

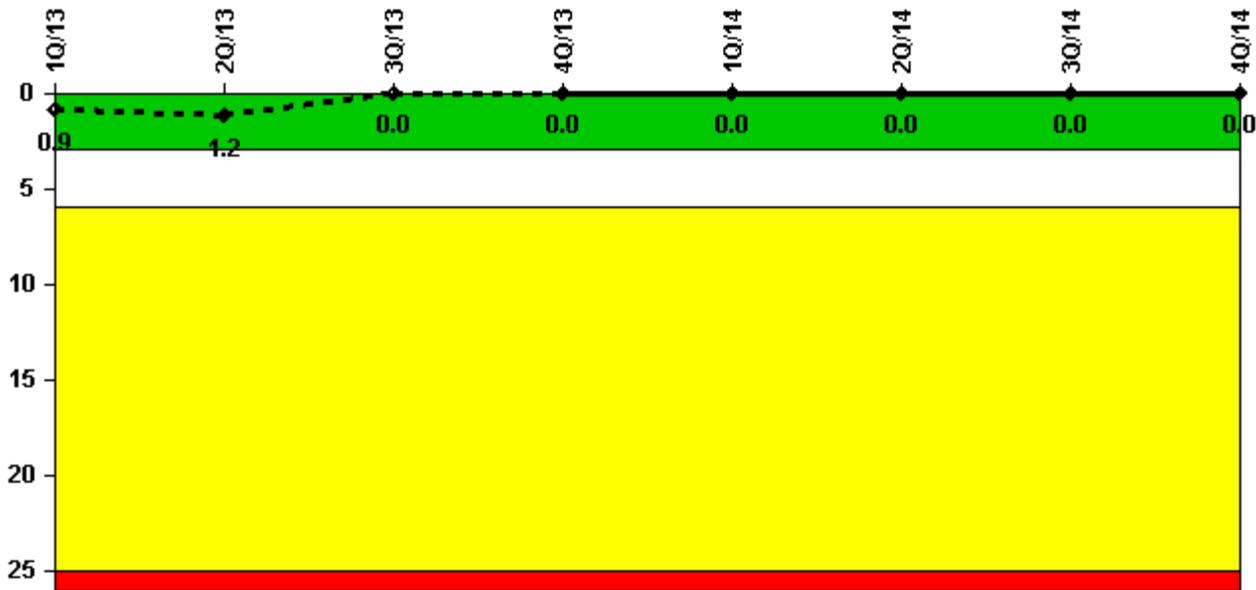
Monticello

4Q/2014 Performance Indicators

The solid trend line represents the current reporting period.

Licensee's General Comments: none

Unplanned Scrams per 7000 Critical Hrs



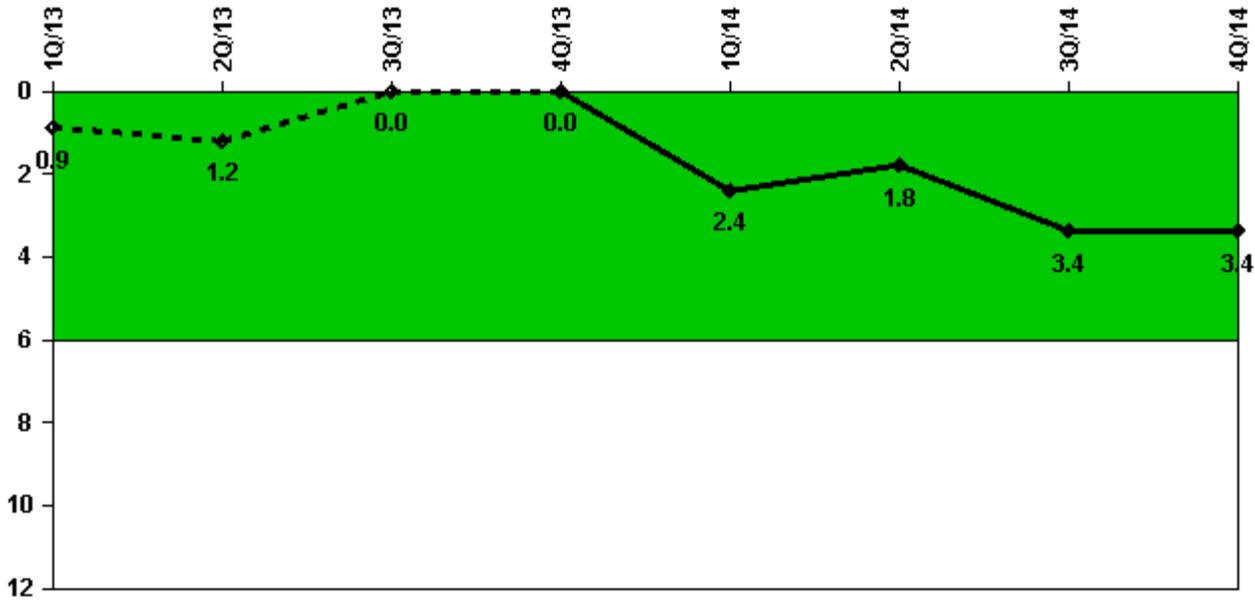
Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

Notes

Unplanned Scrams per 7000 Critical Hrs	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14
Unplanned scrams	0	0	0	0	0	0	0	0
Critical hours	1442.6	0	1826.8	2209.0	1722.5	2184.0	2208.0	2209.0
Indicator value	0.9	1.2	0	0	0	0	0	0

Licensee Comments: none

Unplanned Power Changes per 7000 Critical Hrs



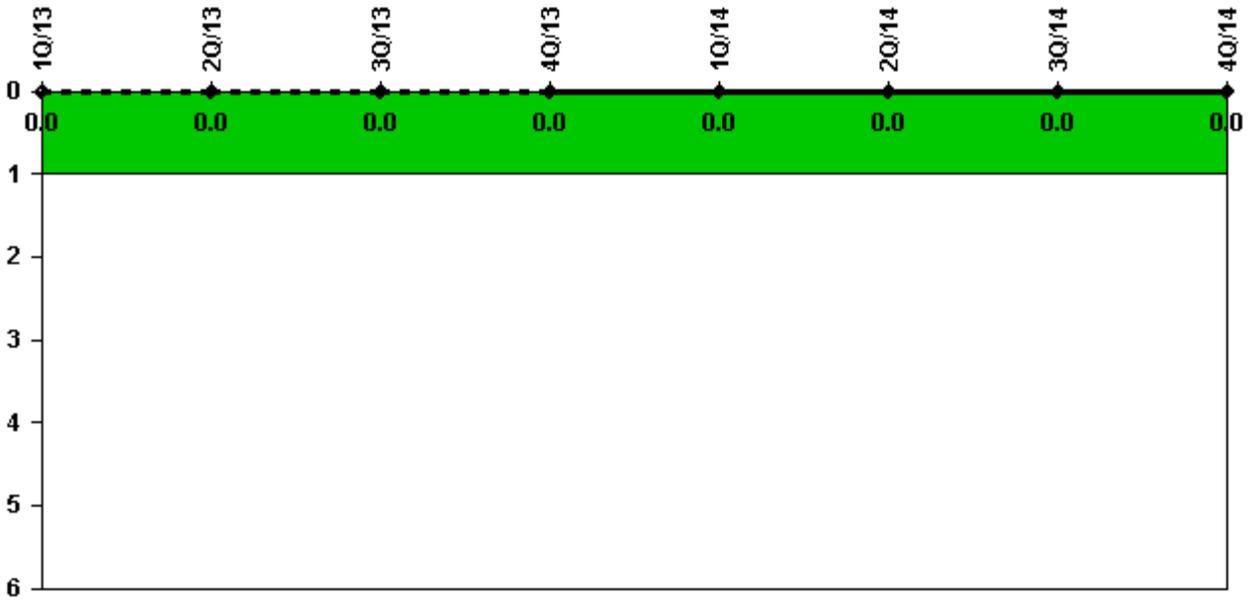
Thresholds: White > 6.0

Notes

Unplanned Power Changes per 7000 Critical Hrs	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14
Unplanned power changes	0	0	0	0	2.0	0	2.0	0
Critical hours	1442.6	0	1826.8	2209.0	1722.5	2184.0	2208.0	2209.0
Indicator value	0.9	1.2	0	0	2.4	1.8	3.4	3.4

Licensee Comments: none

Unplanned Scrams with Complications



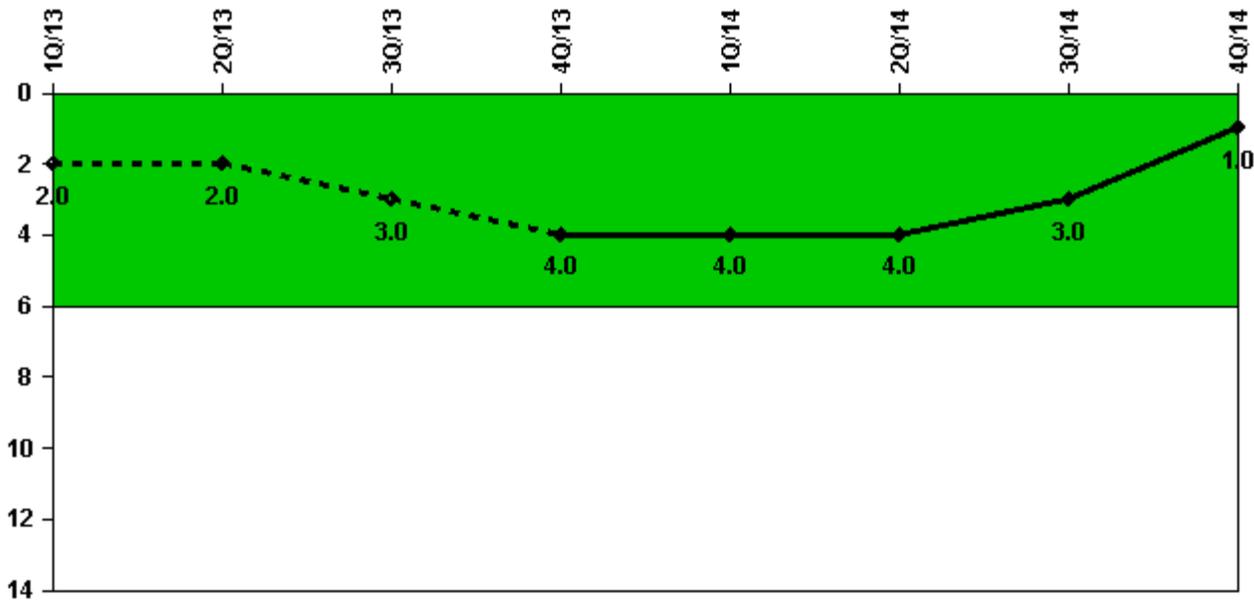
Thresholds: White > 1.0

Notes

Unplanned Scrams with Complications	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14
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)	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14
Safety System Functional Failures	0	0	2	2	0	0	1	0
Indicator value	2	2	3	4	4	4	3	1

Licensee Comments:

4Q/14: The indicator value for 4Q2013 added one safety system functional failure (LER 2013-007) to correct an omission error. The addition of this safety system functional failure does not change the indicator color.

3Q/14: LER 2014-009 The LER count was not omitted in the 3rd quarter, only the LER number in the comment. The value of the indicator did not change.

1Q/14: The indicator value for the 4Q2013 was revised to remove one SSFF (LER 2013-008) based on engineering analysis. The change did not affect the color of the indicator.

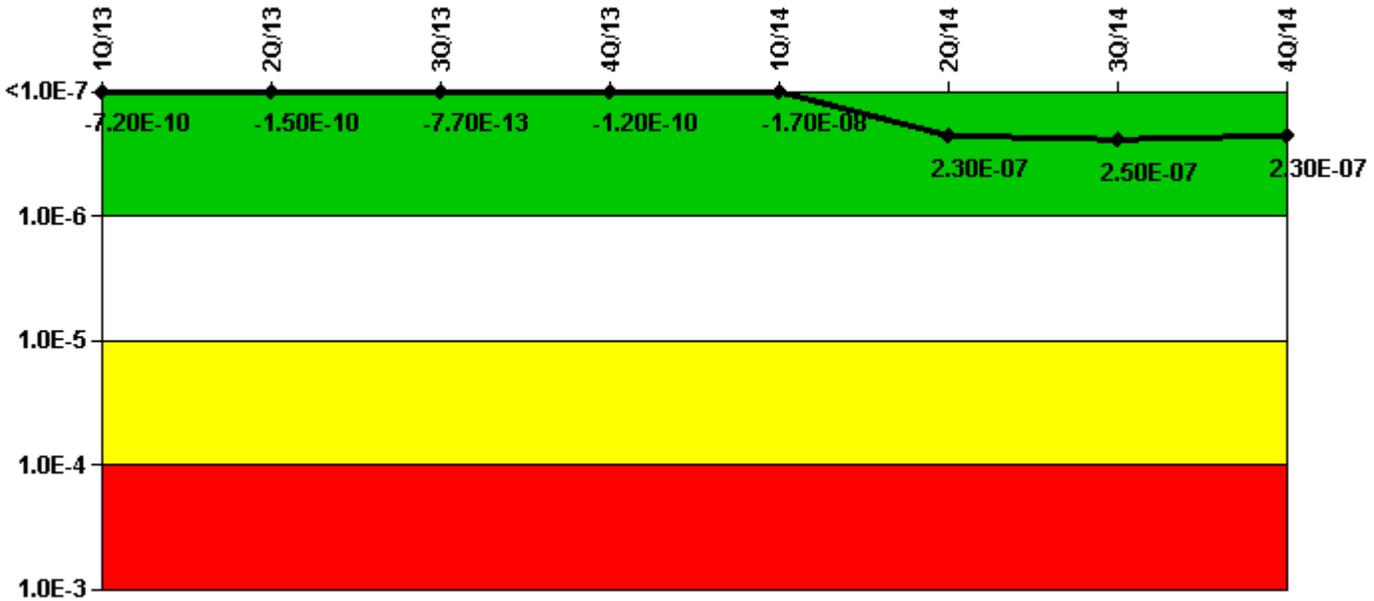
4Q/13: LER 2013-008, LER 2013-006 The indicator value for the 4Q2013 was revised to remove one SSFF (LER 2013-008) based on engineering analysis. The change did not affect the color of the indicator.

4Q/13: LER 2013-008, LER 2013-006 The indicator value for the 4Q2013 was revised to remove one SSFF (LER 2013-008) based on engineering analysis. The change did not affect the color of the indicator. LER 2013-007 Added one safety system functional failure to correct an omission error. The addition of this safety system functional failure does not change the indicator color.

4Q/13: LER 2013-008, LER 2013-006

3Q/13: LER 2013-003-01, LER 2013-004

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	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14
UAI (Δ CDF)	-7.23E-10	-3.42E-10	-6.03E-10	-1.15E-09	-1.79E-08	-6.59E-09	1.37E-08	7.37E-09
URI (Δ CDF)	2.50E-12	1.94E-10	6.02E-10	1.03E-09	7.65E-10	2.36E-07	2.41E-07	2.26E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-7.20E-10	-1.50E-10	-7.70E-13	-1.20E-10	-1.70E-08	2.30E-07	2.50E-07	2.30E-07

Licensee Comments:

4Q/14: Monticello is evaluating an event associated with the EDGs that occurred late in 4th Quarter 2014. The associated engineering evaluation is not yet complete for the 4th quarter 2014 data submittal. Preliminary determination is no MSPI Failure against the Emergency AC Power indicator. Resolution to be submitted in the next quarterly submittal, per NEI 99-02 Rev. 7 Section F 2.2.2.

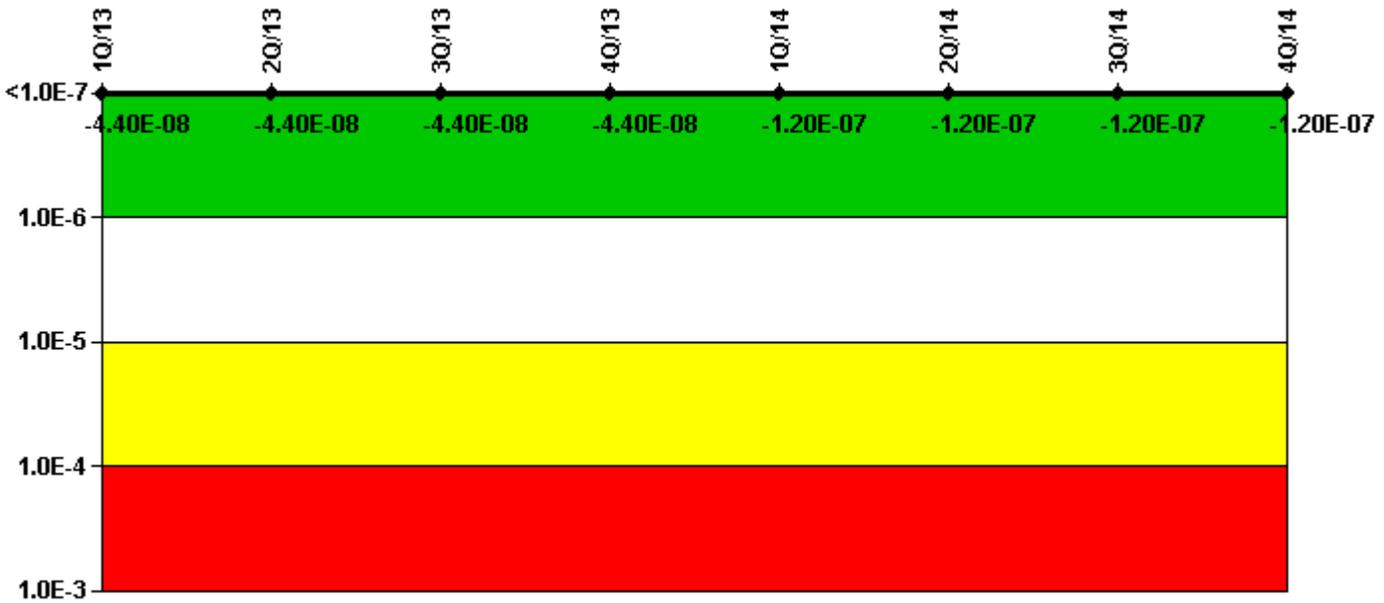
3Q/14: Changed PRA Parameter(s).

2Q/14: Changed PRA Parameter(s). Revision to estimated test demands and run hours due to identification of a change > 25%, per NEI 99-02. Revision 3.2 of the Monticello PRA Level 1 Quantification Notebook (PRA-MT-QU) was approved March 31st, 2014 with a corresponding MSPI Basis document Revision 5 approved 7/09/2014.

The Rev 3.2 PRA model incorporated the modification/procedure changes required to pin the condensate demineralizer AOVs. As a result of the PRA model change, the CDF, Fussel-Vesely and Basic Event Probabilities for all monitored trains and components were revised.

1Q/14: Changed PRA Parameter(s). The Monticello Revision 3.1 model was approved October 1st, 2013 with a corresponding MSPI Basis document Revision 4 approved 4/18/2014. The PRA model revision was created to meet the RG 1.200, Rev 2 Standard. As a result of the PRA model change, the CDF, Fussell-Vesely and Basic Event Probabilities for all monitored trains and components were revised.

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	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14
UAI (ΔCDF)	-1.68E-08	-1.68E-08	-1.68E-08	-1.68E-08	-4.33E-08	-4.33E-08	-4.33E-08	-4.33E-08
URI (ΔCDF)	-2.71E-08	-2.71E-08	-2.71E-08	-2.71E-08	-7.21E-08	-7.32E-08	-7.42E-08	-7.52E-08
PLE	NO							
Indicator value	-4.40E-08	-4.40E-08	-4.40E-08	-4.40E-08	-1.20E-07	-1.20E-07	-1.20E-07	-1.20E-07

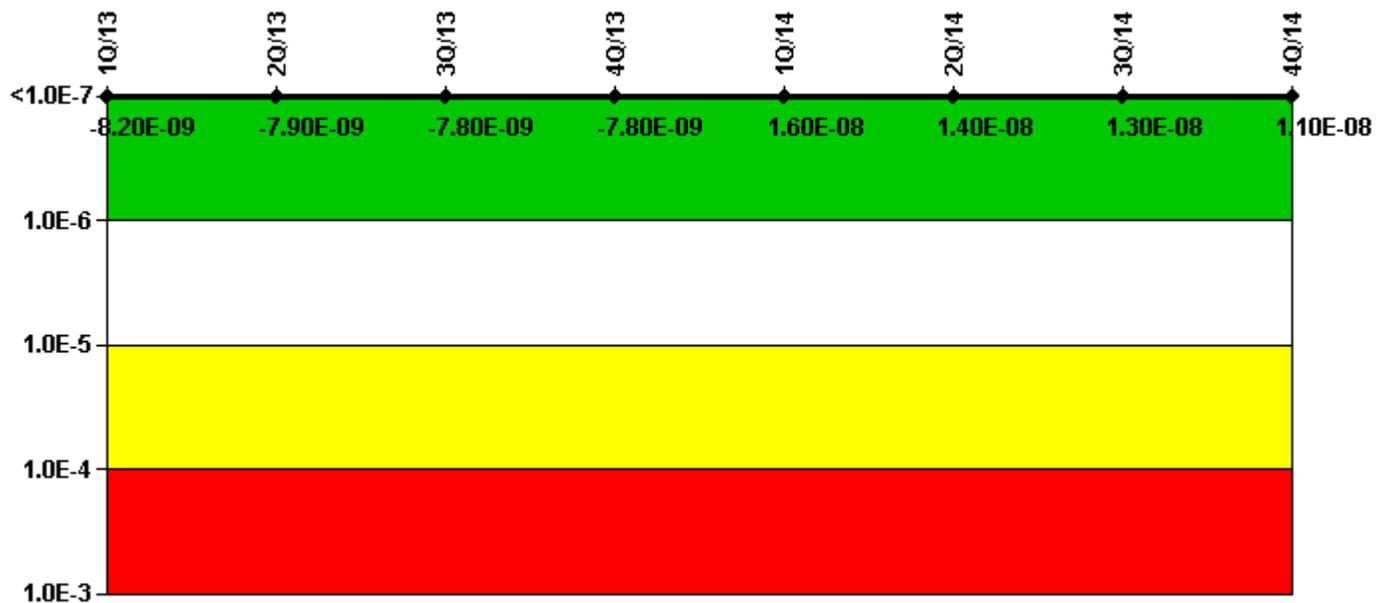
Licensee Comments:

3Q/14: Changed PRA Parameter(s).

2Q/14: Changed PRA Parameter(s). Revision to estimated test demands and run hours due to identification of a change > 25%, per NEI 99-02. Revision 3.2 of the Monticello PRA Level 1 Quantification Notebook (PRA-MT-QU) was approved March 31st, 2014 with a corresponding MSPI Basis document Revision 5 approved 7/09/2014. The Rev 3.2 PRA model incorporated the modification/procedure changes required to pin the condensate demineralizer AOVs. As a result of the PRA model change, the CDF, Fussell-Vesely and Basic Event Probabilities for all monitored trains and components were revised.

1Q/14: Changed PRA Parameter(s). The Monticello Revision 3.1 model was approved October 1st, 2013 with a corresponding MSPI Basis document Revision 4 approved 4/18/2014. The PRA model revision was created to meet the RG 1.200, Rev 2 Standard. As a result of the PRA model change, the CDF, Fussell-Vesely and Basic Event Probabilities for all monitored trains and components were revised.

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	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14
UAI (ΔCDF)	-1.14E-08	-1.11E-08	-1.10E-08	-1.10E-08	-2.67E-08	-2.73E-08	-2.73E-08	-2.75E-08
URI (ΔCDF)	3.18E-09	3.18E-09	3.18E-09	3.18E-09	4.25E-08	4.12E-08	4.00E-08	3.88E-08
PLE	NO							

Indicator value	-8.20E-09	-7.90E-09	-7.80E-09	-7.80E-09	1.60E-08	1.40E-08	1.30E-08	1.10E-08
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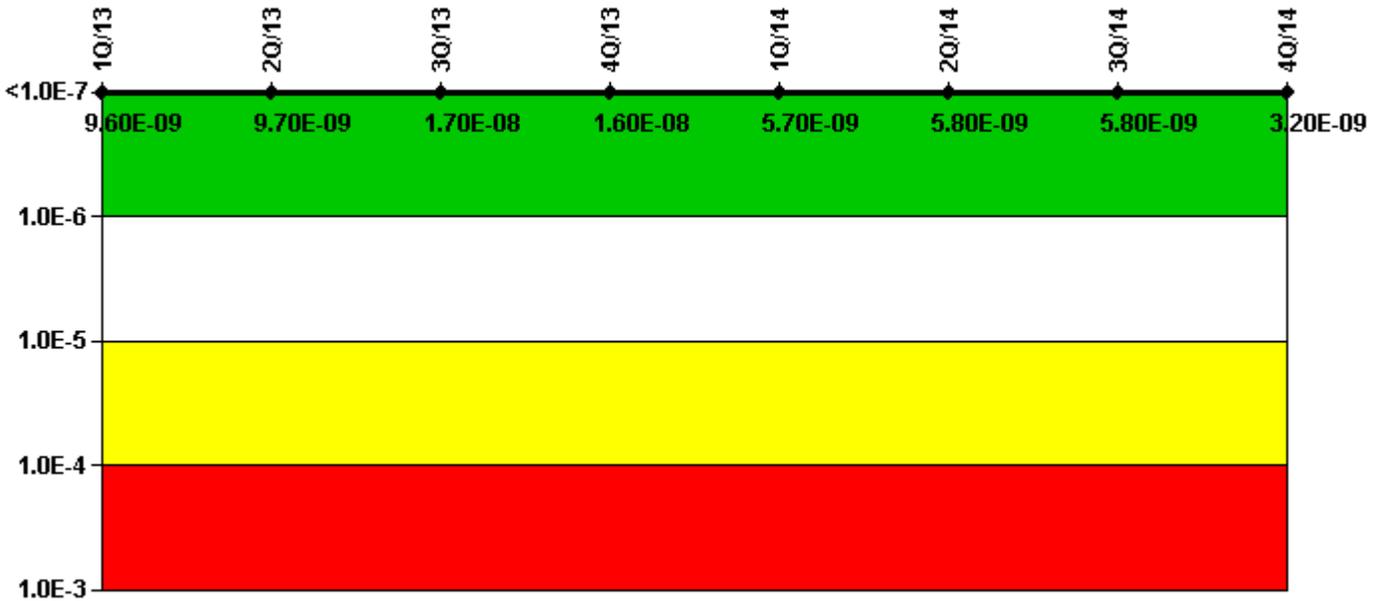
Licensee Comments:

3Q/14: Changed PRA Parameter(s).

2Q/14: Changed PRA Parameter(s). Revision to estimated test demands and run hours due to identification of a change > 25%, per NEI 99-02. Revision 3.2 of the Monticello PRA Level 1 Quantification Notebook (PRA-MT-QU) was approved March 31st, 2014 with a corresponding MSPI Basis document Revision 5 approved 7/09/2014. The Rev 3.2 PRA model incorporated the modification/procedure changes required to pin the condensate demineralizer AOVs. As a result of the PRA model change, the CDF, Fussell-Vesely and Basic Event Probabilities for all monitored trains and components were revised.

1Q/14: Changed PRA Parameter(s). The Monticello Revision 3.1 model was approved October 1st, 2013 with a corresponding MSPI Basis document Revision 4 approved 4/18/2014. The PRA model revision was created to meet the RG 1.200, Rev 2 Standard. As a result of the PRA model change, the CDF, Fussell-Vesely and Basic Event Probabilities for all monitored trains and components were revised.

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	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14
	-4.83E-			-3.88E-	-3.68E-	-3.63E-	-3.82E-	-3.82E-

UAI (Δ CDF)	11	6.69E-11	1.77E-10	10	10	10	10	10
URI (Δ CDF)	9.68E-09	9.68E-09	1.67E-08	1.67E-08	6.06E-09	6.16E-09	6.16E-09	3.57E-09
PLE	NO							
Indicator value	9.60E-09	9.70E-09	1.70E-08	1.60E-08	5.70E-09	5.80E-09	5.80E-09	3.20E-09

Licensee Comments:

4Q/14: Revision to estimated demands and run hours due to identification of a change > 25% for RHR estimated run hours, per NEI 99-02. Update applied to site MSPI Basis Document and applicable CDE fields. Revised data for 2Q2012, 3Q2012, 1Q2013, 3Q2013 and 4Q2013 to include short duration unavailability and unavailability hours when reactor not critical. This does not affect the MSPI color for any system.

3Q/14: Changed PRA Parameter(s).

2Q/14: Changed PRA Parameter(s). Revision 3.2 of the Monticello PRA Level 1 Quantification Notebook (PRA-MT-QU) was approved March 31st, 2014 with a corresponding MSPI Basis document Revision 5 approved 7/09/2014. The Rev 3.2 PRA model incorporated the modification/procedure changes required to pin the condensate demineralizer AOVs. As a result of the PRA model change, the CDF, Fussel-Vesely and Basic Event Probabilities for all monitored trains and components were revised.

2Q/14: Revision 3.2 of the Monticello PRA Level 1 Quantification Notebook (PRA-MT-QU) was approved March 31st, 2014 with a corresponding MSPI Basis document Revision 5 approved 7/09/2014. The Rev 3.2 PRA model incorporated the modification/procedure changes required to pin the condensate demineralizer AOVs. As a result of the PRA model change, the CDF, Fussel-Vesely and Basic Event Probabilities for all monitored trains and components were revised.

1Q/14: The Monticello Revision 3.1 model was approved October 1st, 2013 with a corresponding MSPI Basis document Revision 4 approved 4/18/2014. The PRA model revision was created to meet the RG 1.200, Rev 2 Standard. As a result of the PRA model change, the CDF, Fussell-Vesely and Basic Event Probabilities for all monitored trains and components were revised.

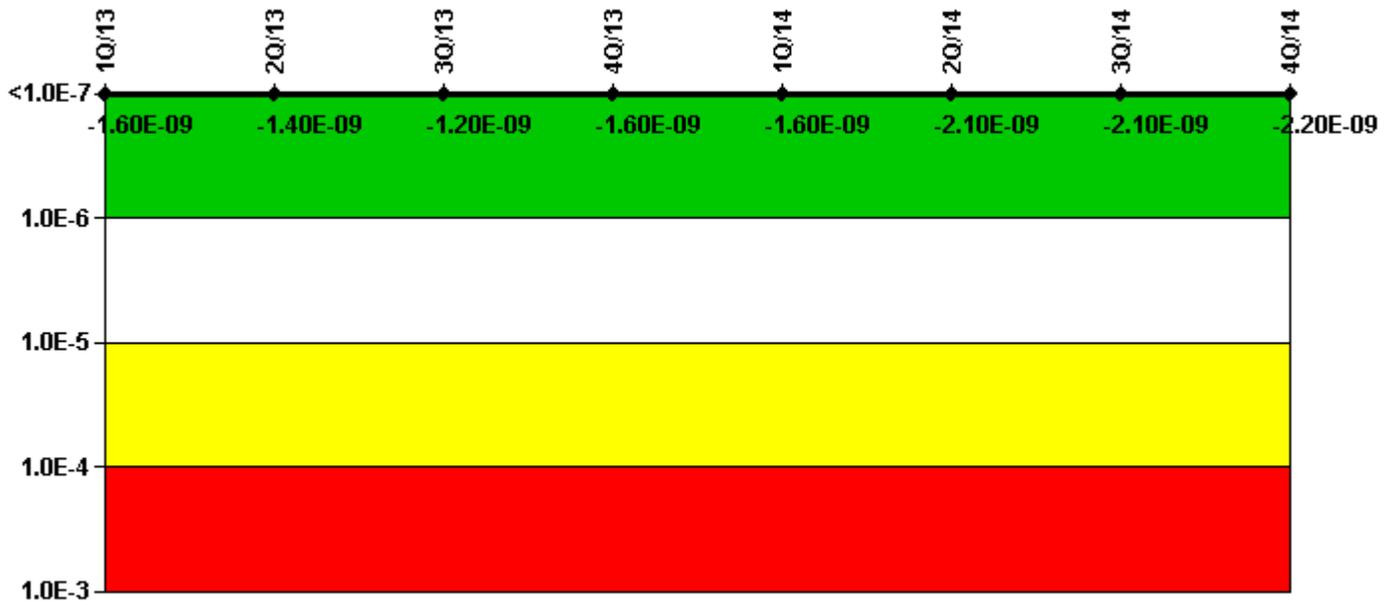
1Q/14: Changed PRA Parameter(s). The Monticello Revision 3.1 model was approved October 1st, 2013 with a corresponding MSPI Basis document Revision 4 approved 4/18/2014. The PRA model revision was created to meet the RG 1.200, Rev 2 Standard. As a result of the PRA model change, the CDF, Fussell-Vesely and Basic Event Probabilities for all monitored trains and components were revised.

4Q/13: This does not affect the MSPI color for any system. Extent of condition review corrected eight (8) instances from June 2012 through December 2013 regarding RHR planned unavailability hours. This relates to short duration unavailability in NEI 99-02 Rev. 7 Section F 1.2.1. Combined, the 8 instances add less than three hours of planned unavailability to the Residual Heat Removal System indicator. In addition, one (1) instance was identified and corrected related to unavailability hours reported when the reactor was not critical (March 2013).

3Q/13: This does not affect the MSPI color for any system. Extent of condition review corrected eight (8) instances from June 2012 through December 2013 regarding RHR planned unavailability hours. This relates to short duration unavailability in NEI 99-02 Rev. 7 Section F 1.2.1. Combined, the 8 instances add less than three hours of planned unavailability to the Residual Heat Removal System indicator. In addition, one (1) instance was identified and corrected related to unavailability hours reported when the reactor was not critical (March 2013).

1Q/13: This does not affect the MSPI color for any system. Extent of condition review corrected eight (8) instances from June 2012 through December 2013 regarding RHR planned unavailability hours. This relates to short duration unavailability in NEI 99-02 Rev. 7 Section F 1.2.1. Combined, the 8 instances add less than three hours of planned unavailability to the Residual Heat Removal System indicator. In addition, one (1) instance was identified and corrected related to unavailability hours reported when the reactor was not critical (March 2013).

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	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14
UAI (Δ CDF)	-1.59E-09	-1.37E-09	-1.21E-09	-1.64E-09	-1.68E-09	-2.19E-09	-2.19E-09	-2.22E-09
URI (Δ CDF)	2.55E-12	2.55E-12	2.55E-12	1.75E-11	5.04E-11	3.89E-11	3.89E-11	3.98E-11
PLE	NO							
Indicator value	-1.60E-09	-1.40E-09	-1.20E-09	-1.60E-09	-1.60E-09	-2.10E-09	-2.10E-09	-2.20E-09

Licensee Comments:

4Q/14: Revision to estimated demands and run hours to incorporate the results of a recent review and reflect current maintenance strategy. This review did not identify a change >25%, but data was updated so the time period of the estimated data is consistent with the update for the MSPI Residual Heat Removal System.

3Q/14: Changed PRA Parameter(s).

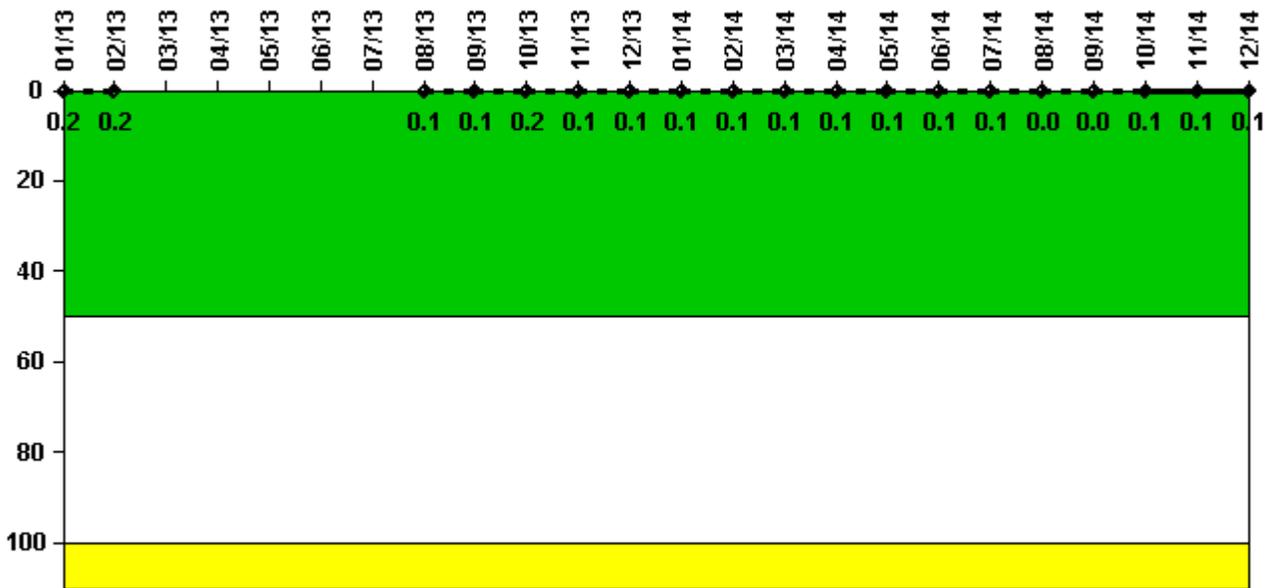
2Q/14: Changed PRA Parameter(s). Revision 3.2 of the Monticello PRA Level 1 Quantification Notebook (PRA-MT-QU) was approved March 31st, 2014 with a corresponding MSPI Basis document Revision 5 approved 7/09/2014. The Rev 3.2 PRA model incorporated the modification/procedure changes required to pin the condensate demineralizer AOVs. As a result of the PRA model change, the CDF, Fussel-Vesely and Basic Event

Probabilities for all monitored trains and components were revised.

1Q/14: Changed PRA Parameter(s). The Monticello Revision 3.1 model was approved October 1st, 2013 with a corresponding MSPI Basis document Revision 4 approved 4/18/2014. The PRA model revision was created to meet the RG 1.200, Rev 2 Standard. As a result of the PRA model change, the CDF, Fussell-Vesely and Basic Event Probabilities for all monitored trains and components were revised.

4Q/13: Final engineering evaluation of Dec 2013 determined MSPI failure in cooling water system. Change did not result in a color change of the indicator.

Reactor Coolant System Activity



Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Activity	1/13	2/13	3/13	4/13	5/13	6/13	7/13	8/13	9/13	10/13	11/13	12/13
Maximum activity	0.000343	0.000302	N/A	N/A	N/A	N/A	N/A	0.000232	0.000248	0.000339	0.000174	0.000166
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	0.2	0.2	N/A	N/A	N/A	N/A	N/A	0.1	0.1	0.2	0.1	0.1

Reactor Coolant System Activity	1/14	2/14	3/14	4/14	5/14	6/14	7/14	8/14	9/14	10/14	11/14	12/14
Maximum activity	0.000129	0.000252	0.000190	0.000160	0.000114	0.000131	0.000110	0.000094	0.000075	0.000158	0.000139	0.000158

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	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0	0	0.1	0.1	0.1

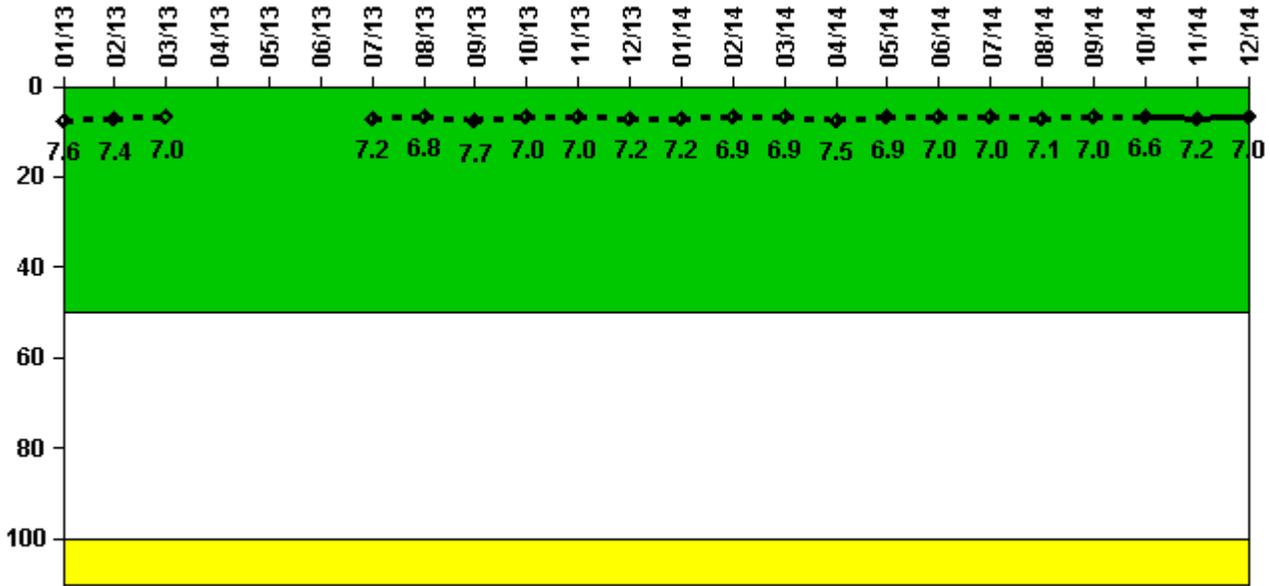
Licensee Comments:

9/13: Plant conditions were not met to calculate RCS activity for July 2013.

6/13: Plant Conditions do not require RCS activity to be calculated for April, May and June 2013.

3/13: Plant conditions were not met to calculate RCS activity for March 2013.

Reactor Coolant System Leakage



Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Leakage	1/13	2/13	3/13	4/13	5/13	6/13	7/13	8/13	9/13	10/13	11/13	12/13
Maximum leakage	1.900	1.840	1.760	N/A	N/A	N/A	1.800	1.690	1.920	1.740	1.760	1.790
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	7.6	7.4	7.0	N/A	N/A	N/A	7.2	6.8	7.7	7.0	7.0	7.2

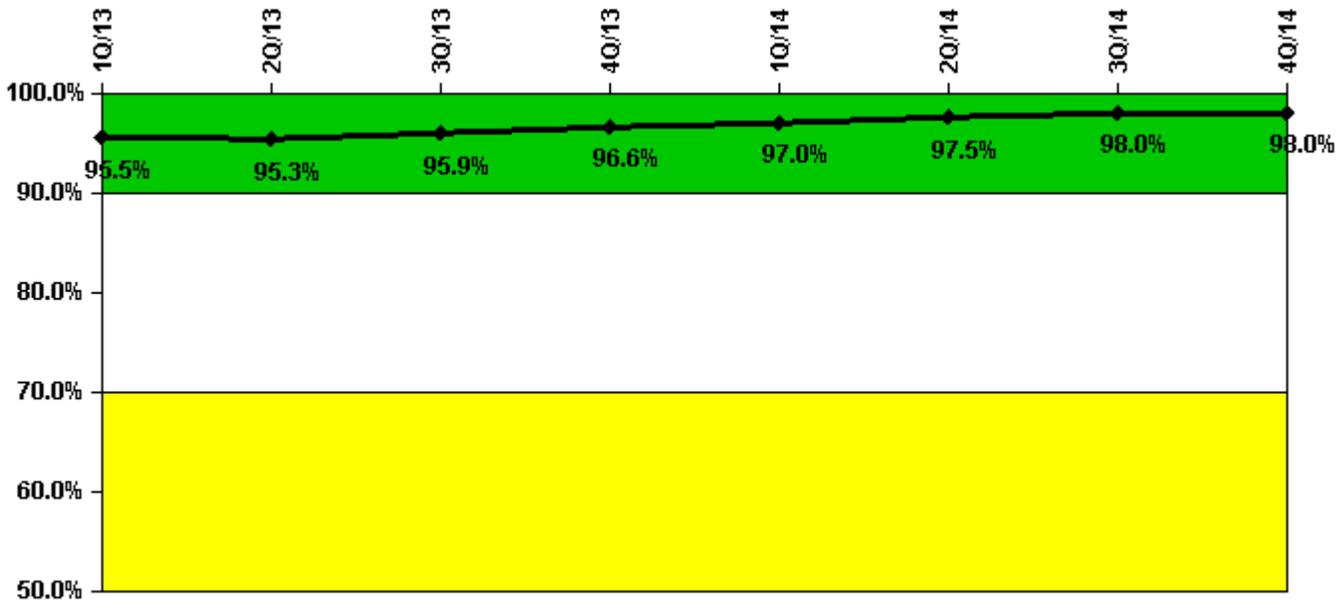
Reactor Coolant System Leakage	1/14	2/14	3/14	4/14	5/14	6/14	7/14	8/14	9/14	10/14	11/14	12/14
Maximum leakage	1.800	1.720	1.720	1.880	1.730	1.760	1.760	1.780	1.760	1.650	1.800	1.750
Technical specification limit	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
Indicator value	7.2	6.9	6.9	7.5	6.9	7.0	7.0	7.1	7.0	6.6	7.2	7.0

Licensee Comments:

6/13: Plant Conditions do not require RCS Leakage to be calculated for April 2013, May 2013 and June 2013.

6/13: Plant Conditions do not require RCS Leakage to be calculated for April 2013, May 2013 and June 2013.

Drill/Exercise Performance



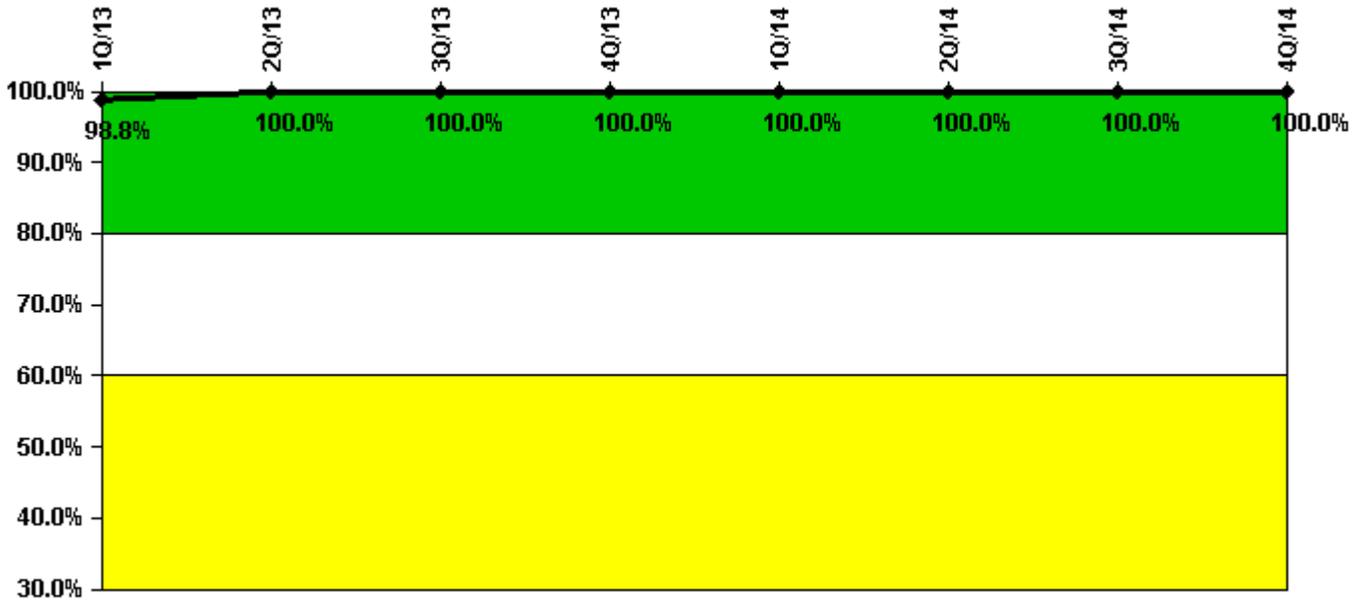
Thresholds: White < 90.0% Yellow < 70.0%

Notes

Drill/Exercise Performance	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14
Successful opportunities	16.0	7.0	37.0	77.0	30.0	92.0	46.0	35.0
Total opportunities	19.0	7.0	39.0	79.0	30.0	92.0	46.0	35.0
Indicator value	95.5%	95.3%	95.9%	96.6%	97.0%	97.5%	98.0%	98.0%

Licensee Comments: none

ERO Drill Participation



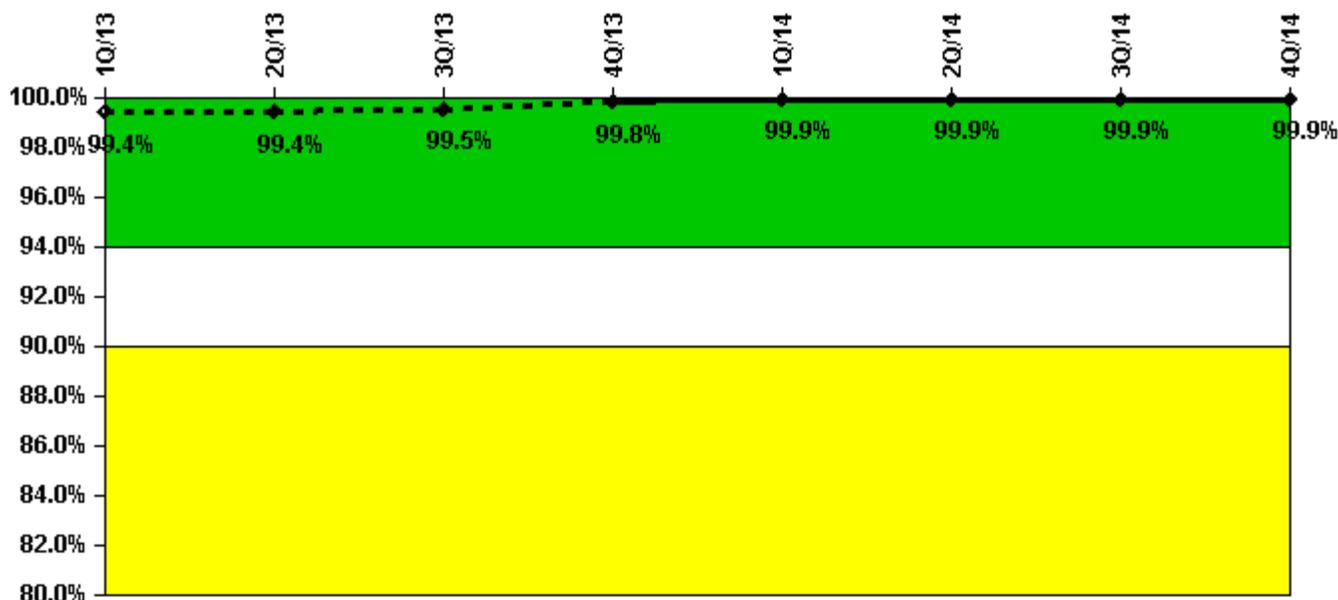
Thresholds: White < 80.0% Yellow < 60.0%

Notes

ERO Drill Participation	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14
Participating Key personnel	160.0	173.0	165.0	164.0	155.0	154.0	151.0	144.0
Total Key personnel	162.0	173.0	165.0	164.0	155.0	154.0	151.0	144.0
Indicator value	98.8%	100.0%						

Licensee Comments: none

Alert & Notification System



Thresholds: White < 94.0% Yellow < 90.0%

Notes

Alert & Notification System	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14
Successful siren-tests	1368	1377	1377	1377	1376	1377	1319	1482
Total sirens-tests	1378	1378	1378	1378	1378	1378	1320	1484
Indicator value	99.4%	99.4%	99.5%	99.8%	99.9%	99.9%	99.9%	99.9%

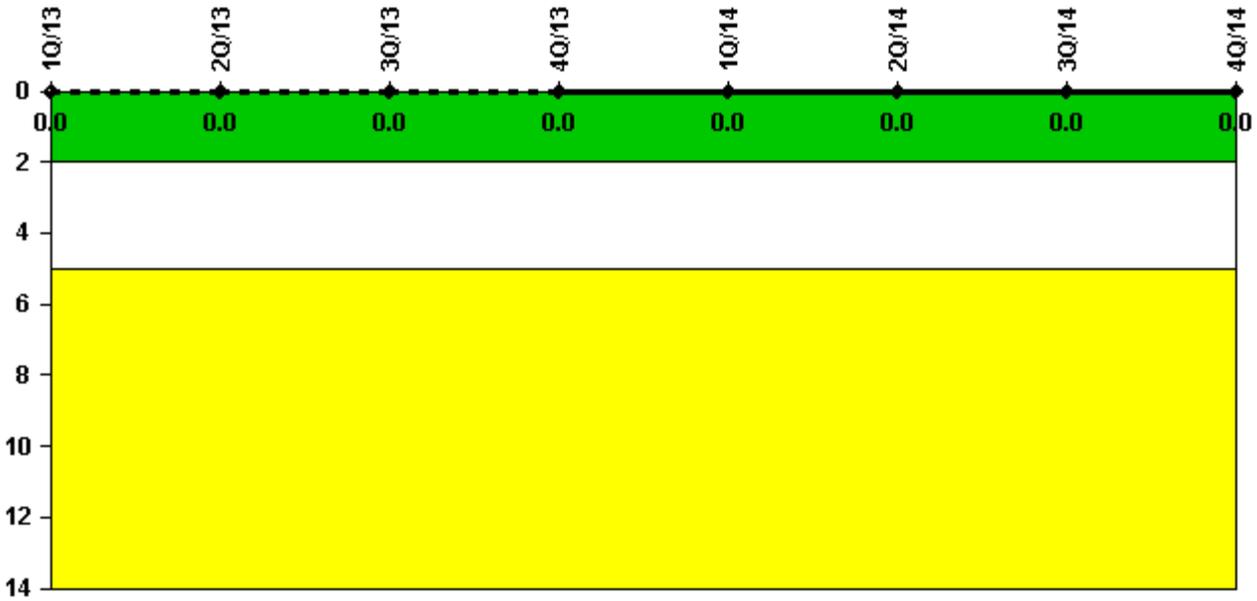
Licensee Comments:

3Q/14: On September 3, 2014 a regularly scheduled test of the Alert and Notification System was only partially performed. The 48 sirens in Sherburne County were all tested successfully. Wright County chose not to test their 58 sirens due to severe weather alerts during the test period. These were considered non-opportunities in accordance with the guidance found in NEI 99-02 Rev. 7.

1Q/14: Alert and Notification System Reliability updated to reflect siren failure in July 2013. No color change.

3Q/13: Alert and Notification System Reliability updated to reflect siren failure in July 2013. No color change.

Occupational Exposure Control Effectiveness



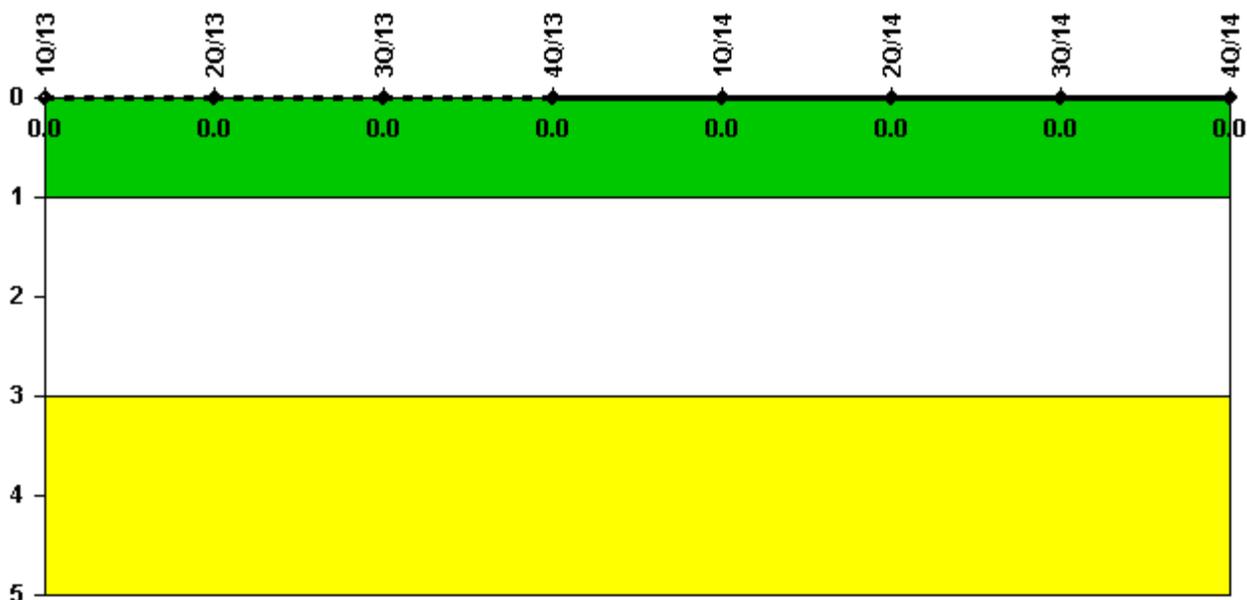
Thresholds: White > 2.0 Yellow > 5.0

Notes

Occupational Exposure Control Effectiveness	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14
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	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14
RETS/ODCM occurrences	0	0	0	0	0	0	0	0
Indicator value	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: February 3, 2015