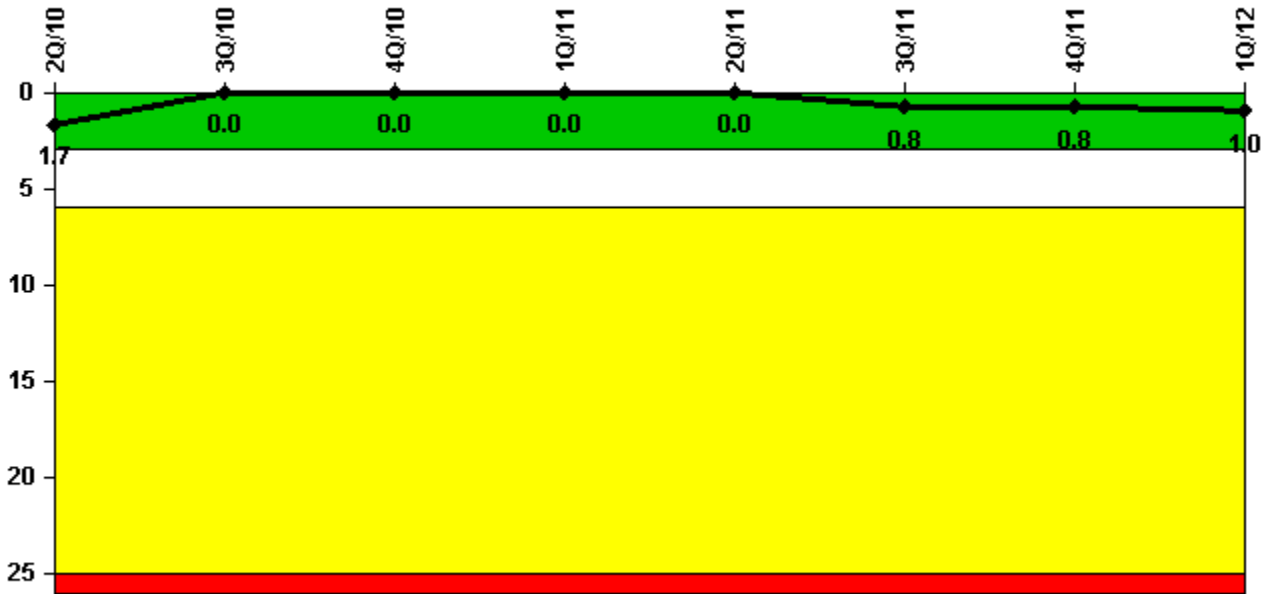


San Onofre 2

1Q/2012 Performance Indicators

Licensee's General Comments: none

Unplanned Scrams per 7000 Critical Hrs



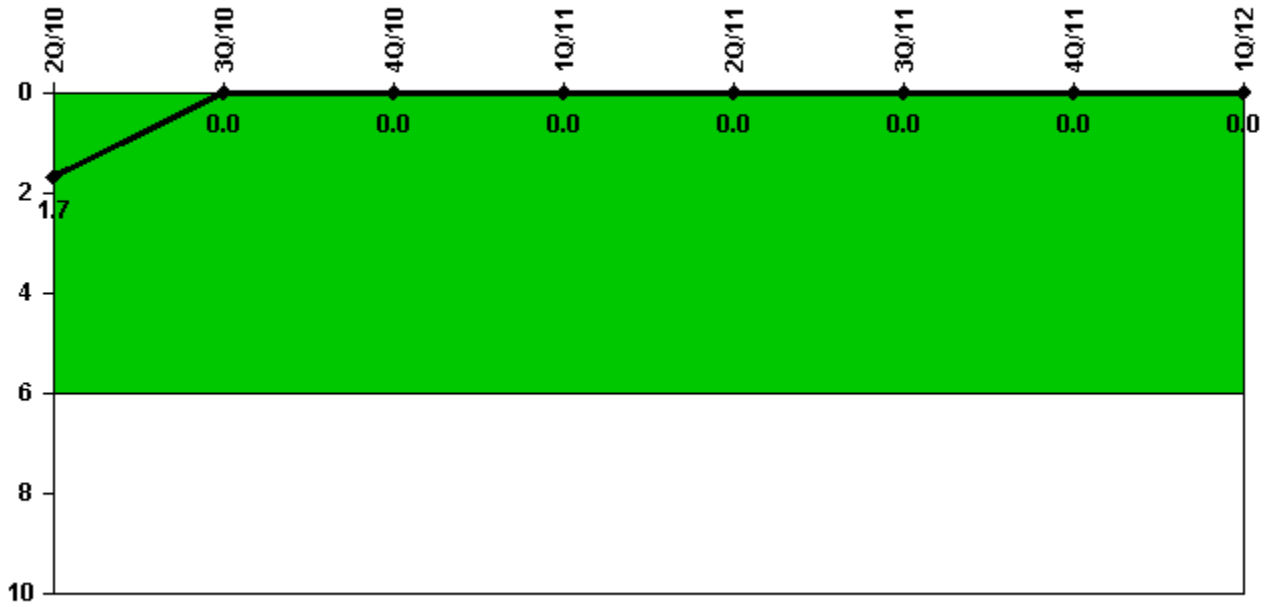
Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

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	1.0	0	0
Critical hours	2003.8	2208.0	2209.0	2159.0	2184.0	2162.1	2209.0	212.7
Indicator value	1.7	0	0	0	0	0.8	0.8	1.0

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	0	0	0	0	0	0	0	0
Critical hours	2003.8	2208.0	2209.0	2159.0	2184.0	2162.1	2209.0	212.7
Indicator value	1.7	0	0	0	0	0	0	0

Licensee Comments: none

Unplanned Scrams with Complications



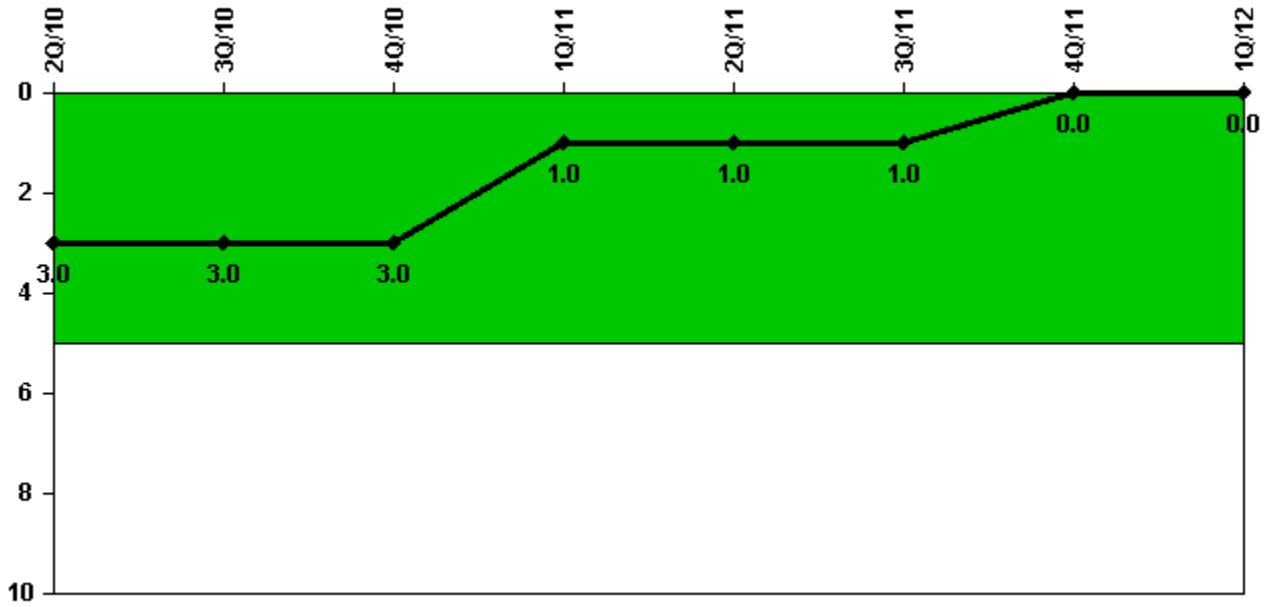
Thresholds: White > 1.0

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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Licensee Comments: none

Safety System Functional Failures (PWR)



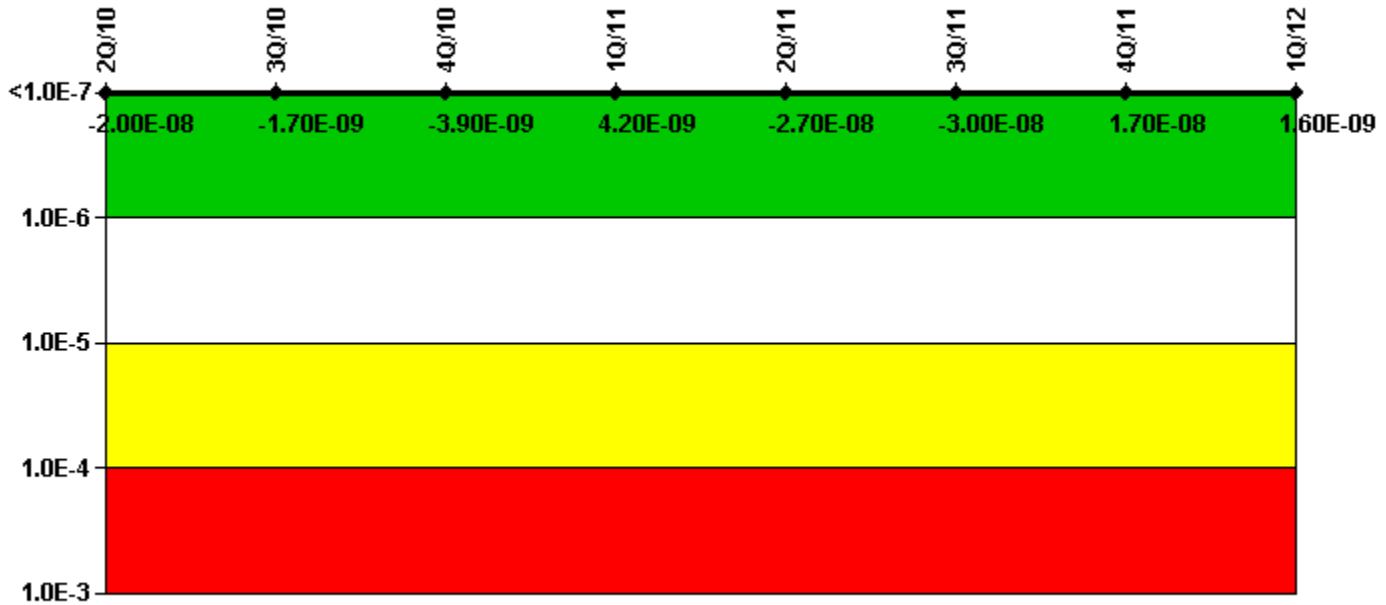
Thresholds: White > 5.0

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	0	0	1	0	0	0	0	0
Indicator value	3	3	3	1	1	1	0	0

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/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12
UAI (ΔCDF)	3.42E-08	3.68E-08	3.46E-08	4.27E-08	3.76E-08	3.46E-08	6.44E-08	5.75E-08
URI (ΔCDF)	-5.39E-08	-3.85E-08	-3.85E-08	-3.85E-08	-6.46E-08	-6.46E-08	-4.77E-08	-5.59E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-2.00E-08	-1.70E-09	-3.90E-09	4.20E-09	-2.70E-08	-3.00E-08	1.70E-08	1.60E-09

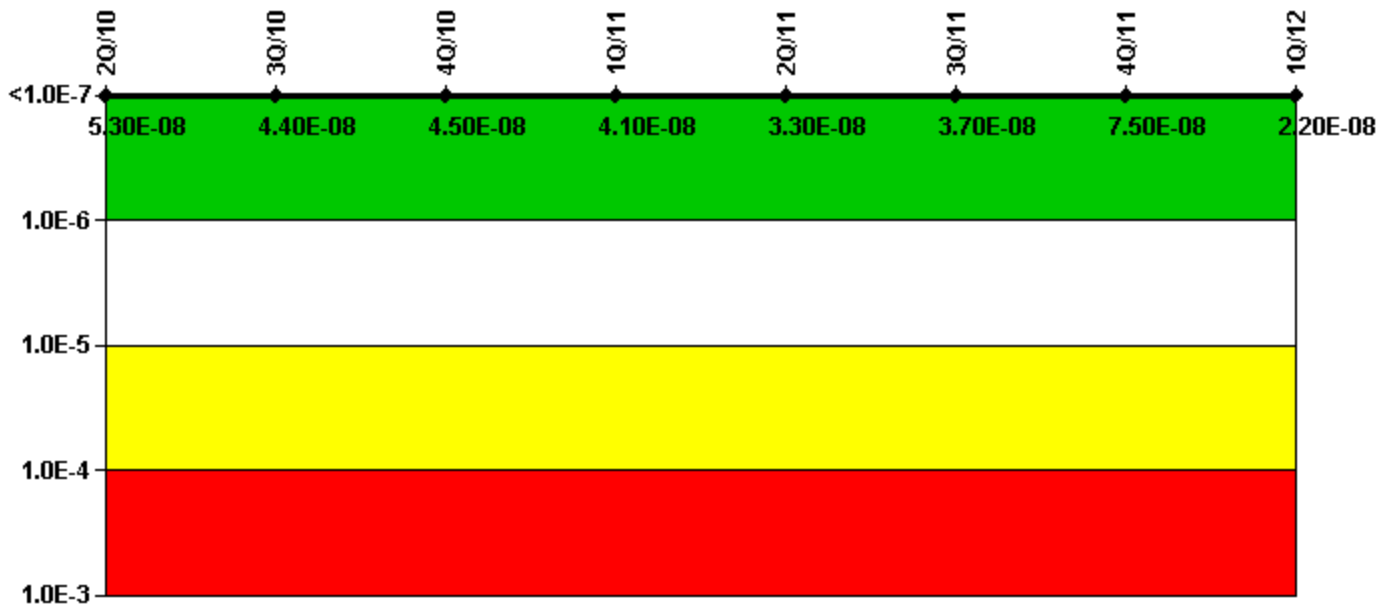
Licensee Comments:

1Q/12: FAQ 11-06, MSPI EDG Run Hour Reporting, requires that the 1st hour of actual EDG run times be excluded when calculating EDG failure rates. Implementing this FAQ in PRA resulted in increased EDG failure to run probabilities and increase in Birnbaum for EDG components unreliability and train unavailability.

4Q/11: CDE Comment for PRA Parameter Changes for 4Q11. PRACP-11-0004 models the removal of credit for transferring RCP's power to the other unit on loss of offsite power. This would increase the failure probability of normal Pressurizer Spray, which is provided by the RCPs. Hence, the Auxiliary Spray becomes more important. The suction valve for the Auxiliary Spray is a Train B valve, which makes Train B EDG more important. The Birnbaum values for Train B EDG components increased up to 46%. The Birnbaum value for train unavailability increased 10%.

3Q/11: PRACP-11-0004 models the removal of credit for transferring RCPs power to the other unit on loss of offsite power. This would increase the failure probability of normal Pressurizer Spray, which is provided by the RCPs. Hence, the Auxiliary Spray becomes more important. The suction valve for the Auxiliary Spray is a Train B valve, which makes Train B EDG more important. The Birnbaum values for Train B EDG components increased up to 46%. The Birnbaum value for train unavailability increased 10%.

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 (Δ CDF)	1.07E-07	9.77E-08	9.91E-08	9.50E-08	8.71E-08	9.13E-08	1.29E-07	6.74E-08
URI (Δ CDF)	-5.43E-08	-5.41E-08	-5.41E-08	-5.41E-08	-5.41E-08	-5.41E-08	-5.42E-08	-4.50E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	5.30E-08	4.40E-08	4.50E-08	4.10E-08	3.30E-08	3.70E-08	7.50E-08	2.20E-08

Licensee Comments:

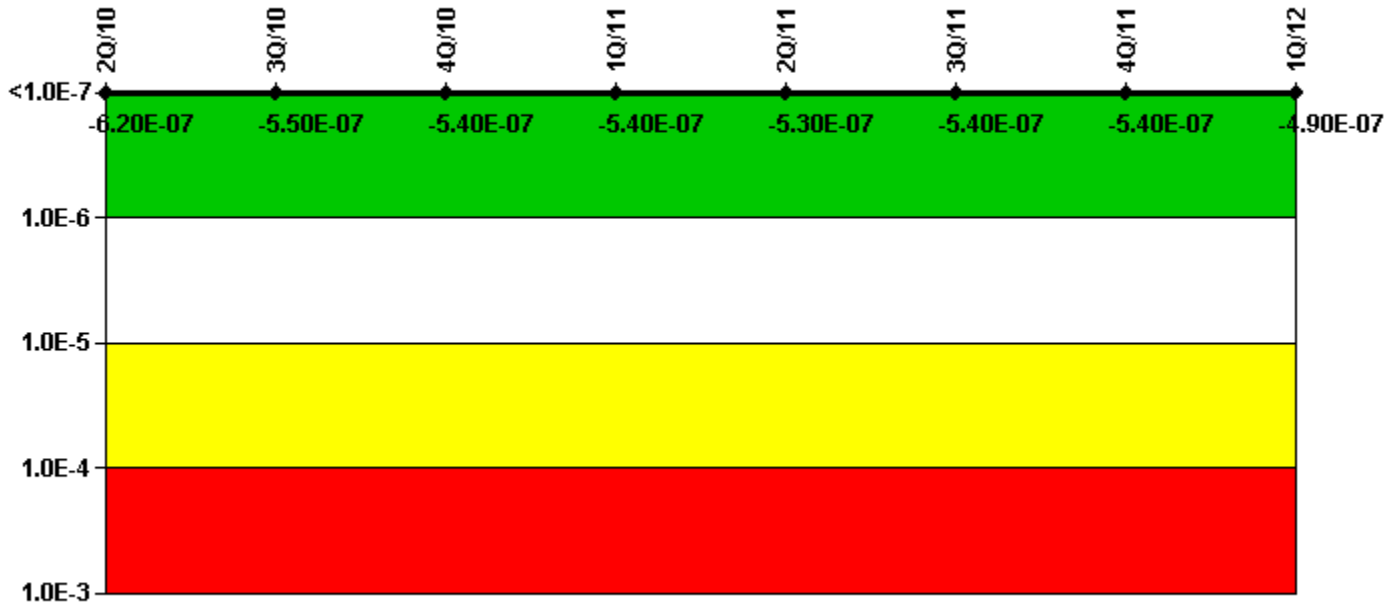
1Q/12: FAQ 11-06, MSPI EDG Run Hour Reporting, requires that the 1st hour of actual EDG run times be excluded when calculating EDG failure rates. Implementing this FAQ in PRA has negligible impact on HPSI system Birnbaum for component unreliability and train unavailability.

4Q/11: CDE Comment for PRA Parameter Changes for 4Q11. For HPSI system, all Birnbaum values are within 1% change compared to last quarter's Birnbaum values.

3Q/11: For HPSI system, all Birnbaum values are within 1% change compared to last quarters Birnbaum values.

2Q/10: The FV/UR ratios for HPSI pumps were calculated using Option 1 in NEI 99-02 Section F.2.3.3. For 2Q10, Option 2 is used to calculate separate FV/UR ratios for failure to start and failure to run modes.

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/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12
UAI (Δ CDF)	-1.54E-07	-1.45E-07	-1.37E-07	-1.38E-07	-1.38E-07	-1.38E-07	-1.38E-07	-1.06E-07
URI (Δ CDF)	-4.66E-07	-4.03E-07	-4.03E-07	-4.03E-07	-3.95E-07	-4.05E-07	-4.03E-07	-3.82E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-6.20E-07	-5.50E-07	-5.40E-07	-5.40E-07	-5.30E-07	-5.40E-07	-5.40E-07	-4.90E-07

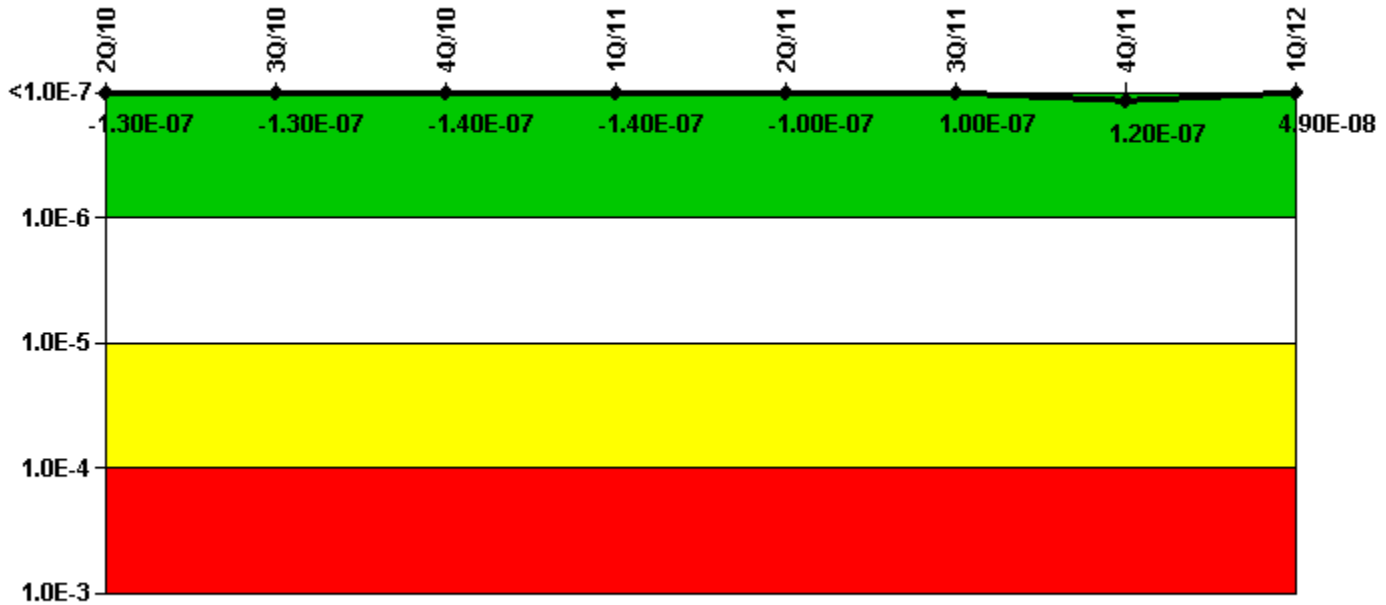
Licensee Comments:

1Q/12: FAQ 11-06, MSPI EDG Run Hour Reporting, requires that the 1st hour of actual EDG run times be excluded when calculating EDG failure rates. Implementing this FAQ in PRA resulted in increased EDG failure to run probabilities and slight increase in Birnbaum for Turbine Driven AFW pump train components unreliability and train unavailability.

4Q/11: CDE Comment for PRA Parameter Changes for 4Q11. For AFW system, all Birnbaum values are within 1% change compared to last quarter's Birnbaum values.

3Q/11: For AFW system, all Birnbaum values are within 1% change compared to last quarters Birnbaum values.

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 (Δ CDF)	-1.09E-07	-1.07E-07	-1.12E-07	-1.12E-07	-7.85E-08	1.27E-07	1.49E-07	6.94E-08
URI (Δ CDF)	-2.51E-08	-2.50E-08	-2.50E-08	-2.50E-08	-2.50E-08	-2.50E-08	-2.50E-08	-2.06E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-1.30E-07	-1.30E-07	-1.40E-07	-1.40E-07	-1.00E-07	1.00E-07	1.20E-07	4.90E-08

Licensee Comments:

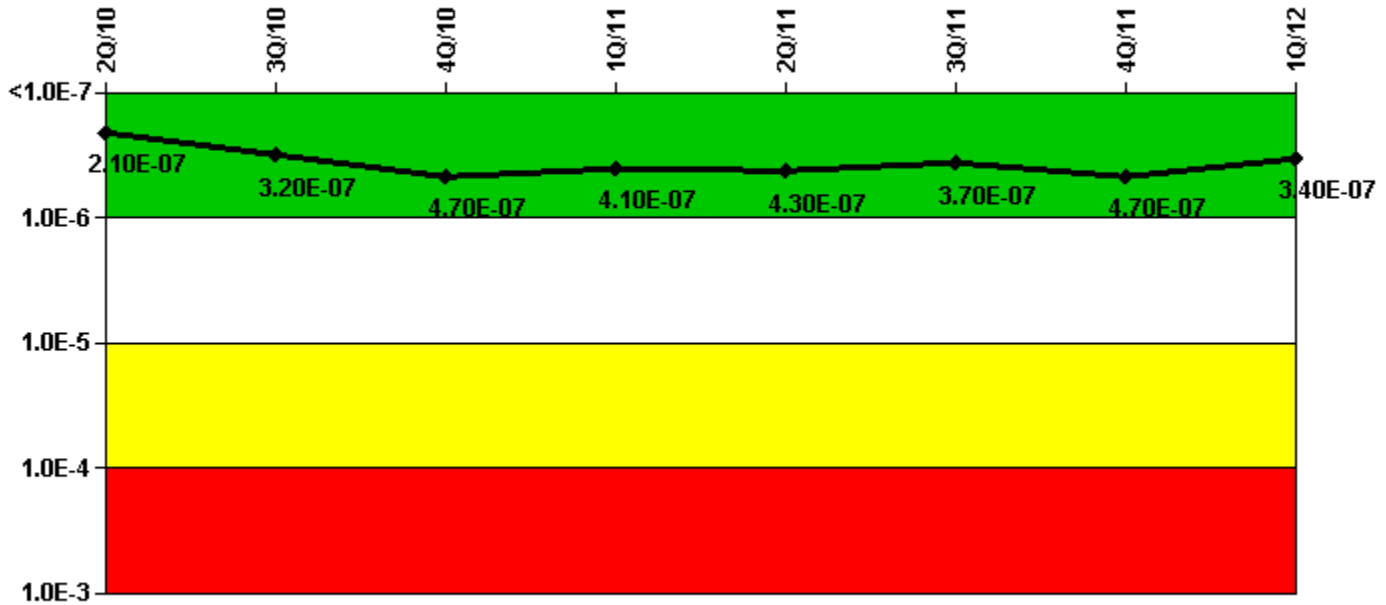
1Q/12: FAQ 11-06, MSPI EDG Run Hour Reporting, requires that the 1st hour of actual EDG run times be excluded when calculating EDG failure rates. Implementing this FAQ in PRA has negligible impact on Containment Spray (RHR) system Birnbaum for component unreliability and train unavailability.

4Q/11: CDE Comment for PRA Parameter Changes for 4Q11. For RHR system, all Birnbaum values are within 1% change compared to last quarter's Birnbaum values.

3Q/11: For RHR system, all Birnbaum values are within 1% change compared to last quarters Birnbaum values.

2Q/10: The FV/UR ratios for CS pumps were calculated using Option 1 in NEI 99-02 Section F.2.3.3. For 2Q10, Option 2 is used to calculate separate FV/UR ratios for failure to start and failure to run modes.

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)	3.26E-07	4.38E-07	5.93E-07	5.34E-07	5.47E-07	4.93E-07	5.93E-07	4.15E-07
URI (ΔCDF)	-1.20E-07	-1.19E-07	-1.19E-07	-1.19E-07	-1.19E-07	-1.19E-07	-1.19E-07	-7.50E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	2.10E-07	3.20E-07	4.70E-07	4.10E-07	4.30E-07	3.70E-07	4.70E-07	3.40E-07

Licensee Comments:

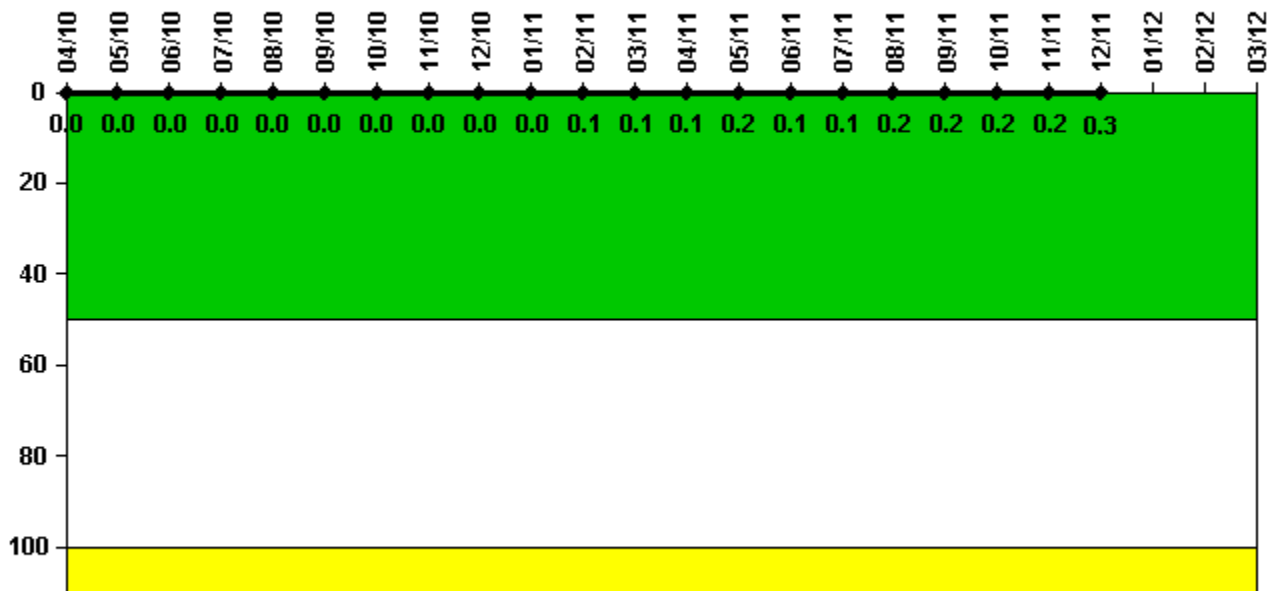
1Q/12: FAQ 11-06, MSPI EDG Run Hour Reporting, requires that the 1st hour of actual EDG run times be excluded when calculating EDG failure rates. Implementing this FAQ in PRA has negligible impact on Support System Cooling Birnbaum for component unreliability and train unavailability.

4Q/11: CDE Comment for PRA Parameter Changes for 4Q11. For Supporting System Cooling system, all Birnbaum values are within 1% change compared to last quarter's Birnbaum values.

3Q/11: For Supporting System Cooling system, all Birnbaum values are within 1% change compared to last quarters Birnbaum values.

3Q/10: Three hours of unavailability time added for June 2010 for CCW HX inoperability due to fouling. (NN 200950125)

Reactor Coolant System Activity



Thresholds: White > 50.0 Yellow > 100.0

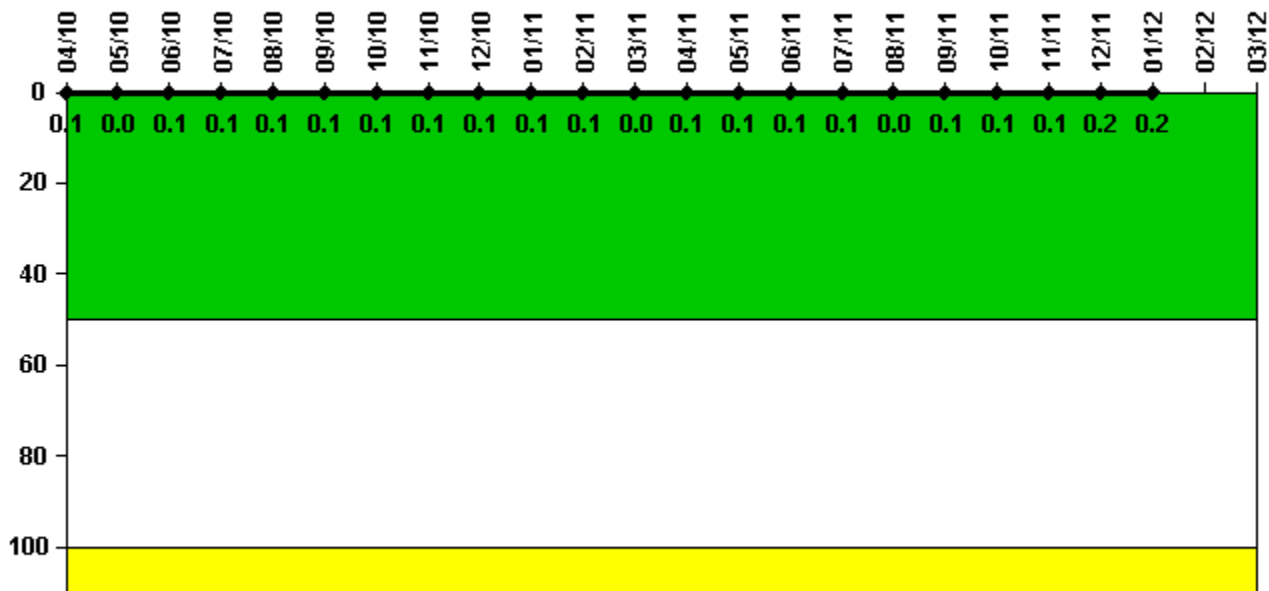
Notes

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	0.000112	0.000110	0.000301	0.000291	0.000266	0.000280	0.000317	0.000306	0.000335	0.000370	0.000752	0.000962
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	0	0	0	0	0	0	0	0	0	0.1	0.1
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	0.001360	0.001610	0.001230	0.001410	0.001820	0.001670	0.001580	0.002050	0.002500	N/A	N/A	N/A
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	0.1	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.3	N/A	N/A	N/A

Licensee Comments:

3/12: Unit 2 RCS activity data not required for Jan 2012 - Mar 2012

Reactor Coolant System Leakage



Thresholds: White > 50.0 Yellow > 100.0

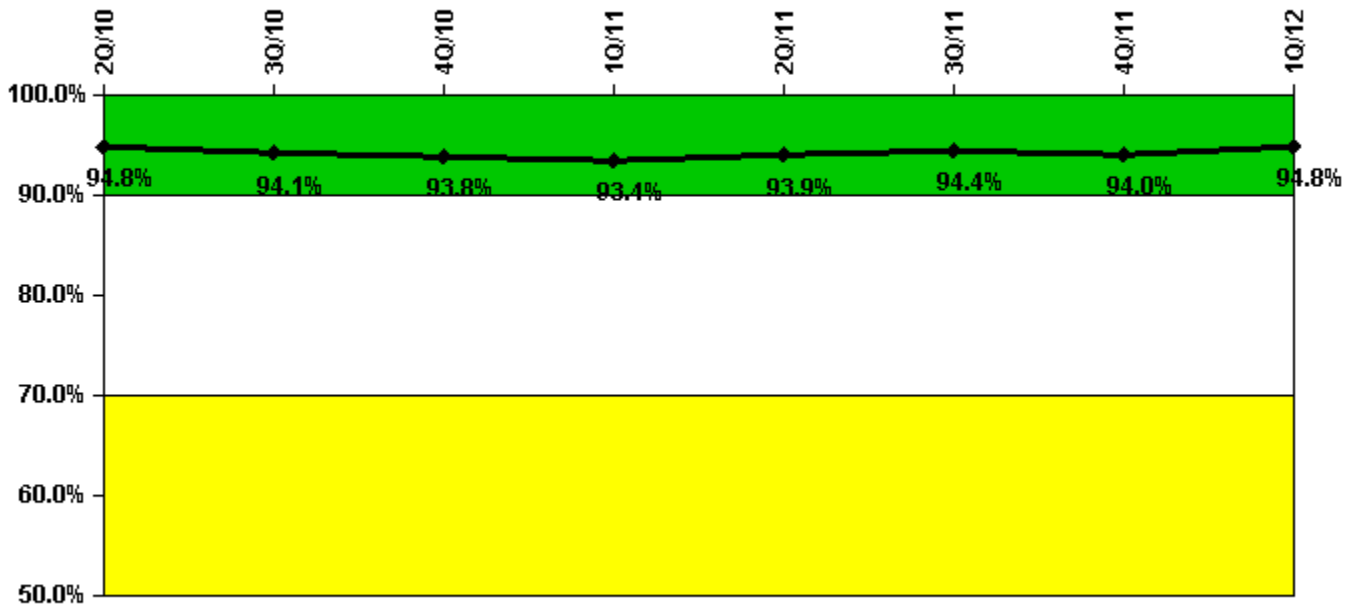
Notes

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	0.010	0	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	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
Indicator value	0.1	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0
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	0.010	0.010	0.010	0.010	0	0.010	0.010	0.010	0.020	0.020	N/A	N/A
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	0.1	0.1	0.1	0.1	0	0.1	0.1	0.1	0.2	0.2	N/A	N/A

Licensee Comments:

3/12: Unit 2 RCS leakage data not required for Feb 2012 - Mar 2012

Drill/Exercise Performance



Thresholds: White < 90.0% Yellow < 70.0%

Notes

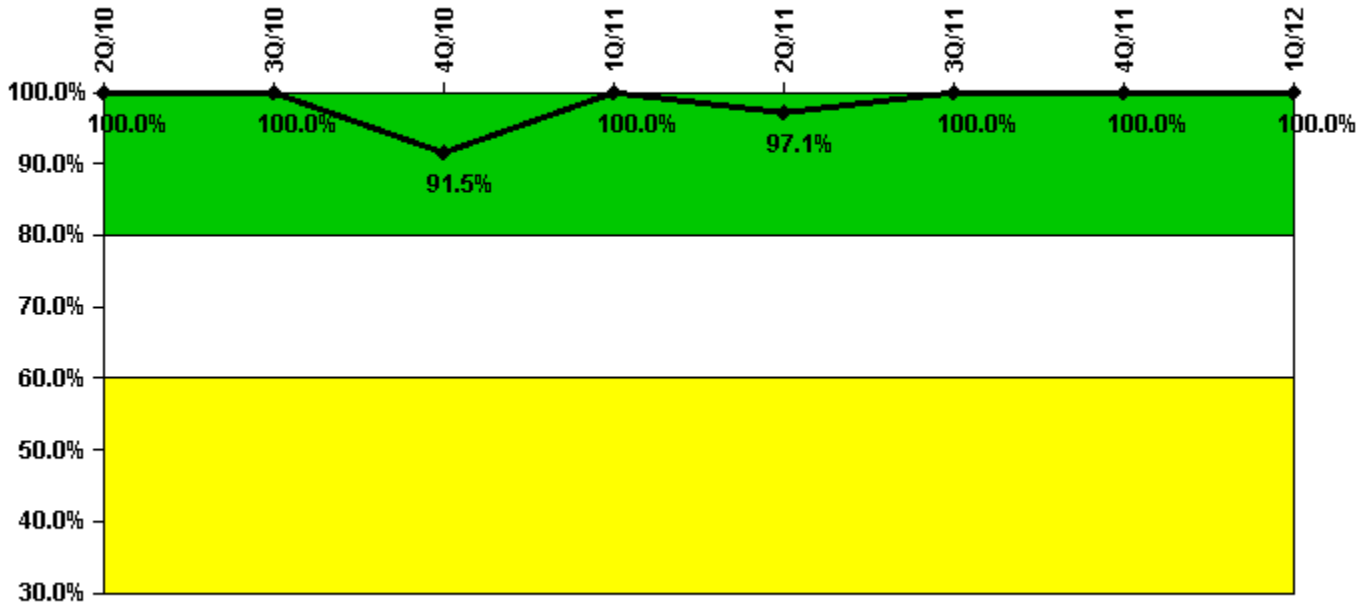
Drill/Exercise Performance	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12
Successful opportunities	52.0	50.0	0	25.0	65.0	60.0	128.0	21.0
Total opportunities	52.0	55.0	0	27.0	66.0	65.0	136.0	22.0
Indicator value	94.8%	94.1%	93.8%	93.4%	93.9%	94.4%	94.0%	94.8%

Licensee Comments:

3Q/10: June 2010 Successful Opportunities changed from 31 to 30. Logs and forms produced by participants, normally retained as objective evidence (OE), were inadvertently discarded. Previous decision to allow instructor's evaluation to serve as OE was reversed following review of guidance documents and Industry peer review. (NN 20107004)

2Q/10: June 2010 Successful opportunities changed from 31 to 30. Logs and forms produced by participants, normally retained as objective evidence (OE), were inadvertently discarded. Previous decision to allow instructor's evaluation to serve as OE was reversed following review of guidance documents and Industry peer review. (NN 20107004)

ERO Drill Participation



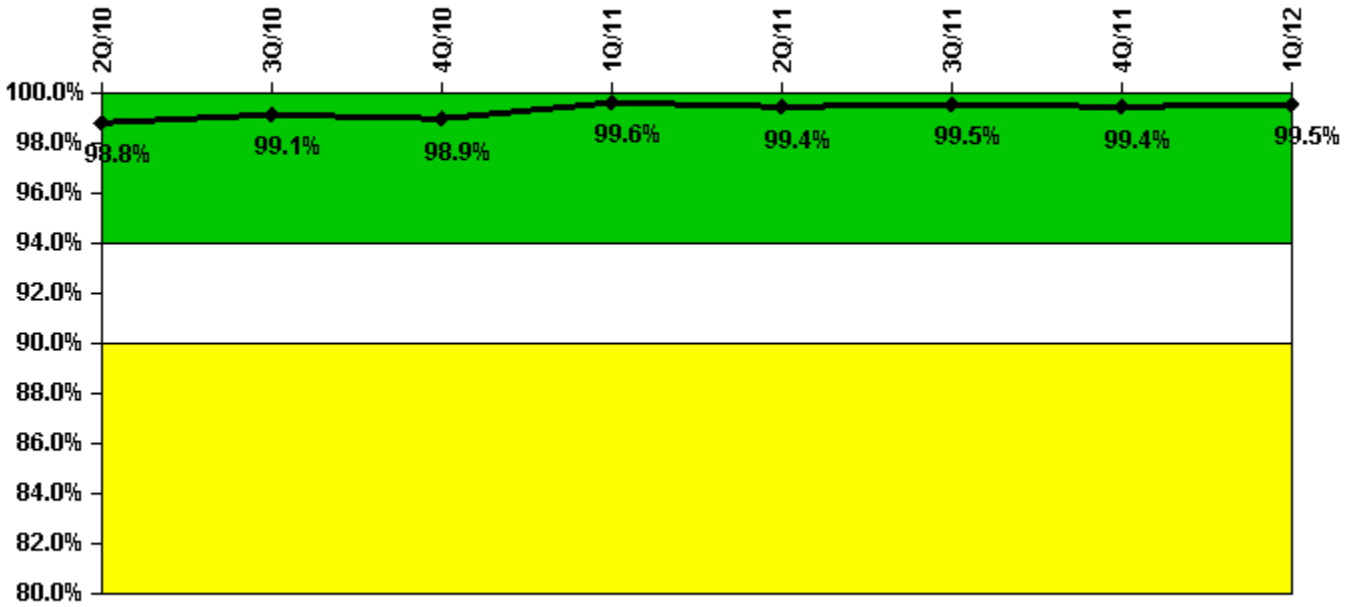
Thresholds: White < 80.0% Yellow < 60.0%

Notes

ERO Drill Participation	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12
Participating Key personnel	74.0	65.0	65.0	68.0	66.0	72.0	73.0	72.0
Total Key personnel	74.0	65.0	71.0	68.0	68.0	72.0	73.0	72.0
Indicator value	100.0%	100.0%	91.5%	100.0%	97.1%	100.0%	100.0%	100.0%

Licensee Comments: none

Alert & Notification System



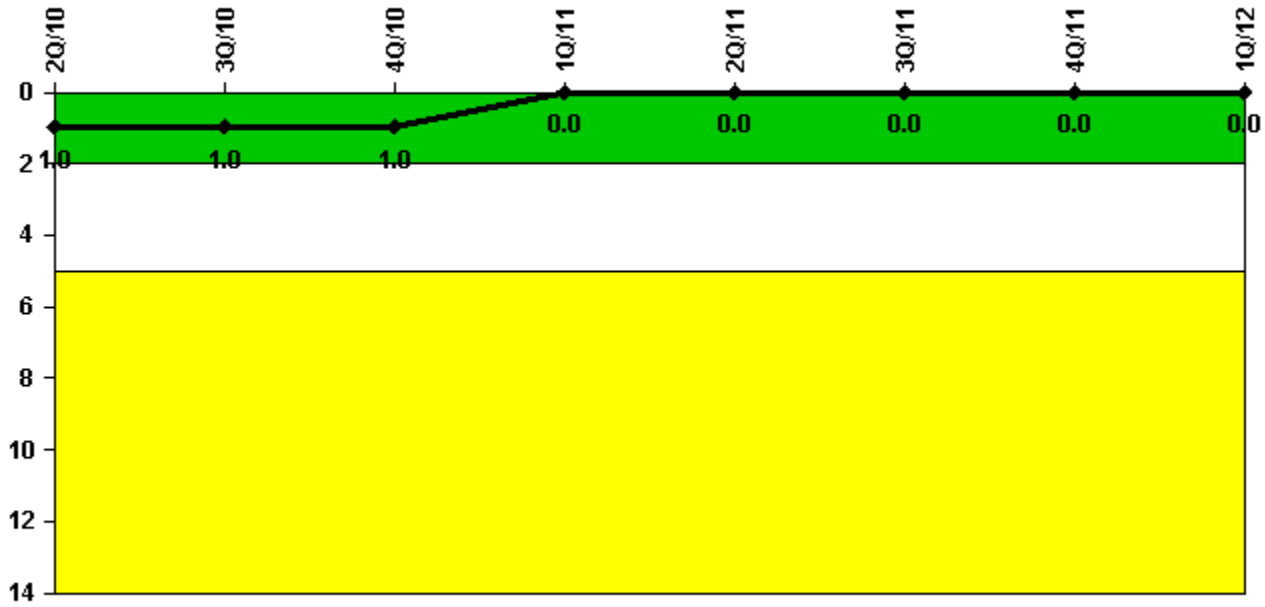
Thresholds: White < 94.0% Yellow < 90.0%

Notes

Alert & Notification System	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12
Successful siren-tests	405	399	447	394	347	399	445	400
Total sirens-tests	406	400	450	396	350	399	450	400
Indicator value	98.8%	99.1%	98.9%	99.6%	99.4%	99.5%	99.4%	99.5%

Licensee Comments: none

Occupational Exposure Control Effectiveness



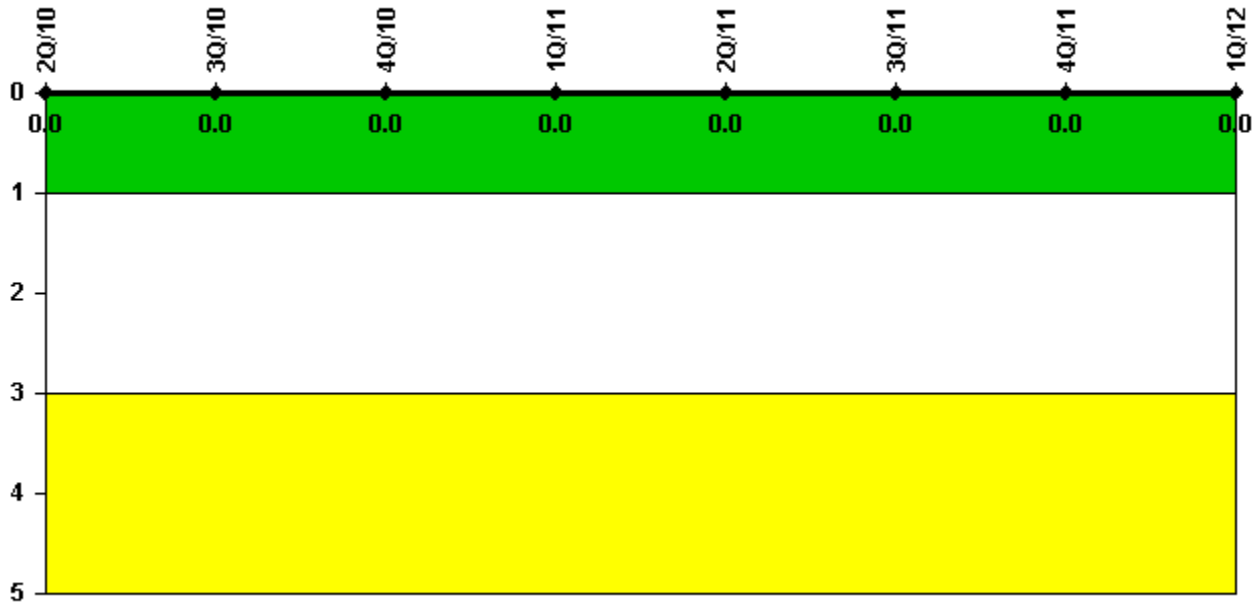
Thresholds: White > 2.0 Yellow > 5.0

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	1	1	1	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.