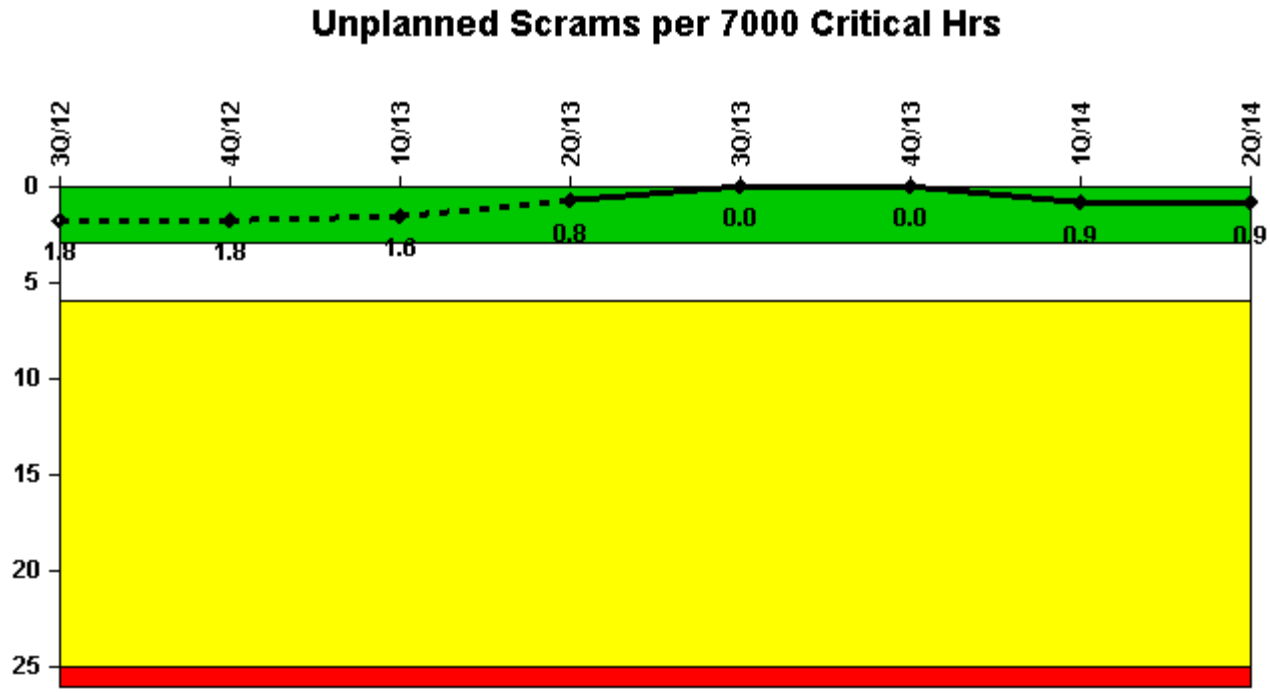
Limerick 1

2Q/2014 Performance Indicators

The solid trend line represents the current reporting period.

Licensee's General Comments: none



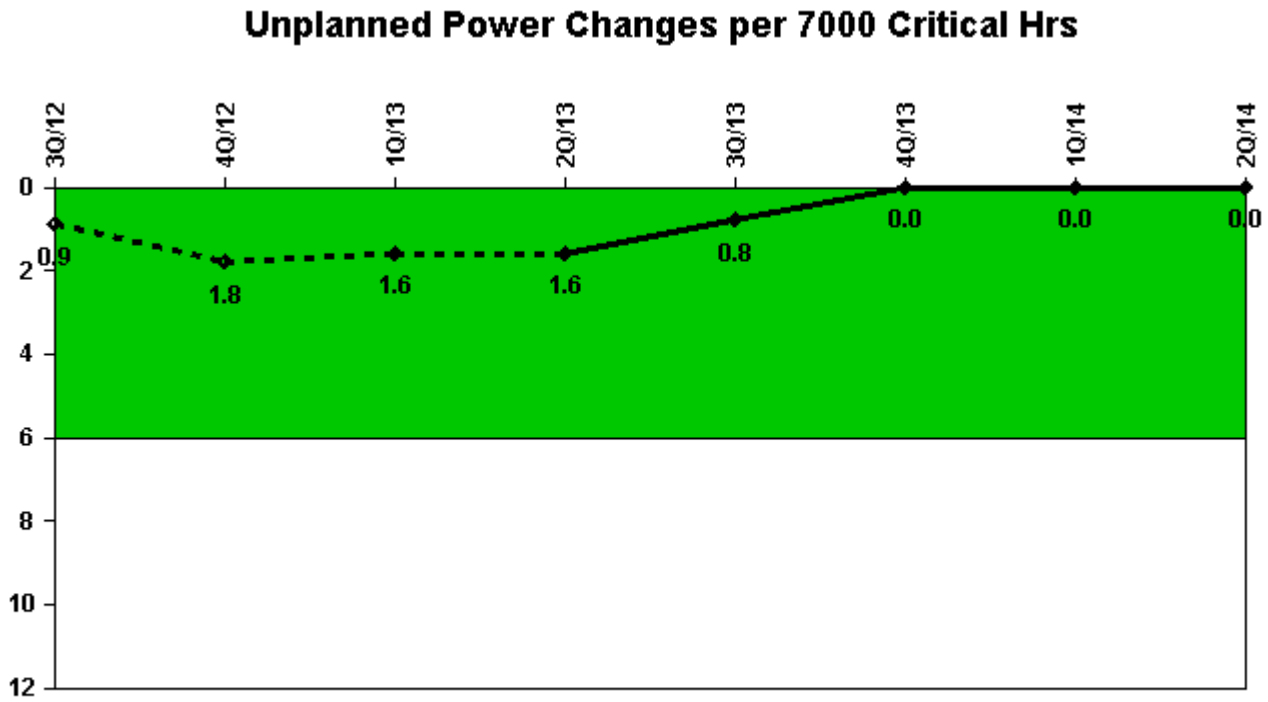
Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

Notes

Unplanned Scrams per 7000 Critical Hrs	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14
Unplanned scrams	1.0	0	0	0	0	0	1.0	0
Critical hours	2002.5	2209.0	2159.0	2184.0	2208.0	2209.0	1511.6	2037.4
Indicator value	**1.8**	**1.8**	**1.6**	**0.8**	**0**	**0**	**0.9**	**0.9**

Licensee Comments:

1Q/14: 7/17/14- Critical hours changed by one minute due to a correction for time of breaker close from the manual shutdown which occurred on March 4, 2014. The breaker remained open and continued into the Refuel outage for the remainder of March into April. No color or threshold change was impacted by the correction.



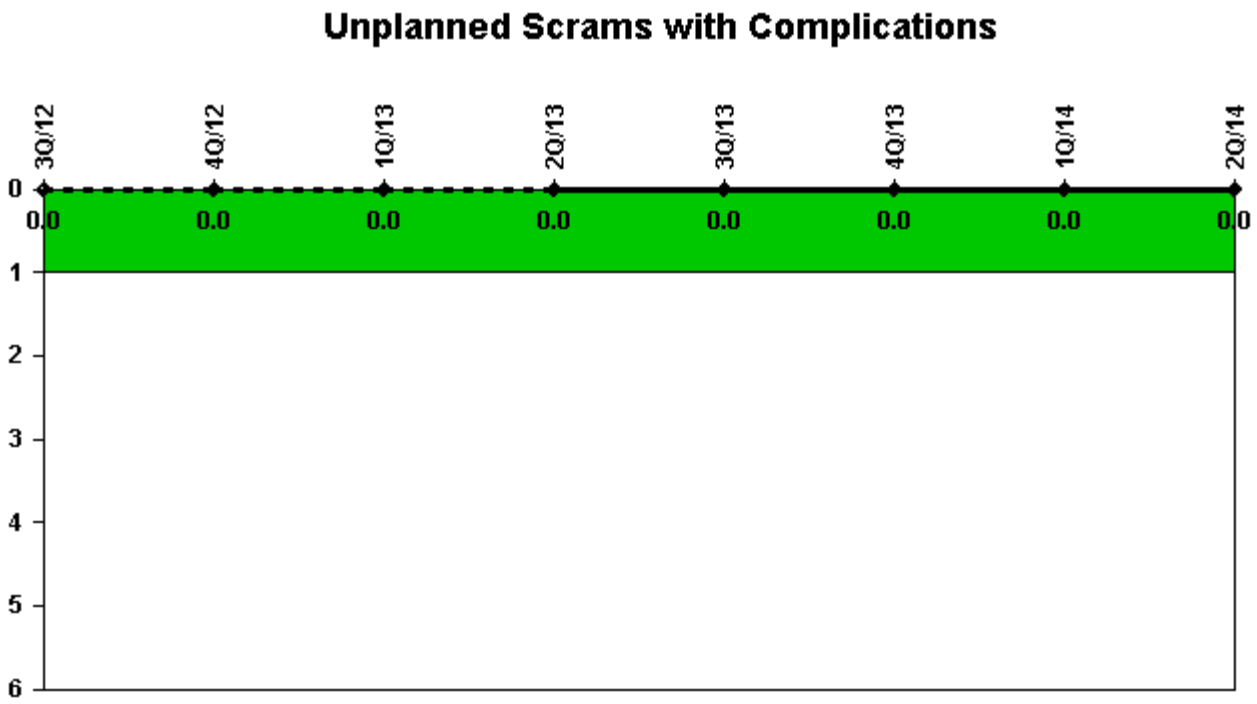
Thresholds: White > 6.0

Notes

Unplanned Power Changes per 7000 Critical Hrs	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14
Unplanned power changes	1.0	1.0	0	0	0	0	0	0
Critical hours	2002.5	2209.0	2159.0	2184.0	2208.0	2209.0	1511.6	2037.4
Indicator value	**0.9**	**1.8**	**1.6**	**1.6**	**0.8**	**0**	**0**	**0**

Licensee Comments:

1Q/14: 7/17/14- Critical hours changed by one minute due to a correction for time of breaker close from the manual shutdown which occurred on March 4, 2014. The breaker remained open and continued into the Refuel outage for the remainder of March into April. No color or threshold change was impacted by the correction.

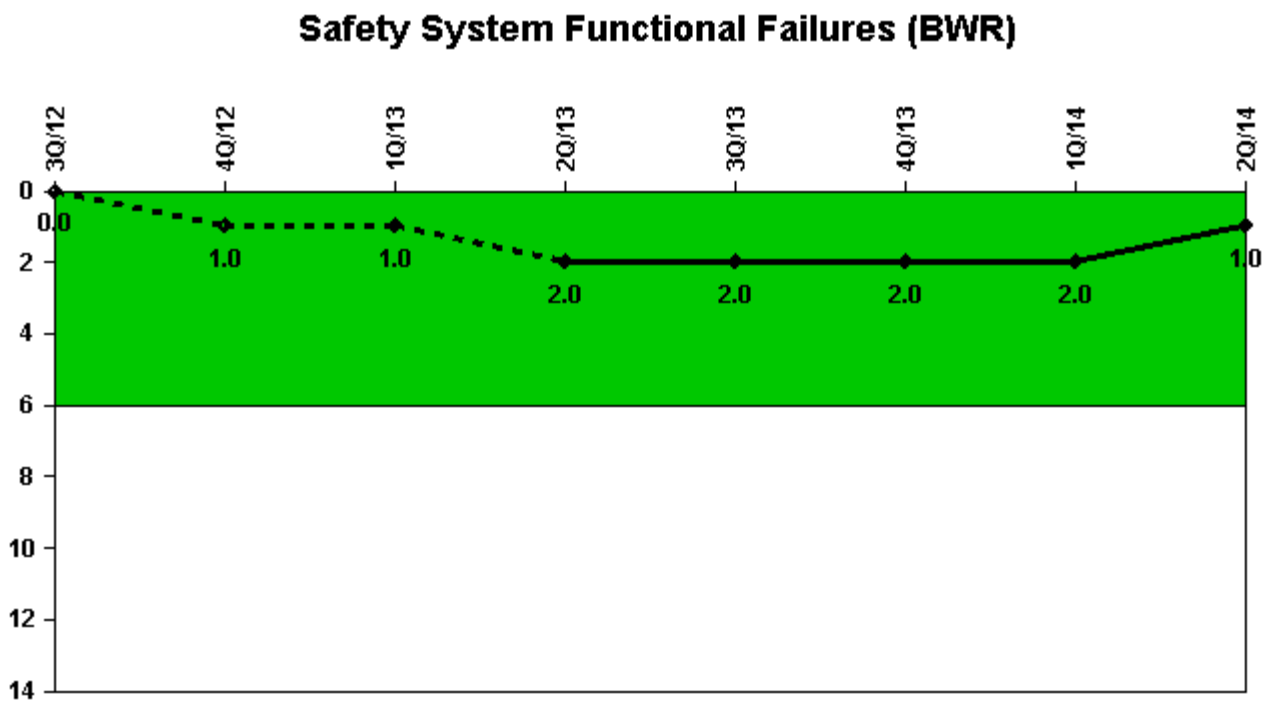


Thresholds: White > 1.0

Notes

Unplanned Scrams with Complications	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14
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



Thresholds: White > 6.0

Notes

Safety System Functional Failures (BWR)	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14
Safety System Functional Failures	0	1	0	1	0	1	0	0
Indicator value	**0**	**1**	**1**	**2**	**2**	**2**	**2**	**1**

Licensee Comments:

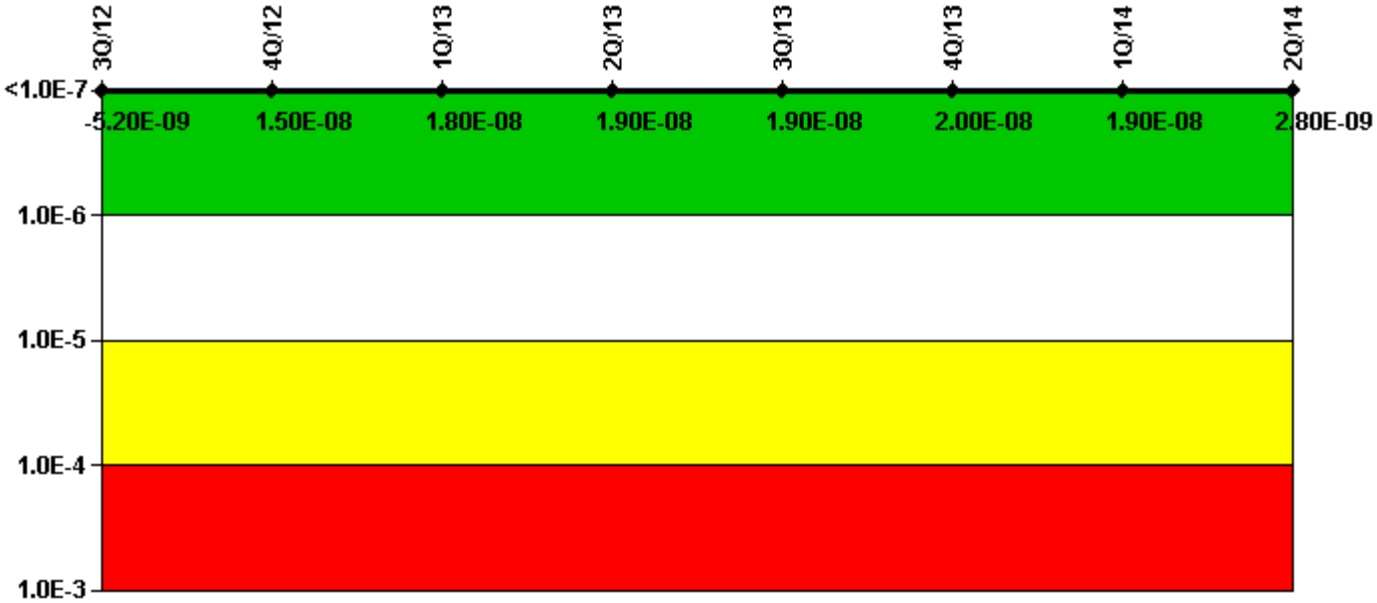
4Q/13: LER 2013-002 - LGS Unit 1 and Unit 2, Condition That Could Have Prevented Fullfillment of the Offsite Power Safety Function, was issued on 10/04/13 and occurred on 8/05/13. No PI threshold or color change resulted from this event.

2Q/13: LER 2013-001- LGS Unit 1 HPCI Pressure Switch Oil Leak was issued on 5/20/2013 and occurred on 3/20/2013. No PI threshold or color change resulted from this event.

2Q/13: LER 1-13-001- LGS Unit 1 HPCI Pressure Switch Oil Leak was issued on 5/20/2013 and occurred on 3/20/2013. No PI threshold or color change resulted from this event.

4Q/12: 7/21/13- LER 2012-007-00 issued 10/19/12 for Unit 1 and Unit 2 for Inoperable Primary Containment Isolation Valves which occurred on 08/20/2012. This event does not result in any threshold or color change to the indicator.

Mitigating Systems Performance Index, Emergency AC Power System



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

Notes

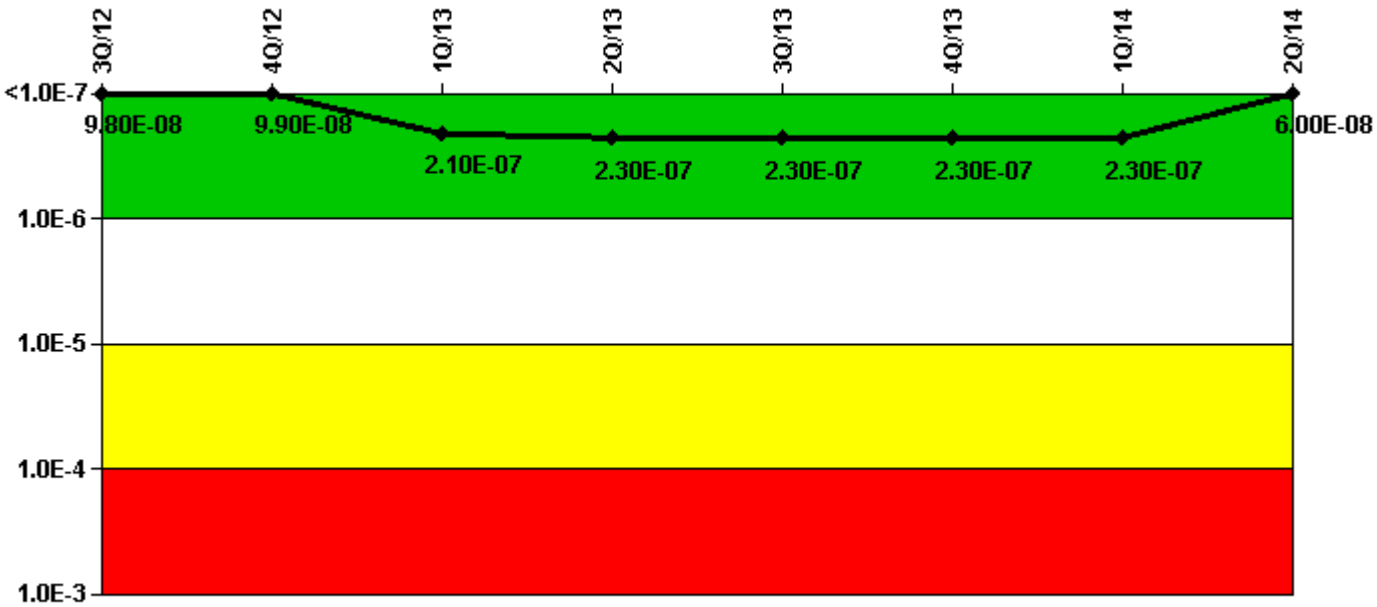
Mitigating Systems Performance Index, Emergency AC Power System	**3Q/12**	**4Q/12**	**1Q/13**	**2Q/13**	**3Q/13**	**4Q/13**	**1Q/14**	**2Q/14**
UAI (ΔCDF)	-1.24E-10	2.32E-09	4.86E-09	5.66E-09	2.43E-09	2.67E-09	3.21E-09	5.55E-10
URI (ΔCDF)	-5.12E-09	1.26E-08	1.28E-08	1.29E-08	1.61E-08	1.69E-08	1.59E-08	2.22E-09
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-5.20E-09**	**1.50E-08**	**1.80E-08**	**1.90E-08**	**1.90E-08**	**2.00E-08**	**1.90E-08**	**2.80E-09**

Licensee Comments:

2Q/14: 07/17/14- The LG113A and LG213A PRA Models Revision was approved in January 2014 with a corresponding LG-MSPI-001 Basis Document Revision 5 approved on 06/24/14. The PRA model revision was a periodic update which included a data update and re-analysis of operator action dependency. As a result of the PRA model change, the CDF, Fussel-Vesely and Basic Event Probabilities for all monitored trains and components were revised. No color or threshold changes were impacted by this update.

4Q/12: 7/21/13- A MSPI Run Failure on 11/13/12 was added to EDG D24. The change resulted from engineering evaluation of the failed lube oil piping component. The correction affected 4Q 2012 and 1Q 2013 MSPI but did not result in any color change or threshold being exceeded.

Mitigating Systems Performance Index, High Pressure Injection System



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

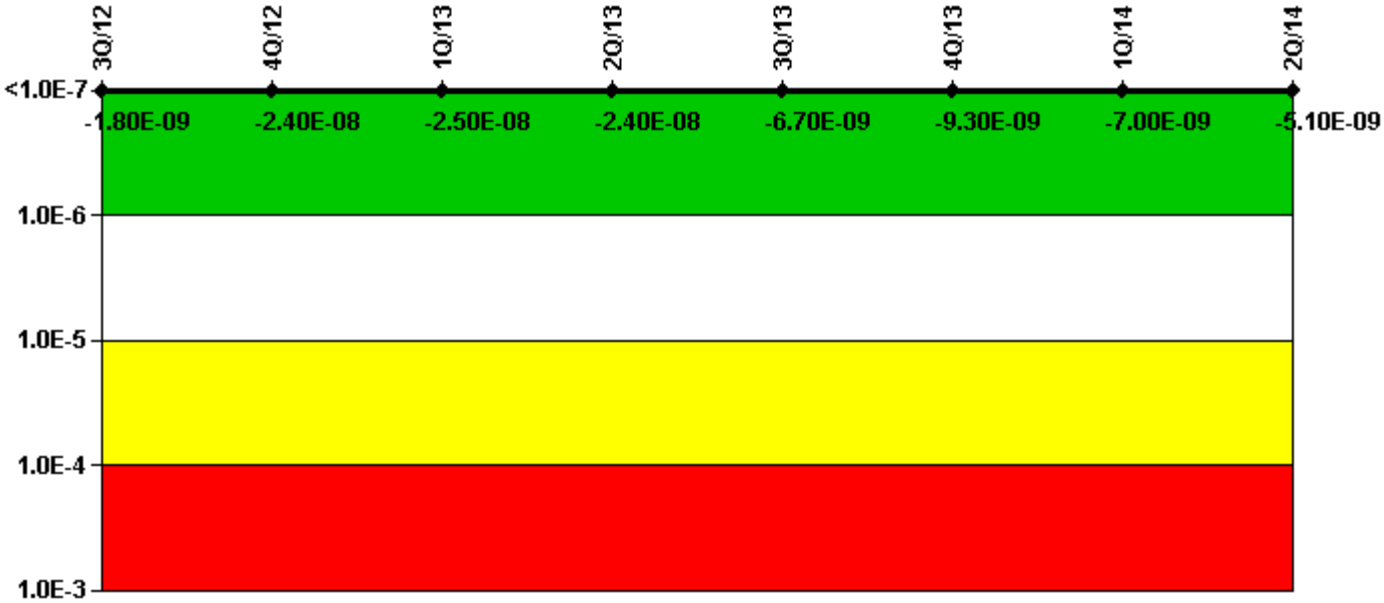
Notes

Mitigating Systems Performance Index, High Pressure Injection System	**3Q/12**	**4Q/12**	**1Q/13**	**2Q/13**	**3Q/13**	**4Q/13**	**1Q/14**	**2Q/14**
UAI (ΔCDF)	3.60E-08	3.63E-08	3.99E-08	6.13E-08	6.18E-08	5.43E-08	5.70E-08	-7.28E-09
URI (ΔCDF)	6.24E-08	6.24E-08	1.71E-07	1.71E-07	1.71E-07	1.71E-07	1.71E-07	6.77E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**9.80E-08**	**9.90E-08**	**2.10E-07**	**2.30E-07**	**2.30E-07**	**2.30E-07**	**2.30E-07**	**6.00E-08**

Licensee Comments:

2Q/14: 07/17/14- The LG113A and LG213A PRA Models Revision was approved in January 2014 with a corresponding LG-MSPI-001 Basis Document Revision 5 approved on 06/24/14. The PRA model revision was a periodic update which included a data update and re-analysis of operator action dependency. As a result of the PRA model change, the CDF, Fussel-Vesely and Basic Event Probabilities for all monitored trains and components were revised. No color or threshold changes were impacted by this update.

Mitigating Systems Performance Index, Heat Removal System



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

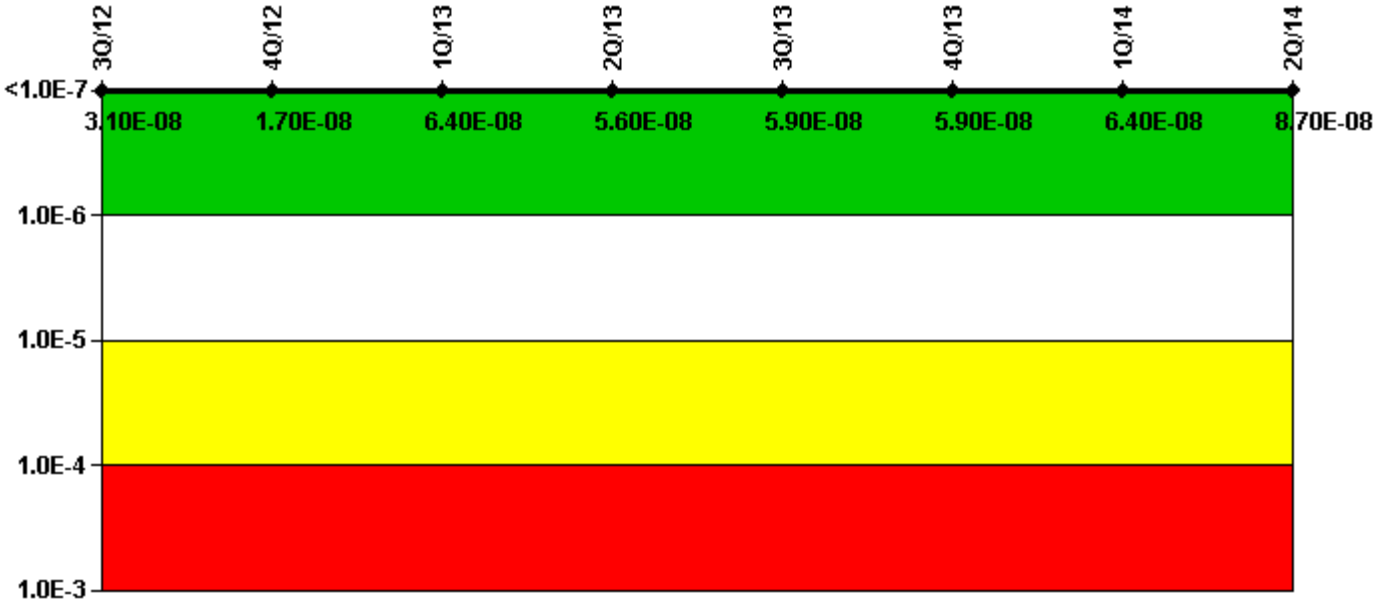
Notes

Mitigating Systems Performance Index, Heat Removal System	**3Q/12**	**4Q/12**	**1Q/13**	**2Q/13**	**3Q/13**	**4Q/13**	**1Q/14**	**2Q/14**
UAI (ΔCDF)	2.56E-08	3.69E-09	2.55E-09	2.92E-09	2.07E-08	1.81E-08	2.03E-08	1.47E-08
URI (ΔCDF)	-2.73E-08	-2.73E-08	-2.73E-08	-2.73E-08	-2.73E-08	-2.73E-08	-2.73E-08	-1.98E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-1.80E-09**	**-2.40E-08**	**-2.50E-08**	**-2.40E-08**	**-6.70E-09**	**-9.30E-09**	**-7.00E-09**	**-5.10E-09**

Licensee Comments:

2Q/14: 07/17/14- The LG113A and LG213A PRA Models Revision was approved in January 2014 with a corresponding LG-MSPI-001 Basis Document Revision 5 approved on 06/24/14. The PRA model revision was a periodic update which included a data update and re-analysis of operator action dependency. As a result of the PRA model change, the CDF, Fussel-Vesely and Basic Event Probabilities for all monitored trains and components were revised. No color or threshold changes were impacted by this update.

Mitigating Systems Performance Index, Residual Heat Removal System



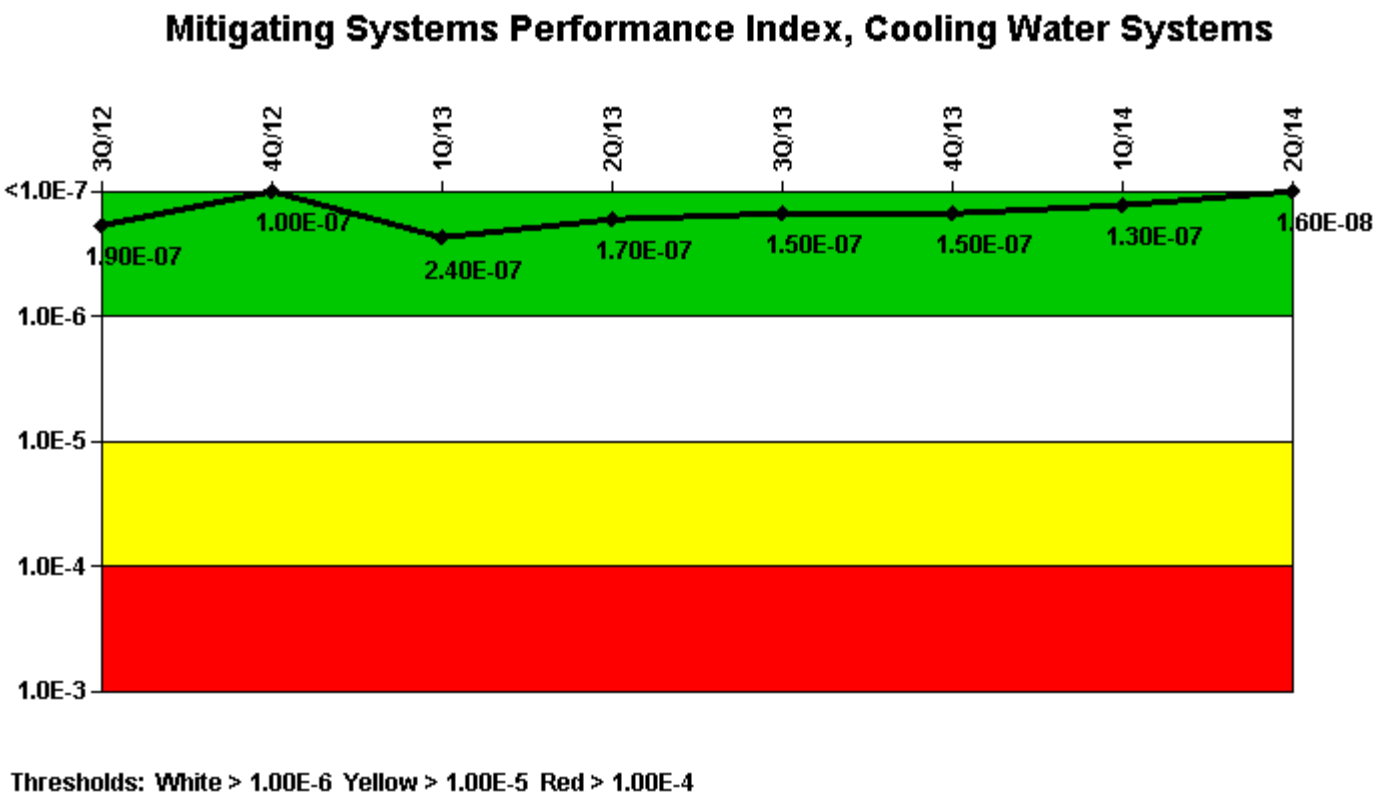
Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Residual Heat Removal System	**3Q/12**	**4Q/12**	**1Q/13**	**2Q/13**	**3Q/13**	**4Q/13**	**1Q/14**	**2Q/14**
UAI (ΔCDF)	3.31E-08	1.87E-08	6.54E-08	5.78E-08	6.06E-08	6.06E-08	6.53E-08	1.01E-07
URI (ΔCDF)	-1.92E-09	-1.92E-09	-1.77E-09	-1.63E-09	-1.63E-09	-1.62E-09	-1.76E-09	-1.32E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**3.10E-08**	**1.70E-08**	**6.40E-08**	**5.60E-08**	**5.90E-08**	**5.90E-08**	**6.40E-08**	**8.70E-08**

Licensee Comments:

2Q/14: 07/17/14- The LG113A and LG213A PRA Models Revision was approved in January 2014 with a corresponding LG-MSPI-001 Basis Document Revision 5 approved on 06/24/14. The PRA model revision was a periodic update which included a data update and re-analysis of operator action dependency. As a result of the PRA model change, the CDF, Fussel-Vesely and Basic Event Probabilities for all monitored trains and components were revised. No color or threshold changes were impacted by this update.



Notes

Mitigating Systems Performance Index, Cooling Water Systems	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14
UAI (ΔCDF)	2.23E-07	1.35E-07	2.67E-07	2.02E-07	1.75E-07	1.75E-07	1.59E-07	5.45E-08
URI (ΔCDF)	-3.13E-08	-3.15E-08	-2.96E-08	-2.92E-08	-2.86E-08	-2.83E-08	-2.82E-08	-3.86E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**1.90E-07**	**1.00E-07**	**2.40E-07**	**1.70E-07**	**1.50E-07**	**1.50E-07**	**1.30E-07**	**1.60E-08**

Licensee Comments:

2Q/14: 07/17/14- The LG113A and LG213A PRA Models Revision was approved in January 2014 with a corresponding LG-MSPI-001 Basis Document Revision 5 approved on 06/24/14. The PRA model revision was a periodic update which included a data update and re-analysis of operator action dependency. As a result of the PRA model change, the CDF, Fussel-Vesely and Basic Event Probabilities for all monitored trains and components were revised. No color or threshold changes were impacted by this update.

1Q/14: Changed PRA Parameter(s). 07/17/14- The LG113A and LG213A PRA Models Revision was approved in January 2014 with a corresponding LG-MSPI-001 Basis Document Revision 5 approved on 06/24/14. The PRA model revision was a periodic update which included a data update and re-analysis of operator action dependency. As a result of the PRA model change, the CDF, Fussel-Vesely and Basic Event Probabilities for all monitored trains and components were revised. No color or threshold changes were impacted by this update.

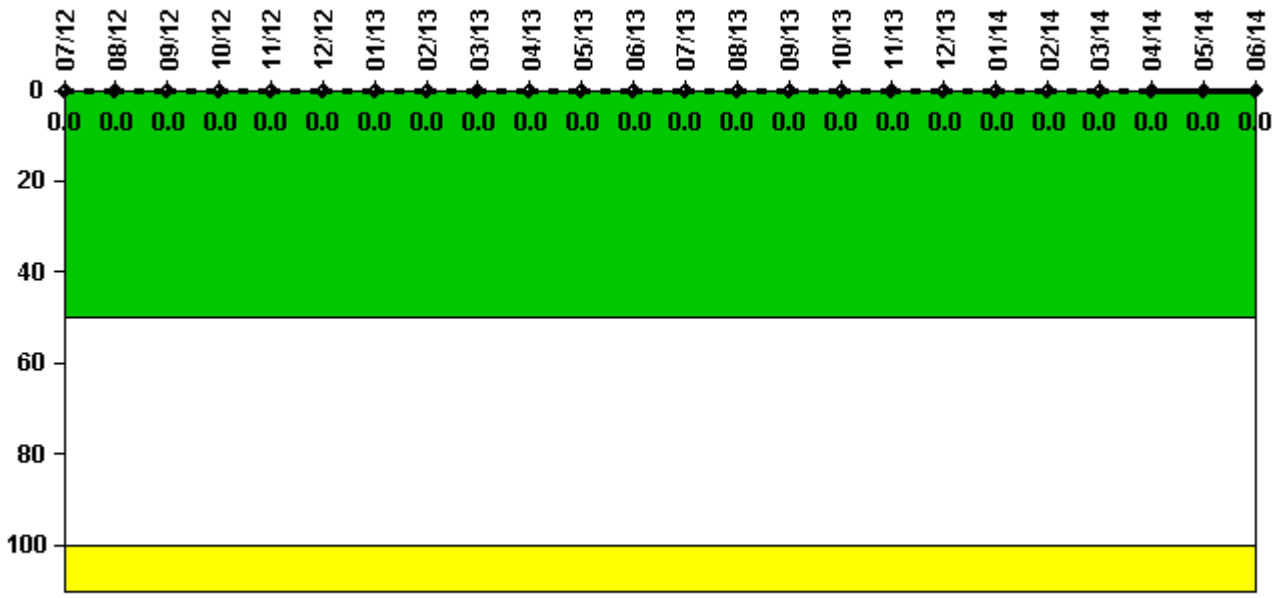
4Q/13: Changed PRA Parameter(s). 07/17/14- The LG113A and LG213A PRA Models Revision was approved in January 2014 with a corresponding LG-MSPI-001 Basis Document Revision 5 approved on 06/24/14. The PRA model revision was a periodic update which included a data update and re-analysis of operator action

dependency. As a result of the PRA model change, the CDF, Fussel-Vesely and Basic Event Probabilities for all monitored trains and components were revised. No color or threshold changes were impacted by this update.

3Q/13: Changed PRA Parameter(s). 07/17/14- The LG113A and LG213A PRA Models Revision was approved in January 2014 with a corresponding LG-MSPI-001 Basis Document Revision 5 approved on 06/24/14. The PRA model revision was a periodic update which included a data update and re-analysis of operator action dependency. As a result of the PRA model change, the CDF, Fussel-Vesely and Basic Event Probabilities for all monitored trains and components were revised. No color or threshold changes were impacted by this update.

2Q/13: Changed PRA Parameter(s). 07/17/14- The LG113A and LG213A PRA Models Revision was approved in January 2014 with a corresponding LG-MSPI-001 Basis Document Revision 5 approved on 06/24/14. The PRA model revision was a periodic update which included a data update and re-analysis of operator action dependency. As a result of the PRA model change, the CDF, Fussel-Vesely and Basic Event Probabilities for all monitored trains and components were revised. No color or threshold changes were impacted by this update.

Reactor Coolant System Activity



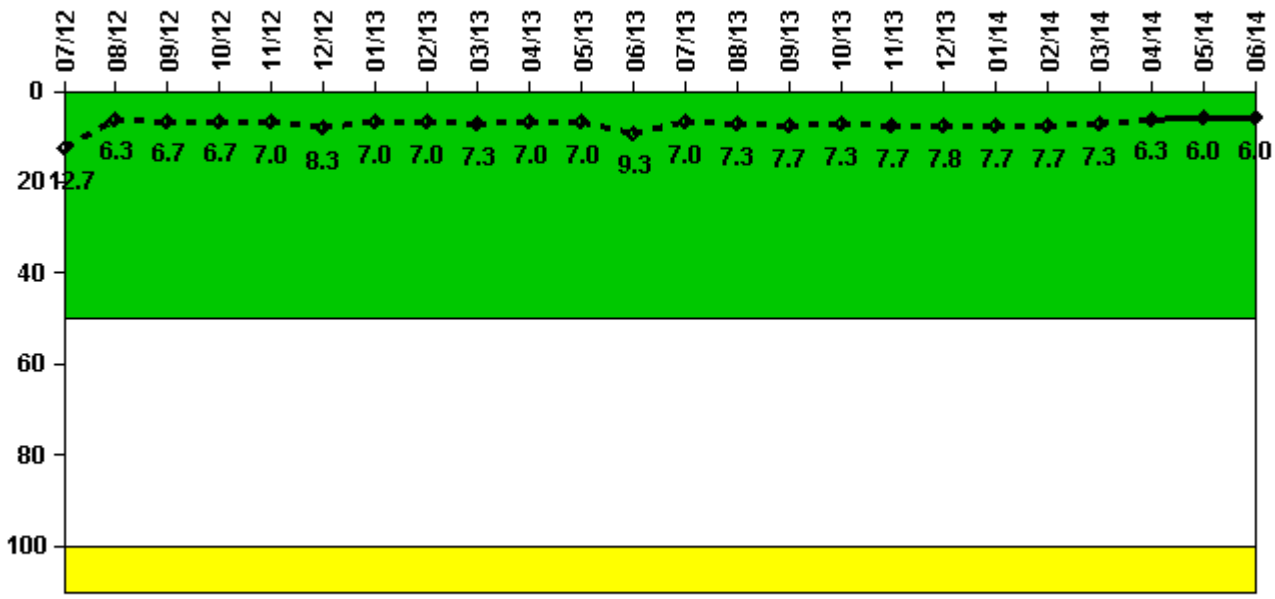
Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Activity	7/12	8/12	9/12	10/12	11/12	12/12	1/13	2/13	3/13	4/13	5/13	6/13
Maximum activity	0.000005	0.000006	0.000003	0.000003	0.000002	0.000003	0.000003	0.000003	0.000003	0.000004	0.000004	0.000004
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	**7/13**	**8/13**	**9/13**	**10/13**	**11/13**	**12/13**	**1/14**	**2/14**	**3/14**	**4/14**	**5/14**	**6/14**
Maximum activity	0.000003	0.000004	0.000004	0.000004	0.000004	0.000004	0.000003	0.000003	0.000023	0.000002	0.000002	0.000003
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: none



Thresholds: White > 50.0 Yellow > 100.0

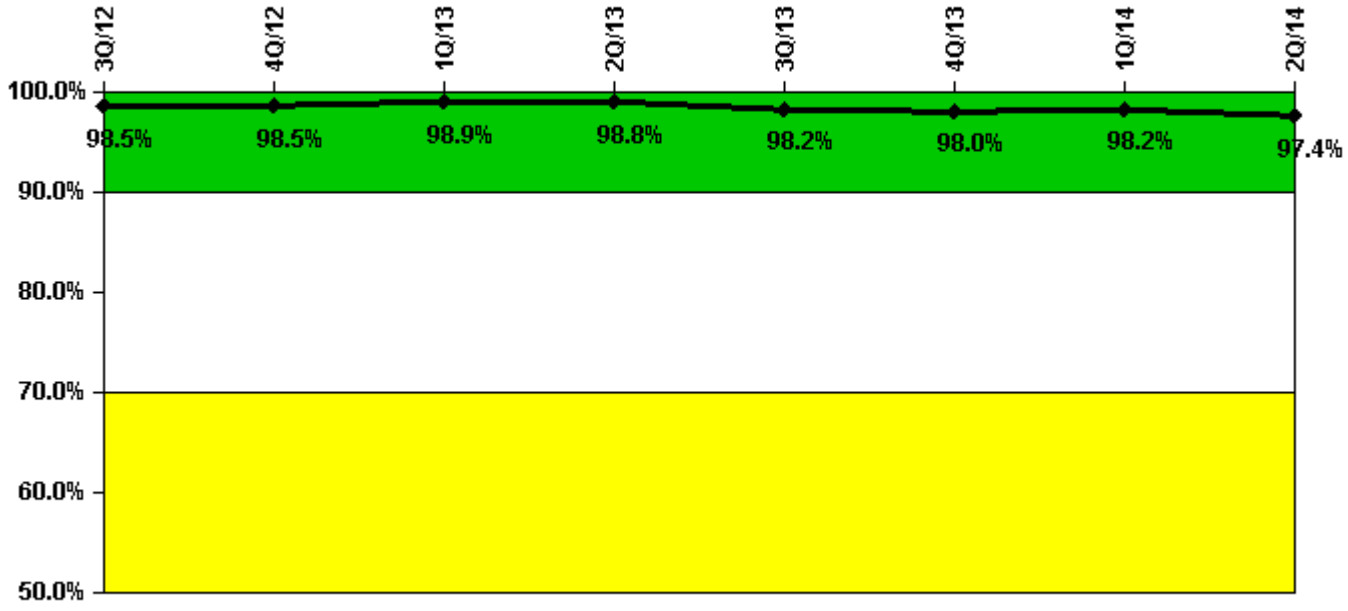
Notes

Reactor Coolant System Leakage	**7/12**	**8/12**	**9/12**	**10/12**	**11/12**	**12/12**	**1/13**	**2/13**	**3/13**	**4/13**	**5/13**	**6/13**
Maximum leakage	3.800	1.900	2.000	2.000	2.100	2.500	2.100	2.100	2.200	2.100	2.100	2.800

Technical specification limit	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0
Indicator value	**12.7**	**6.3**	**6.7**	**6.7**	**7.0**	**8.3**	**7.0**	**7.0**	**7.3**	**7.0**	**7.0**	**9.3**
Reactor Coolant System Leakage	**7/13**	**8/13**	**9/13**	**10/13**	**11/13**	**12/13**	**1/14**	**2/14**	**3/14**	**4/14**	**5/14**	**6/14**
Maximum leakage	2.100	2.200	2.300	2.200	2.300	2.350	2.300	2.300	2.200	1.900	1.800	1.800
Technical specification limit	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0
Indicator value	**7.0**	**7.3**	**7.7**	**7.3**	**7.7**	**7.8**	**7.7**	**7.7**	**7.3**	**6.3**	**6.0**	**6.0**

Licensee Comments: none

Drill/Exercise Performance



Thresholds: White < 90.0% Yellow < 70.0%

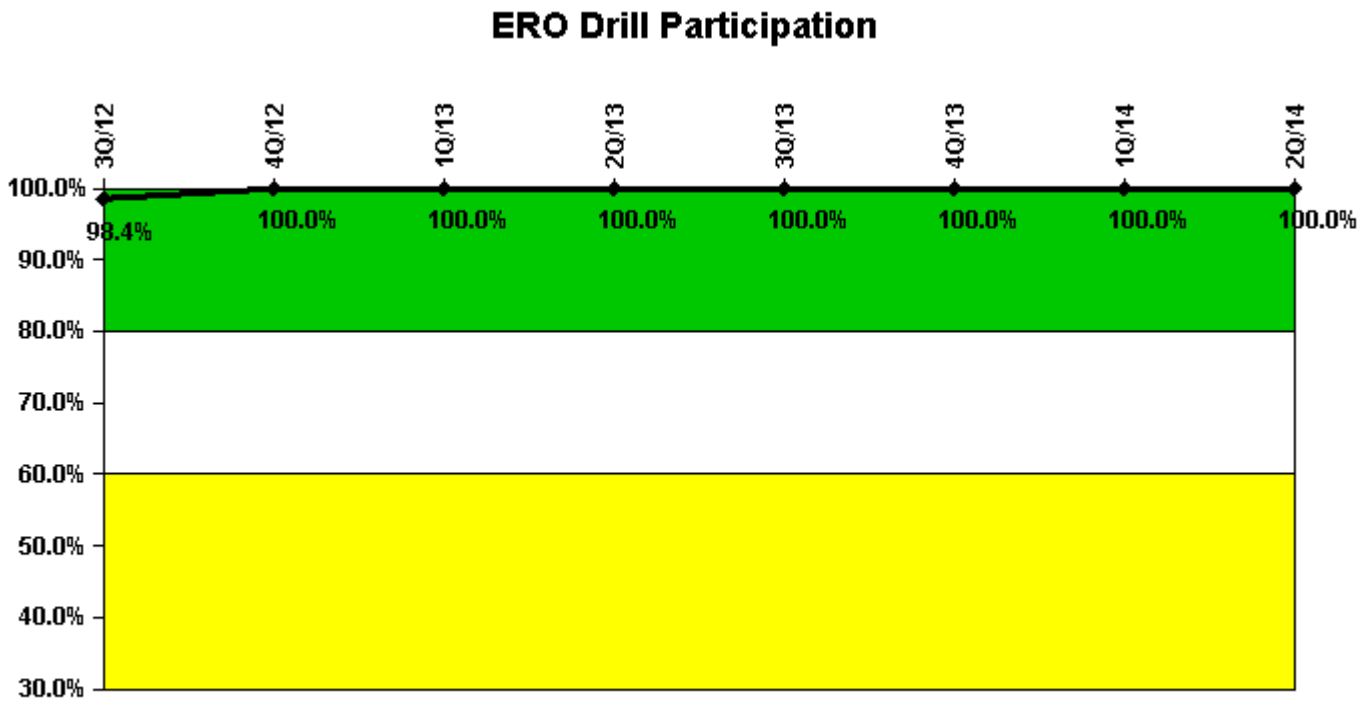
Notes

Drill/Exercise Performance	**3Q/12**	**4Q/12**	**1Q/13**	**2Q/13**	**3Q/13**	**4Q/13**	**1Q/14**	**2Q/14**
Successful opportunities	26.0	28.0	24.0	12.0	43.0	30.0	38.0	57.0
Total opportunities	28.0	28.0	24.0	12.0	45.0	31.0	38.0	59.0
Indicator value	**98.5%**	**98.5%**	**98.9%**	**98.8%**	**98.2%**	**98.0%**	**98.2%**	**97.4%**

Licensee Comments:

3Q/13: 3rd quarter 2013 Drill Exercise and Event Opportunities was changed from from 8 to 5 due to Emergency Offsite Facility Opportunities being reported in September when they should have been reported in October. No color or threshold changes occurred as a result of this correction.

4Q/12: Total and Successful number of DEP opportunities data was corrected for Oct 2012. Oct 2012 data changed from 16 to 17 to include a DEP opportunity from an Ops Training Drill/Exercise held in Oct 2012. Quarterly data changed from 27 to 28 total opportunities. No threshold changes occurred (4/15/13).

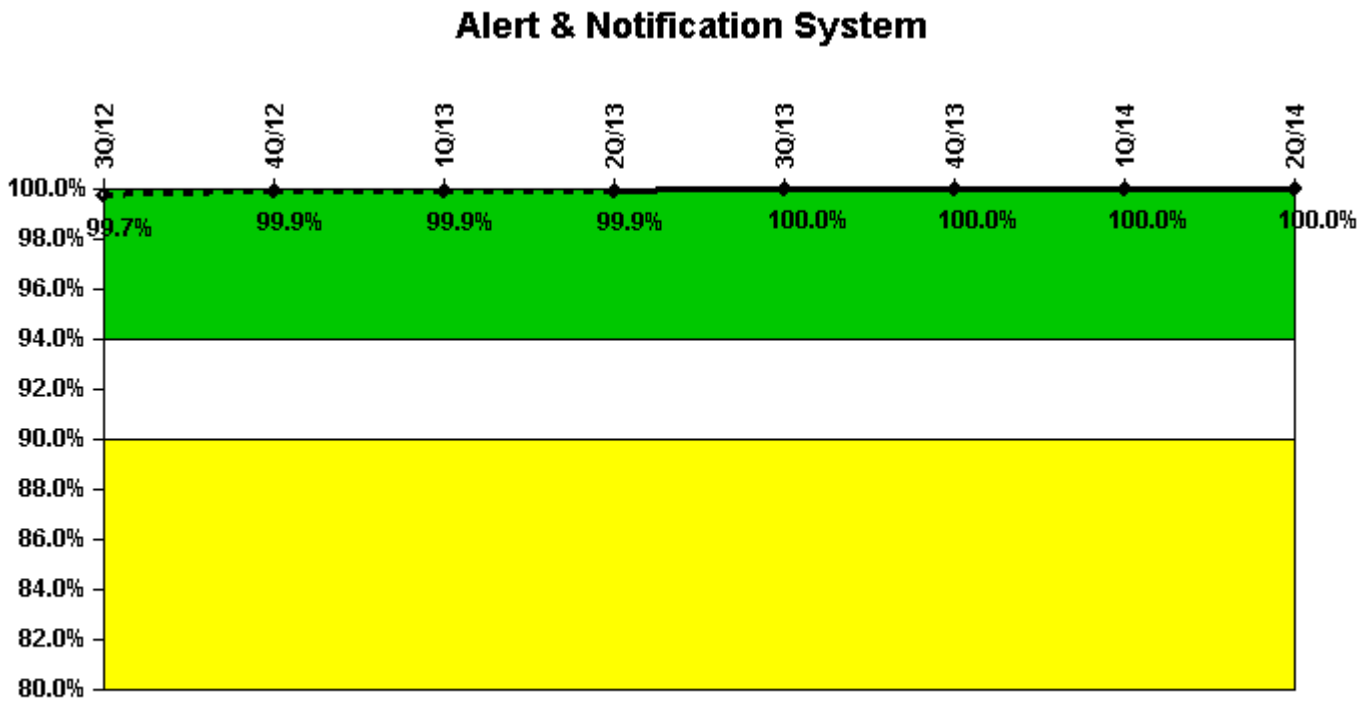


Thresholds: White < 80.0% Yellow < 60.0%

Notes

ERO Drill Participation	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14
Participating Key personnel	62.0	65.0	68.0	68.0	66.0	63.0	64.0	65.0
Total Key personnel	63.0	65.0	68.0	68.0	66.0	63.0	64.0	65.0
Indicator value	**98.4%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Licensee Comments: none

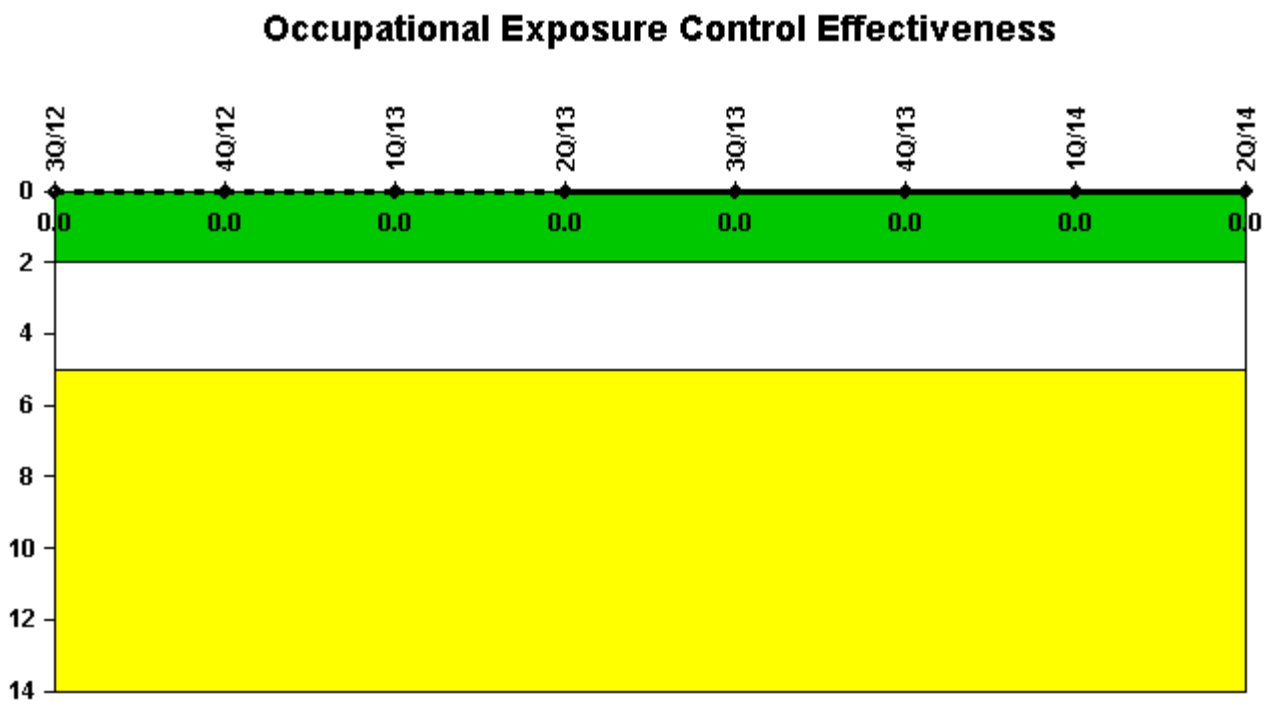


Thresholds: White < 94.0% Yellow < 90.0%

Notes

Alert & Notification System	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14
Successful siren-tests	2141	2309	1980	2145	2310	2144	2143	2144
Total sirens-tests	2145	2310	1980	2145	2310	2145	2145	2145
Indicator value	**99.7%**	**99.9%**	**99.9%**	**99.9%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Licensee Comments: none

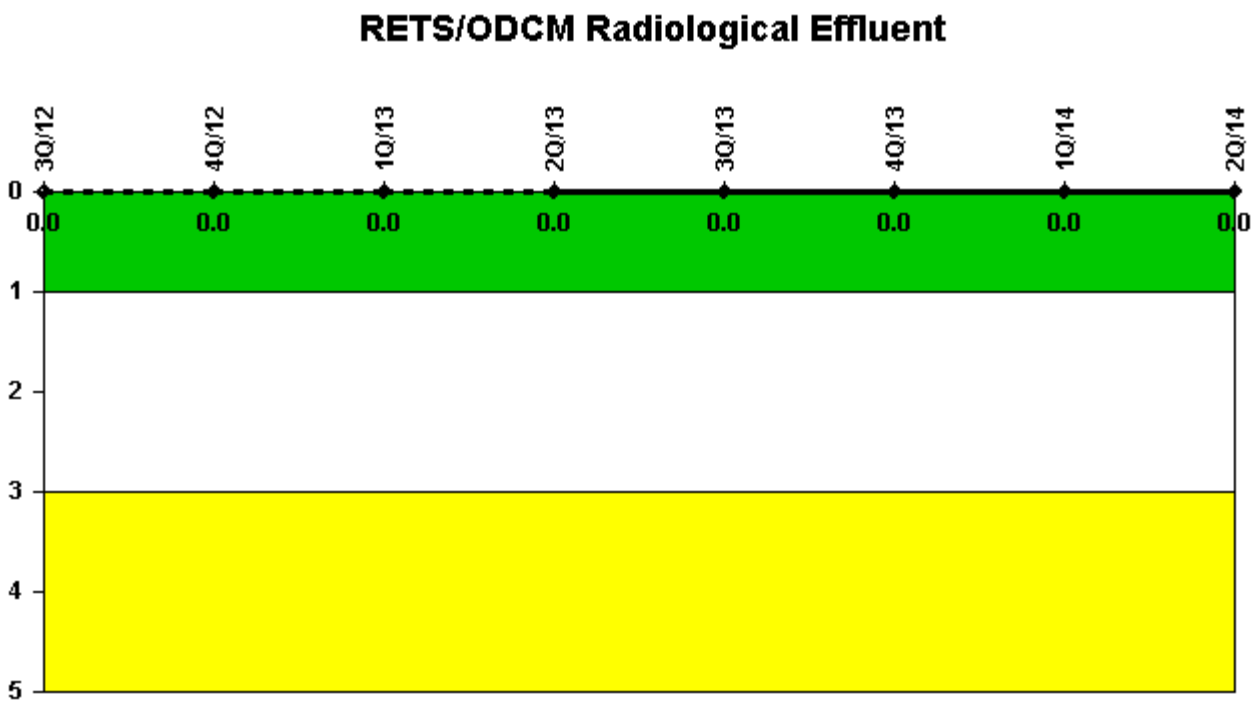


Thresholds: White > 2.0 Yellow > 5.0

Notes

Occupational Exposure Control Effectiveness	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/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**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none



Thresholds: White > 1.0 Yellow > 3.0

Notes

RETS/ODCM Radiological Effluent	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14
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: July 31, 2014