

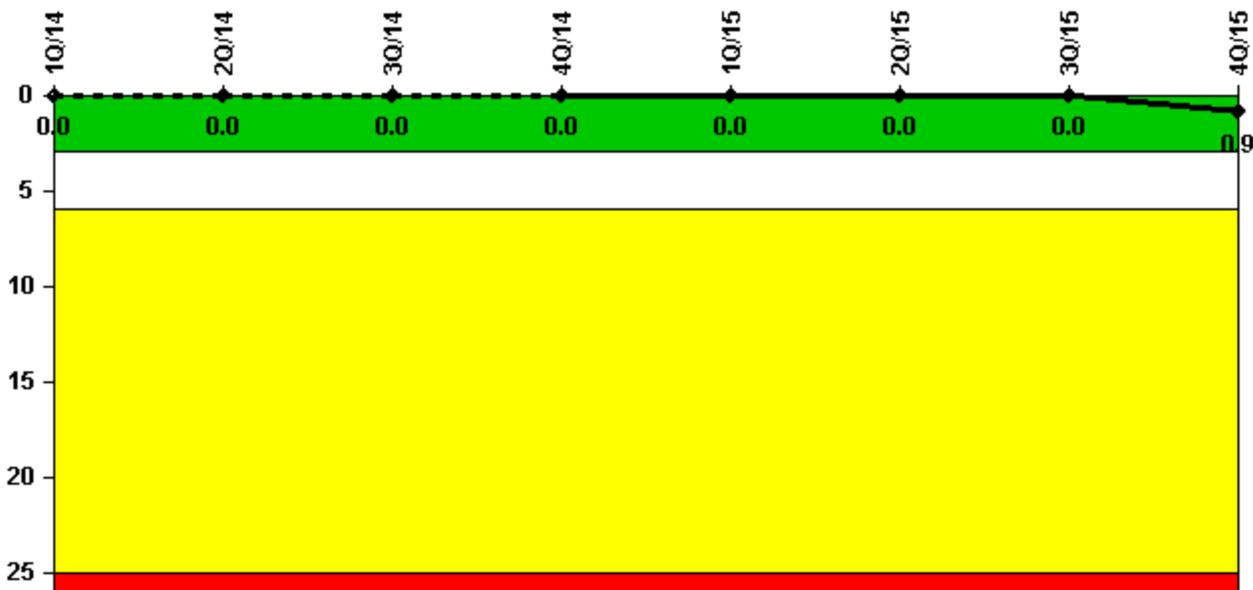
## Limerick 2

### 4Q/2015 Performance Indicators

The solid trend line represents the current reporting period.

Licensee's General Comments: none

#### Unplanned Scrams per 7000 Critical Hrs



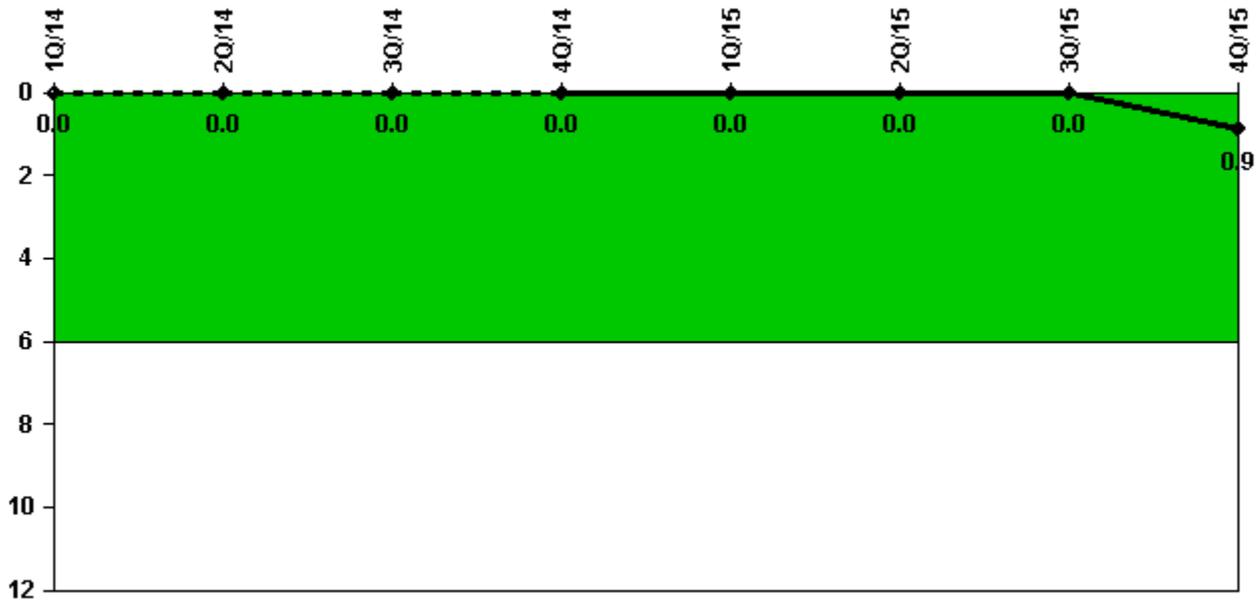
**Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0**

#### Notes

Unplanned Scrams per 7000 Critical Hrs	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15
Unplanned scrams	0	0	0	0	0	0	0	1.0
Critical hours	2159.0	2060.4	2208.0	2209.0	2159.0	1649.2	2208.0	2059.6
<b>Indicator value</b>	<b>0</b>	<b>0.9</b>						

Licensee Comments: none

### Unplanned Power Changes per 7000 Critical Hrs



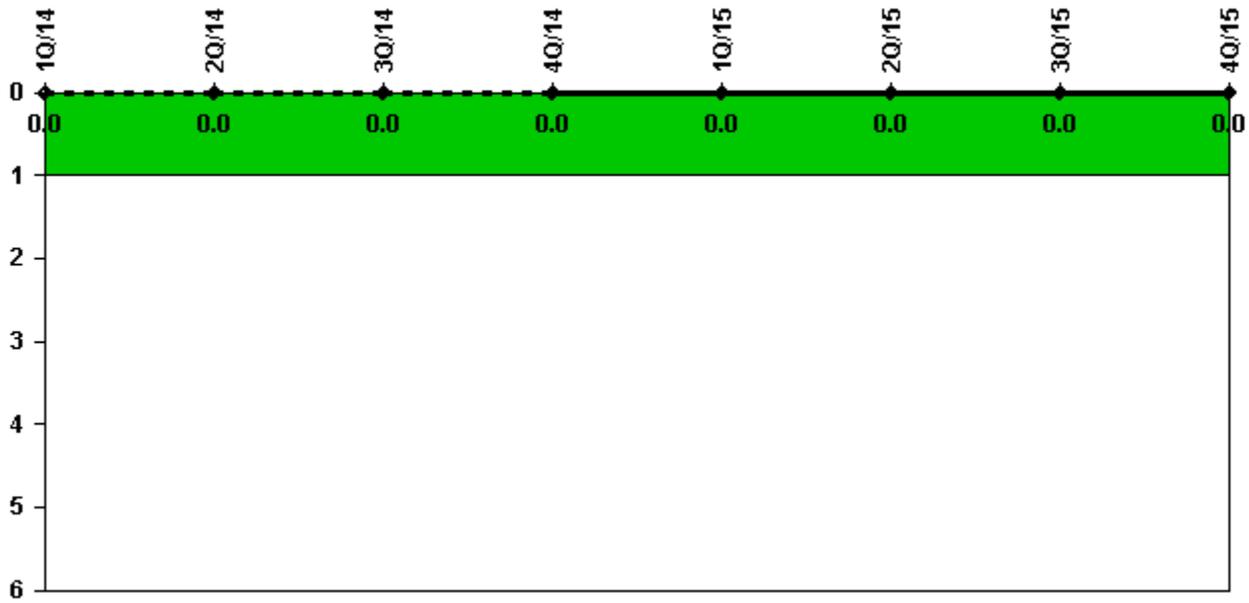
Thresholds: White > 6.0

#### Notes

Unplanned Power Changes per 7000 Critical Hrs	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15
Unplanned power changes	0	0	0	0	0	0	0	1.0
Critical hours	2159.0	2060.4	2208.0	2209.0	2159.0	1649.2	2208.0	2059.6
<b>Indicator value</b>	<b>0</b>	<b>0.9</b>						

Licensee Comments: none

### Unplanned Scrams with Complications



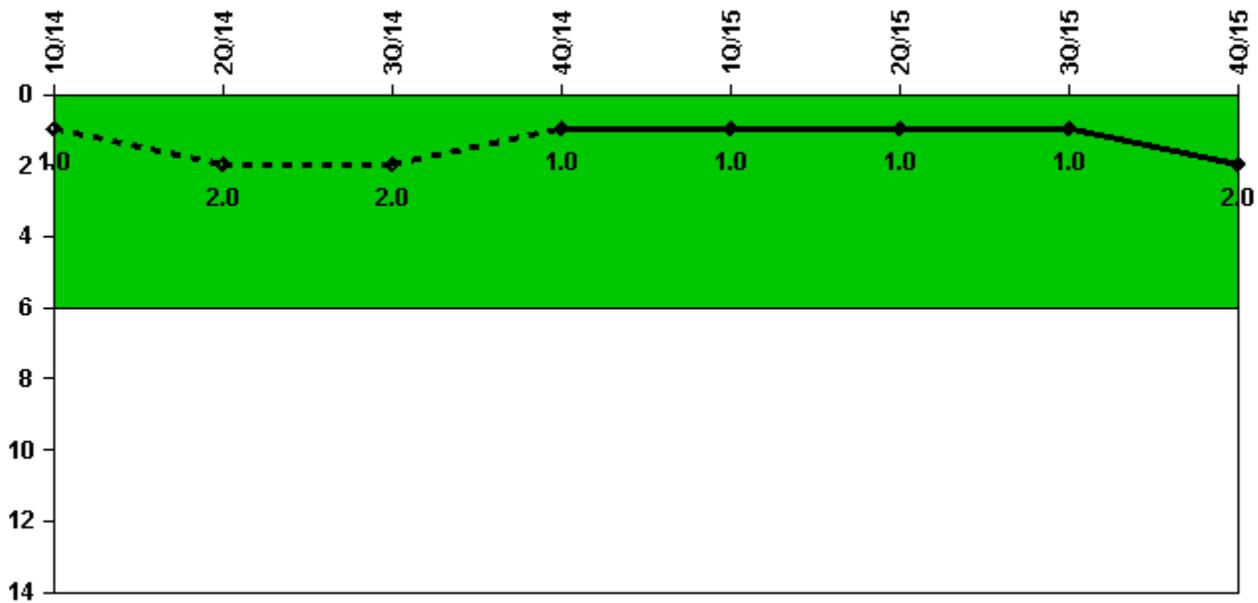
Thresholds: White > 1.0

#### Notes

Unplanned Scrams with Complications	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15
Scrams with complications	0	0	0	0	0	0	0	0
<b>Indicator value</b>	<b>0.0</b>							

Licensee Comments: none

### Safety System Functional Failures (BWR)



Thresholds: White > 6.0

#### Notes

Safety System Functional Failures (BWR)	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15
Safety System Functional Failures	0	1	0	0	0	1	0	1
<b>Indicator value</b>	<b>1</b>	<b>2</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>2</b>

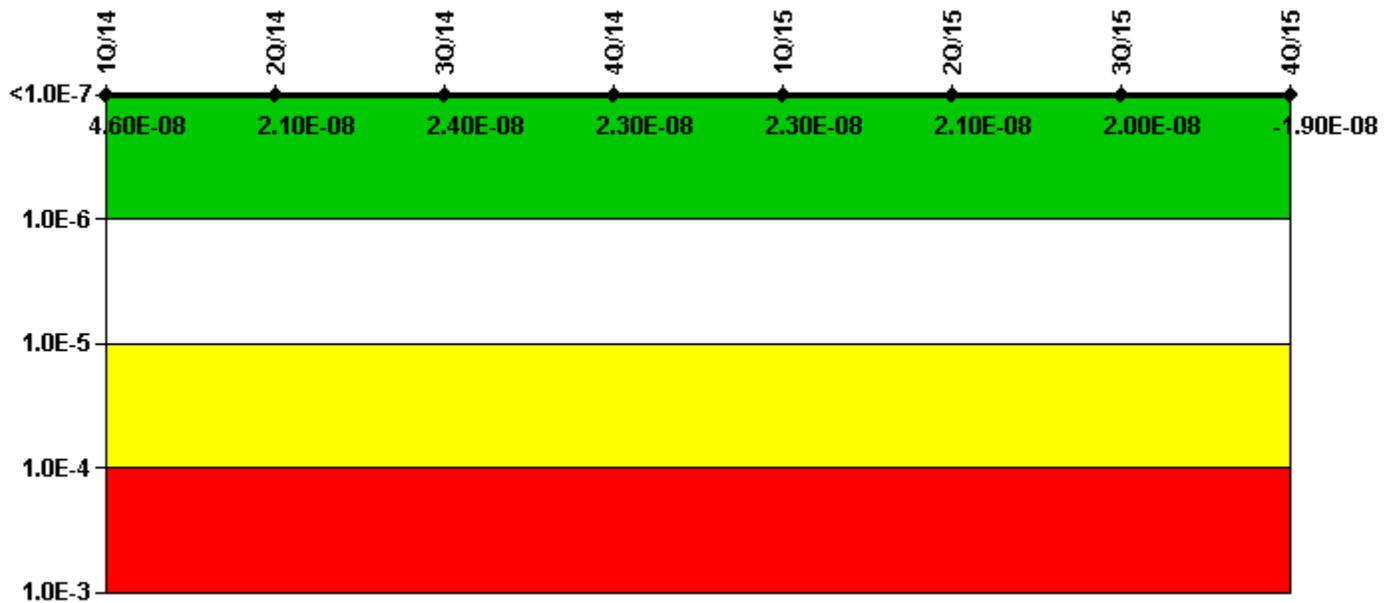
#### Licensee Comments:

4Q/15: 1/21/16-LER 2015-005-00 was submitted on November 2, 2015 due to a Division 4 high steam flow isolation actuation failure on the HPCI system which rendered HPCI inoperable. No color threshold change resulted from this event.

2Q/15: LER 2015-001-00 was submitted on June 4, 2015 due to a small electrical fire in one compartment of a 250 VDC MCC which rendered HPCI inoperable. The fire was extinguished within 8 minutes. No color threshold resulted from this event.

2Q/14: LER 2014-005-00 was issued on 6/23/14. HPCI was inoperable due to drift of a HPCI Suppression Pool level transmitter. No color or threshold change has resulted from this event.

### Mitigating Systems Performance Index, Emergency AC Power System



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

#### Notes

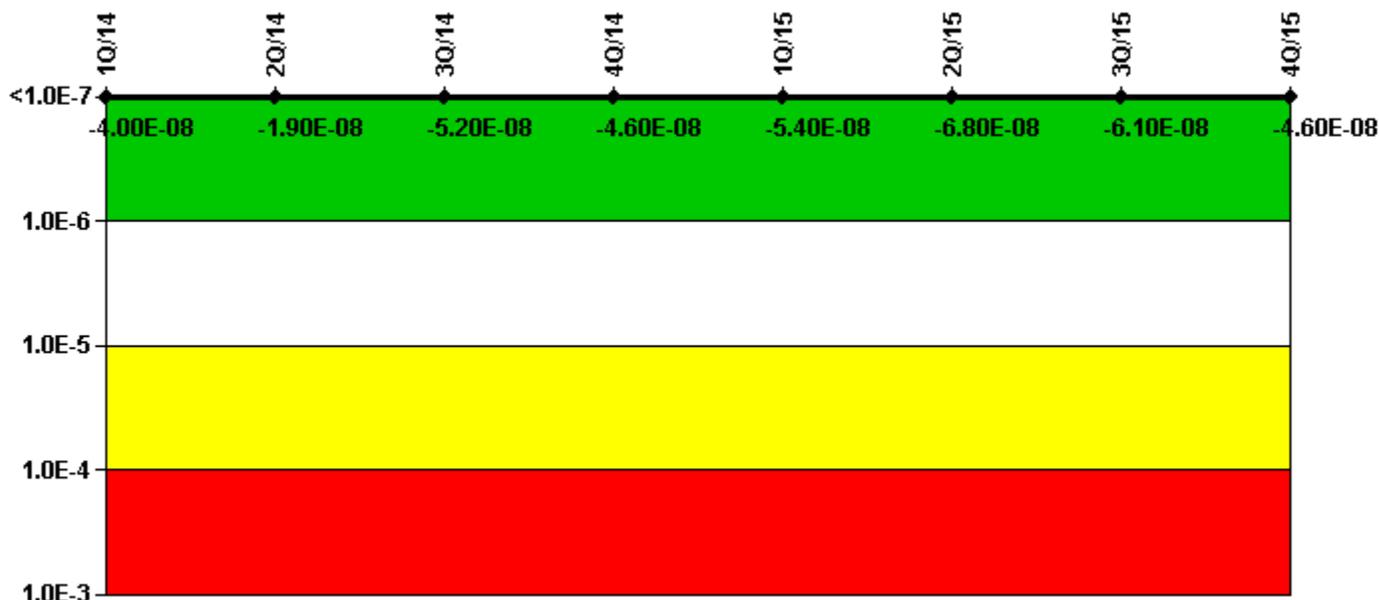
Mitigating Systems Performance Index, Emergency AC Power System	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15
UAI ( $\Delta$ CDF)	1.20E-08	4.78E-09	4.37E-09	2.90E-09	2.12E-09	2.44E-09	2.50E-09	4.11E-09
URI ( $\Delta$ CDF)	3.37E-08	1.66E-08	1.94E-08	2.04E-08	2.10E-08	1.87E-08	1.73E-08	-2.26E-08
PLE	NO							
Indicator value	4.60E-08	2.10E-08	2.40E-08	2.30E-08	2.30E-08	2.10E-08	2.00E-08	-1.90E-08

Licensee Comments:

3Q/14: Changed PRA Parameter(s). 10/20/14- PRA parameters were updated during 2Q2014 data submittal, effective 2Q2014. No additional PRA parameters have changed.

2Q/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.

### Mitigating Systems Performance Index, High Pressure Injection System



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

#### Notes

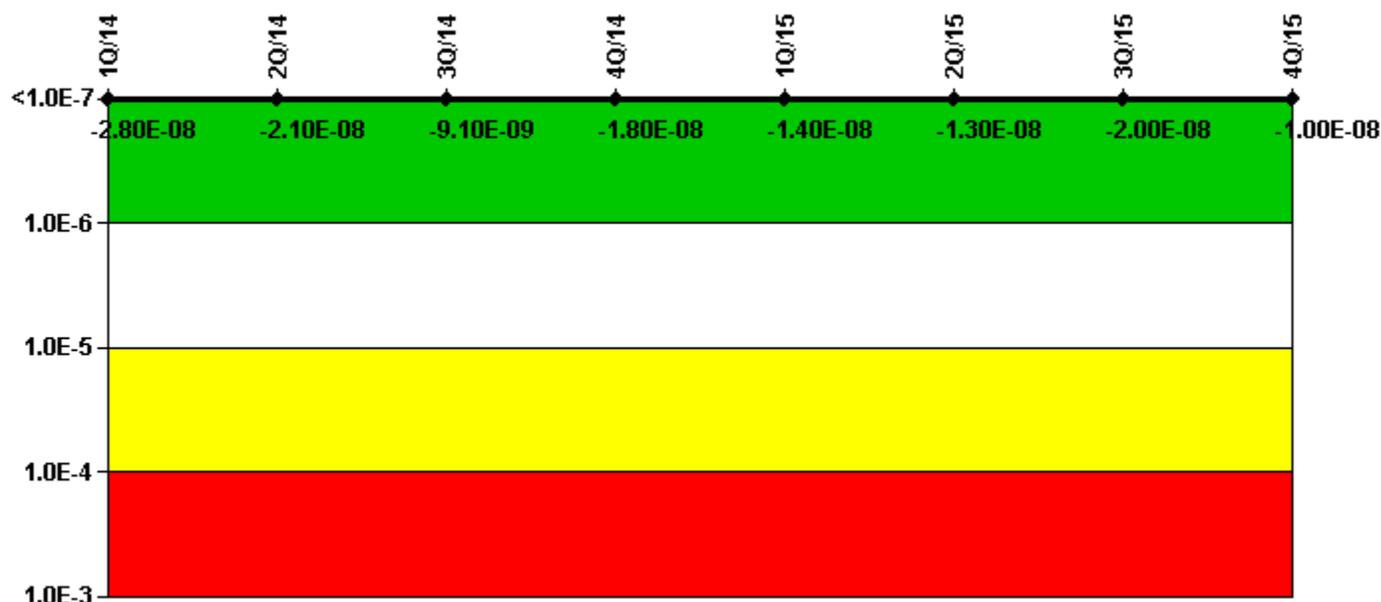
Mitigating Systems Performance Index, High Pressure Injection System	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15
UAI ( $\Delta$ CDF)	7.12E-09	3.15E-08	-1.52E-09	4.64E-09	-3.48E-09	-1.77E-08	-1.09E-08	4.69E-09
URI ( $\Delta$ CDF)	-4.66E-08	-5.03E-08						
PLE	NO							
Indicator value	-4.00E-08	-1.90E-08	-5.20E-08	-4.60E-08	-5.40E-08	-6.80E-08	-6.10E-08	-4.60E-08

#### Licensee Comments:

3Q/14: Changed PRA Parameter(s). 10/20/14- PRA parameters were updated during 2Q2014 data submittal, effective 2Q2014. No additional PRA parameters have changed.

2Q/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.

### Mitigating Systems Performance Index, Heat Removal System



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

#### Notes

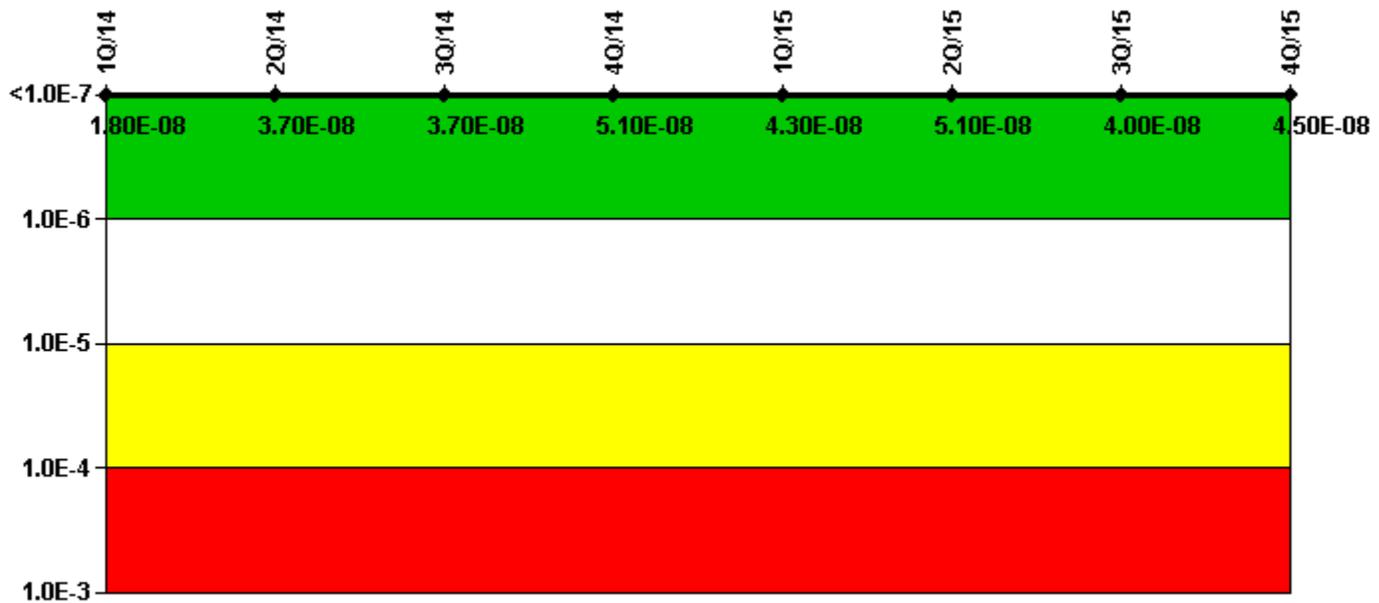
Mitigating Systems Performance Index, Heat Removal System	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15
UAI ( $\Delta$ CDF)	-7.20E-10	-1.29E-09	1.06E-08	1.99E-09	6.17E-09	6.49E-09	5.40E-11	9.55E-09
URI ( $\Delta$ CDF)	-2.71E-08	-1.97E-08						
PLE	NO							
Indicator value	-2.80E-08	-2.10E-08	-9.10E-09	-1.80E-08	-1.40E-08	-1.30E-08	-2.00E-08	-1.00E-08

#### Licensee Comments:

3Q/14: Changed PRA Parameter(s). 10/20/14- PRA parameters were updated during 2Q2014 data submittal, effective 2Q2014. No additional PRA parameters have changed.

2Q/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.

### 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/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15
UAI ( $\Delta$ CDF)	1.97E-08	4.90E-08	4.90E-08	6.28E-08	5.42E-08	6.32E-08	5.17E-08	5.68E-08
URI ( $\Delta$ CDF)	-1.89E-09	-1.19E-08	-1.18E-08	-1.15E-08	-1.10E-08	-1.18E-08	-1.17E-08	-1.19E-08
PLE	NO							
Indicator value	1.80E-08	3.70E-08	3.70E-08	5.10E-08	4.30E-08	5.10E-08	4.00E-08	4.50E-08

Licensee Comments:

3Q/14: Changed PRA Parameter(s). 10/20/14- PRA parameters were updated during 2Q2014 data submittal, effective 2Q2014. No additional PRA parameters have changed.

3Q/14: 10/20/14- PRA parameters were updated during 2Q2014 data submittal, effective 2Q2014. No additional PRA parameters have changed.

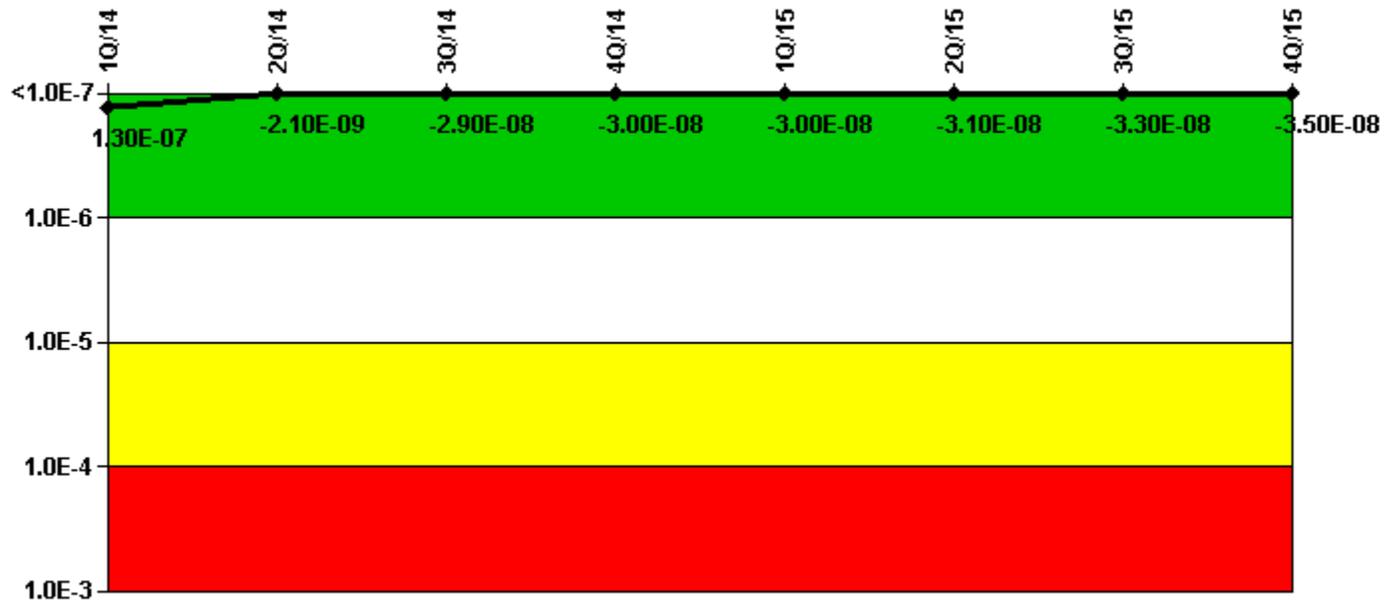
2Q/14: 07/17/14- The LG113A and LG213A PRA Models Revision was approved in January 2014 with a corresponding LG-MSPI-001 Basis Document Revision 5 approved on 06/24/14. The PRA model revision was a periodic update which included a data update and re-analysis of operator action dependency. As a result 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.

2Q/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.

1Q/14: 10/21/15 - Removed 33.68 hours of planned unavailability from the 2B RHR HX segment for March 2014. An engineering review identified an error in cascading RHRSW System unavailability on to the RHR System during RHRSW pipe replacement activities. No color or PI threshold change is impacted by this error correction.

### 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/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15
UAI ( $\Delta$ CDF)	1.55E-07	7.92E-08	4.86E-08	4.61E-08	4.21E-08	4.15E-08	3.99E-08	3.70E-08
URI ( $\Delta$ CDF)	-2.82E-08	-8.13E-08	-7.79E-08	-7.58E-08	-7.22E-08	-7.24E-08	-7.27E-08	-7.24E-08
PLE	NO							
Indicator value	1.30E-07	-2.10E-09	-2.90E-08	-3.00E-08	-3.00E-08	-3.10E-08	-3.30E-08	-3.50E-08

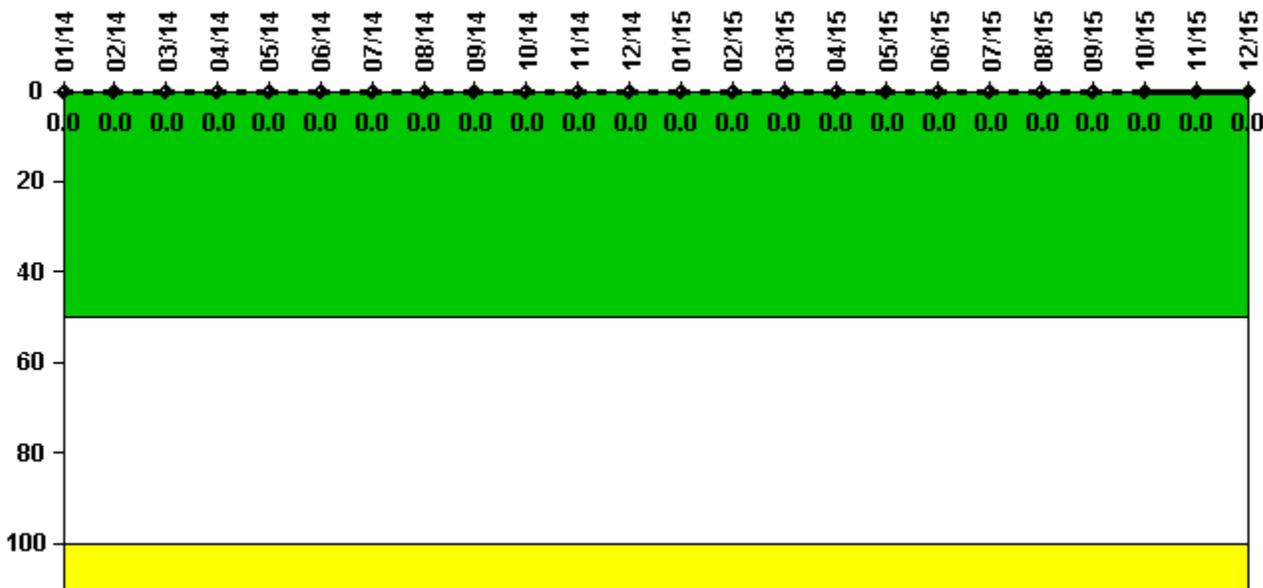
Licensee Comments:

3Q/14: Changed PRA Parameter(s). 10/20/14- PRA parameters were updated during 2Q2014 data submittal, effective 2Q2014. No additional PRA parameters have changed.

2Q/14: 10/20/14-Added planned unavailability to U2 ESW return segments in March 2012 (62.88 hours), March 2013 (12.63 hours) and March 2014 (33.68 hours). An Engineering review identified an error in counting U2 ESW System unavailability incurred during RHRSW/ESW return piping replacement work on-line and during the U1 refuel outages 1R14 and 1R15. No threshold or color change is impacted by this data correction. 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/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.

### Reactor Coolant System Activity



Thresholds: White > 50.0 Yellow > 100.0

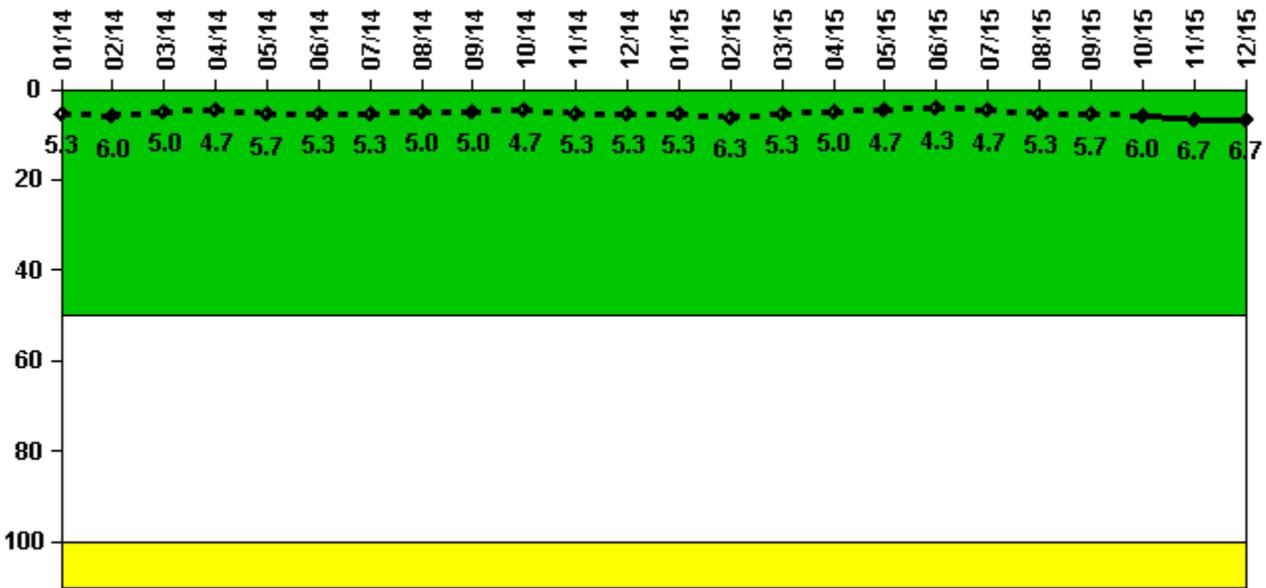
### Notes

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	0.000006	0.000007	0.000006	0.000008	0.000008	0.000008	0.000008	0.000008	0.000008	0.000012	0.000008	0.000007

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
<b>Indicator value</b>	<b>0</b>	<b>0</b>	<b>0</b>									
<b>Reactor Coolant System Activity</b>	<b>1/15</b>	<b>2/15</b>	<b>3/15</b>	<b>4/15</b>	<b>5/15</b>	<b>6/15</b>	<b>7/15</b>	<b>8/15</b>	<b>9/15</b>	<b>10/15</b>	<b>11/15</b>	<b>12/15</b>
Maximum activity	0.000007	0.000009	0.000008	0.000006	0.000005	0.000005	0.000007	0.000005	0.000006	0.000009	0.000008	0.000008
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
<b>Indicator value</b>	<b>0</b>	<b>0</b>	<b>0</b>									

Licensee Comments: none

### Reactor Coolant System Leakage



Thresholds: White > 50.0 Yellow > 100.0

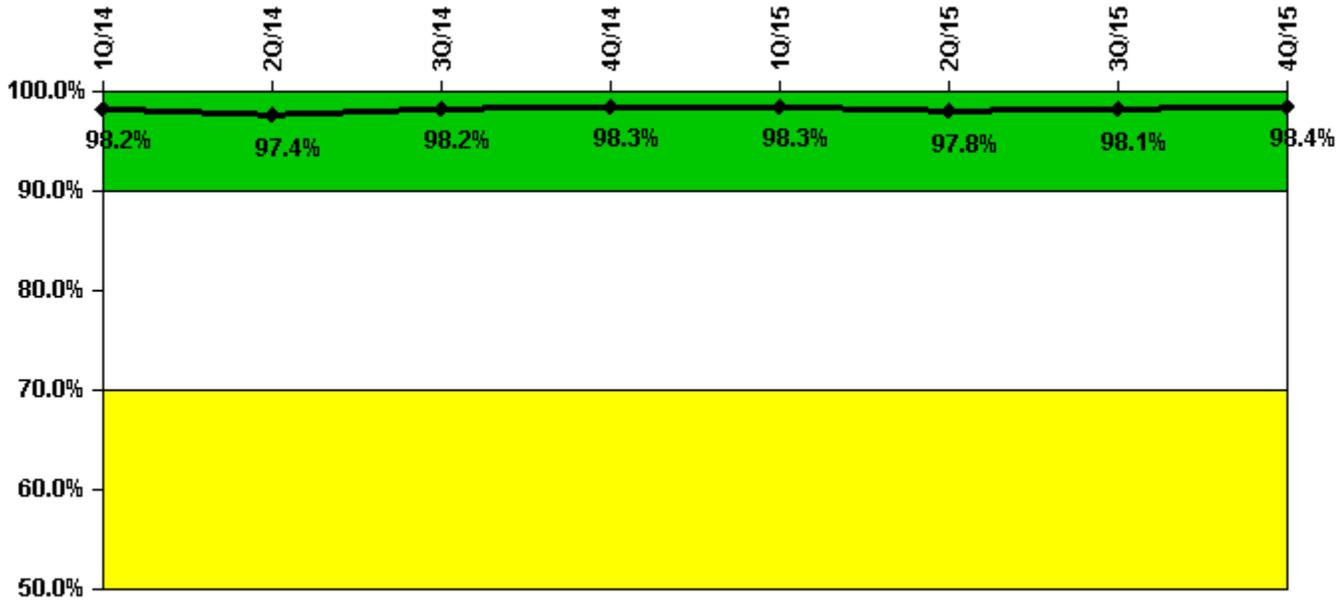
### Notes

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	1.600	1.790	1.500	1.400	1.700	1.600	1.600	1.500	1.500	1.400	1.600	1.600
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
<b>Indicator value</b>	<b>5.3</b>	<b>6.0</b>	<b>5.0</b>	<b>4.7</b>	<b>5.7</b>	<b>5.3</b>	<b>5.3</b>	<b>5.0</b>	<b>5.0</b>	<b>4.7</b>	<b>5.3</b>	<b>5.3</b>
<b>Reactor Coolant System Leakage</b>	<b>1/15</b>	<b>2/15</b>	<b>3/15</b>	<b>4/15</b>	<b>5/15</b>	<b>6/15</b>	<b>7/15</b>	<b>8/15</b>	<b>9/15</b>	<b>10/15</b>	<b>11/15</b>	<b>12/15</b>
Maximum leakage	1.600	1.900	1.600	1.500	1.400	1.300	1.400	1.600	1.700	1.800	2.000	2.000
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
<b>Indicator value</b>	<b>5.3</b>	<b>6.3</b>	<b>5.3</b>	<b>5.0</b>	<b>4.7</b>	<b>4.3</b>	<b>4.7</b>	<b>5.3</b>	<b>5.7</b>	<b>6.0</b>	<b>6.7</b>	<b>6.7</b>

Licensee Comments: none

### Drill/Exercise Performance



Thresholds: White < 90.0% Yellow < 70.0%

### Notes

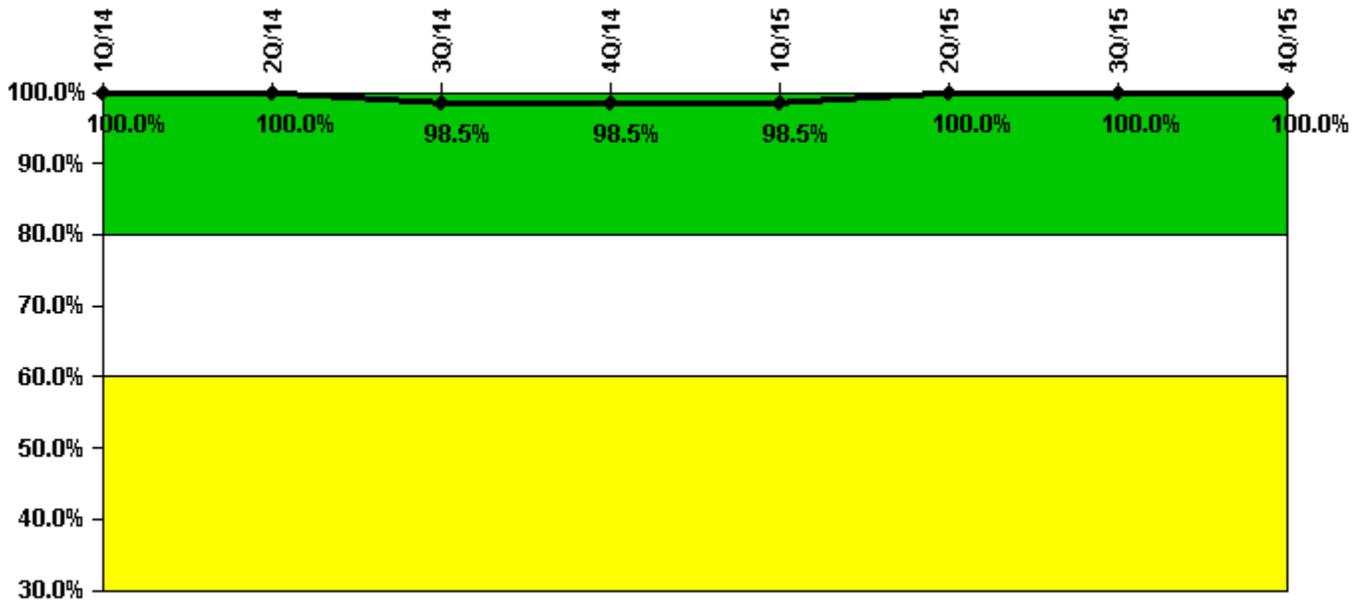
Drill/Exercise Performance	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15
Successful opportunities	38.0	57.0	42.0	37.0	27.0	32.0	48.0	26.0
Total opportunities	38.0	59.0	42.0	37.0	27.0	34.0	49.0	26.0
<b>Indicator value</b>	<b>98.2%</b>	<b>97.4%</b>	<b>98.2%</b>	<b>98.3%</b>	<b>98.3%</b>	<b>97.8%</b>	<b>98.1%</b>	<b>98.4%</b>

Licensee Comments:

1Q/15: 10/21/15 - March 2014 data was changed from 4 successful drill opportunities out of 4 total opportunities to 8 successful opportunities out of 8 total opportunities. A reporting error was identified during an EP self assessment. No color or PI threshold change is impacted by this data correction.

3Q/14: 1/15/15- ERO Drill Exercise data was corrected. The previously submitted Drill Exercise opportunities in September 2014 had actually occurred in October 2014. No color change or threshold impact resulted from the correction.

### ERO Drill Participation



Thresholds: White < 80.0% Yellow < 60.0%

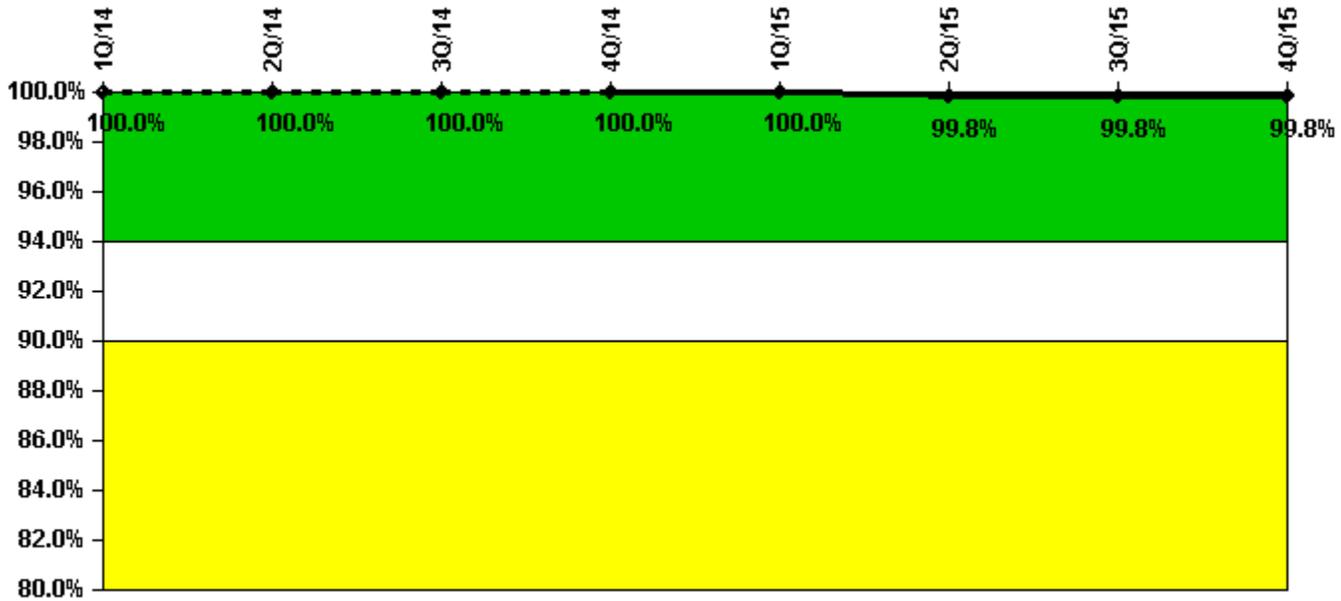
### Notes

ERO Drill Participation	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15
Participating Key personnel	64.0	65.0	66.0	66.0	66.0	66.0	66.0	65.0
Total Key personnel	64.0	65.0	67.0	67.0	67.0	66.0	66.0	65.0
Indicator value	100.0%	100.0%	98.5%	98.5%	98.5%	100.0%	100.0%	100.0%

Licensee Comments:

2Q/15: 10/21/15 - The number of participating key personnel and total key personnel was corrected for 2nd quarter 2014 after an EP self assessment identified that offsite ERO members had not been included. No color or PI threshold change is impacted by this correction.

### Alert & Notification System



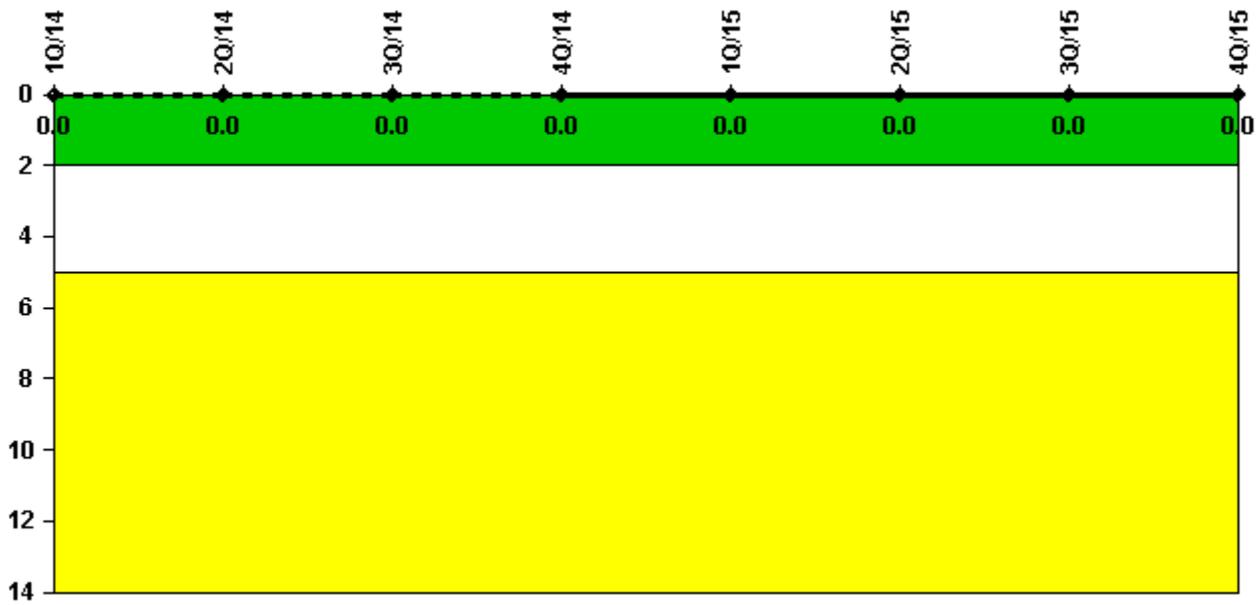
Thresholds: White < 94.0% Yellow < 90.0%

#### Notes

Alert & Notification System	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15
Successful siren-tests	2143	2144	2145	2144	2144	2133	2145	2143
Total sirens-tests	2145	2145	2145	2145	2145	2145	2145	2145
Indicator value	100.0%	100.0%	100.0%	100.0%	100.0%	99.8%	99.8%	99.8%

Licensee Comments: none

### Occupational Exposure Control Effectiveness



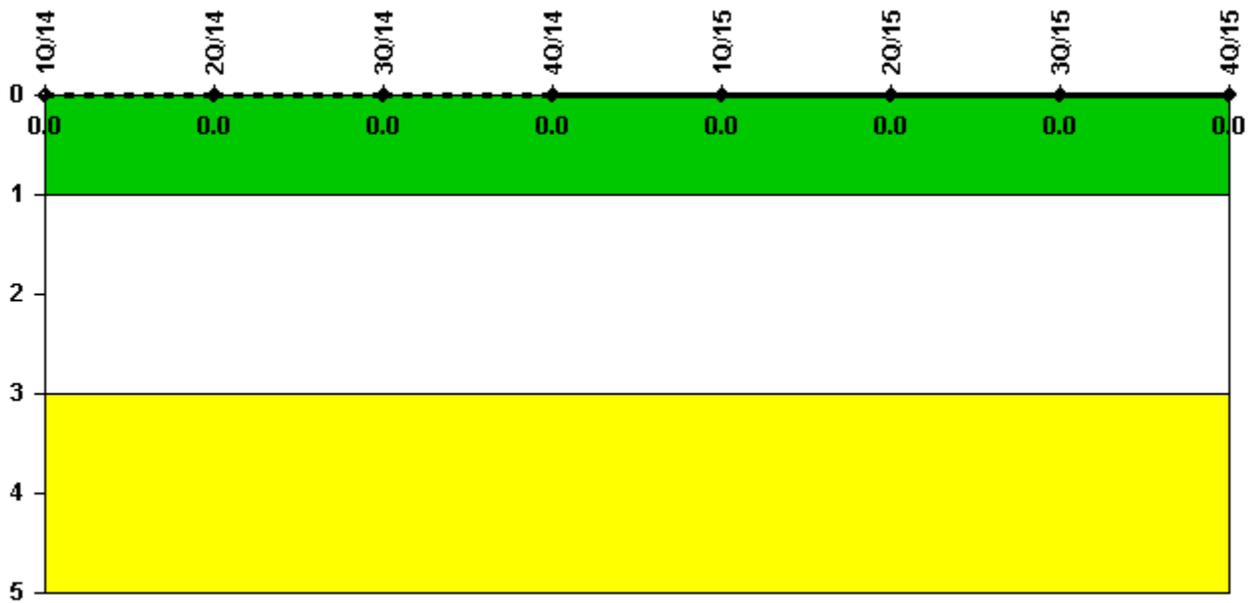
Thresholds: White > 2.0 Yellow > 5.0

#### Notes

Occupational Exposure Control Effectiveness	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15
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
<b>Indicator value</b>	<b>0</b>							

Licensee Comments: none

### RETS/ODCM Radiological Effluent



Thresholds: White > 1.0 Yellow > 3.0

#### Notes

RETS/ODCM Radiological Effluent	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15
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: March 1, 2016*