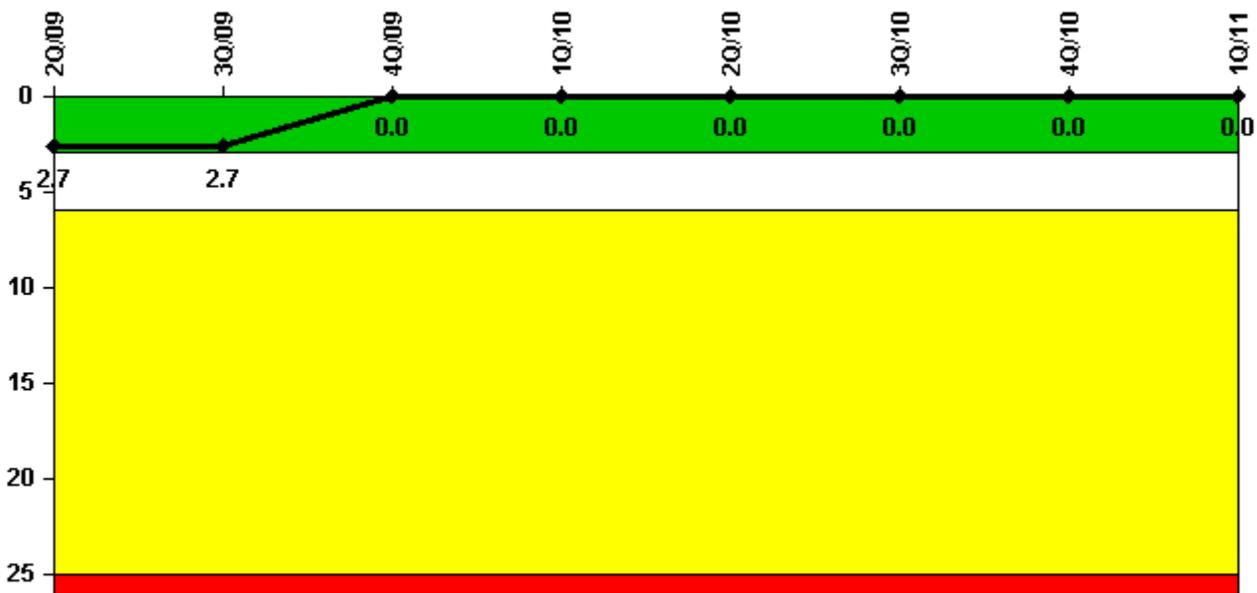


Callaway

1Q/2011 Performance Indicators

Licensee's General Comments: When preparing the 2011Q1 data submittal, Callaway identified the following with regard to the RCS specific activity indicator: 'The Technical Specification limit value for this PI was changed from 1.0 uCi/gm to 0.75 uCi/gm dose equivalent I-131 from February 2010 through March 2011. During this period, Callaway implemented a compensatory action that imposed an administrative limit for RCS activity that was more restrictive than the Technical Specification limit. Per NEI 99-02, this more restrictive administrative limit was to be used for PI reporting purposes. This correction did not result in a PI color change. Callaway removed the administrative limit in March 2011.' In addition, MSPI Basis Document changes resulted in adjustment to estimated valve demands for MS07, MS08, MS09, and MS10 from 2007Q4 forward. MSPI coefficients for MS10 were also updated, effective 2011Q1.

Unplanned Scrams per 7000 Critical Hrs



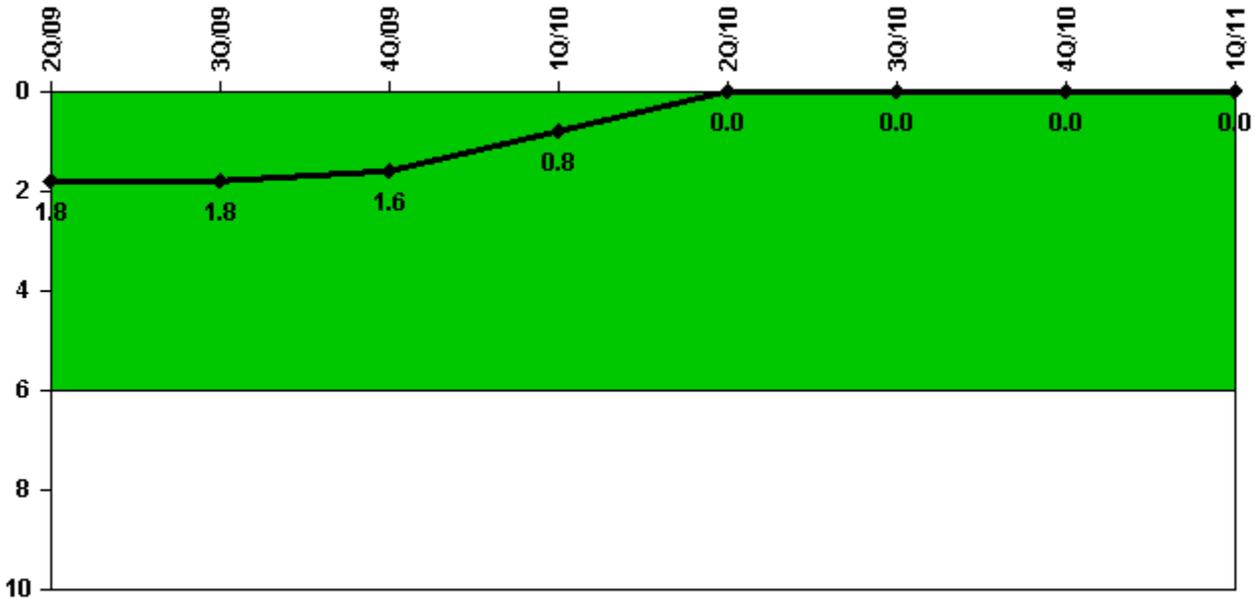
Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

Notes

Unplanned Scrams per 7000 Critical Hrs	2Q/09	3Q/09	4Q/09	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11
Unplanned scrams	0	0	0	0	0	0	0	0
Critical hours	2184.0	2208.0	2209.0	2159.0	849.6	2208.0	2209.0	2159.0
Indicator value	2.7	2.7	0	0	0	0	0	0

Licensee Comments: none

Unplanned Power Changes per 7000 Critical Hrs



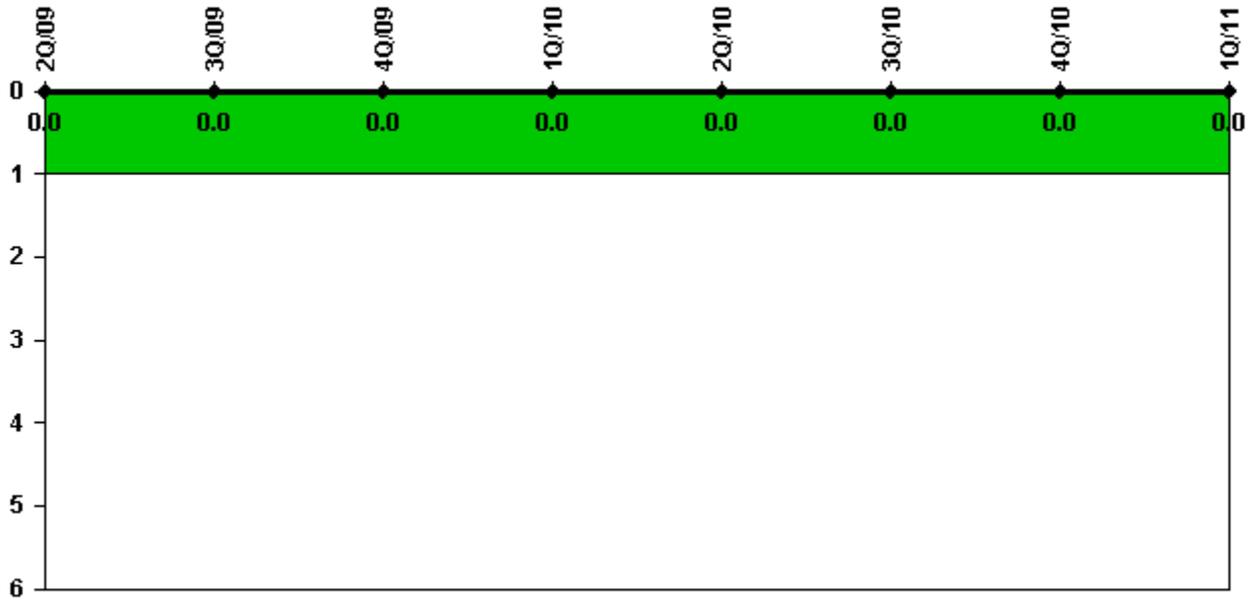
Thresholds: White > 6.0

Notes

Unplanned Power Changes per 7000 Critical Hrs	2Q/09	3Q/09	4Q/09	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11
Unplanned power changes	1.0	0	0	0	0	0	0	0
Critical hours	2184.0	2208.0	2209.0	2159.0	849.6	2208.0	2209.0	2159.0
Indicator value	1.8	1.8	1.6	0.8	0	0	0	0

Licensee Comments: none

Unplanned Scrams with Complications



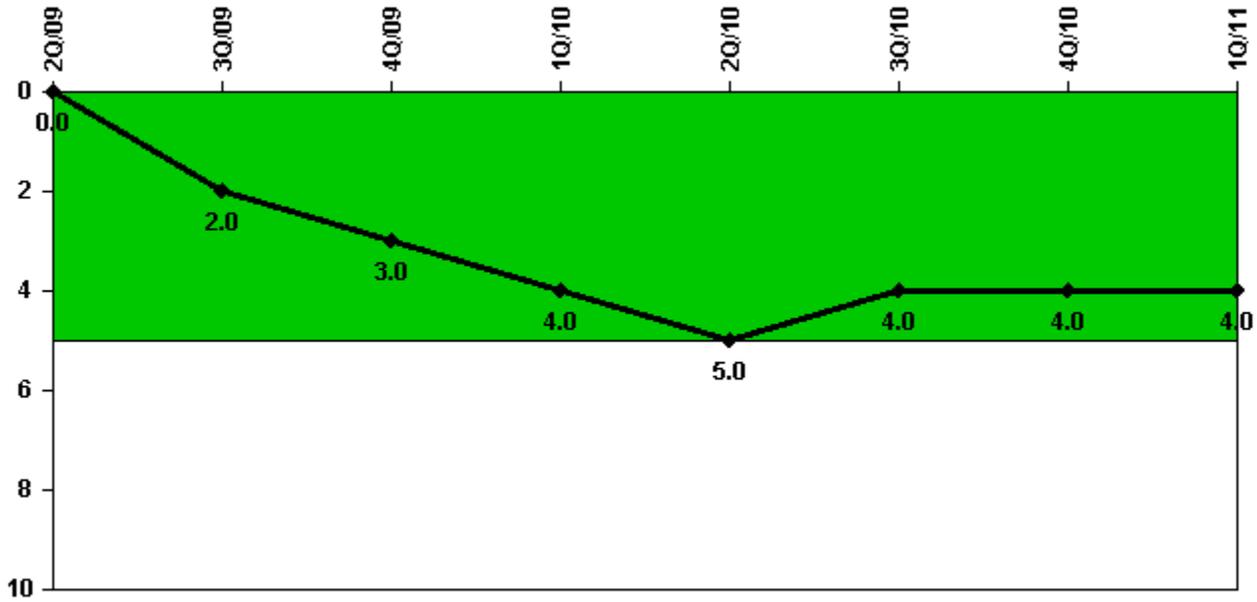
Thresholds: White > 1.0

Notes

Unplanned Scrams with Complications	2Q/09	3Q/09	4Q/09	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11
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

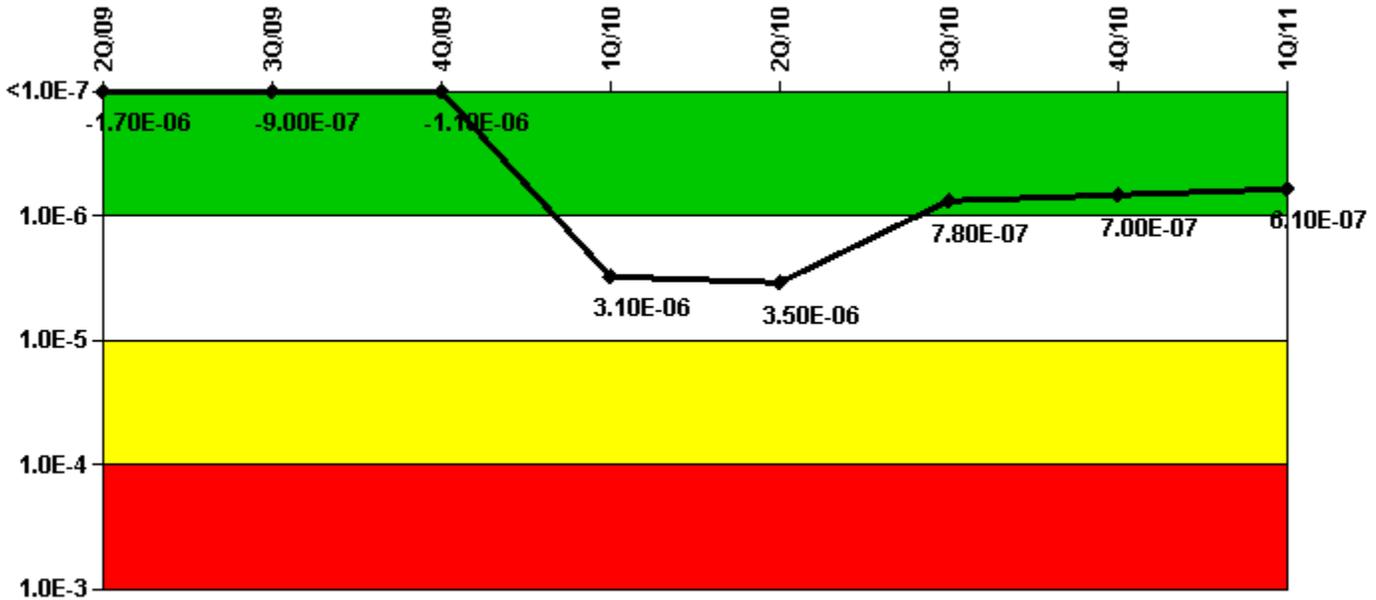
Notes

Safety System Functional Failures (PWR)	2Q/09	3Q/09	4Q/09	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11
Safety System Functional Failures	0	2	1	1	1	1	1	1
Indicator value	0	2	3	4	5	4	4	4

Licensee Comments:

1Q/11: LER 2010-009-00, High Energy Line Break (HELB) Program Deficiencies, was submitted January 27, 2011 as a SSFF.

Mitigating Systems Performance Index, Emergency AC Power System



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

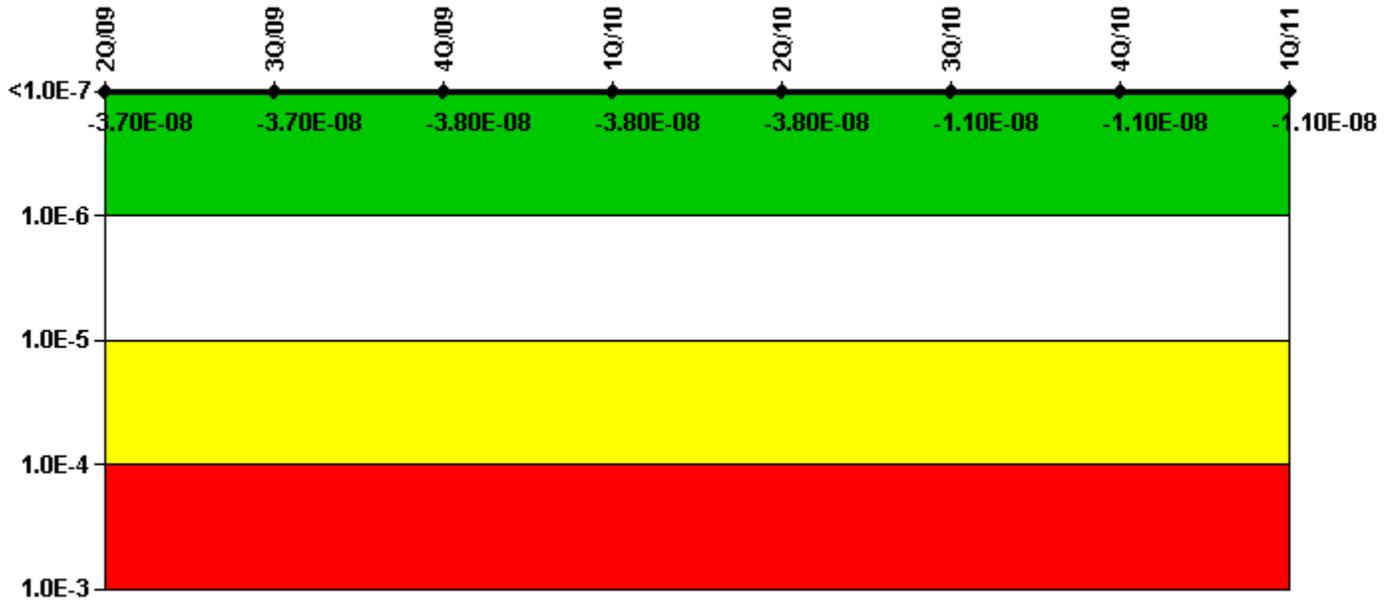
Notes

Mitigating Systems Performance Index, Emergency AC Power System	2Q/09	3Q/09	4Q/09	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11
UAI (ΔCDF)	8.07E-07	9.57E-07	7.77E-07	1.18E-06	1.61E-06	3.41E-07	2.55E-07	1.71E-07
URI (ΔCDF)	-2.51E-06	-1.86E-06	-1.87E-06	1.94E-06	1.89E-06	4.41E-07	4.41E-07	4.41E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-1.70E-06	-9.00E-07	-1.10E-06	3.10E-06	3.50E-06	7.80E-07	7.00E-07	6.10E-07

Licensee Comments:

1Q/11: Risk Cap Invoked.

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/09	3Q/09	4Q/09	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11
UAI (Δ CDF)	-4.58E-09	-4.85E-09	-4.85E-09	-4.85E-09	-4.85E-09	-1.50E-09	-1.47E-09	-1.54E-09
URI (Δ CDF)	-3.20E-08	-3.24E-08	-3.27E-08	-3.31E-08	-3.35E-08	-9.29E-09	-9.29E-09	-9.29E-09
PLE	NO							
Indicator value	-3.70E-08	-3.70E-08	-3.80E-08	-3.80E-08	-3.80E-08	-1.10E-08	-1.10E-08	-1.10E-08

Licensee Comments:

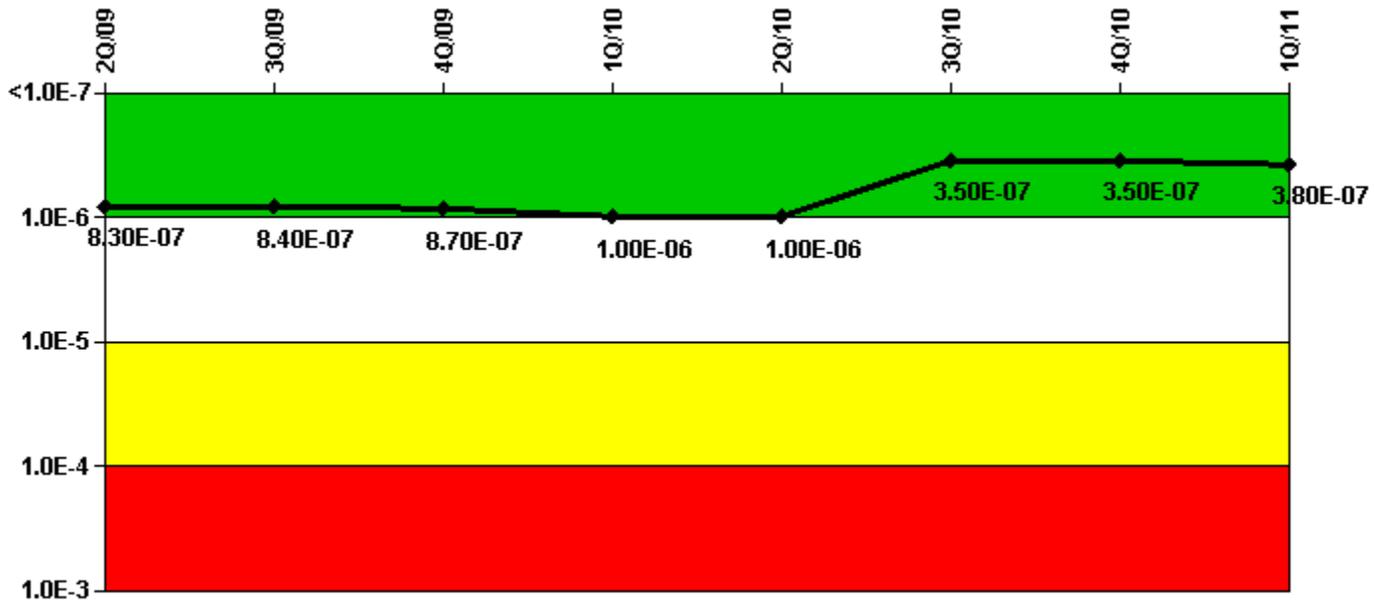
1Q/11: Valve demand estimates for the MSPI High Pressure Injection System were changed based on revised interpretation of the NEI guidance following industry benchmarking. These revised estimates are applied from 2007Q4 forward. A change to the MSPI basis document in 2011Q1 includes these demand estimate revisions. This change does not result in a PI color change.

4Q/10: Two accounting methods have been used historically for summing MSPI unavailability time at Callaway. When a consistent accounting method was applied to previous reporting periods, minor changes to existing data were discovered. As a result, unavailability data for some months (beginning 1Q2008) were changed to ensure consistent data reporting. These changes are small and do not result in a PI color change.

2Q/10: A June 2010 MSPI Basis Document revision revised the estimated demands and hours for the MSPI High Pressure Injection System. The revised values have been applied from 4Q2007 forward to address an error made during calculation of estimated values. These corrections do not result in a PI color change.

2Q/08: Revision 002 of the Callaway Plant MSPI Basis Document was issued on June 26, 2008, reflecting revised planned baseline unavailability factors for all MSPI systems. Revised data is effective for MSPI calculations in the third quarter 2008.

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/09	3Q/09	4Q/09	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11
UAI (Δ CDF)	-2.88E-08	-3.46E-08	-2.24E-08	1.09E-07	1.13E-07	7.28E-09	1.55E-08	3.94E-08
URI (Δ CDF)	8.56E-07	8.74E-07	8.91E-07	8.92E-07	9.10E-07	3.38E-07	3.38E-07	3.38E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	8.30E-07	8.40E-07	8.70E-07	1.00E-06	1.00E-06	3.50E-07	3.50E-07	3.80E-07

Licensee Comments:

1Q/11: Valve demand estimates for the MSPI Heat Removal System were changed based on revised interpretation of the NEI guidance following industry benchmarking. These revised estimates are applied from 2007Q4 forward. A change to the MSPI basis document in 2011Q1 includes these demand estimate revisions. This change does not result in a PI color change.

4Q/10: Two accounting methods have been used historically for summing MSPI unavailability time at Callaway. When a consistent accounting method was applied to previous reporting periods, minor changes to existing data were discovered. As a result, unavailability data for some months (beginning 3Q2007) were changed to ensure consistent data reporting. Additional minor reductions in previously reported MS08 unavailability time were made when periods of overconservatism were identified in historical data beginning 4Q2007. In these cases, unavailability time was unnecessarily counted for periods when MSPI functions remained intact. These changes are small and do not result in a PI color change.

3Q/10: A correction was made to the Sept 2007 estimated demands and hours for MS08. This update was inadvertently not included in the corrections made in the 2Q2010 submittal. This data revision affects MS08 results from Sept 2007 forward but does not result in a PI color change. Additionally, an FAQ has been submitted by Callaway regarding the cascading of unavailability of a system that supports the MSPI Heat Removal System. The outcome of this FAQ may impact previously submitted data for MS08.

2Q/10: Risk Cap Invoked. A June 2010 MSPI Basis Document revision revised the estimated demands and hours

Indicator value	-1.70E-07	-1.90E-07	-1.80E-07	-1.80E-07	-1.70E-07	-1.40E-07	-1.50E-07	-1.50E-07
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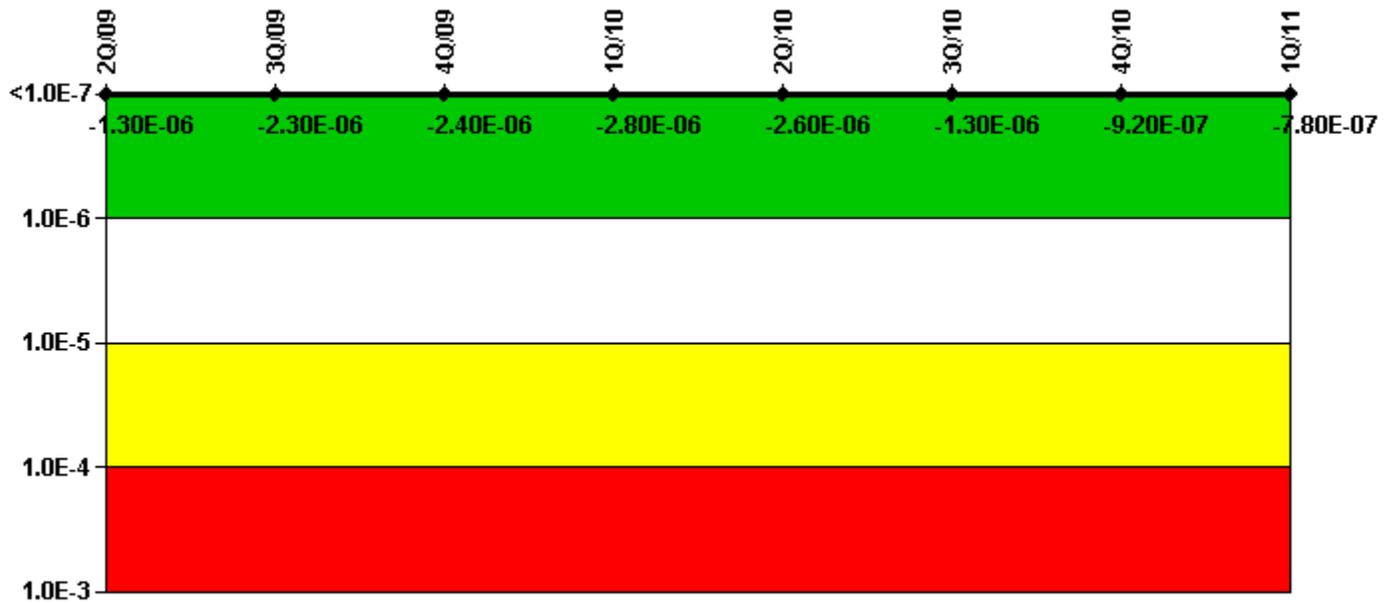
Licensee Comments:

1Q/11: Valve demand estimates for the MSPI Residual Heat Removal System were changed based on revised interpretation of the NEI guidance following industry benchmarking. These revised estimates are applied from 2007Q4 forward. A change to the MSPI basis document in 2011Q1 includes these demand estimate revisions. This change does not result in a PI color change.

2Q/10: A June 2010 MSPI Basis Document revision revised the estimated demands and hours for the MSPI Residual Heat Removal System. The revised values have been applied from 4Q2007 forward to address an error made during calculation of estimated values. These corrections do not result in a PI color change.

2Q/08: Revision 002 of the Callaway Plant MSPI Basis Document was issued on June 26, 2008, reflecting revised planned baseline unavailability factors for all MSPI systems. Revised data is effective for MSPI calculations in the third quarter 2008.

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/09	3Q/09	4Q/09	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11
UAI (ΔCDF)	-1.84E-07	-1.14E-06	-1.19E-06	-1.67E-06	-1.46E-06	-5.59E-07	-2.25E-07	-8.29E-08
URI (ΔCDF)	-1.16E-06	-1.16E-06	-1.16E-06	-1.16E-06	-1.16E-06	-6.97E-07	-6.97E-07	-6.97E-07
PLE	NO							
Indicator value	-1.30E-06	-2.30E-06	-2.40E-06	-2.80E-06	-2.60E-06	-1.30E-06	-9.20E-07	-7.80E-07

Licensee Comments:

1Q/11: MSPI planned unavailability coefficients were revised for the Component Cooling Water system because a monthly surveillance for each train no longer requires the train to be declared inoperable for the test. A change to the MSPI basis document in 2010Q4 includes these MSPI coefficient revisions. In addition, valve demand estimates for the MSPI Cooling Water System were changed based on revised interpretation of the NEI guidance following industry benchmarking. These revised estimates are applied from 2007Q4 forward. A change to the MSPI basis document in 2011Q1 includes these demand estimate revisions. These changes do not result in a PI color change.

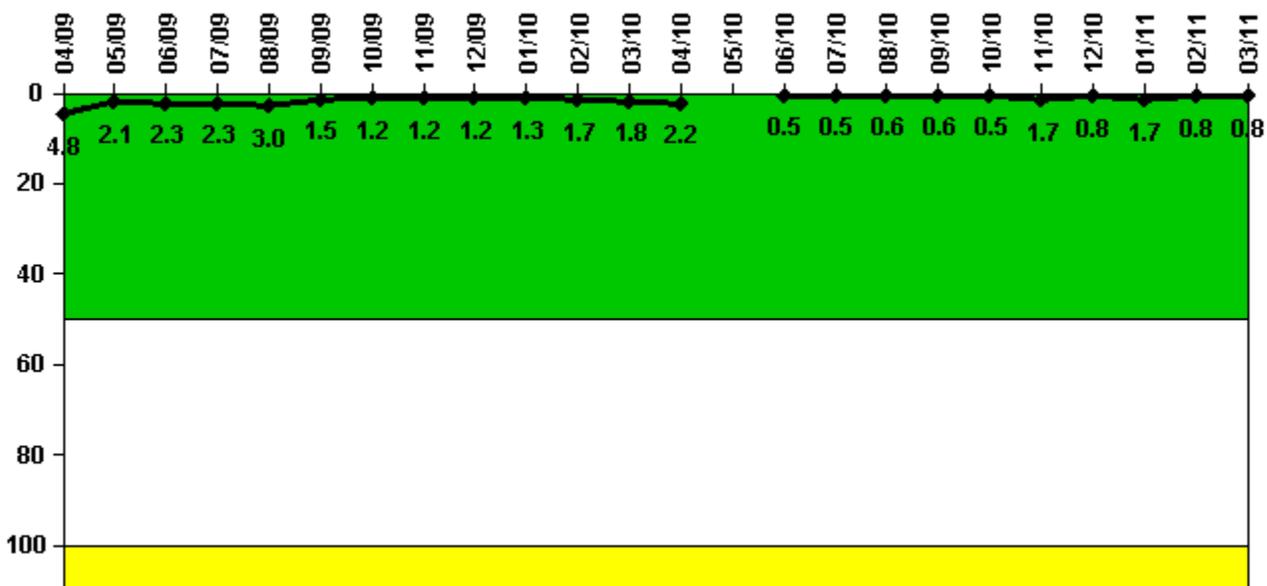
4Q/10: Two accounting methods have been used historically for summing MSPI unavailability time at Callaway. When a consistent accounting method was applied to previous reporting periods, minor changes to existing data were discovered. As a result, unavailability data for some months (beginning 2Q2008) were changed to ensure consistent data reporting. Also, a total of 2.3 hours of planned unavailability have been added to MS10 for September 2010. These hours had been inadvertently omitted in the 3Q2010 data submittal. These changes are small and do not result in a PI color change.

3Q/10: One engineering evaluation of a degraded component within the scope of MS10 remains outstanding for 3Q2010. Regardless of the final determination, however, the results of this evaluation will not cause a color change of this indicator.

2Q/10: A June 2010 MSPI Basis Document revision revised the estimated demands and hours for the MSPI Cooling Water System. The revised values have been applied from 4Q2007 forward to address an error made during calculation of estimated values. In addition, a minor correction was made to a PRA unavailability parameter, applied to the previous 36 months (beginning 3Q2007). These corrections do not result in a PI color change.

2Q/08: Revision 002 of the Callaway Plant MSPI Basis Document was issued on June 26, 2008, reflecting revised planned baseline unavailability factors for all MSPI systems. Revised data is effective for MSPI calculations in the third quarter 2008.

Reactor Coolant System Activity



Thresholds: White > 50.0 Yellow > 100.0

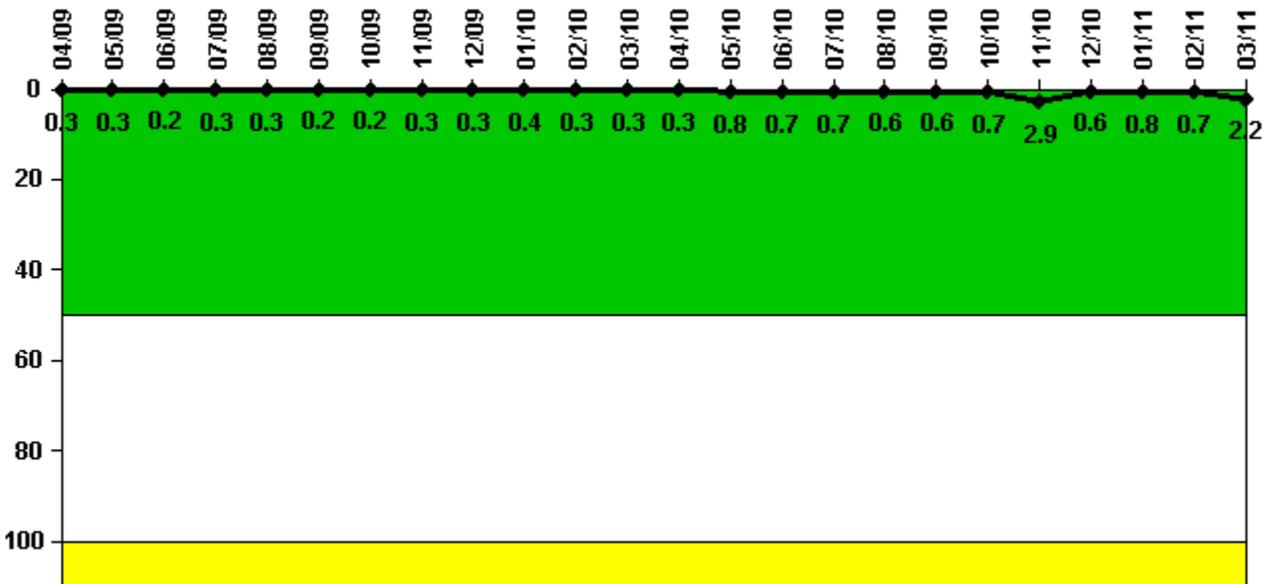
Reactor Coolant System Activity	4/09	5/09	6/09	7/09	8/09	9/09	10/09	11/09	12/09	1/10	2/10	3/10
Maximum activity	0.048000	0.020600	0.022500	0.023000	0.030000	0.015000	0.012000	0.011700	0.012300	0.012600	0.012800	0.013600
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.8	0.8
Indicator value	4.8	2.1	2.3	2.3	3.0	1.5	1.2	1.2	1.2	1.3	1.7	1.8

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	0.016800	N/A	0.003680	0.003410	0.004570	0.004640	0.003980	0.012500	0.005750	0.013000	0.006000	0.006000
Technical specification limit	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Indicator value	2.2	N/A	0.5	0.5	0.6	0.6	0.5	1.7	0.8	1.7	0.8	0.8

Licensee Comments:

3/11: The "Technical Specification limit" value for this PI was changed from 1.0 uCi/gm to 0.75 uCi/gm dose equivalent I-131 from February 2010 through March 2011. During this period, Callaway implemented a compensatory action that imposed an administrative limit for RCS activity that was more restrictive than the Technical Specification limit. Per NEI 99-02, this more restrictive administrative limit was to be used for PI reporting purposes. This correction did not result in a PI color change. Callaway removed the administrative limit in March 2011.

Reactor Coolant System Leakage



Thresholds: White > 50.0 Yellow > 100.0

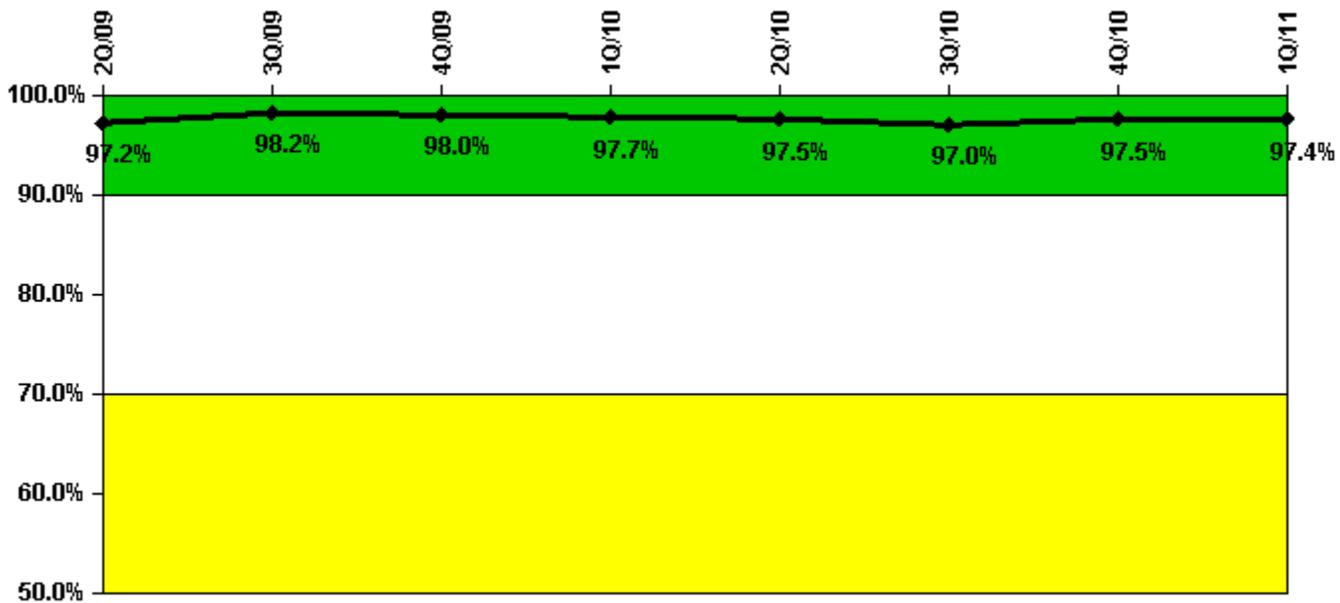
Notes

Reactor Coolant System Leakage	4/09	5/09	6/09	7/09	8/09	9/09	10/09	11/09	12/09	1/10	2/10	3/10
Maximum leakage	0.025	0.032	0.024	0.034	0.031	0.023	0.023	0.027	0.032	0.039	0.025	0.031
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	0.3	0.3	0.2	0.3	0.3	0.2	0.2	0.3	0.3	0.4	0.3	0.3

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	0.034	0.076	0.066	0.068	0.058	0.058	0.072	0.294	0.062	0.080	0.066	0.218
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	0.3	0.8	0.7	0.7	0.6	0.6	0.7	2.9	0.6	0.8	0.7	2.2

Licensee Comments: none

Drill/Exercise Performance



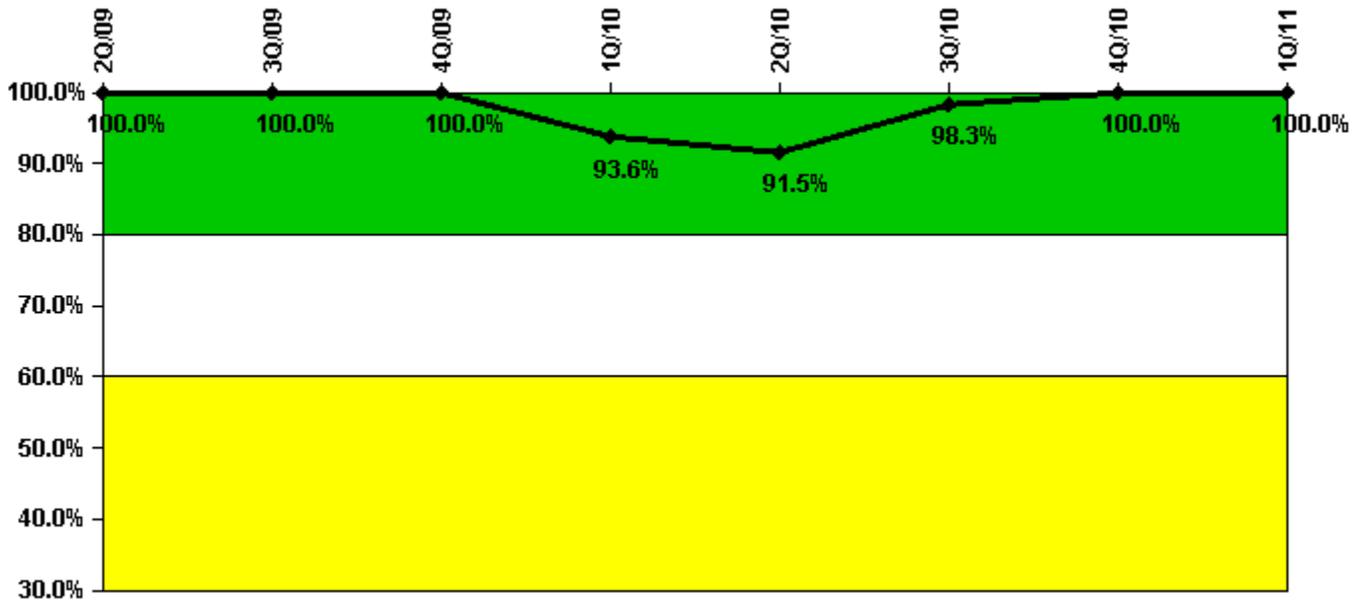
Thresholds: White < 90.0% Yellow < 70.0%

Notes

Drill/Exercise Performance	2Q/09	3Q/09	4Q/09	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11
Successful opportunities	68.0	25.0	45.0	6.0	0	37.0	31.0	50.0
Total opportunities	68.0	26.0	47.0	6.0	1.0	39.0	32.0	50.0
Indicator value	97.2%	98.2%	98.0%	97.7%	97.5%	97.0%	97.5%	97.4%

Licensee Comments: none

ERO Drill Participation



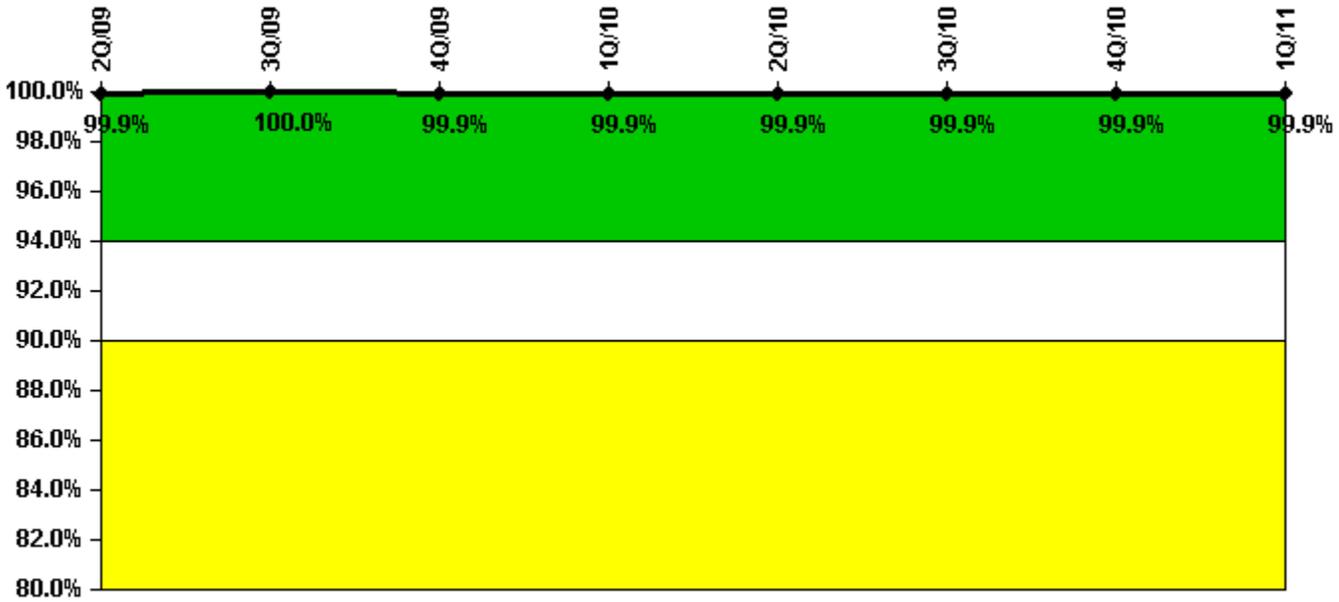
Thresholds: White < 80.0% Yellow < 60.0%

Notes

ERO Drill Participation	2Q/09	3Q/09	4Q/09	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11
Participating Key personnel	103.0	106.0	105.0	102.0	97.0	116.0	113.0	90.0
Total Key personnel	103.0	106.0	105.0	109.0	106.0	118.0	113.0	90.0
Indicator value	100.0%	100.0%	100.0%	93.6%	91.5%	98.3%	100.0%	100.0%

Licensee Comments: none

Alert & Notification System



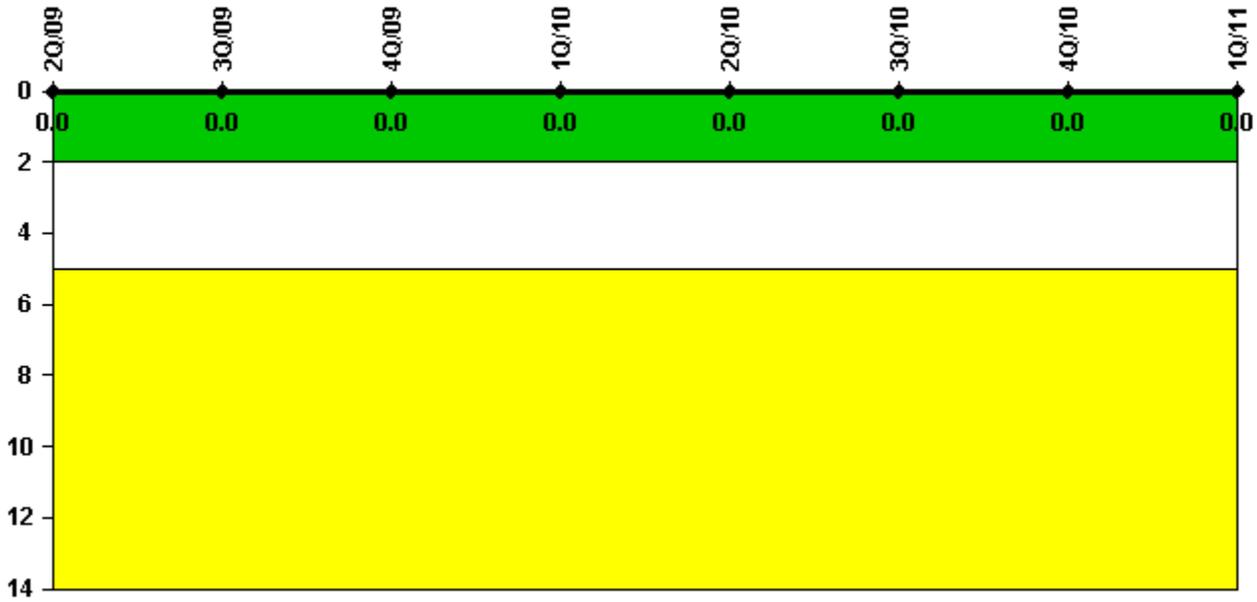
Thresholds: White < 94.0% Yellow < 90.0%

Notes

Alert & Notification System	2Q/09	3Q/09	4Q/09	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11
Successful siren-tests	377	377	376	377	377	377	376	377
Total sirens-tests	377	377	377	377	377	377	377	377
Indicator value	99.9%	100.0%	99.9%	99.9%	99.9%	99.9%	99.9%	99.9%

Licensee Comments: none

Occupational Exposure Control Effectiveness



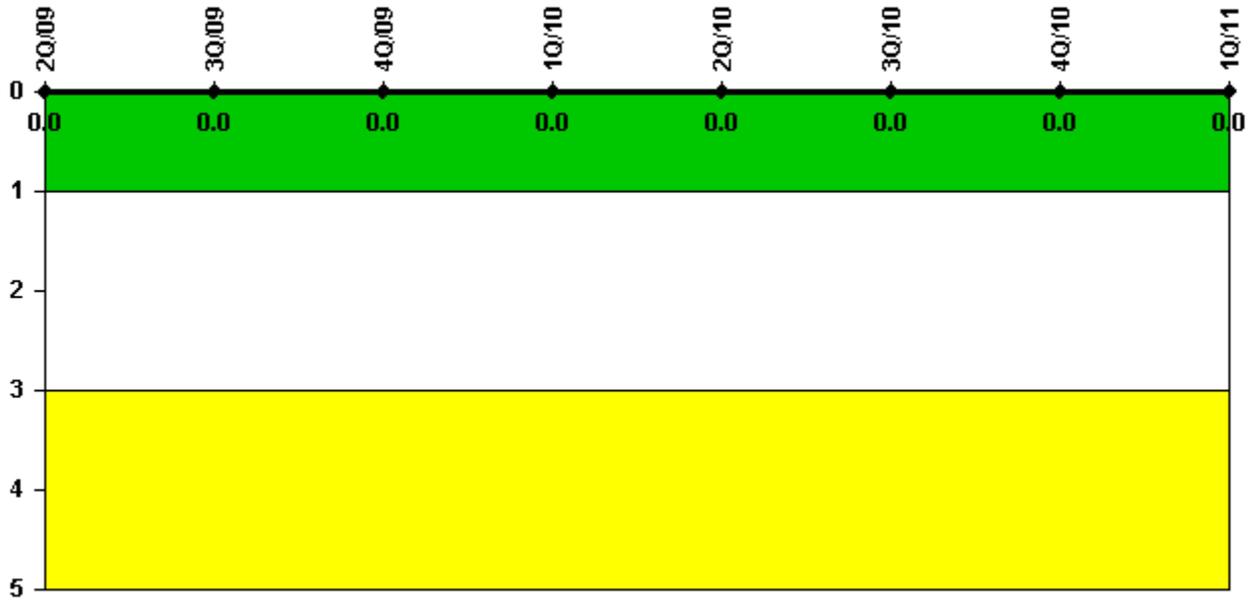
Thresholds: White > 2.0 Yellow > 5.0

Notes

Occupational Exposure Control Effectiveness	2Q/09	3Q/09	4Q/09	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11
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							

Licensee Comments: none

RETS/ODCM Radiological Effluent



Thresholds: White > 1.0 Yellow > 3.0

Notes

RETS/ODCM Radiological Effluent	2Q/09	3Q/09	4Q/09	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11
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.

[▲ Action Matrix Summary](#) |
 [Inspection Findings Summary](#) |
 [PI Summary](#) |
 [Reactor Oversight Process](#)

Last Modified: May 4, 2011