

Columbia Generating Station

3Q/2012 Performance Indicators

Licensee's General Comments: none

Unplanned Scrams per 7000 Critical Hrs



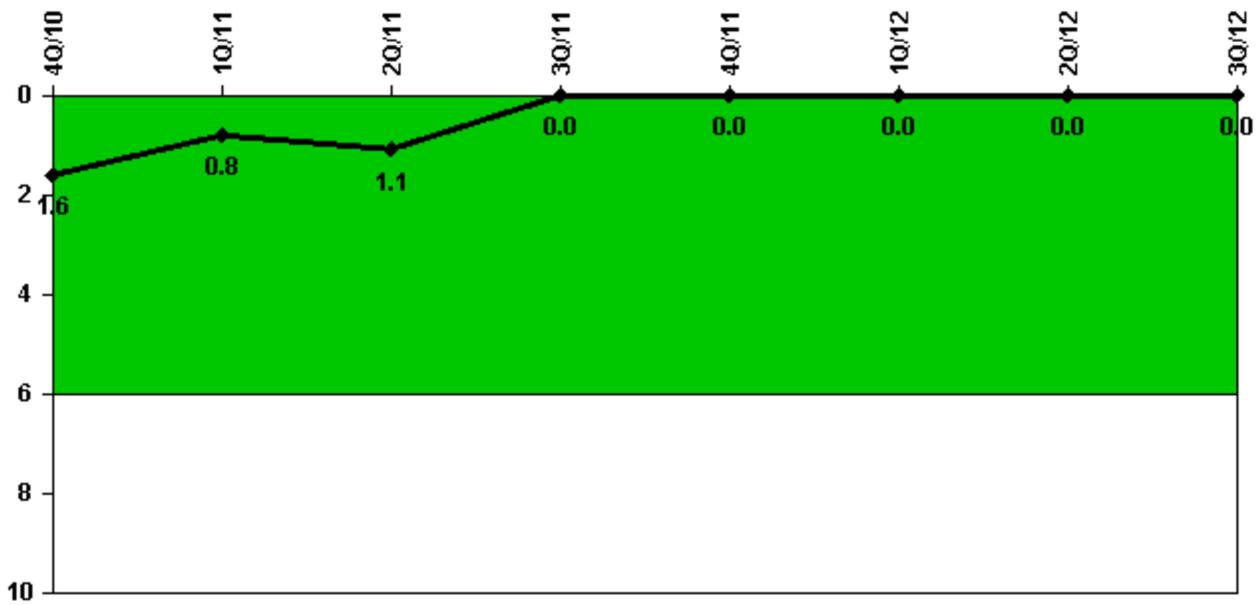
Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

Notes

Unplanned Scrams per 7000 Critical Hrs	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12
Unplanned scrams	0	0	0	0	0	0	0	0
Critical hours	2209.0	2159.0	40.6	272.6	2209.0	2183.0	1977.3	2208.0
Indicator value	0							

Licensee Comments: none

Unplanned Power Changes per 7000 Critical Hrs



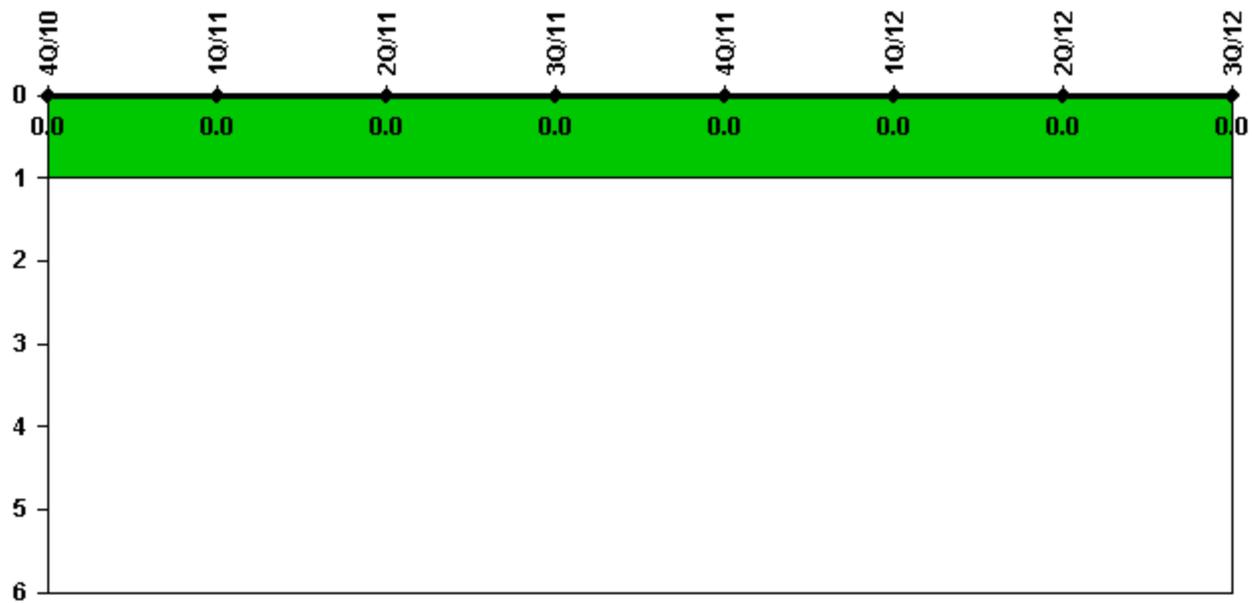
Thresholds: White > 6.0

Notes

Unplanned Power Changes per 7000 Critical Hrs	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12
Unplanned power changes	0	0	0	0	0	0	0	0
Critical hours	2209.0	2159.0	40.6	272.6	2209.0	2183.0	1977.3	2208.0
Indicator value	1.6	0.8	1.1	0	0	0	0	0

Licensee Comments: none

Unplanned Scrams with Complications



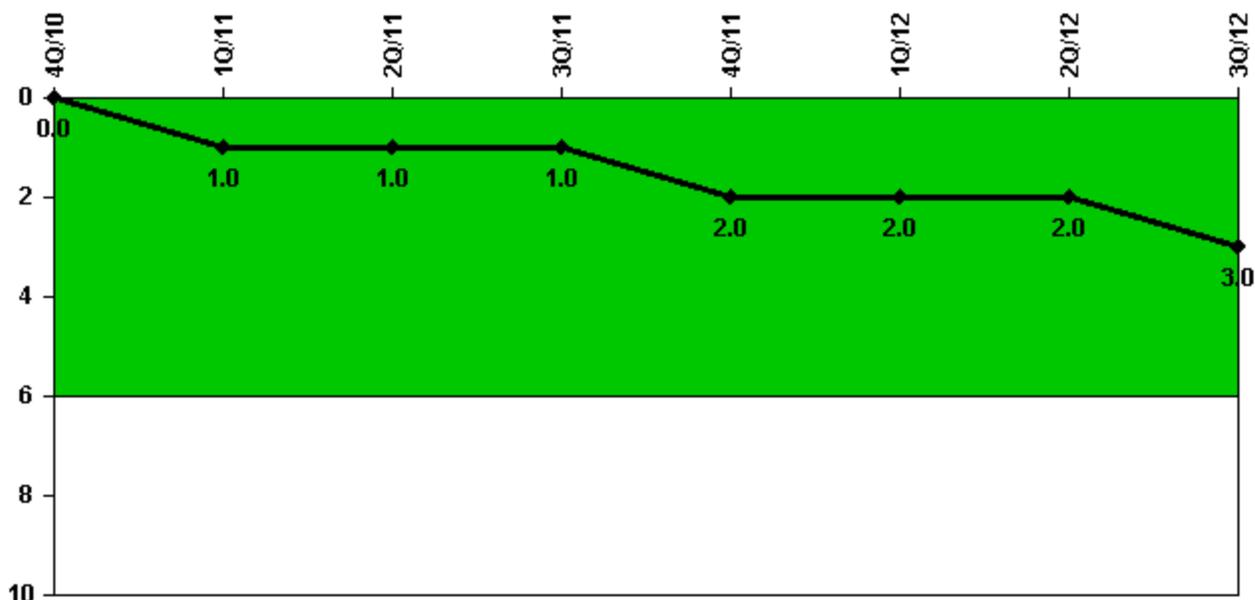
Thresholds: White > 1.0

Notes

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

Licensee Comments: none

Safety System Functional Failures (BWR)



Thresholds: White > 6.0

Notes

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

Licensee Comments:

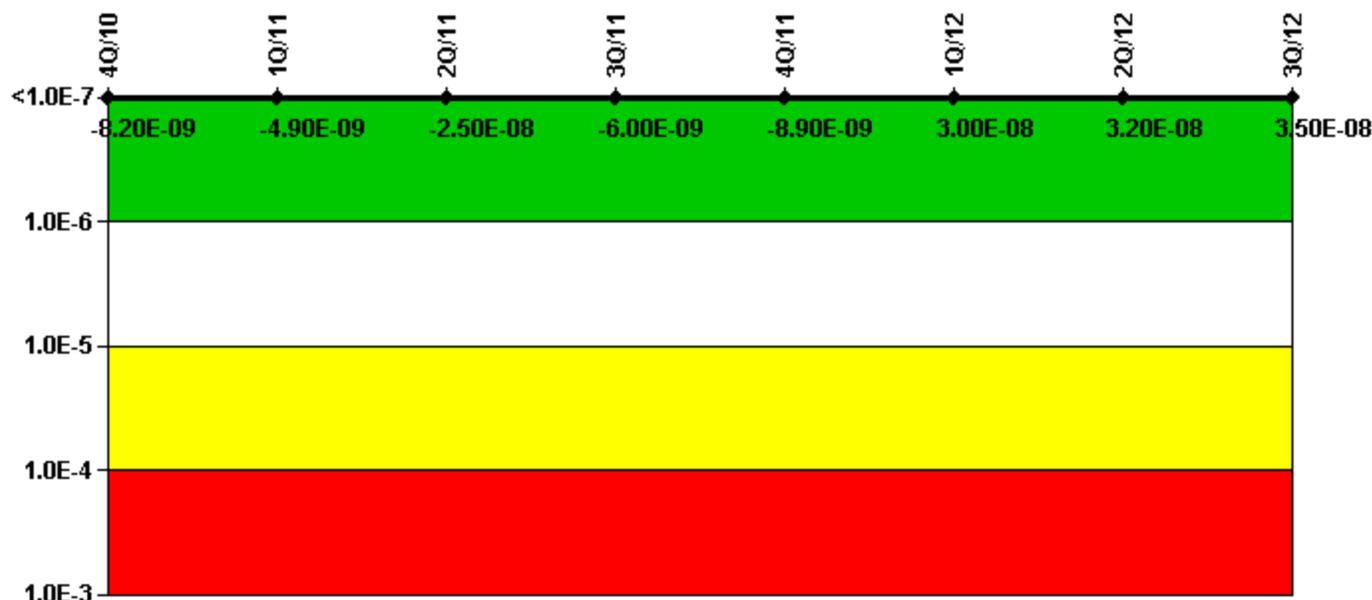
3Q/12: LER 2012-003-00 (Secondary Containment Pressure Exceeded During Plant Maintenance). D. Johnson 10/8/2012

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.

1Q/11: LER 2010-002 Reported February 2010 Low pressure core spray minimum flow valve failure to open due to premature fuse failure at the solder joint. This discrepant condition was discovered on December 20, 2010.

Mitigating Systems Performance Index, Emergency AC Power System



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

Notes

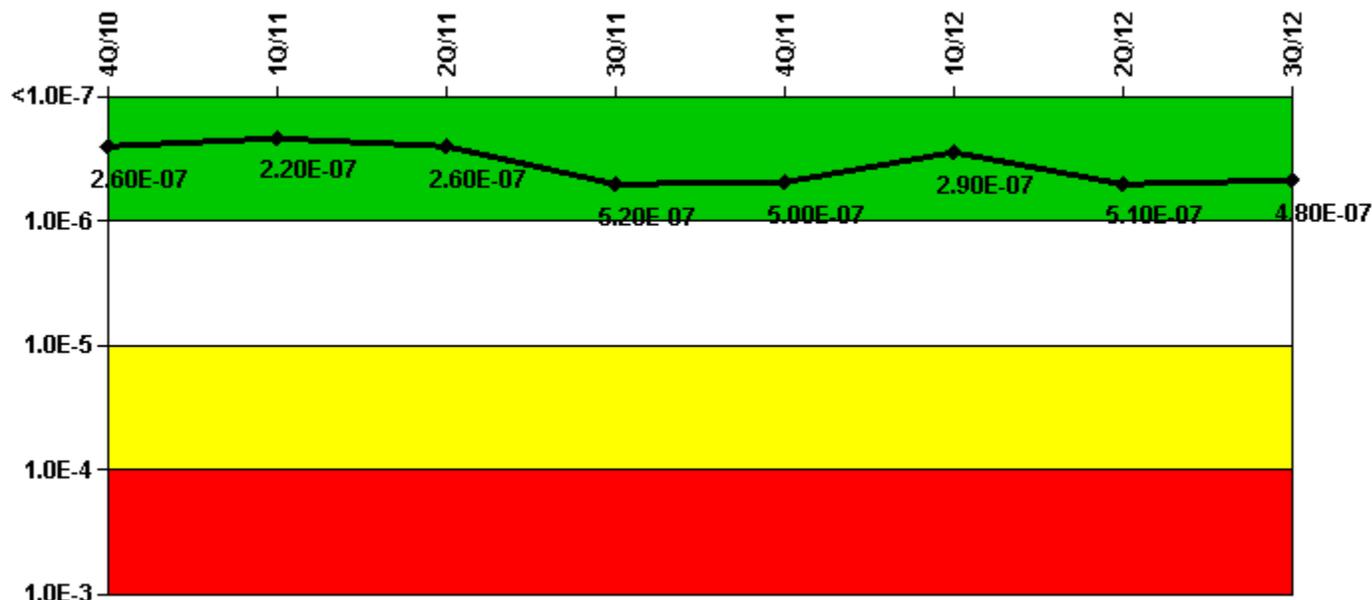
Mitigating Systems Performance Index, Emergency AC Power System	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12
UAI (Δ CDF)	2.31E-08	2.96E-08	1.30E-08	7.61E-09	5.70E-09	9.48E-09	1.05E-08	1.20E-08
URI (Δ CDF)	-3.12E-08	-3.45E-08	-3.76E-08	-1.36E-08	-1.46E-08	2.06E-08	2.19E-08	2.33E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-8.20E-09	-4.90E-09	-2.50E-08	-6.00E-09	-8.90E-09	3.00E-08	3.20E-08	3.50E-08

Licensee Comments:

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.

2Q/11: The plant specific PRA was updated. Many changes in the FV & UA and FV & UR coefficients for DG1, DG2, HPCS, RCIC, RHRA, RHRB,SWA, & SWB. However, there were no changes in the MSPI Systems ???Baseline Planned UA Coefficients for any of the MSPI Systems. There are numerous changes to the Table 2.1.1, CGS Initiating Event Frequencies. The PRA model used for this update is Rev. 7.1.

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/10	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12
UAI (Δ CDF)	7.41E-08	3.55E-08	7.10E-08	4.77E-07	4.62E-07	2.38E-07	4.51E-07	4.15E-07
URI (Δ CDF)	1.87E-07	1.86E-07	1.84E-07	4.24E-08	4.00E-08	4.81E-08	5.63E-08	6.48E-08
PLE	NO							
Indicator value	2.60E-07	2.20E-07	2.60E-07	5.20E-07	5.00E-07	2.90E-07	5.10E-07	4.80E-07

Licensee Comments:

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.

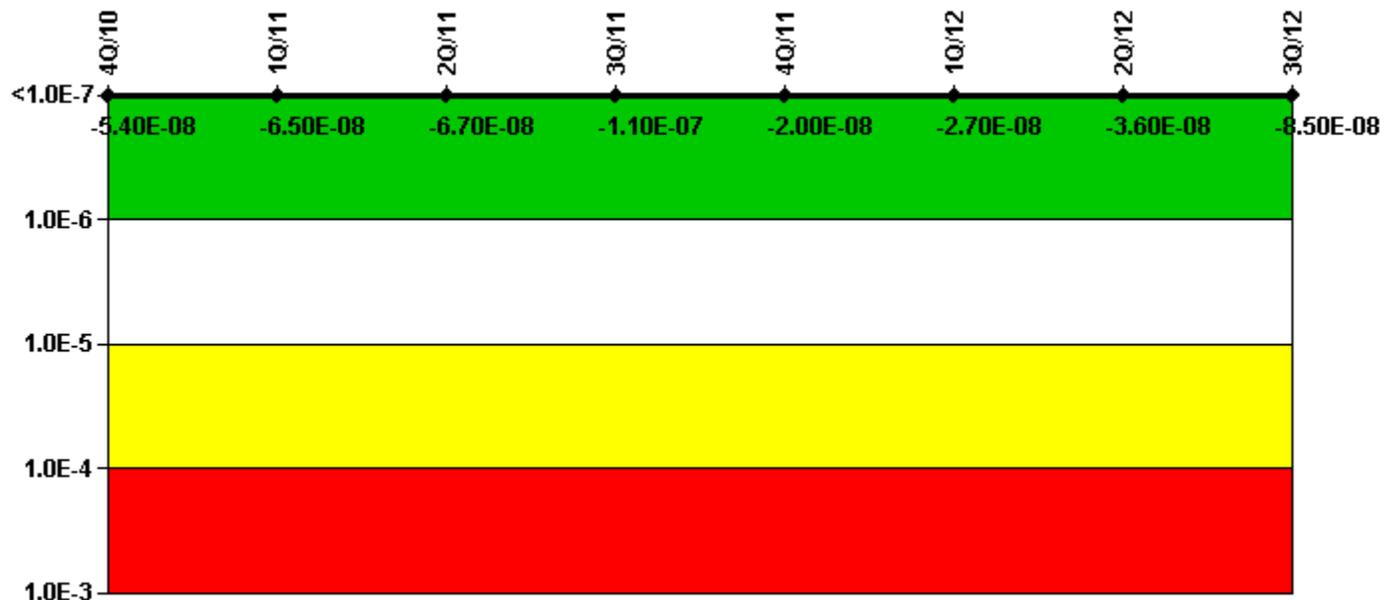
2Q/11: Risk Cap Invoked. The plant specific PRA was updated. Many changes in the FV & UA and FV & UR coefficients for DG1, DG2, HPCS, RCIC, RHRA, RHRB,SWA, & SWB. However, there were no changes in the MSPI Systems ???Baseline Planned UA Coefficients for any of the MSPI Systems. There are numerous changes to the Table 2.1.1, CGS Initiating Event Frequencies. The PRA model used for this update is Rev. 7.1.

2Q/11: The plant specific PRA was updated. Many changes in the FV & UA and FV & UR coefficients for DG1, DG2, HPCS, RCIC, RHRA, RHRB,SWA, & SWB. However, there were no changes in the MSPI Systems ???Baseline Planned UA Coefficients for any of the MSPI Systems. There are numerous changes to the Table 2.1.1, CGS Initiating Event Frequencies. The PRA model used for this update is Rev. 7.1.

1Q/11: Risk Cap Invoked.

4Q/10: Risk Cap Invoked.

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/10	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12
UAI (Δ CDF)	6.27E-08	5.15E-08	5.02E-08	3.12E-08	1.18E-07	1.11E-07	1.02E-07	5.38E-08

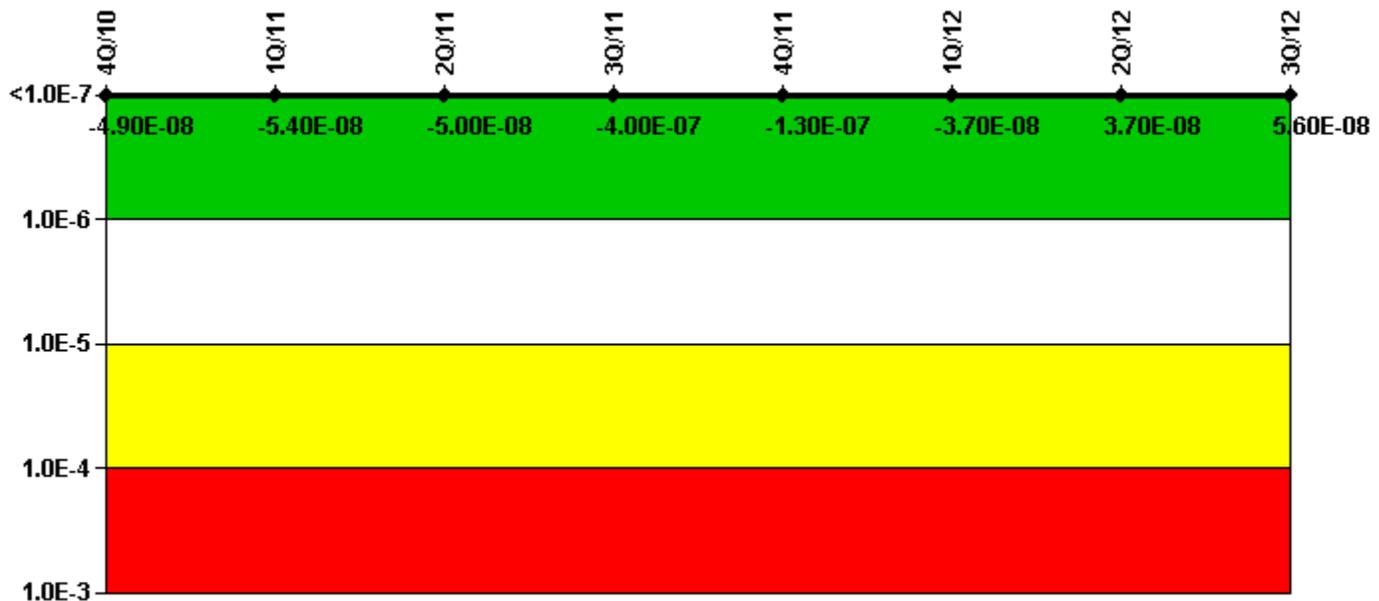
URI (ΔCDF)	-1.17E-07	-1.17E-07	-1.17E-07	-1.38E-07	-1.38E-07	-1.38E-07	-1.38E-07	-1.38E-07
PLE	NO							
Indicator value	-5.40E-08	-6.50E-08	-6.70E-08	-1.10E-07	-2.00E-08	-2.70E-08	-3.60E-08	-8.50E-08

Licensee Comments:

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.

2Q/11: The plant specific PRA was updated. Many changes in the FV & UA and FV & UR coefficients for DG1, DG2, HPCS, RCIC, RHRA, RHRB,SWA, & SWB. However, there were no changes in the MSPI Systems ???Baseline Planned UA Coefficients for any of the MSPI Systems. There are numerous changes to the Table 2.1.1, CGS Initiating Event Frequencies. The PRA model used for this update is Rev. 7.1.

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	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12

UAI (Δ CDF)	2.13E-08	1.66E-08	2.02E-08	1.92E-08	6.83E-08	1.62E-07	2.37E-07	2.55E-07
URI (Δ CDF)	-7.03E-08	-7.03E-08	-7.03E-08	-4.18E-07	-1.99E-07	-1.99E-07	-1.99E-07	-1.99E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-4.90E-08	-5.40E-08	-5.00E-08	-4.00E-07	-1.30E-07	-3.70E-08	3.70E-08	5.60E-08

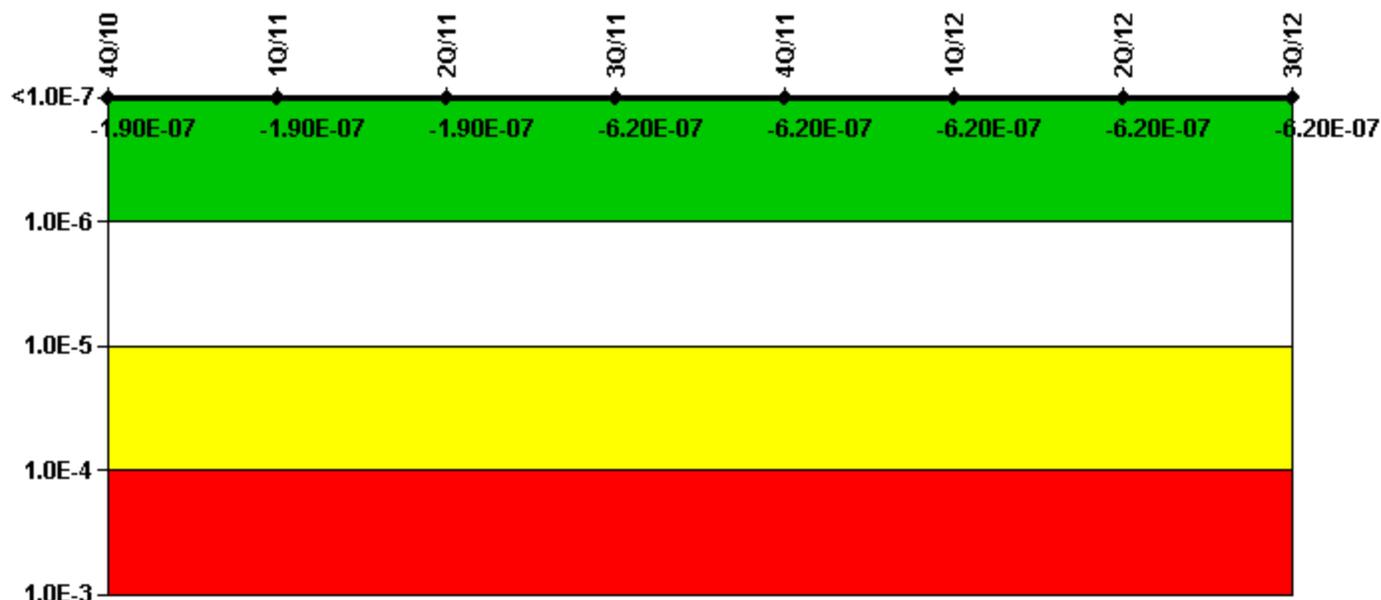
Licensee Comments:

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.

2Q/11: The plant specific PRA was updated. Many changes in the FV & UA and FV & UR coefficients for DG1, DG2, HPCS, RCIC, RHRA, RHRB, SWA, & SWB. However, there were no changes in the MSPI Systems ???Baseline Planned UA Coefficients for any of the MSPI Systems. There are numerous changes to the Table 2.1.1, CGS Initiating Event Frequencies. The PRA model used for this update is Rev. 7.1.

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/10	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12
UAI (ΔCDF)	-3.12E-08	-3.12E-08	-3.12E-08	-1.04E-07	-1.04E-07	-1.04E-07	-1.04E-07	-1.04E-07
URI (ΔCDF)	-1.63E-07	-1.63E-07	-1.63E-07	-5.19E-07	-5.19E-07	-5.19E-07	-5.19E-07	-5.19E-07
PLE	NO							
Indicator value	-1.90E-07	-1.90E-07	-1.90E-07	-6.20E-07	-6.20E-07	-6.20E-07	-6.20E-07	-6.20E-07

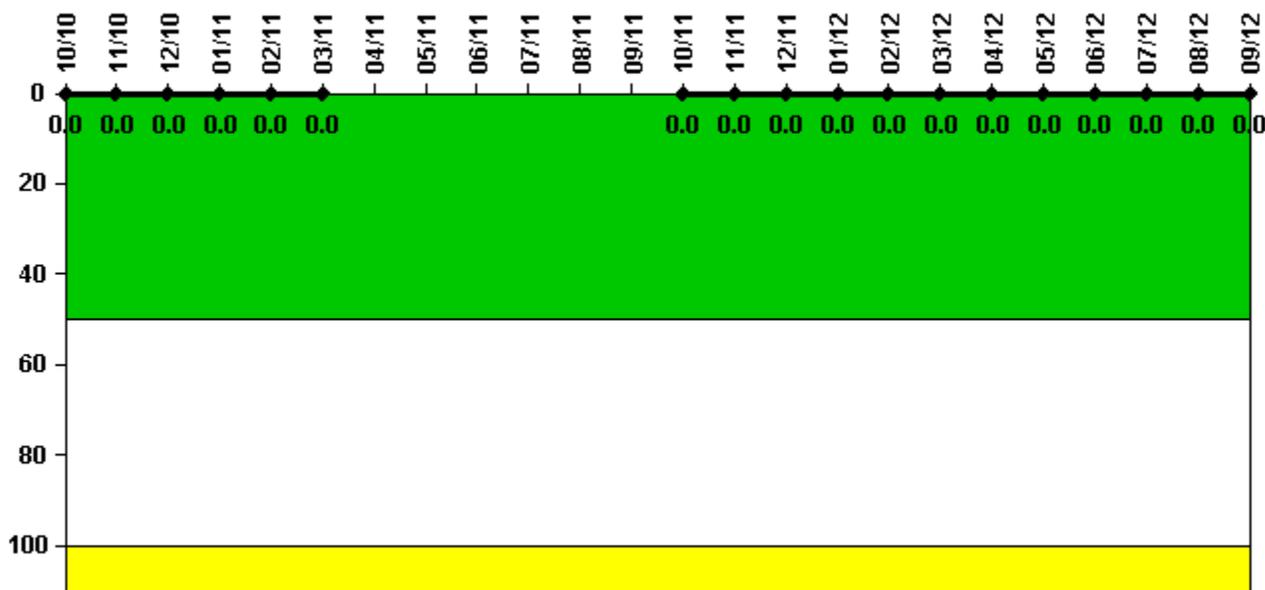
Licensee Comments:

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.

2Q/11: The plant specific PRA was updated. Many changes in the FV & UA and FV & UR coefficients for DG1, DG2, HPCS, RCIC, RHRA, RHRB,SWA, & SWB. However, there were no changes in the MSPI Systems ???Baseline Planned UA Coefficients for any of the MSPI Systems. There are numerous changes to the Table 2.1.1, CGS Initiating Event Frequencies. The PRA model used for this update is Rev. 7.1.

Reactor Coolant System Activity



Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Activity	10/10	11/10	12/10	1/11	2/11	3/11	4/11	5/11	6/11	7/11	8/11	9/11
Maximum activity	0.000002	0.000002	0.000002	0.000002	0.000002	0.000003	N/A	N/A	N/A	N/A	N/A	N/A
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	N/A	N/A	N/A	N/A	N/A	N/A

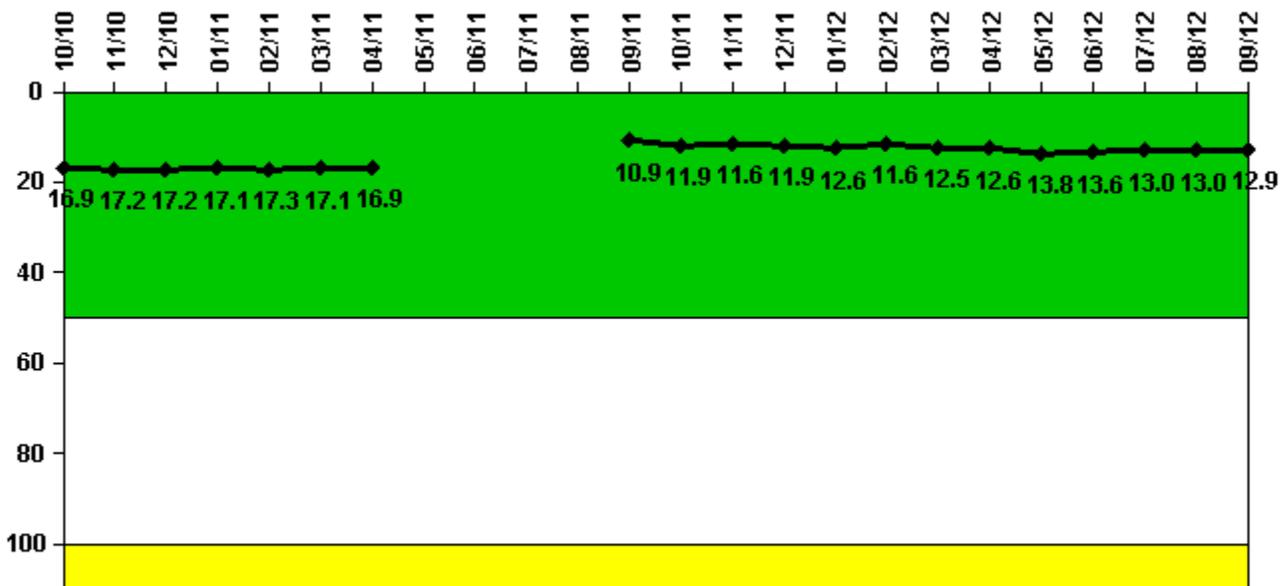
Reactor Coolant System Activity	10/11	11/11	12/11	1/12	2/12	3/12	4/12	5/12	6/12	7/12	8/12	9/12
Maximum activity	0.000002	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001	0.000003	0.000001	0.000001	0.000001
Technical specification limit	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Indicator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

Licensee Comments:

9/11: CGS is in refueling outage R-20.

6/11: CGS is in refueling outage R-20.

Reactor Coolant System Leakage



Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Leakage	10/10	11/10	12/10	1/11	2/11	3/11	4/11	5/11	6/11	7/11	8/11	9/11
Maximum leakage	4.230	4.310	4.310	4.280	4.320	4.270	4.230	N/A	N/A	N/A	N/A	2.730
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	16.9	17.2	17.2	17.1	17.3	17.1	16.9	N/A	N/A	N/A	N/A	10.9

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

Licensee Comments:

9/11: CGS is in refueling outage R-20. Data changed to conform to NEI 99-02. Tech Specs do not require RCS Leakage measurement in Modes 4 or 5.

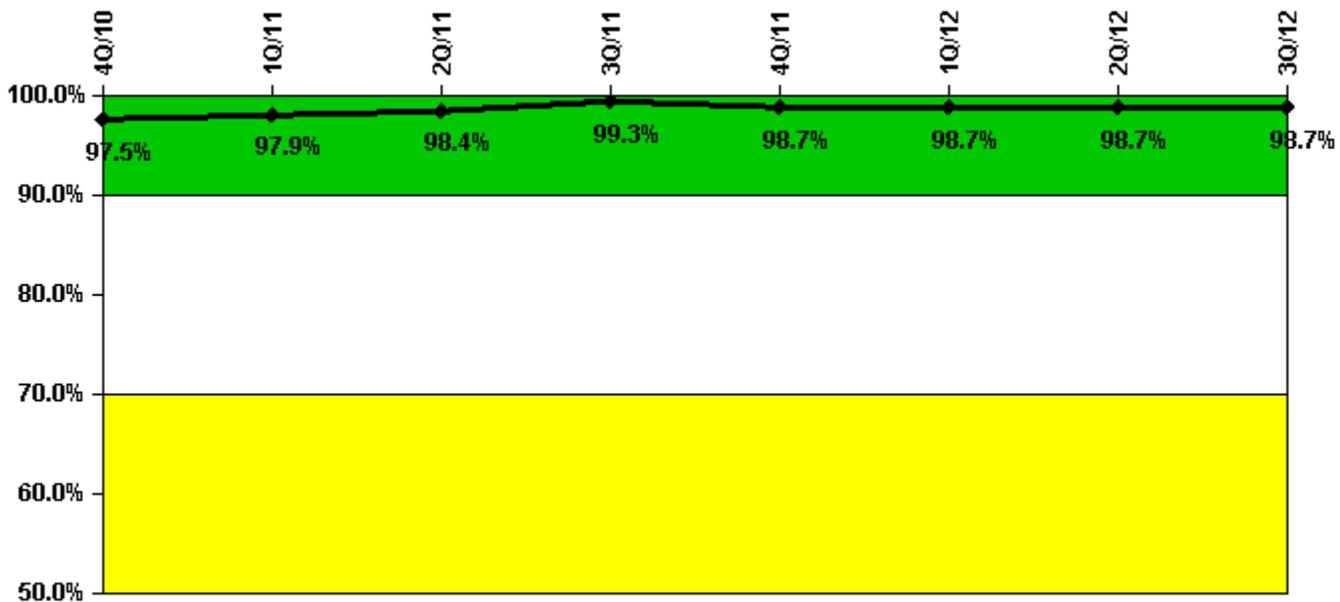
9/11: CGS is in refueling outage R-20. Data changed to conform to NEI 99-02. Tech Specs do not require RCS

Leakage measurement in Modes 4 or 5.

6/11: CGS is in refueling outage R-20. Data changed to conform to NEI 99-02. Tech Specs do not require RCS Leakage measurement in Modes 4 or 5.

6/11: CGS is in refueling outage R-20. Data changed to conform to NEI 99-02. Tech Specs do not require RCS Leakage measurement in Modes 4 or 5.

Drill/Exercise Performance



Thresholds: White < 90.0% Yellow < 70.0%

Notes

Drill/Exercise Performance	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12
Successful opportunities	57.0	19.0	5.0	33.0	91.0	31.0	41.0	38.0
Total opportunities	57.0	19.0	5.0	33.0	93.0	31.0	42.0	39.0
Indicator value	97.5%	97.9%	98.4%	99.3%	98.7%	98.7%	98.7%	98.7%

Licensee Comments:

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



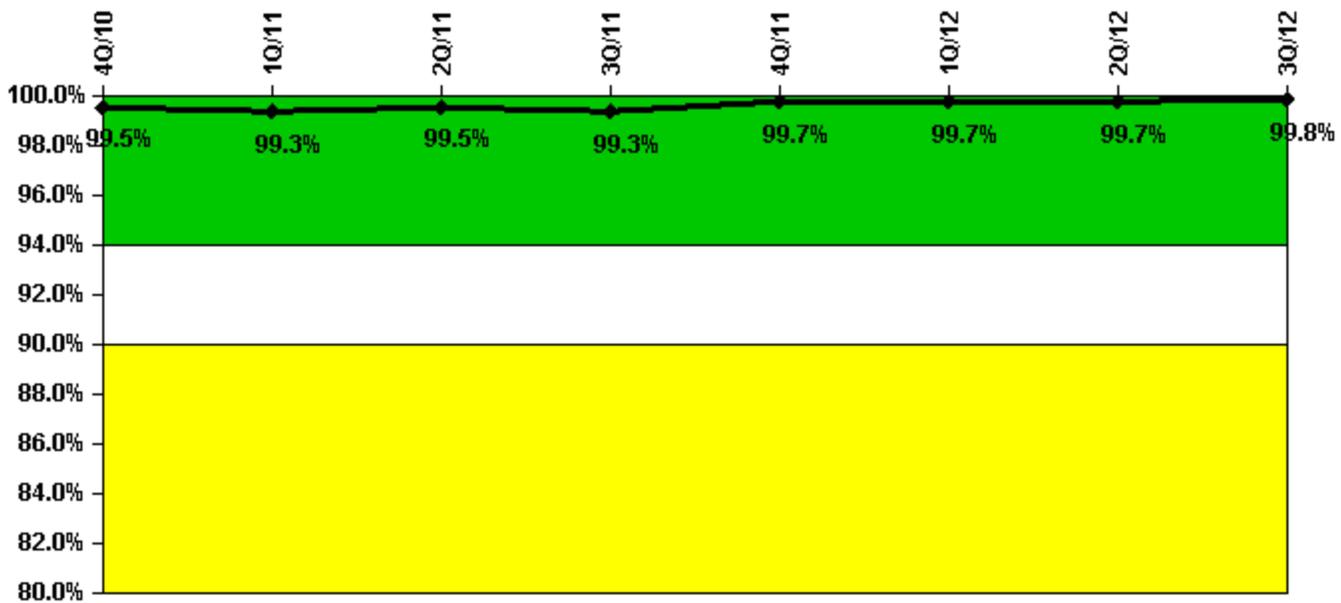
Thresholds: White < 80.0% Yellow < 60.0%

Notes

ERO Drill Participation	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12
Participating Key personnel	56.0	57.0	55.0	54.0	55.0	59.0	62.0	56.0
Total Key personnel	56.0	57.0	55.0	54.0	55.0	59.0	62.0	56.0
Indicator value	100.0%							

Licensee Comments: none

Alert & Notification System



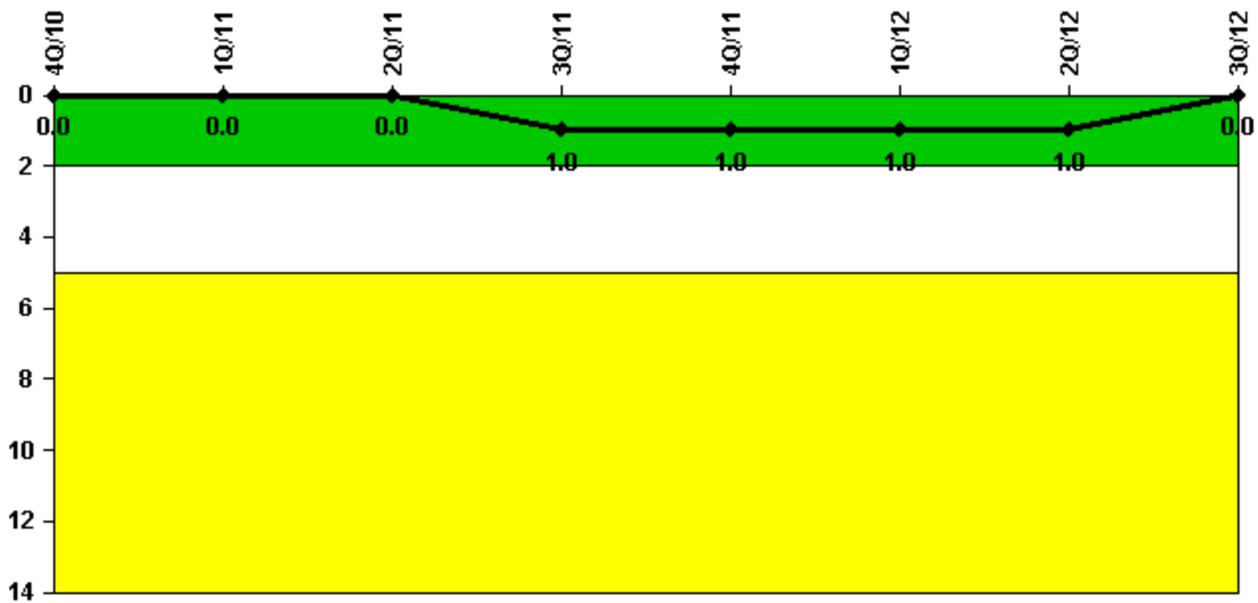
Thresholds: White < 94.0% Yellow < 90.0%

Notes

Alert & Notification System	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12
Successful siren-tests	152	140	143	142	154	153	143	143
Total sirens-tests	154	141	143	143	154	154	143	143
Indicator value	99.5%	99.3%	99.5%	99.3%	99.7%	99.7%	99.7%	99.8%

Licensee Comments: none

Occupational Exposure Control Effectiveness



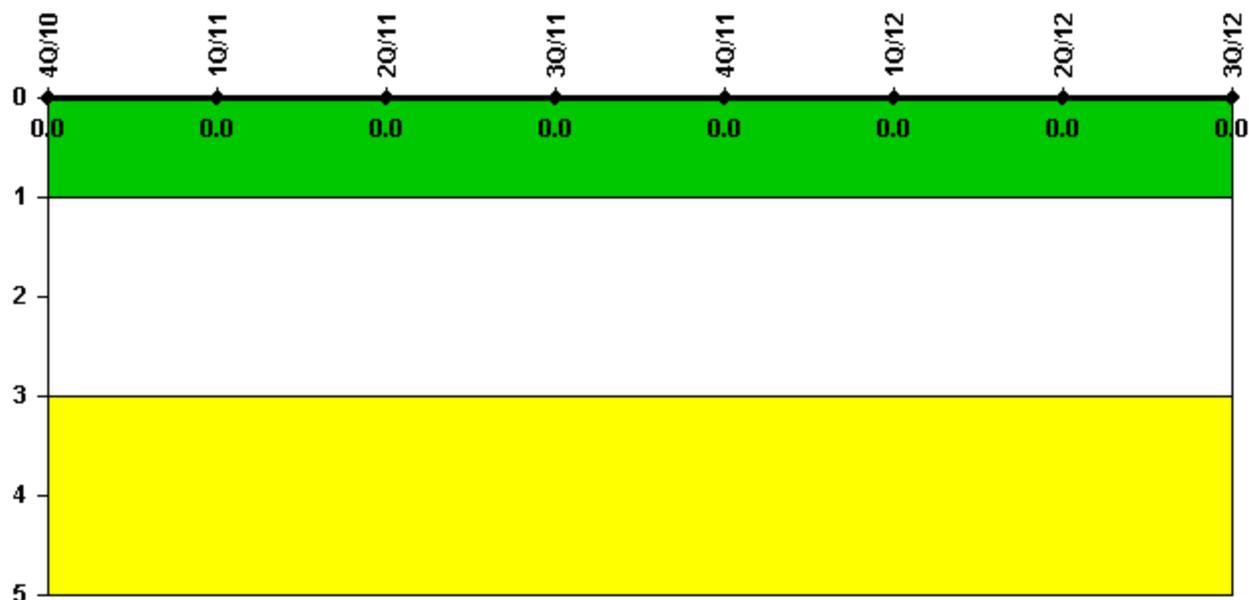
Thresholds: White > 2.0 Yellow > 5.0

Notes

Occupational Exposure Control Effectiveness	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12
High radiation area occurrences	0	0	0	1	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	1	1	1	1	0

Licensee Comments: none

RETS/ODCM Radiological Effluent



Thresholds: White > 1.0 Yellow > 3.0

Notes

RETS/ODCM Radiological Effluent	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/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

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 24, 2012