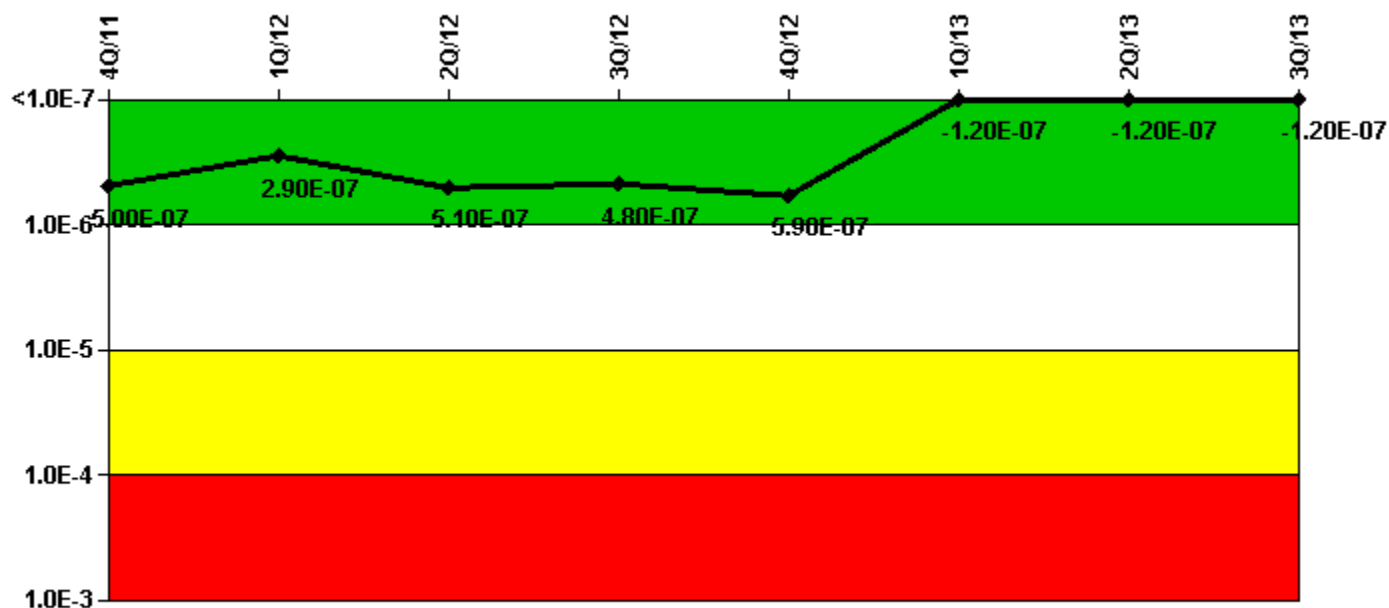
1Q/13: Changed PRA Parameter(s). The planned unavailability baseline for the MSPI Emergency AC Power System Train A was decreased by 144 hours per 3 years as this represented a previous increase in the planned unavailability baseline that was a temporary change which has rolled off the 3 year window. The decrease in planned unavailability baseline was evaluated in the MSPI Basis Document Revision 14, dated 12/27/12. The initial change was made prior to issuance of FAQ 468 thus no PRA data was changed. The revised values were incorporated into CDE effective the 1st quarter 2013. Note the CDE should have been revised in the first quarter on 2012 but was not. The delay in changing the planned unavailability had no impact to the MSPSI color for Emergency AC Power System.

4Q/12: MSPI Basis Document was revised on 12/2012, Revision 14.

4Q/11: FAQ 480, 484, 487 were incorporated into the MSPI Basis Document. Additional changes included demand/runtime estimates for the 3 DGs were updated. Removal of planned baseline temporary change for RCIC since 3 year period is over. The baseline planned unavailability was changed due to needed one-time maintenance activities on SWC. The baseline planned unavailability for DG3 was changed incorporating the

2yr/4yr PM to be permanent. Provisional coefficient changes included: RCIC, HPCS-DG, HPCS-SW, and DG1.

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	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13
UAI (ΔCDF)	4.62E-07	2.38E-07	4.51E-07	4.15E-07	5.20E-07	2.80E-07	2.96E-07	2.89E-07
URI (ΔCDF)	4.00E-08	4.81E-08	5.63E-08	6.48E-08	7.35E-08	-4.01E-07	-4.15E-07	-4.10E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	5.00E-07	2.90E-07	5.10E-07	4.80E-07	5.90E-07	-1.20E-07	-1.20E-07	-1.20E-07

Licensee Comments:

1Q/13: The plant specific PRA was updated to increase the planned unavailability baseline for RHR-SYS-B due to the pump being replaced. This impacted several values (UA, BE FV, etc.) in the MSPI Basis Document tables associated with the MSPI systems. Basis document Revision 15.

4Q/12: MSPI Basis Document was revised on 12/2012, Revision 14.

2Q/12: The recharacterization of the DG3 failure that occurred on 2/28/2010 caused historical changes to HPCS

but did not cause the PI to change color. The risk cap was invoked from 1Q2010 through 2Q2011. FAQ 12-01 involving this issue was withdrawn in 2Q2012.

1Q/12: Submitted FAQ 12-01 on the characterization of the DG3 failure that occurred 2/28/2010. DRJ.

1Q/12: Submitted FAQ 12-01 on the characterization of the DG3 failure that occurred 2/28/2010. DRJ.

4Q/11: FAQ 480, 484, 487 were incorporated into the MSPI Basis Document. Additional changes included demand/runtime estimates for the 3 DGs were updated. Removal of planned baseline temporary change for RCIC since 3 year period is over. The baseline planned unavailability was changed due to needed one-time maintenance activities on SWC. The baseline planned unavailability for DG3 was changed incorporating the 2yr/4yr PM to be permanent. Provisional coefficient changes included: RCIC, HPCS-DG, HPCS-SW, and DG1.

4Q/11: FAQ 480, 484, 487 were incorporated into the MSPI Basis Document. Additional changes included demand/runtime estimates for the 3 DGs were updated. Removal of planned baseline temporary change for RCIC since 3 year period is over. The baseline planned unavailability was changed due to needed one-time maintenance activities on SWC. The baseline planned unavailability for DG3 was changed incorporating the 2yr/4yr PM to be permanent. Provisional coefficient changes included: RCIC, HPCS-DG, HPCS-SW, and DG1.

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	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13
UAI (ΔCDF)	1.18E-07	1.11E-07	1.02E-07	5.38E-08	7.83E-08	9.35E-08	1.04E-07	1.11E-07

URI (ΔCDF)	-1.38E-07	-1.38E-07	-1.38E-07	-1.38E-07	-1.39E-07	-1.37E-07	-1.36E-07	-1.35E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-2.00E-08	-2.70E-08	-3.60E-08	-8.50E-08	-6.00E-08	-4.40E-08	-3.30E-08	-2.30E-08

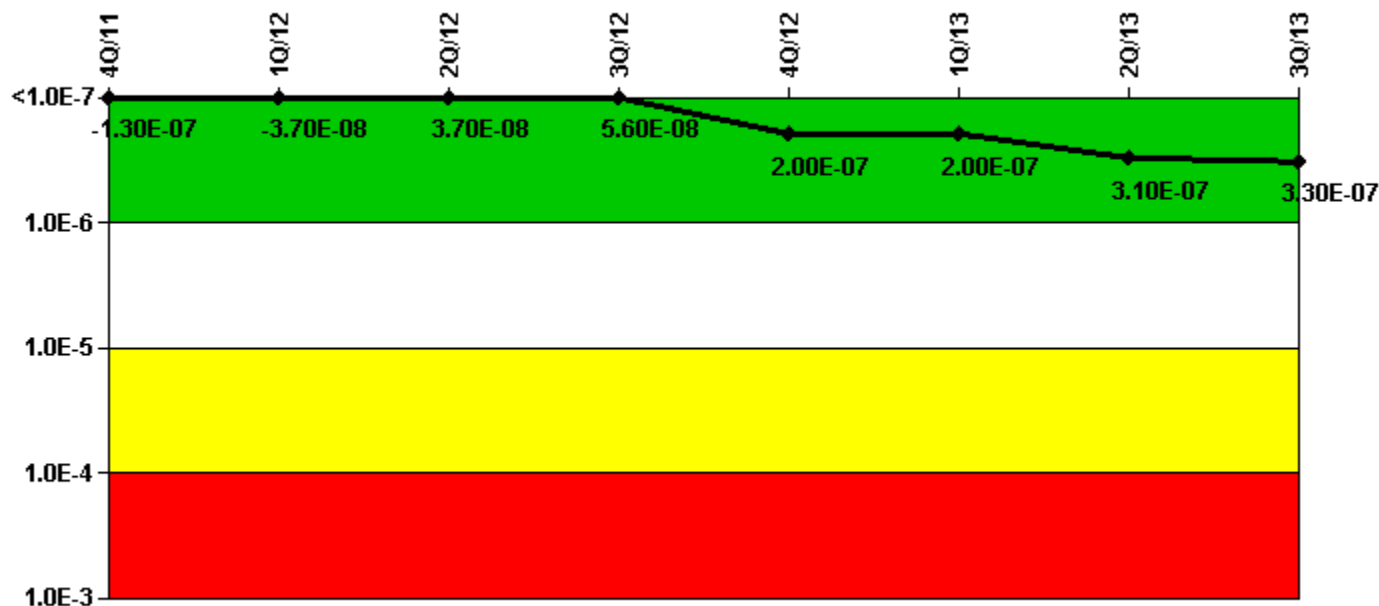
Licensee Comments:

1Q/13: The plant specific PRA was updated to increase the planned unavailability baseline for RHR-SYS-B due to the pump being replaced. This impacted several values (UA, BE FV, etc.) in the MSPI Basis Document tables associated with the MSPI systems. Basis document Revision 15.

4Q/12: MSPI Basis Document was revised on 12/2012, Revision 14.

4Q/11: FAQ 480, 484, 487 were incorporated into the MSPI Basis Document. Additional changes included demand/runtime estimates for the 3 DGs were updated. Removal of planned baseline temporary change for RCIC since 3 year period is over. The baseline planned unavailability was changed due to needed one-time maintenance activities on SWC. The baseline planned unavailability for DG3 was changed incorporating the 2yr/4yr PM to be permanent. Provisional coefficient changes included: RCIC, HPCS-DG, HPCS-SW, and DG1.

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								
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Removal System	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13
UAI (ΔCDF)	6.83E-08	1.62E-07	2.37E-07	2.55E-07	3.97E-07	3.80E-07	4.81E-07	4.82E-07
URI (ΔCDF)	-1.99E-07	-1.99E-07	-1.99E-07	-1.99E-07	-1.99E-07	-1.83E-07	-1.70E-07	-1.49E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-1.30E-07	-3.70E-08	3.70E-08	5.60E-08	2.00E-07	2.00E-07	3.10E-07	3.30E-07

Licensee Comments:

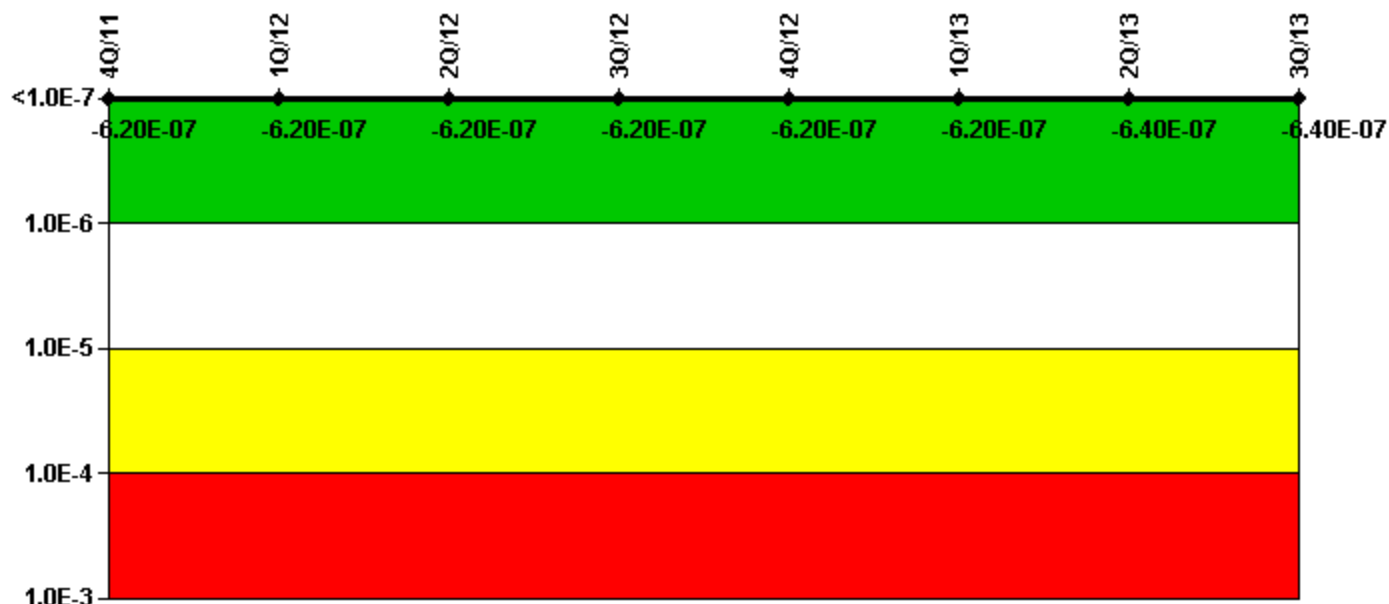
1Q/13: The planned unavailability baseline for the Residual Heat Removal System Train B was increased by 130 hours per 3 years as a result of In-service Testing condition monitoring recommendation to replace the pump. The increase in planned unavailability baseline was evaluated in the MSPI Basis Document Revision 15, dated 3/27/13 and concluded that a temporary modification to the PRA model was required prior to implementing the change (i.e. >1.0E-08). An approved temporary modification to PRA model Revision 7.1 was made to reflect this change in planned unavailability and was approved on 3/19/13. The revised values were incorporated into CDE effective the 2nd quarter 2013. This change in the planned unavailability baseline is effective for 3 years and will be removed at the end of 3 years. Basis document revised to Rev 15.

4Q/12: MSPI Basis Document was revised on 12/2012, Revision 14.

4Q/11: Engineering reviewed the unplanned unavailability hours logged for LCO 14901 with Operations. Operations revise the entry for LCO 14901 for October 2011. UA hours changed from 38.1 hours to 27.13 hours. FAQ 480, 484, 487 were incorporated into the MSPI Basis Document. Additional changes included demand/runtime estimates for the 3 DGs were updated. Removal of planned baseline temporary change for RCIC since 3 year period is over. The baseline planned unavailability was changed due to needed one-time maintenance activities on SWC. The baseline planned unavailability for DG3 was changed incorporating the 2yr/4yr PM to be permanent. Provisional coefficient changes included: RCIC, HPCS-DG, HPCS-SW, and DG1.

4Q/11: FAQ 480, 484, 487 were incorporated into the MSPI Basis Document. Additional changes included demand/runtime estimates for the 3 DGs were updated. Removal of planned baseline temporary change for RCIC since 3 year period is over. The baseline planned unavailability was changed due to needed one-time maintenance activities on SWC. The baseline planned unavailability for DG3 was changed incorporating the 2yr/4yr PM to be permanent. Provisional coefficient changes included: RCIC, HPCS-DG, HPCS-SW, and DG1.

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	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13
UAI (ΔCDF)	-1.04E-07	-1.04E-07	-1.04E-07	-1.04E-07	-1.04E-07	-1.04E-07	-1.04E-07	-1.04E-07
URI (ΔCDF)	-5.19E-07	-5.19E-07	-5.19E-07	-5.19E-07	-5.19E-07	-5.18E-07	-5.33E-07	-5.31E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-6.20E-07	-6.20E-07	-6.20E-07	-6.20E-07	-6.20E-07	-6.20E-07	-6.40E-07	-6.40E-07

Licensee Comments:

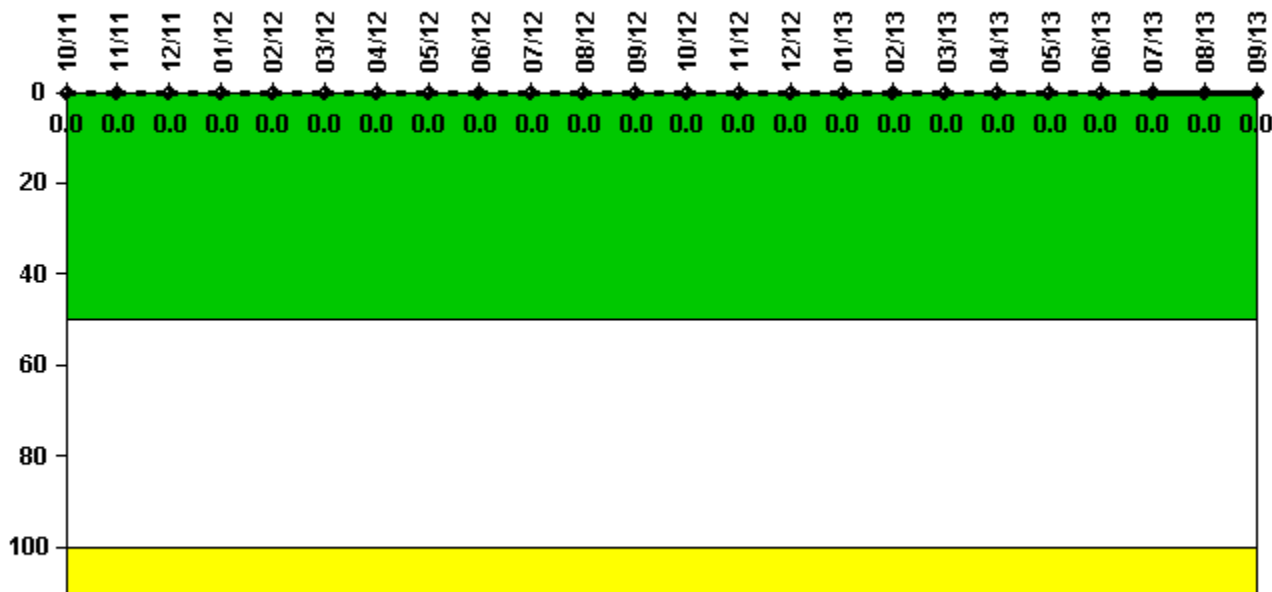
1Q/13: The plant specific PRA was updated to increase the planned unavailability baseline for RHR-SYS-B due to the pump being replaced. This impacted several values (UA, BE FV, etc.) in the MSPI Basis Document tables associated with the MSPI systems. Basis document Rev 15.

4Q/12: MSPI Basis Document was revised on 12/2012, Revision 14.

1Q/12: MSPI Basis document was revised deleting ftn 2 on pp 18 and 19 as the planned activity for SWC was cancelled and moved to planned outage in 5/2012. DRJ

4Q/11: FAQ 480, 484, 487 were incorporated into the MSPI Basis Document. Additional changes included demand/runtime estimates for the 3 DGs were updated. Removal of planned baseline temporary change for RCIC since 3 year period is over. The baseline planned unavailability was changed due to needed one-time maintenance activities on SWC. The baseline planned unavailability for DG3 was changed incorporating the 2yr/4yr PM to be permanent. Provisiona coefficient changes included: RCIC, HPCS-DG, HPCS-SW, and DG1.

Reactor Coolant System Activity



Thresholds: White > 50.0 Yellow > 100.0

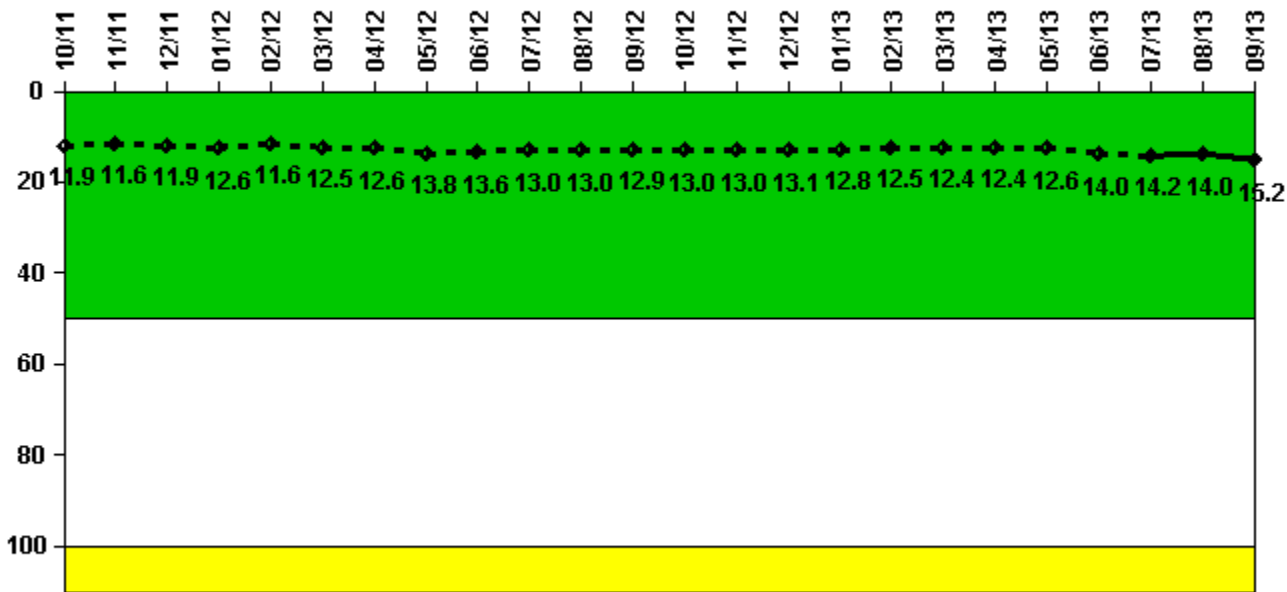
Notes

Reactor Coolant System Activity	10/11	11/11	12/11	1/12	2/12	3/12	4/12	5/12	6/12	7/12	8/12	9/12
Maximum activity	0.000002	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001	0.000003	0.000001	0.000001	0.000001
Technical specification limit	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Indicator value	0	0	0	0	0	0	0	0	0	0	0	0
Reactor Coolant System Activity	10/12	11/12	12/12	1/13	2/13	3/13	4/13	5/13	6/13	7/13	8/13	9/13
Maximum activity	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001
Technical specification limit	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Indicator												

value	0	0	0	0	0	0	0	0	0	0	0	0
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Licensee Comments: none

Reactor Coolant System Leakage



Thresholds: White > 50.0 Yellow > 100.0

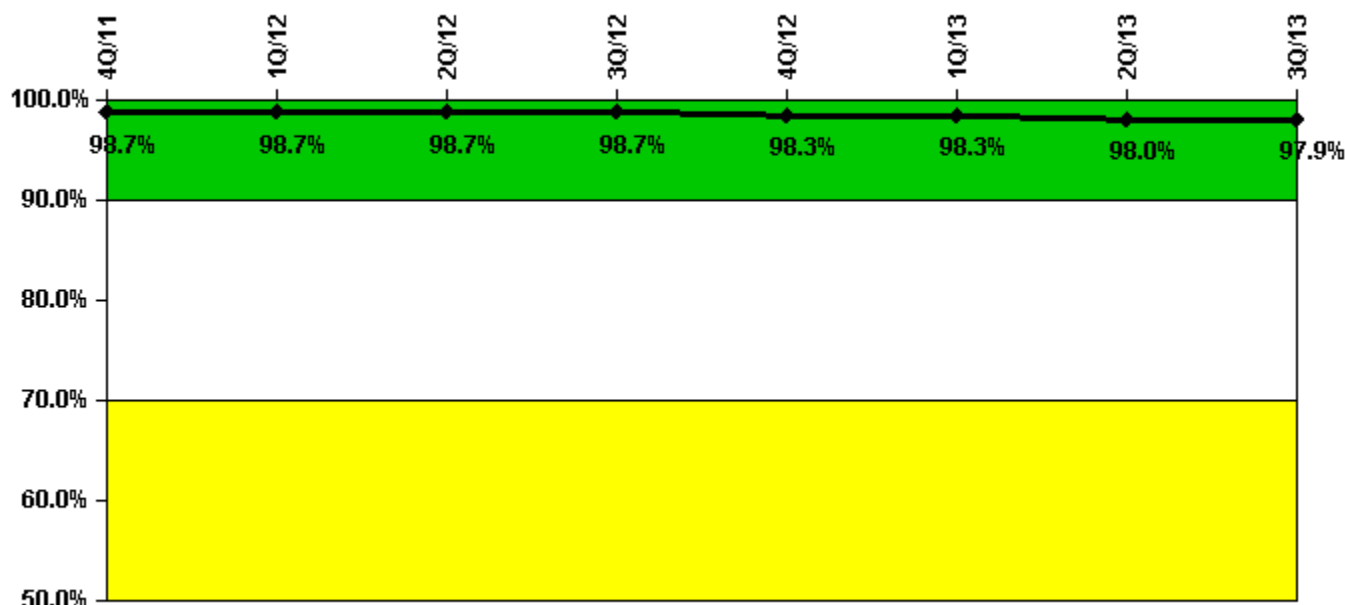
Notes

Reactor Coolant System Leakage	10/11	11/11	12/11	1/12	2/12	3/12	4/12	5/12	6/12	7/12	8/12	9/12
Maximum leakage	2.970	2.900	2.970	3.140	2.890	3.130	3.160	3.440	3.410	3.250	3.250	3.220
Technical specification limit	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
Indicator value	11.9	11.6	11.9	12.6	11.6	12.5	12.6	13.8	13.6	13.0	13.0	12.9

Reactor Coolant System Leakage	10/12	11/12	12/12	1/13	2/13	3/13	4/13	5/13	6/13	7/13	8/13	9/13
Maximum leakage	3.240	3.260	3.270	3.200	3.130	3.100	3.110	3.150	3.490	3.540	3.490	3.800
Technical specification limit	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
Indicator value	13.0	13.0	13.1	12.8	12.5	12.4	12.4	12.6	14.0	14.2	14.0	15.2

Licensee Comments: none

Drill/Exercise Performance



Thresholds: White < 90.0% Yellow < 70.0%

Notes

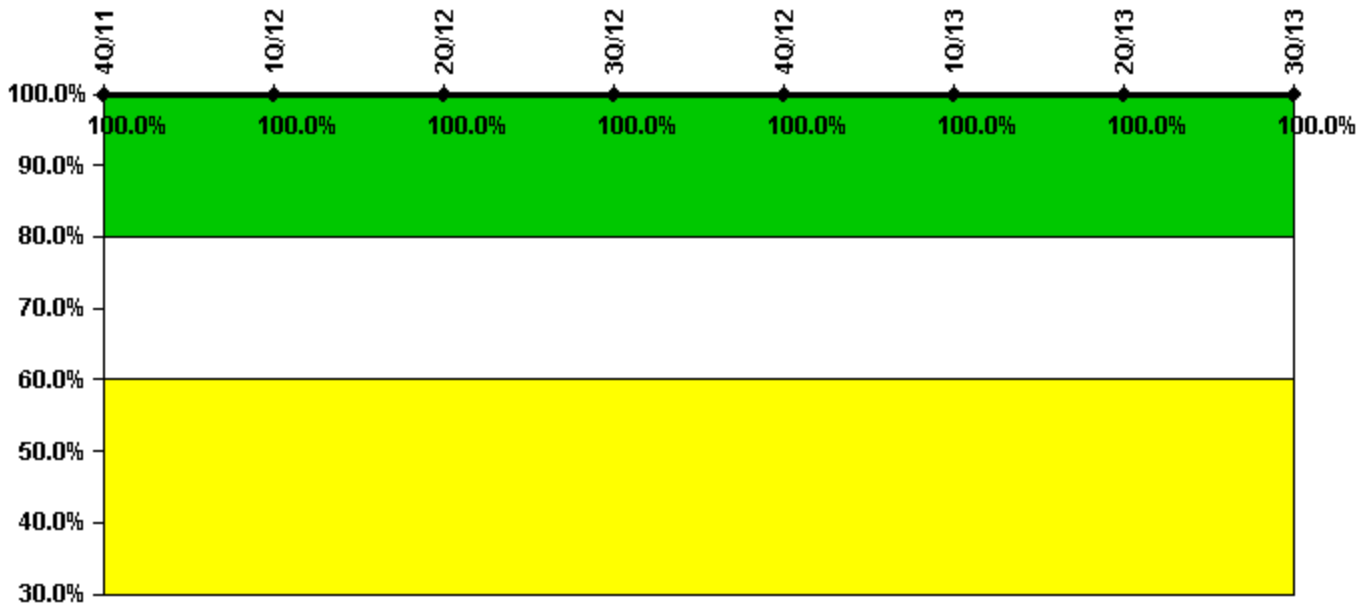
Drill/Exercise Performance	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13
Successful opportunities	91.0	31.0	41.0	38.0	36.0	11.0	12.0	19.0
Total opportunities	93.0	31.0	42.0	39.0	37.0	11.0	13.0	19.0
Indicator value	98.7%	98.7%	98.7%	98.7%	98.3%	98.3%	98.0%	97.9%

Licensee Comments:

2Q/13: Upon further review of NEI 99-02 and CGS procedure guidance for the development of PARs, that PARs follow the GE classification, the PAR opportunity from 4-30-13 has been changed from a miss to a success which does not change the overall PI color.

4Q/11: Performance Indicator for the month of November 2011 was changed from 33 to 32 due to an error on one report that was discovered during an NRC inspection in August 2012.

ERO Drill Participation



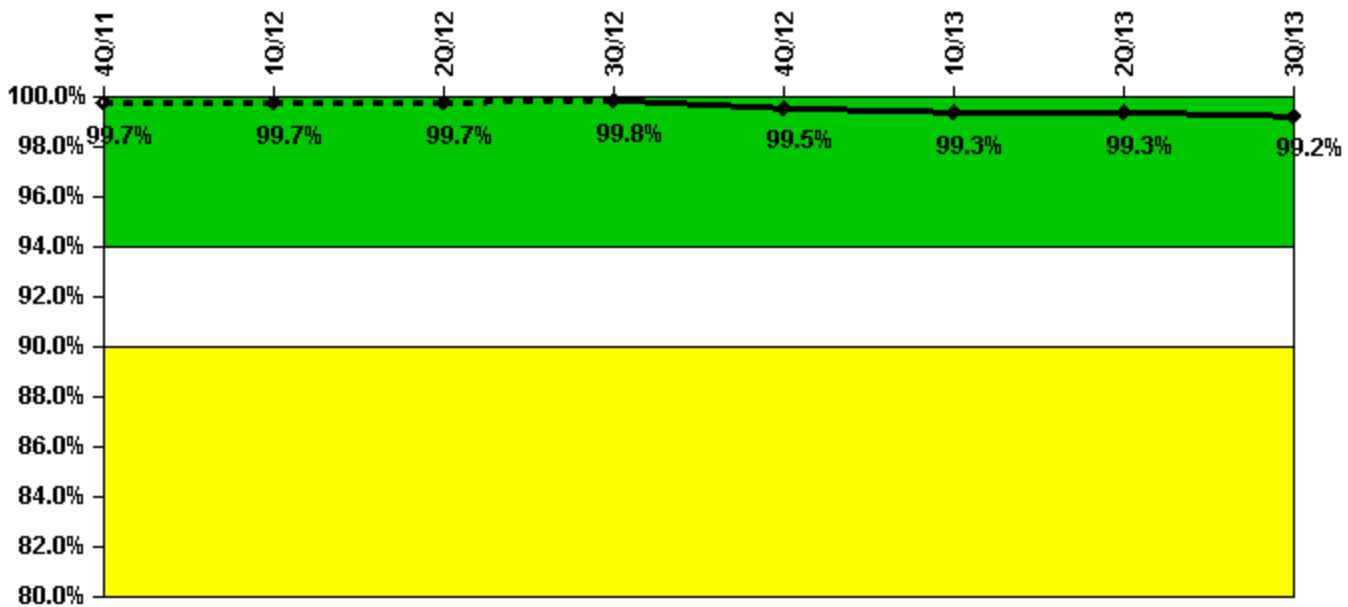
Thresholds: White < 80.0% Yellow < 60.0%

Notes

ERO Drill Participation	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13
Participating Key personnel	55.0	59.0	62.0	56.0	56.0	57.0	56.0	41.0
Total Key personnel	55.0	59.0	62.0	56.0	56.0	57.0	56.0	41.0
Indicator value	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Licensee Comments: none

Alert & Notification System



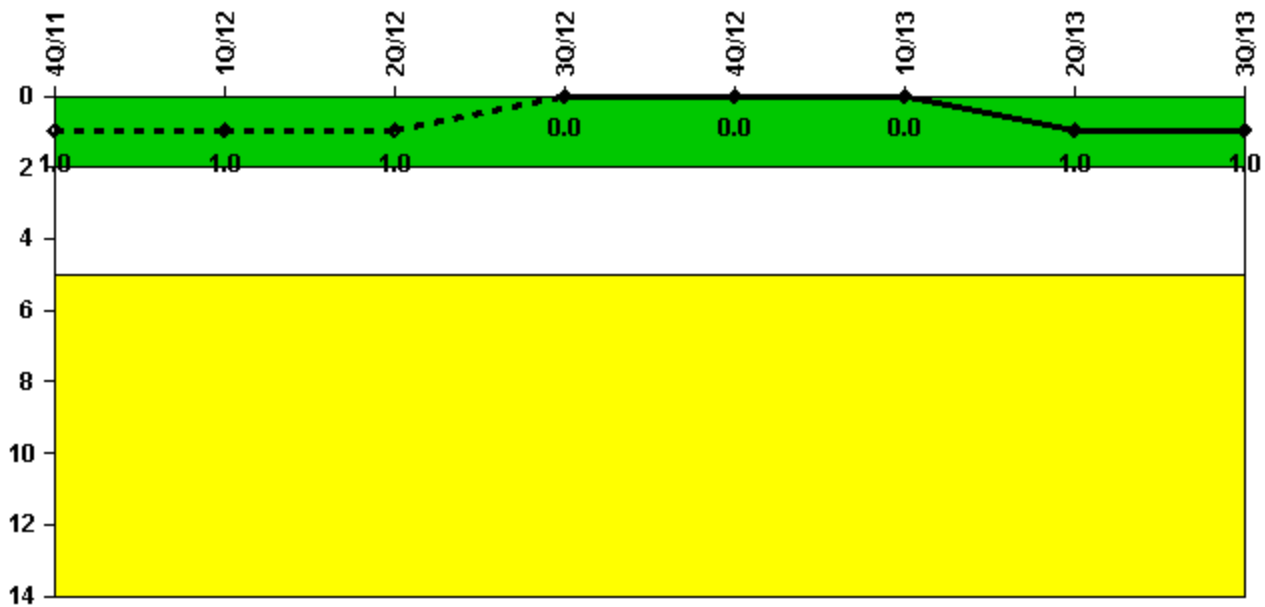
Thresholds: White < 94.0% Yellow < 90.0%

Notes

Alert & Notification System	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13
Successful siren-tests	154	153	143	143	141	152	143	171
Total sirens-tests	154	154	143	143	143	154	143	172
Indicator value	99.7%	99.7%	99.7%	99.8%	99.5%	99.3%	99.3%	99.2%

Licensee Comments: none

Occupational Exposure Control Effectiveness



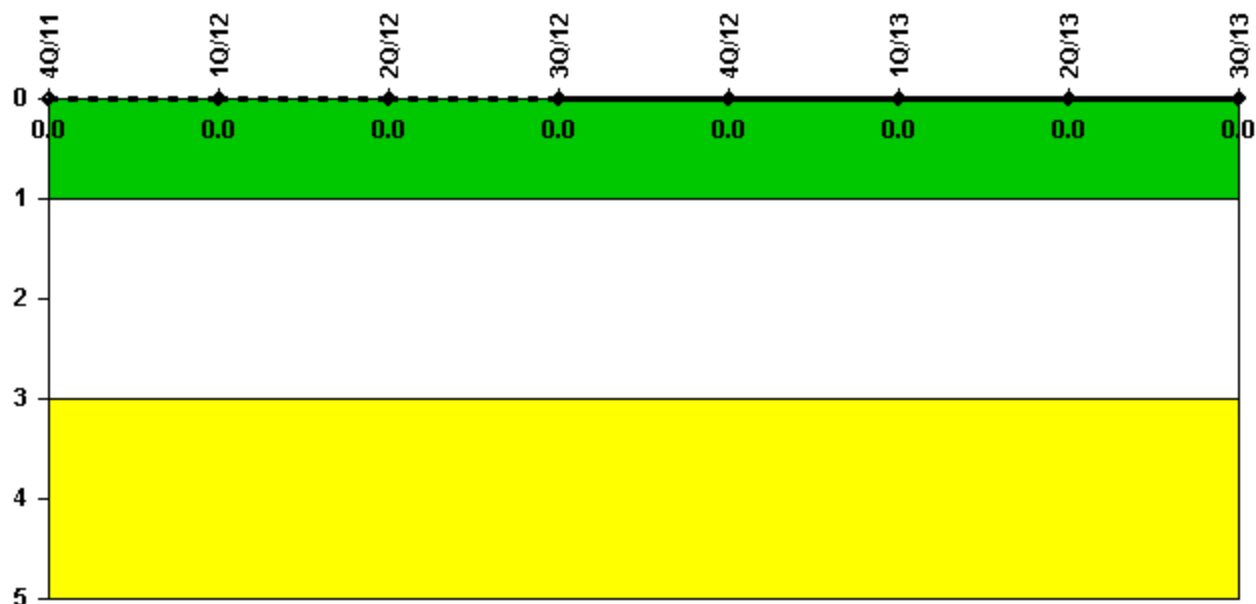
Thresholds: White > 2.0 Yellow > 5.0

Notes

Occupational Exposure Control Effectiveness	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13
High radiation area occurrences	0	0	0	0	0	0	1	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	1	1	1	0	0	0	1	1

Licensee Comments: none

RETS/ODCM Radiological Effluent



Thresholds: White > 1.0 Yellow > 3.0

Notes

RETS/ODCM Radiological Effluent	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/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: October 22, 2013