

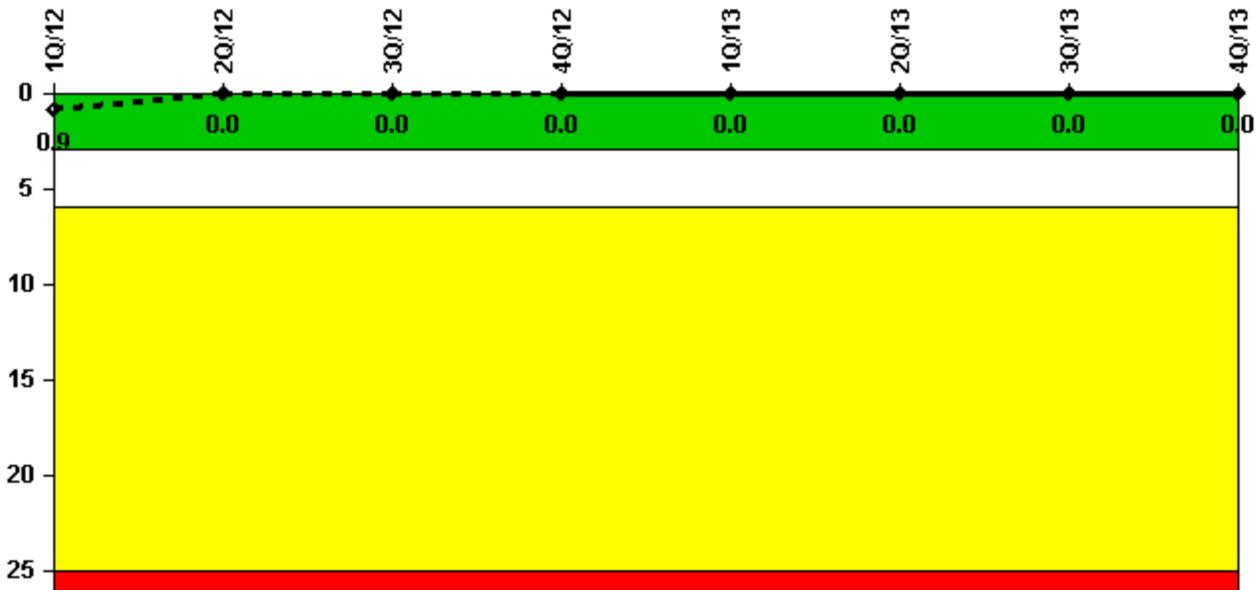
## Limerick 2

### 4Q/2013 Performance Indicators

The solid trend line represents the current reporting period.

Licensee's General Comments: none

#### Unplanned Scrams per 7000 Critical Hrs



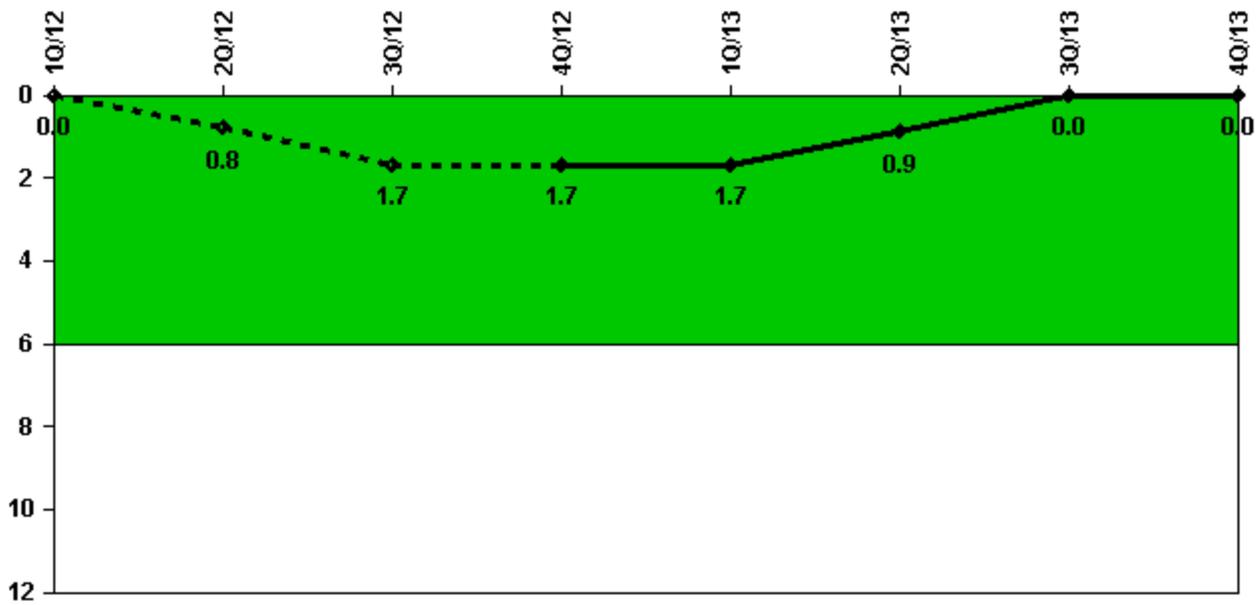
Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

#### Notes

Unplanned Scrams per 7000 Critical Hrs	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13
Unplanned scrams	0	0	0	0	0	0	0	0
Critical hours	2183.0	1923.7	2155.7	2209.0	1993.2	1785.5	2208.0	2209.0
Indicator value	0.9	0	0	0	0	0	0	0

Licensee Comments: none

### Unplanned Power Changes per 7000 Critical Hrs



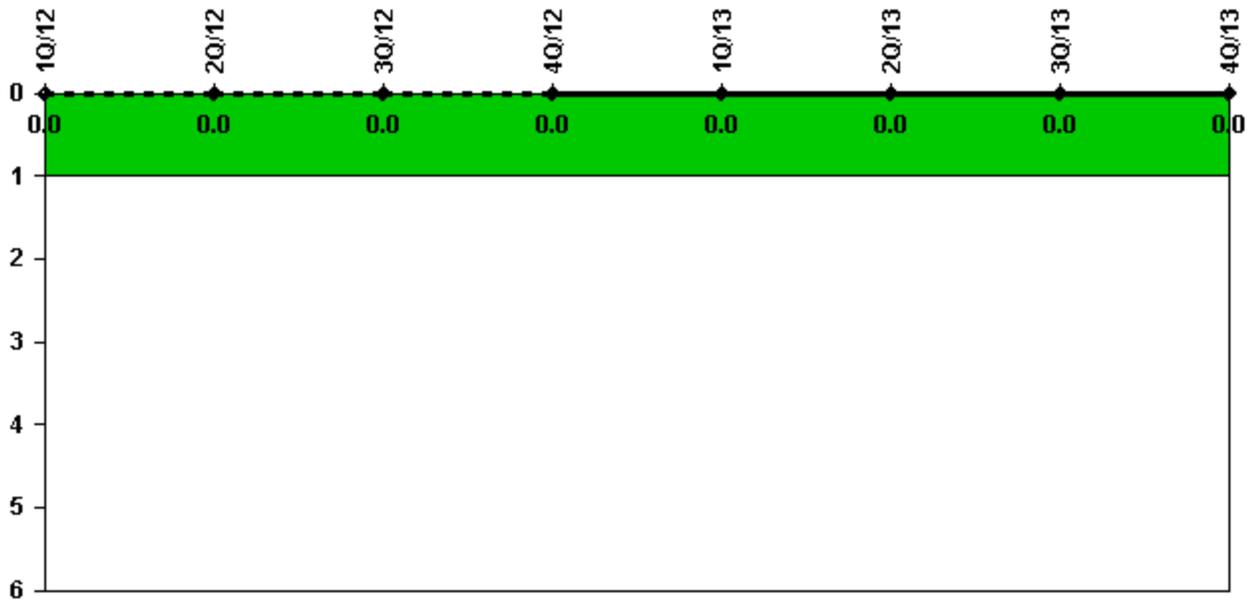
Thresholds: White > 6.0

#### Notes

Unplanned Power Changes per 7000 Critical Hrs	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13
Unplanned power changes	0	1.0	1.0	0	0	0	0	0
Critical hours	2183.0	1923.7	2155.7	2209.0	1993.2	1785.5	2208.0	2209.0
<b>Indicator value</b>	<b>0</b>	<b>0.8</b>	<b>1.7</b>	<b>1.7</b>	<b>1.7</b>	<b>0.9</b>	<b>0</b>	<b>0</b>

Licensee Comments: none

### Unplanned Scrams with Complications



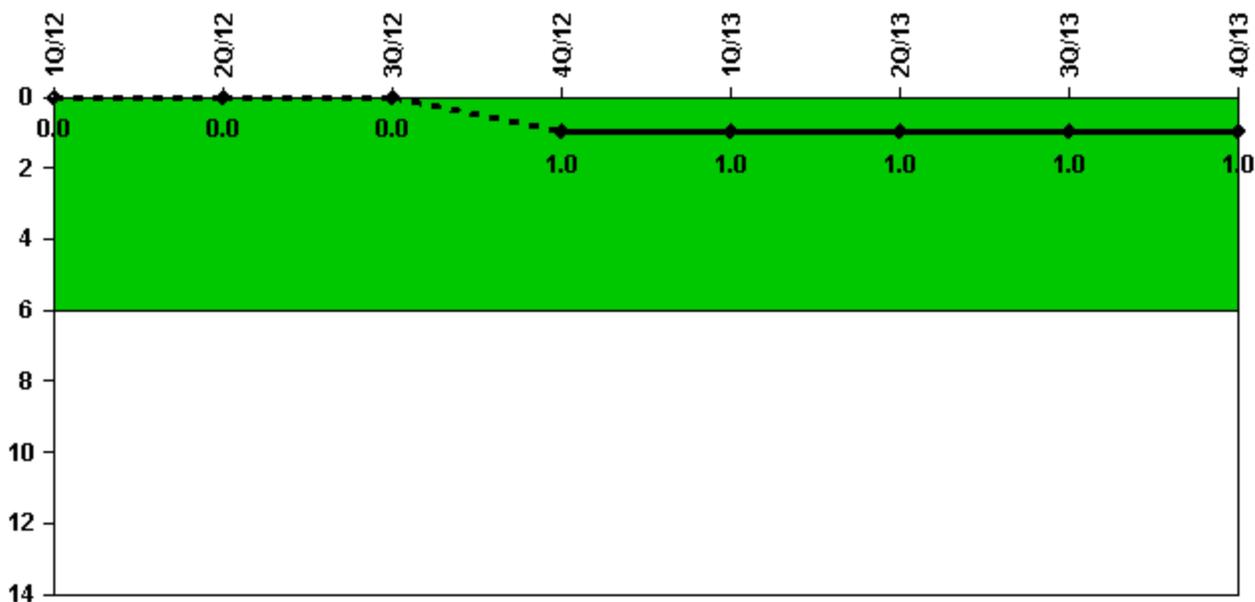
Thresholds: White > 1.0

#### Notes

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

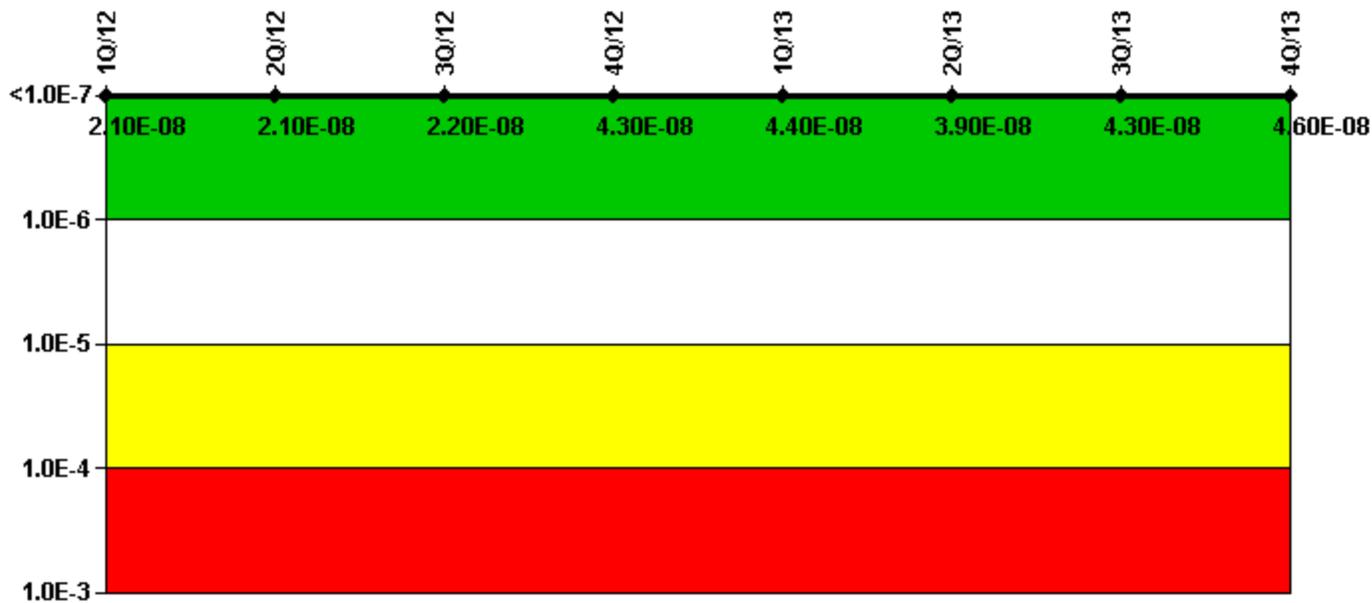
Safety System Functional Failures (BWR)	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13
Safety System Functional Failures	0	0	0	1	0	0	0	1
<b>Indicator value</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>

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.

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

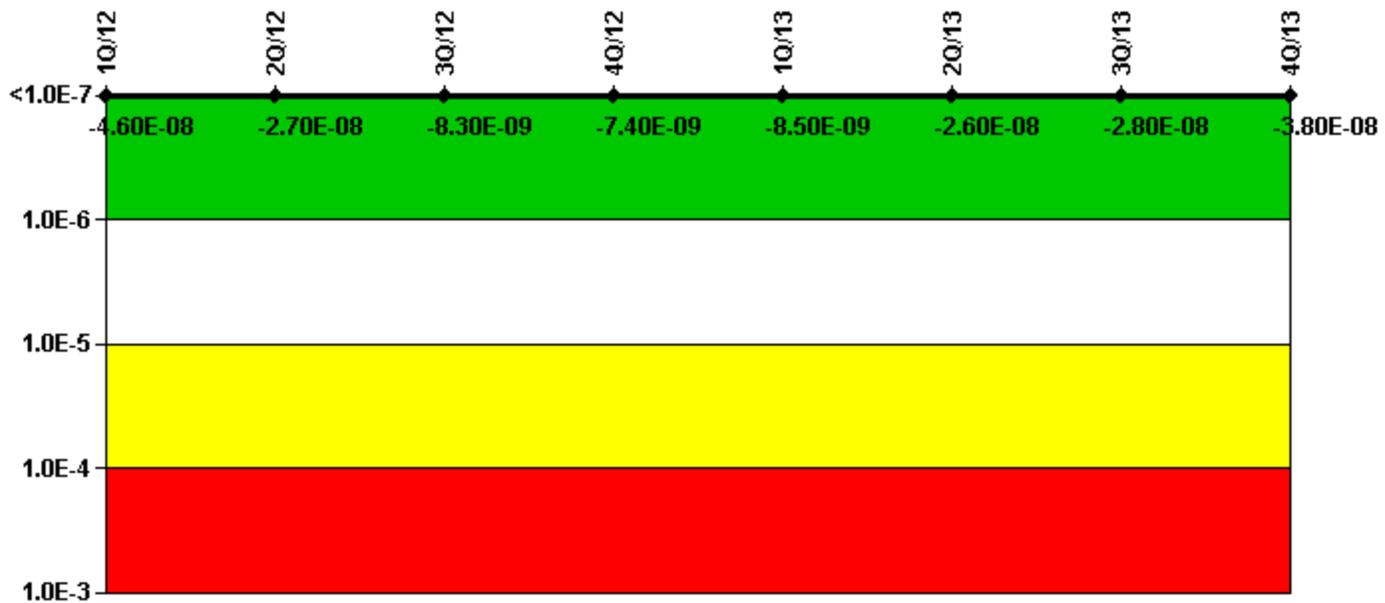
#### Notes

Mitigating Systems Performance Index, Emergency AC Power System	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13
UAI ( $\Delta$ CDF)	1.31E-08	1.14E-08	1.17E-08	1.27E-08	1.28E-08	8.08E-09	9.51E-09	1.19E-08
URI ( $\Delta$ CDF)	7.44E-09	9.97E-09	1.00E-08	3.07E-08	3.13E-08	3.05E-08	3.39E-08	3.43E-08
PLE	NO							
Indicator value	2.10E-08	2.10E-08	2.20E-08	4.30E-08	4.40E-08	3.90E-08	4.30E-08	4.60E-08

Licensee Comments:

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



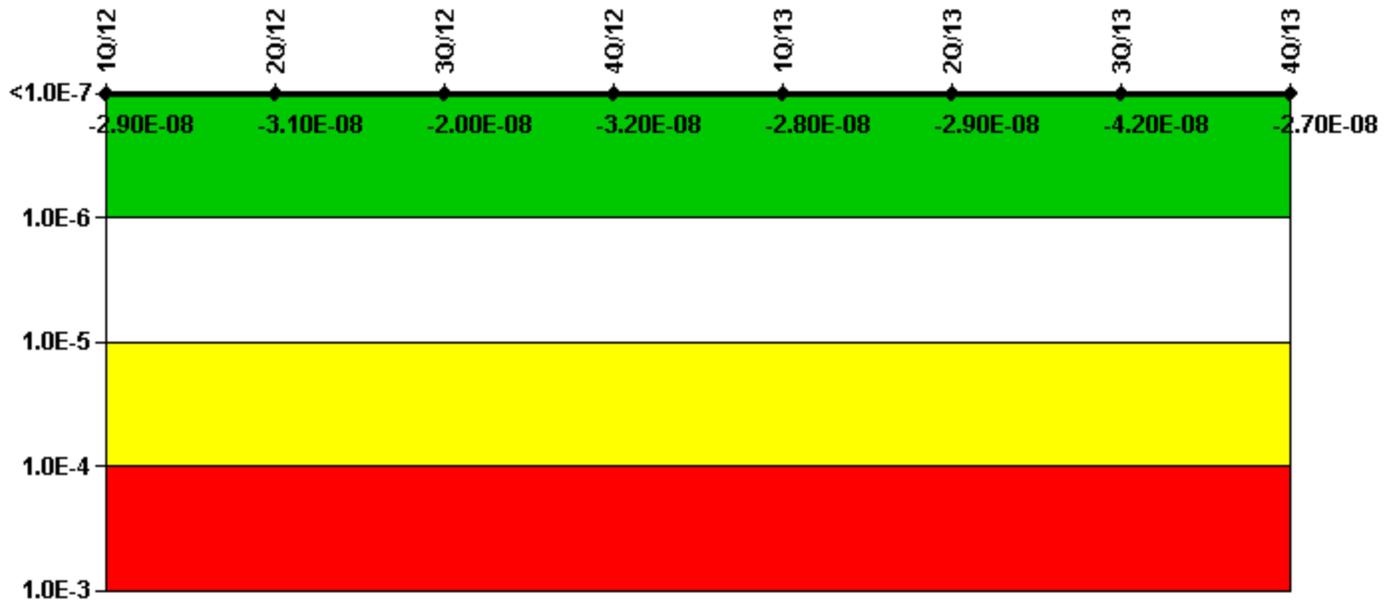
Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

#### Notes

Mitigating Systems Performance Index, High Pressure Injection System	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13
UAI ( $\Delta$ CDF)	4.15E-11	1.94E-08	3.83E-08	3.92E-08	3.82E-08	2.02E-08	1.87E-08	8.78E-09
URI ( $\Delta$ CDF)	-4.65E-08	-4.66E-08						
PLE	NO							
Indicator value	-4.60E-08	-2.70E-08	-8.30E-09	-7.40E-09	-8.50E-09	-2.60E-08	-2.80E-08	-3.80E-08

Licensee Comments: none

### Mitigating Systems Performance Index, Heat Removal System



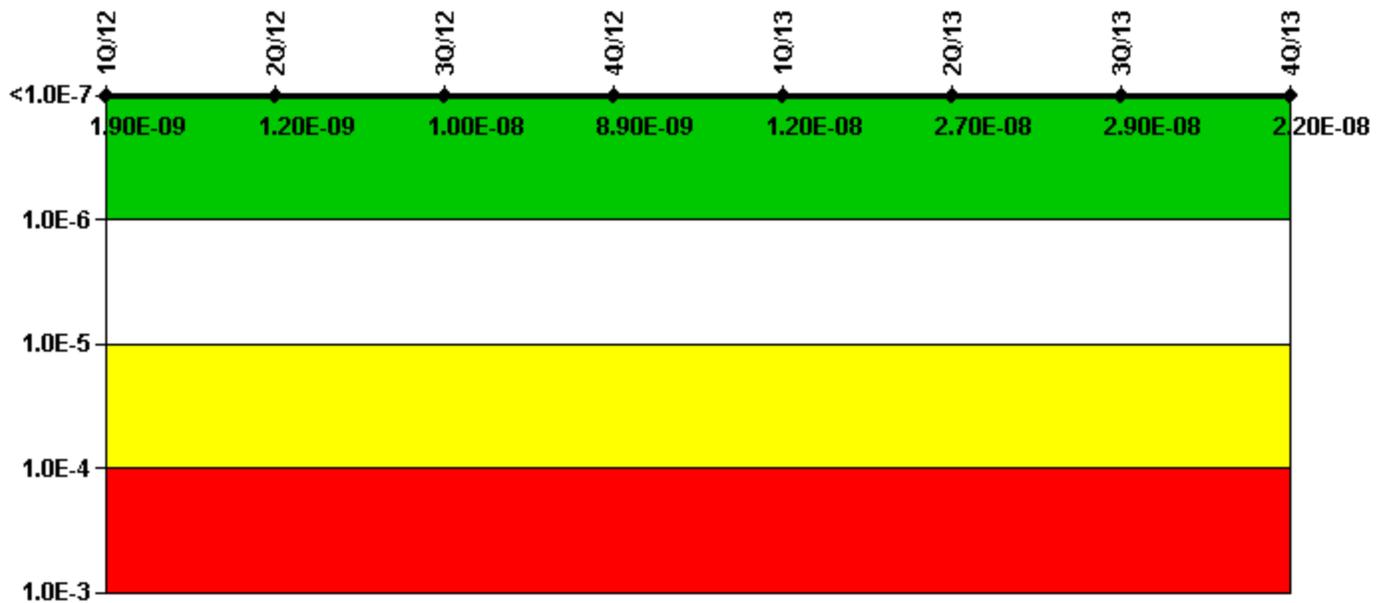
Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

#### Notes

Mitigating Systems Performance Index, Heat Removal System	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13
UAI ( $\Delta$ CDF)	-1.99E-09	-3.87E-09	6.66E-09	-5.37E-09	-1.37E-09	-1.71E-09	-1.54E-08	-1.24E-10
URI ( $\Delta$ CDF)	-2.71E-08							
PLE	NO							
Indicator value	-2.90E-08	-3.10E-08	-2.00E-08	-3.20E-08	-2.80E-08	-2.90E-08	-4.20E-08	-2.70E-08

Licensee Comments: none

### Mitigating Systems Performance Index, Residual Heat Removal System



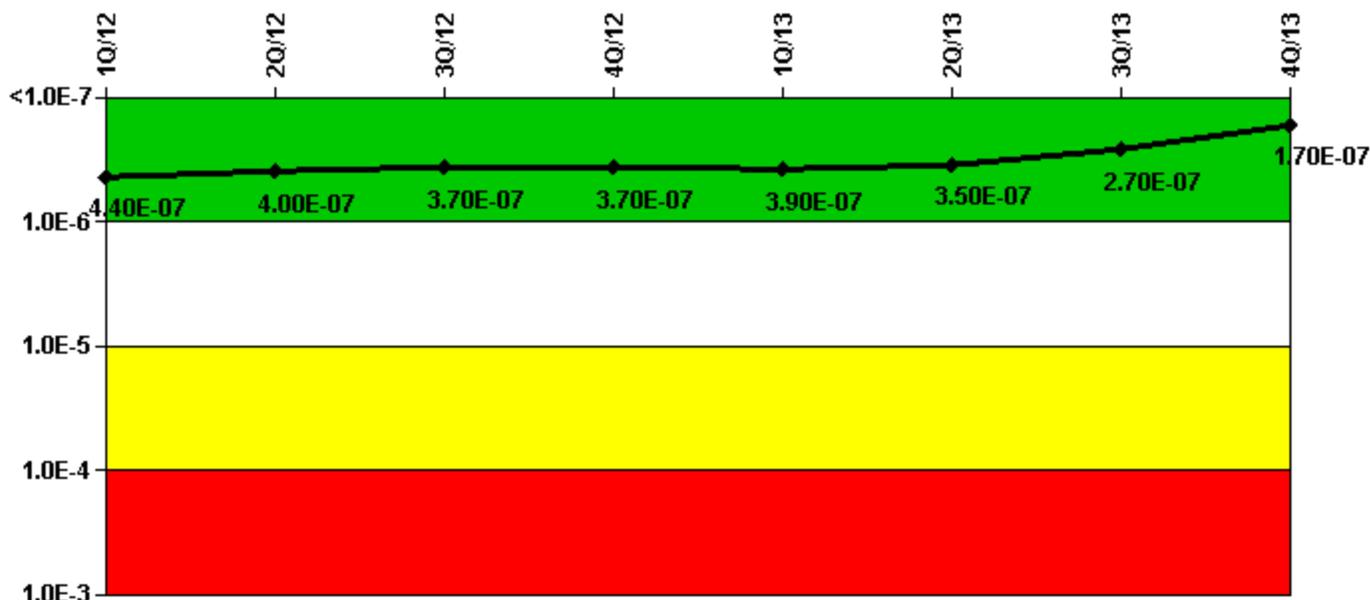
Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

#### Notes

Mitigating Systems Performance Index, Residual Heat Removal System	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13
UAI ( $\Delta$ CDF)	3.95E-09	3.26E-09	1.21E-08	1.10E-08	1.44E-08	2.96E-08	3.15E-08	2.44E-08
URI ( $\Delta$ CDF)	-2.09E-09	-2.07E-09	-2.07E-09	-2.06E-09	-2.09E-09	-2.15E-09	-2.03E-09	-1.98E-09
PLE	NO							
Indicator value	1.90E-09	1.20E-09	1.00E-08	8.90E-09	1.20E-08	2.70E-08	2.90E-08	2.20E-08

Licensee Comments: none

### Mitigating Systems Performance Index, Cooling Water Systems



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

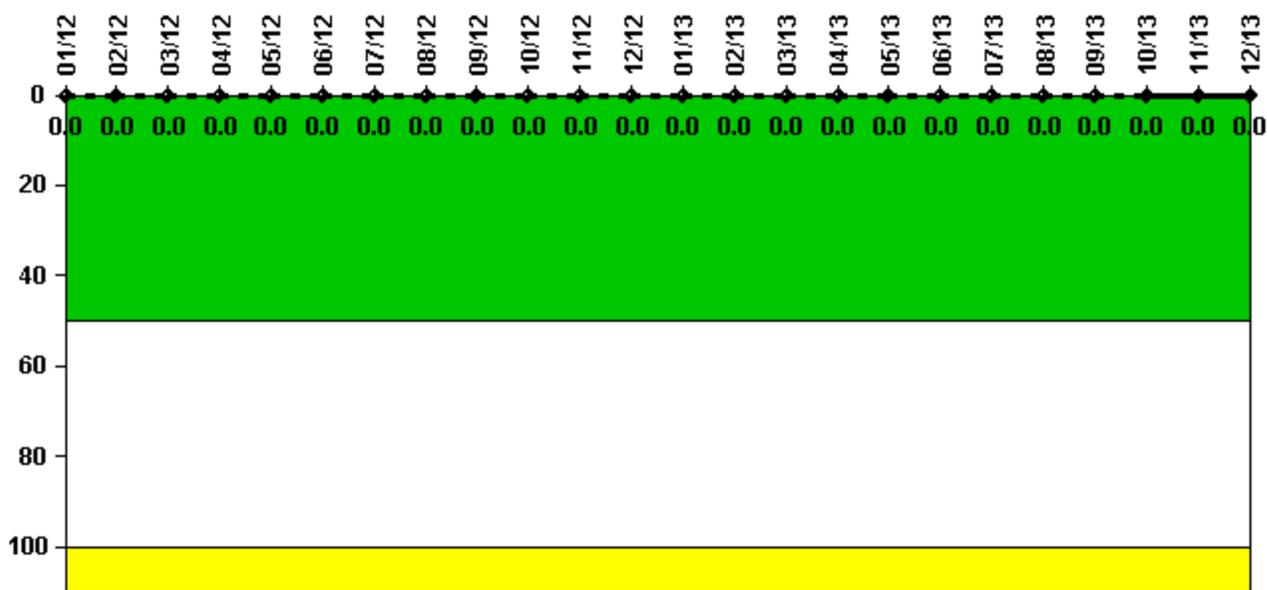
#### Notes

Mitigating Systems Performance Index, Cooling Water Systems	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13
UAI (ΔCDF)	4.71E-07	4.28E-07	4.00E-07	4.01E-07	4.22E-07	3.84E-07	3.02E-07	1.97E-07
URI (ΔCDF)	-3.05E-08	-3.09E-08	-3.12E-08	-3.14E-08	-2.96E-08	-2.92E-08	-2.86E-08	-2.83E-08
PLE	NO							
Indicator value	4.40E-07	4.00E-07	3.70E-07	3.70E-07	3.90E-07	3.50E-07	2.70E-07	1.70E-07

#### Licensee Comments:

1Q/12: LGS MSPI Basis Document revision 4 was effective on 01/01/12. This was approved and issued on 12/15/11. This revision incorporated FAQs 11-01 (CW), 11-06, 11-07, 11-08 (EDGs) and other minor changes. No PRA data or factors were changed and there was no impact to historical PI data.

### Reactor Coolant System Activity



Thresholds: White > 50.0 Yellow > 100.0

#### Notes

Reactor Coolant System Activity	1/12	2/12	3/12	4/12	5/12	6/12	7/12	8/12	9/12	10/12	11/12	12/12
Maximum activity	0.000006	0.000008	0.000008	0.000007	0.000008	0.000010	0.000008	0.000014	0.000008	0.000008	0.000007	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
Indicator value	0	0	0	0	0	0	0	0	0	0	0	0

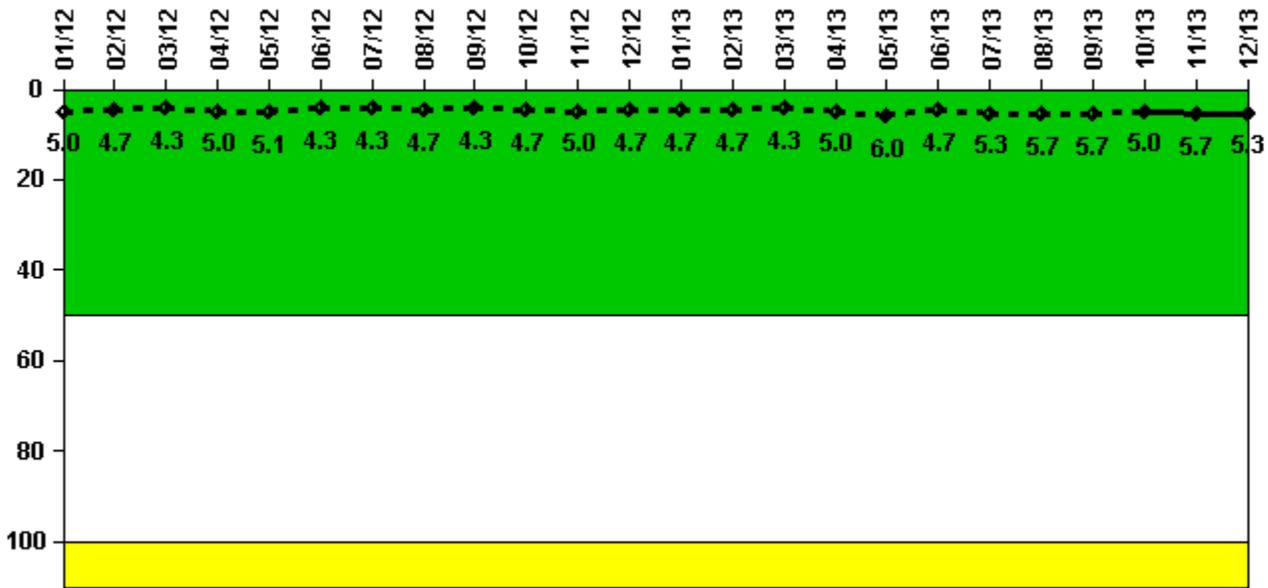
  

Reactor Coolant System Activity	1/13	2/13	3/13	4/13	5/13	6/13	7/13	8/13	9/13	10/13	11/13	12/13
Maximum activity	0.000007	0.000007	0.000007	0.000006	0.000006	0.000005	0.000007	0.000006	0.000006	0.000006	0.000007	0.000006
Technical specification limit	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Indicator value	0	0	0	0	0	0	0	0	0	0	0	0

Licensee Comments:

6/13: April 2013 Data was changed from 0.000009 to 0.000006 due to error discovered that non steadystate value was used. No color change resulted from this correction.

### Reactor Coolant System Leakage



Thresholds: White > 50.0 Yellow > 100.0

#### Notes

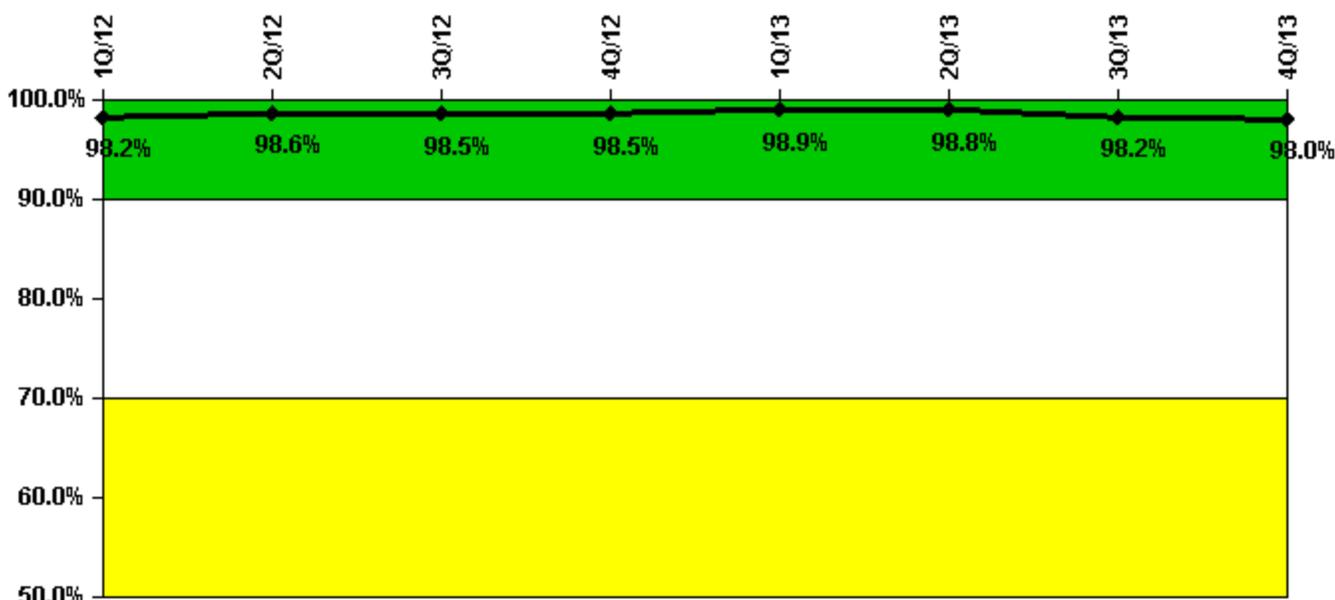
Reactor Coolant System Leakage	1/12	2/12	3/12	4/12	5/12	6/12	7/12	8/12	9/12	10/12	11/12	12/12
Maximum leakage	1.500	1.400	1.300	1.500	1.530	1.300	1.300	1.400	1.300	1.400	1.500	1.400
Technical specification limit	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0
Indicator value	5.0	4.7	4.3	5.0	5.1	4.3	4.3	4.7	4.3	4.7	5.0	4.7

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	1.400	1.400	1.300	1.500	1.800	1.400	1.600	1.700	1.700	1.500	1.700	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
Indicator value	4.7	4.7	4.3	5.0	6.0	4.7	5.3	5.7	5.7	5.0	5.7	5.3

Licensee Comments: none

### Drill/Exercise Performance



Thresholds: White < 90.0% Yellow < 70.0%

#### Notes

Drill/Exercise Performance	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13
Successful opportunities	6.0	73.0	26.0	28.0	24.0	12.0	43.0	30.0
Total opportunities	6.0	73.0	28.0	28.0	24.0	12.0	45.0	31.0
Indicator value	98.2%	98.6%	98.5%	98.5%	98.9%	98.8%	98.2%	98.0%

#### Licensee Comments:

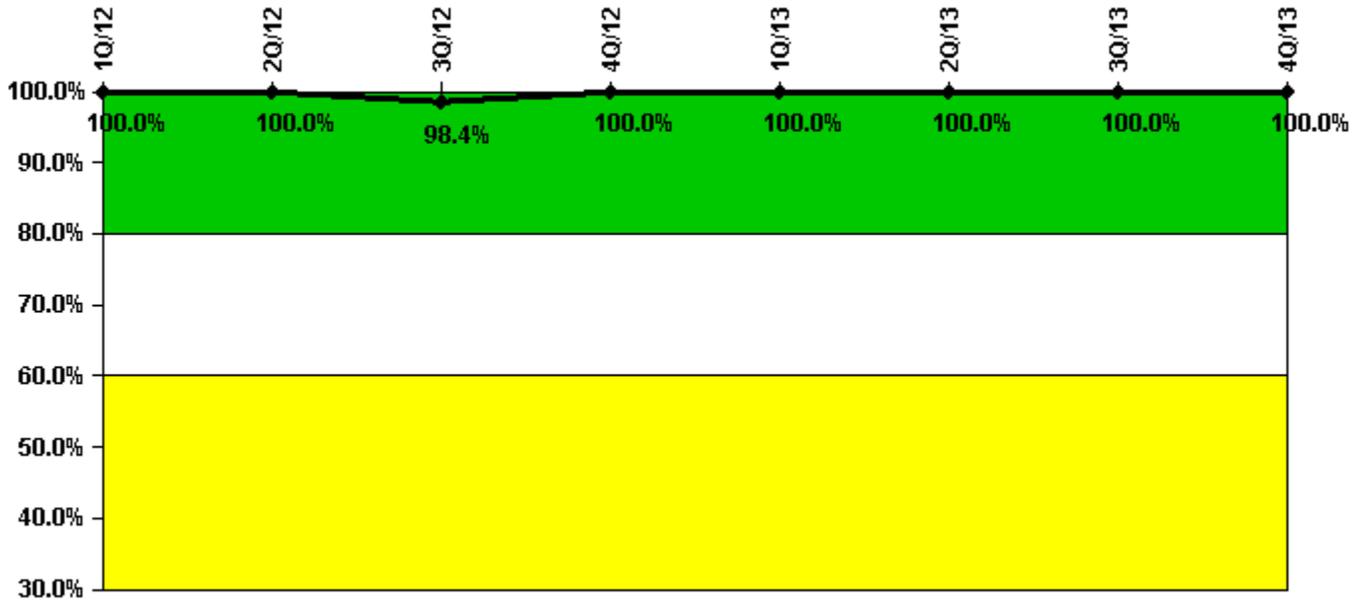
3Q/13: 3rd quarter 2013 Drill Exercise and Event Opportunities was changed from from 8 to 5 due to Emergency Offsite Facility Opportunities being reported in September when they should have been reported in October. No color or threshold changes occurred as a result of this correction.

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).

1Q/12: Total and Successful number of DEP opportunities data was corrected for Jan and Mar 2012. Jan and Mar 2012 data changed from 0 to 3 to include DEP opportunities from Peach Bottom Drill/Exercises held in Jan and Mar 2012 where the shared Emergency Offsite Facility (EOF) participated. Quarterly data changed from 0 to 6. No threshold changes occurred. (4/15/13).

### ERO Drill Participation



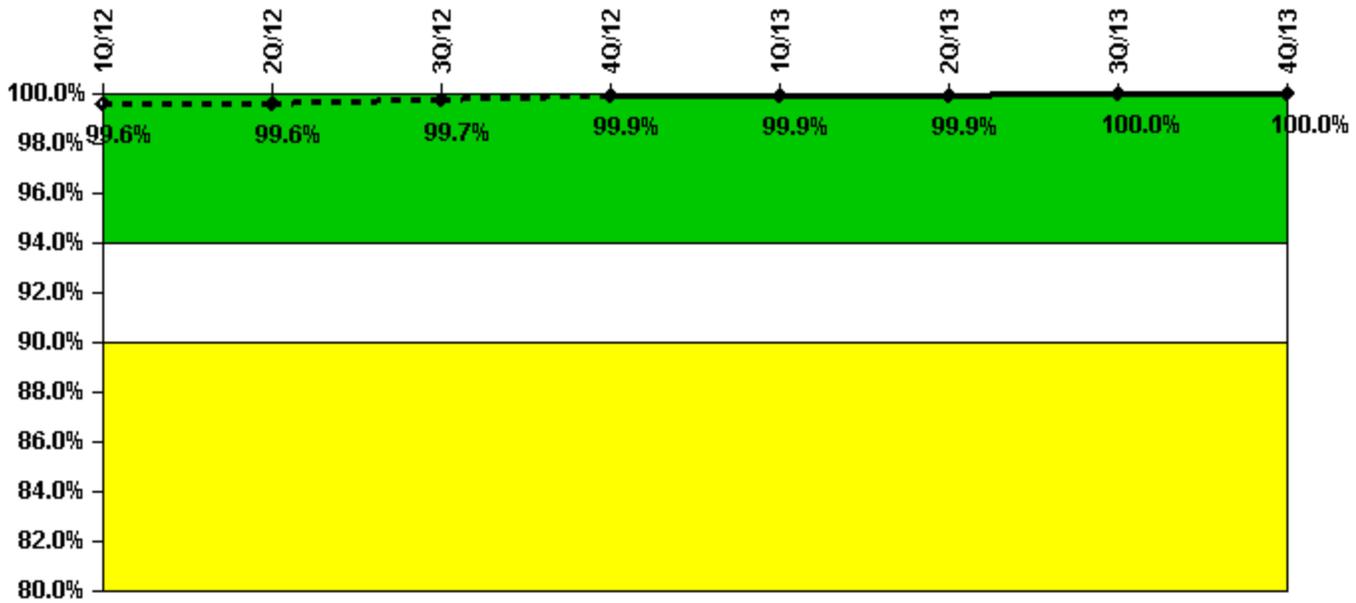
Thresholds: White < 80.0% Yellow < 60.0%

#### Notes

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

Licensee Comments: none

### Alert & Notification System



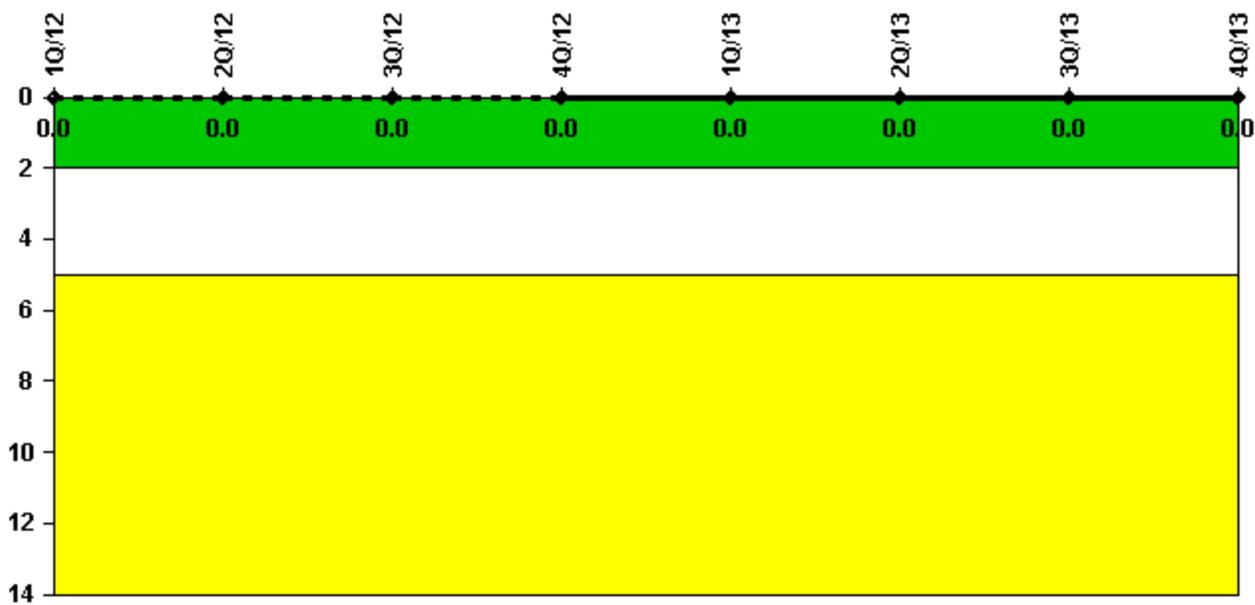
Thresholds: White < 94.0% Yellow < 90.0%

#### Notes

Alert & Notification System	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13
Successful siren-tests	2141	2143	2141	2309	1980	2145	2310	2144
Total sirens-tests	2145	2145	2145	2310	1980	2145	2310	2145
Indicator value	99.6%	99.6%	99.7%	99.9%	99.9%	99.9%	100.0%	100.0%

Licensee Comments: none

### Occupational Exposure Control Effectiveness



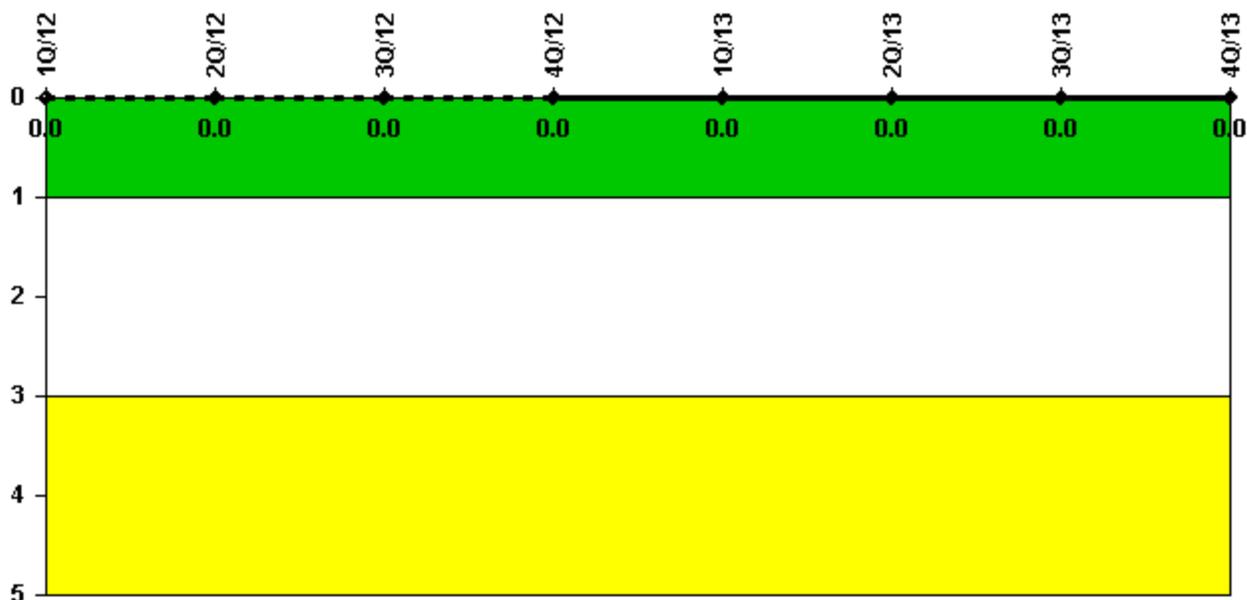
Thresholds: White > 2.0 Yellow > 5.0

**Notes**

Occupational Exposure Control Effectiveness	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13
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/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13
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: January 22, 2014*