

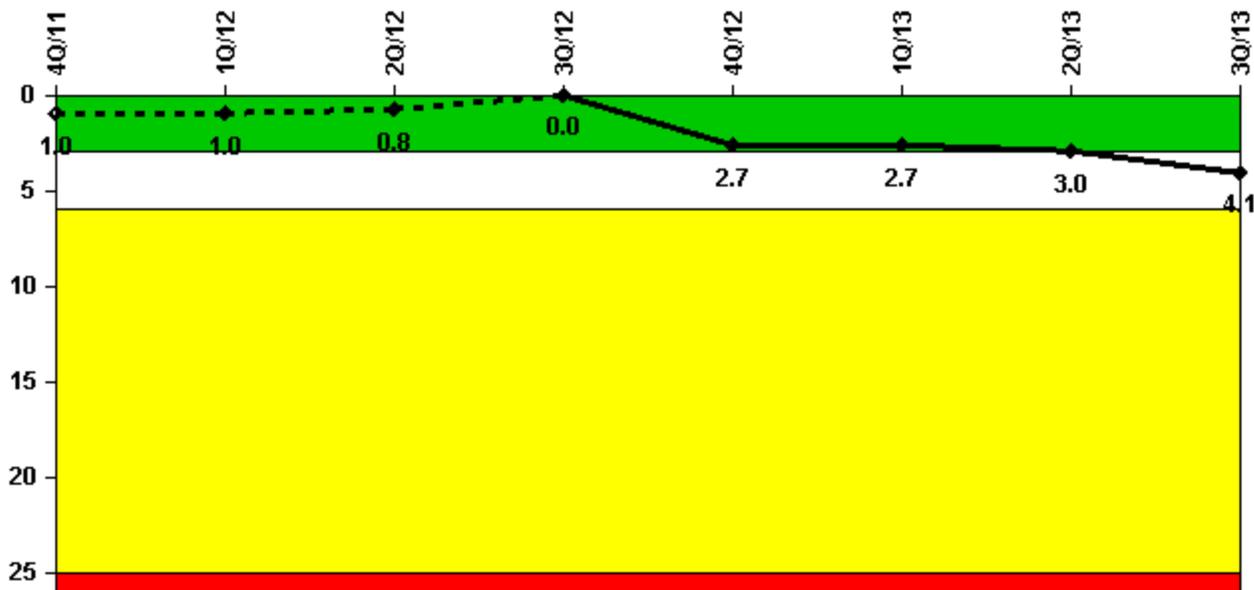
## Susquehanna 2

### 3Q/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**

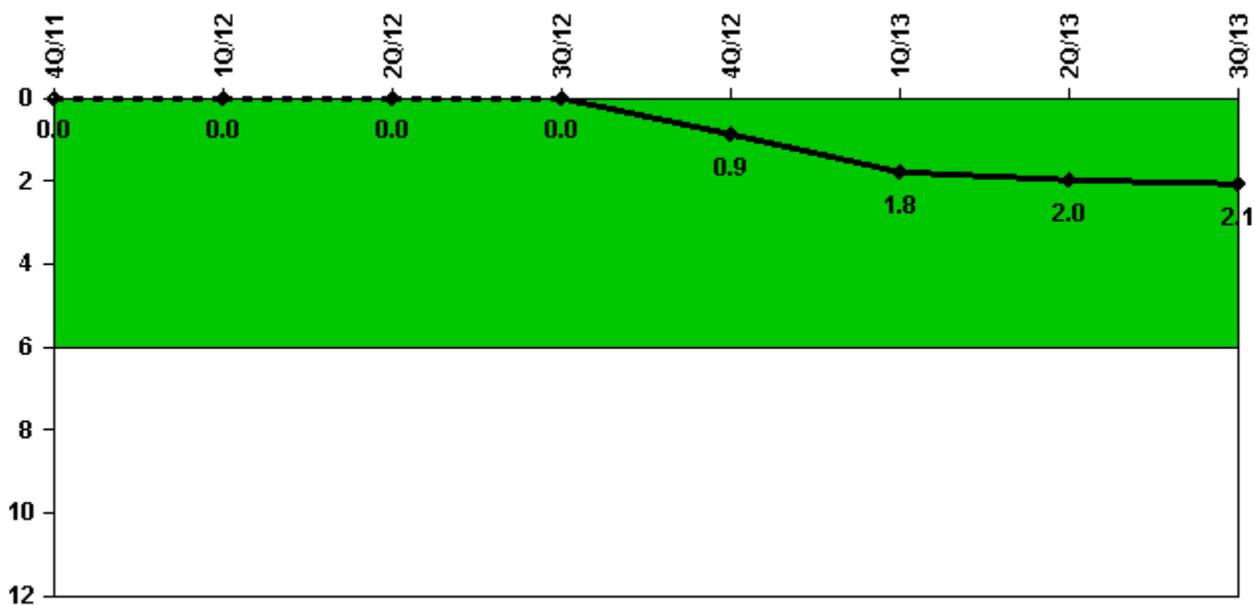
#### Notes

Unplanned Scrams per 7000 Critical Hrs	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13
Unplanned scrams	0	0	0	0	3.0	0	0	1.0
Critical hours	2209.0	2183.0	1829.5	2208.0	1562.3	2159.0	1093.3	1996.6
<b>Indicator value</b>	<b>1.0</b>	<b>1.0</b>	<b>0.8</b>	<b>0</b>	<b>2.7</b>	<b>2.7</b>	<b>3.0</b>	<b>4.1</b>

Licensee Comments:

3Q/13: Within the last four quarters, Susquehanna Unit 2 has experienced four reactor scrams. These events cause the NRC IE01 Unplanned Scrams per 7000 Critical Hours PI to cross the GREEN/WHITE threshold. A White PI has low to moderate safety significance.

### Unplanned Power Changes per 7000 Critical Hrs



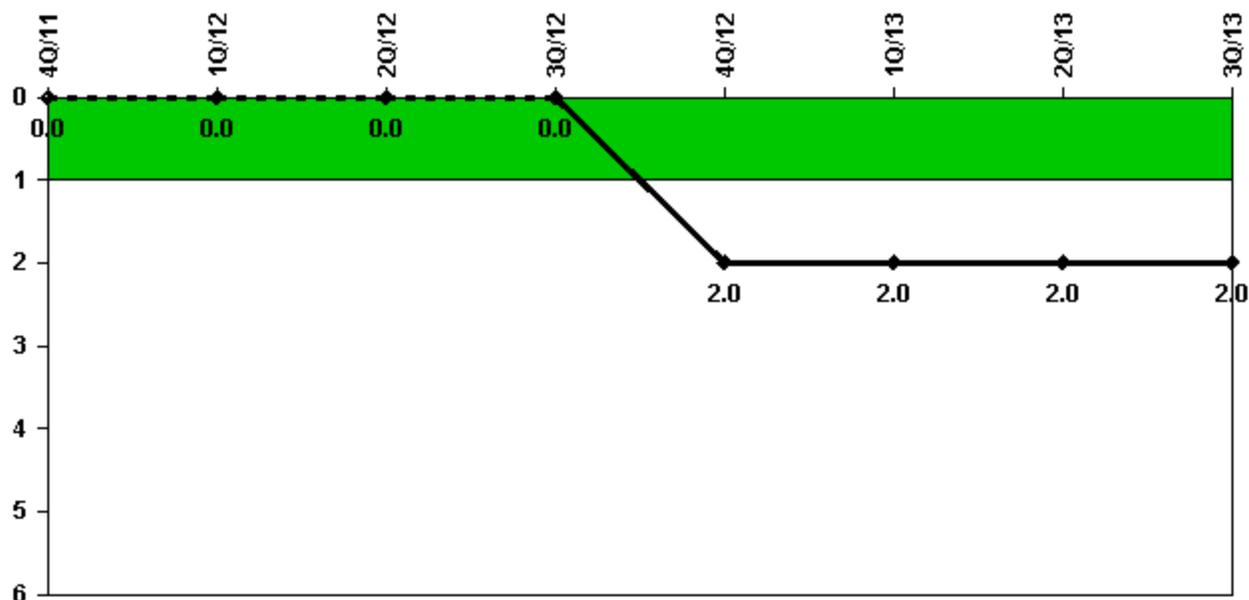
Thresholds: White > 6.0

#### Notes

Unplanned Power Changes per 7000 Critical Hrs	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13
Unplanned power changes	0	0	0	0	1.0	1.0	0	0
Critical hours	2209.0	2183.0	1829.5	2208.0	1562.3	2159.0	1093.3	1996.6
<b>Indicator value</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.9</b>	<b>1.8</b>	<b>2.0</b>	<b>2.1</b>

Licensee Comments: none

### Unplanned Scrams with Complications



Thresholds: White > 1.0

#### Notes

Unplanned Scrams with Complications	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13
Scrams with complications	0	0	0	0	2.0	0	0	0
<b>Indicator value</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>2.0</b>	<b>2.0</b>	<b>2.0</b>	<b>2.0</b>

#### Licensee Comments:

3Q/13: The 4th quarter 2012 Unplanned Scrams with Complications PI (IE04) was changed by a mid-quarter report from one to two USwC. After further review, the December 16, 2012 Unit 2 scram was determined to be a USwC in accordance with the regulatory guidance documents because it required re-entry into an Emergency Operating Procedure (EOP) after the scram had occurred . This additional USwC during the current 12 month period caused the color of the USwC PI to change from Green to White. A White PI has low to moderate safety significance.

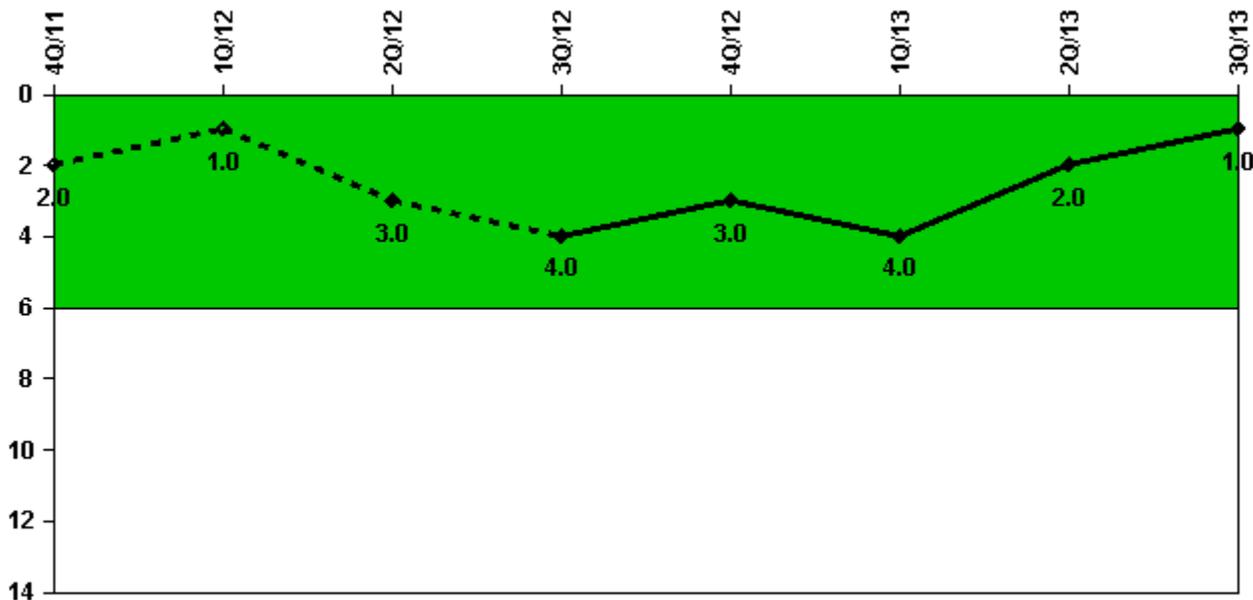
2Q/13: The 4th quarter 2012 Unplanned Scrams with Complications PI (IE04) was changed by a mid-quarter report from one to two USwC. After further review, the December 16, 2012 Unit 2 scram was determined to be a USwC in accordance with the regulatory guidance documents because it required re-entry into an Emergency Operating Procedure (EOP) after the scram had occurred . This additional USwC during the current 12 month period caused the color of the USwC PI to change from Green to White. A White PI has low to moderate safety significance.

1Q/13: The 4th quarter 2012 Unplanned Scrams with Complications PI (IE04) was changed by a mid-quarter report from one to two USwC. After further review, the December 16, 2012 Unit 2 scram was determined to be a USwC in accordance with the regulatory guidance documents because it required re-entry into an Emergency Operating Procedure (EOP) after the scram had occurred . This additional USwC during the current 12 month

period caused the color of the USwC PI to change from Green to White. A White PI has low to moderate safety significance.

4Q/12: The Susquehanna Unit 2 Unplanned Scrams with Complications (USwC, IE-04) PI data previously reported for the 4th quarter 2012 is being changed by this mid-quarter report from one to two USwC. After further review, the December 16, 2012 Unit 2 scram was determined to be a USwC in accordance with the regulatory guidance documents because it required re-entry into an Emergency Operating Procedure (EOP) after the scram had occurred . This additional USwC during the current 12 month period caused the color of the USwC PI (IE-04) to change from Green to White. A White PI has low to moderate safety significance.

### Safety System Functional Failures (BWR)



Thresholds: White > 6.0

#### Notes

Safety System Functional Failures (BWR)	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13
Safety System Functional Failures	1	0	2	1	0	1	0	0
<b>Indicator value</b>	<b>2</b>	<b>1</b>	<b>3</b>	<b>4</b>	<b>3</b>	<b>4</b>	<b>2</b>	<b>1</b>

Licensee Comments:

1Q/13: LER 387/2012-010-00:Both Trains of Control Structure HVAC at Susquehanna Were Rendered Inoperable, submitted on February 12, 2013

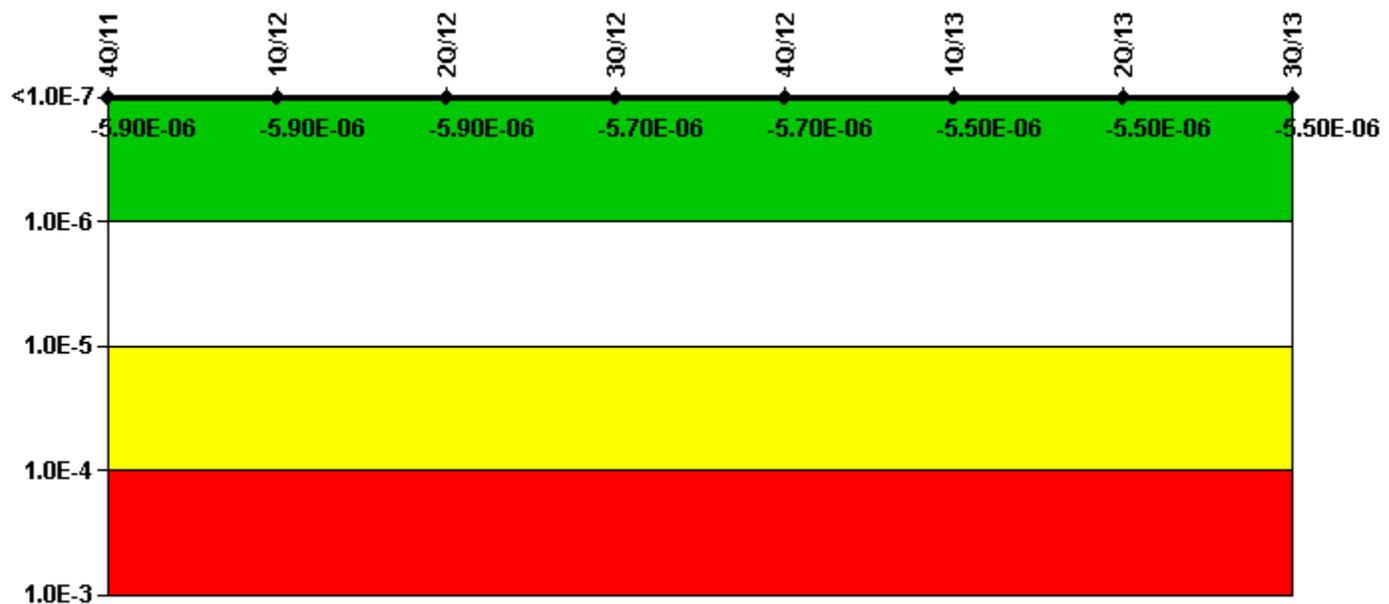
3Q/12: LER 388/2012-001-00, "Two Control Room Floor Cooling Systems Inoperable" was submitted to the NRC

on July 9, 2012.

2Q/12: LER 387/2012-001-00, Both Control Structure Chillers Inoperable, was submitted on May 23, 2012. LER 387/2012-002-00, "B" Control Structure Chiller Inoperable Concurrent with "A" Emergency Diesel Generator Out of Service, was submitted to the NRC on June 4, 2012.

4Q/11: LER 50-388/2011-004-00, "Unit 2 HPCI Inoperability" submitted to the NRC on December 5, 2011.

### 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	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13
UAI (ΔCDF)	1.94E-07	1.94E-07	1.88E-07	1.79E-07	1.83E-07	1.99E-07	2.09E-07	2.14E-07
URI (ΔCDF)	-6.12E-06	-6.11E-06	-6.06E-06	-5.90E-06	-5.84E-06	-5.75E-06	-5.71E-06	-5.76E-06
PLE	NO							
Indicator value	-5.90E-06	-5.90E-06	-5.90E-06	-5.70E-06	-5.70E-06	-5.50E-06	-5.50E-06	-5.50E-06

Licensee Comments:

3Q/13: Risk Cap Invoked.

2Q/13: Risk Cap Invoked.

1Q/13: Risk Cap Invoked.

4Q/12: Risk Cap Invoked.

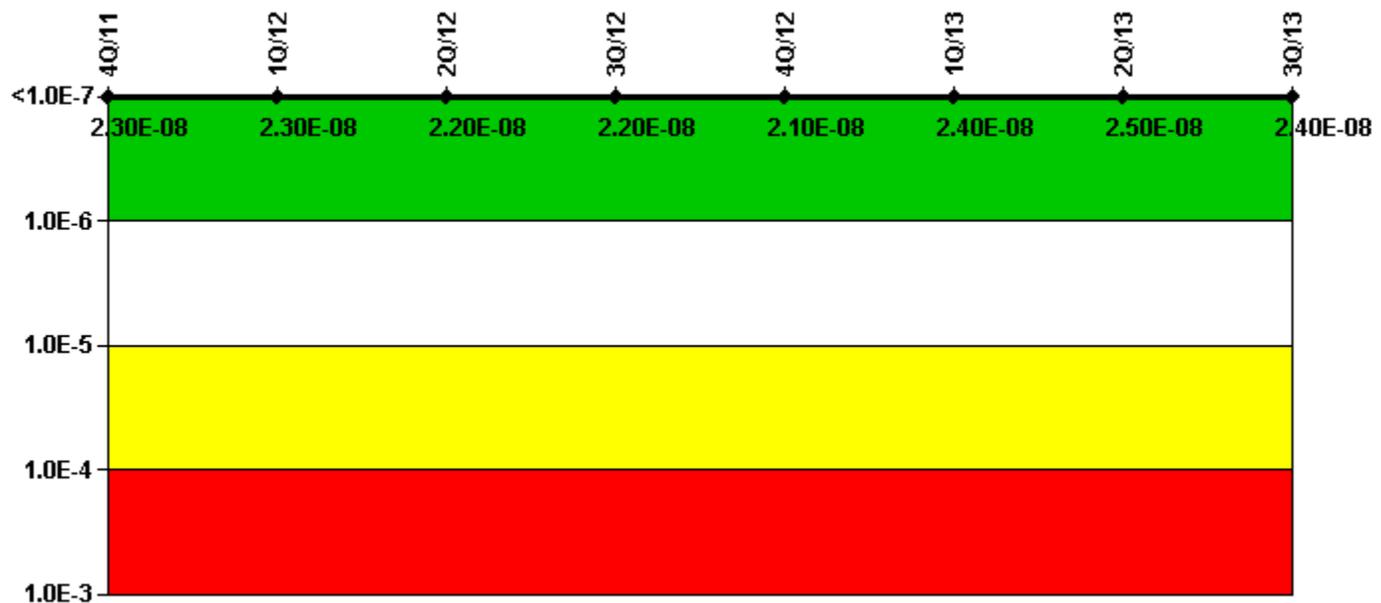
3Q/12: Risk Cap Invoked.

2Q/12: Risk Cap Invoked.

1Q/12: Risk Cap Invoked.

4Q/11: Risk Cap Invoked. The 3Q2011 Emergency AC Power System data is revised to include additional unavailable hours for the "C" diesel generator in September 2011. There is no safety significance associated with this change. The PI color was green before the data revision and it remains green after the change.

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



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

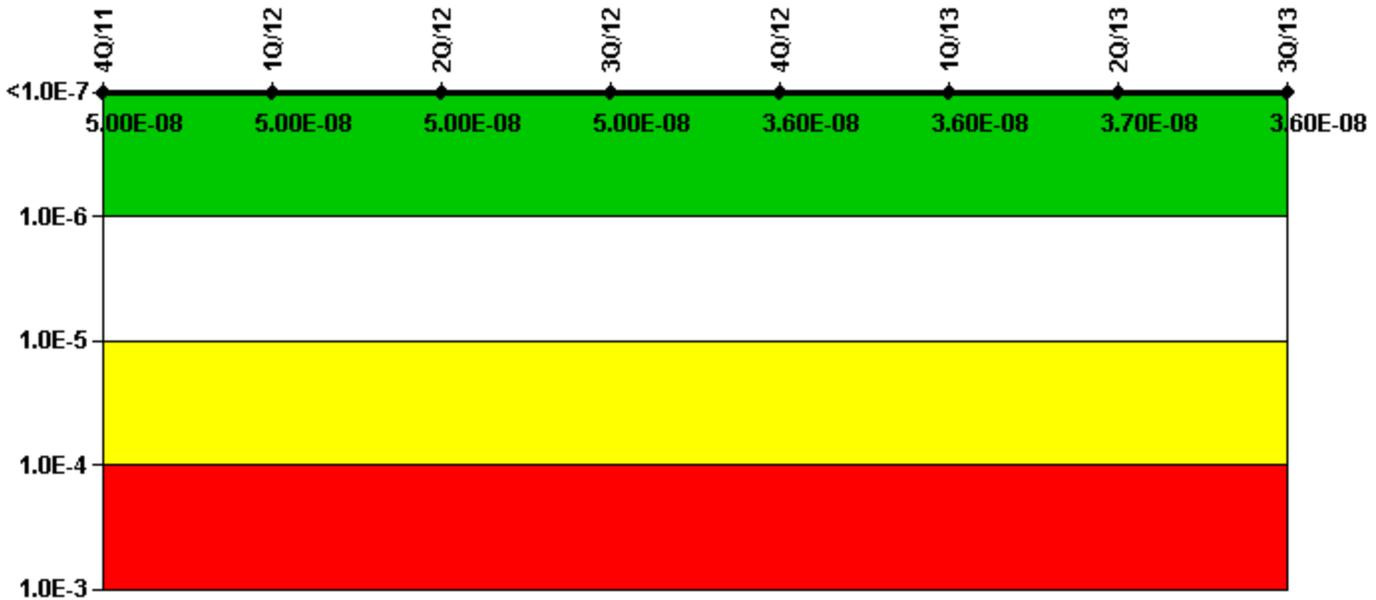
### Notes

Mitigating Systems Performance Index, High Pressure Injection System	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13
UAI (ΔCDF)	2.12E-09	2.12E-09	1.52E-09	1.52E-09	1.68E-09	5.02E-09	5.45E-09	5.54E-09
URI (ΔCDF)	2.07E-08	2.07E-08	2.07E-08	2.07E-08	1.91E-08	1.91E-08	1.91E-08	1.83E-08
PLE	NO							

<b>Indicator value</b>	<b>2.30E-08</b>	<b>2.30E-08</b>	<b>2.20E-08</b>	<b>2.20E-08</b>	<b>2.10E-08</b>	<b>2.40E-08</b>	<b>2.50E-08</b>	<b>2.40E-08</b>

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	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13
UAI (ΔCDF)	3.21E-09	3.21E-09	3.04E-09	3.04E-09	3.23E-09	3.23E-09	3.57E-09	3.64E-09
URI (ΔCDF)	4.71E-08	4.71E-08	4.71E-08	4.71E-08	3.32E-08	3.32E-08	3.32E-08	3.24E-08
PLE	NO							
<b>Indicator value</b>	<b>5.00E-08</b>	<b>5.00E-08</b>	<b>5.00E-08</b>	<b>5.00E-08</b>	<b>3.60E-08</b>	<b>3.60E-08</b>	<b>3.70E-08</b>	<b>3.60E-08</b>

Licensee Comments:

4Q/11: The 2Q2011 and 3Q2011 Unit 2 RCIC data is revised to account for the Ramp Generator Signal Converter (RGSC) failure in June 2011. There is no safety significance associated with this change. The PI color was green before the data revision and it remains green after the change.

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



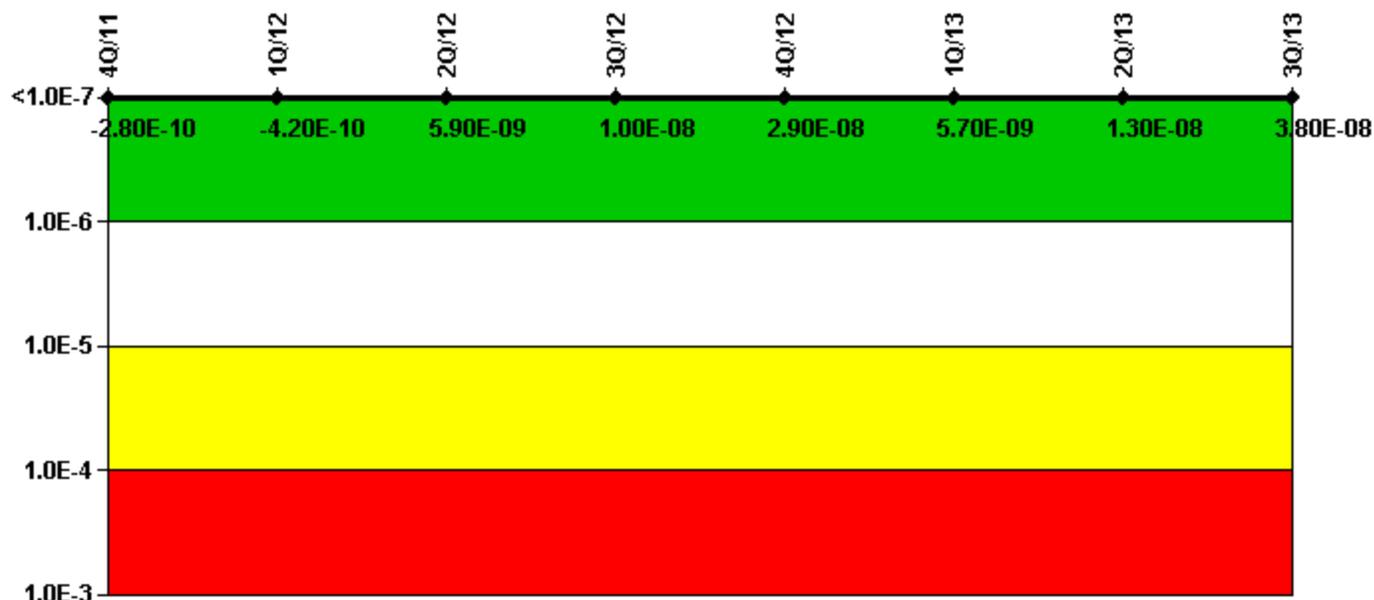
Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

#### Notes

Mitigating Systems Performance Index, Residual Heat Removal System	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13
UAI ( $\Delta$ CDF)	-5.24E-10	2.55E-10	1.28E-10	3.73E-10	1.25E-09	1.75E-09	1.93E-09	1.67E-09
URI ( $\Delta$ CDF)	-1.52E-08	-1.53E-08	-1.51E-08	-1.56E-08	-1.64E-08	-1.65E-08	-1.72E-08	-1.71E-08
PLE	NO							
Indicator value	-1.60E-08	-1.50E-08						

Licensee Comments: none

### Mitigating Systems Performance Index, Cooling Water Systems



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

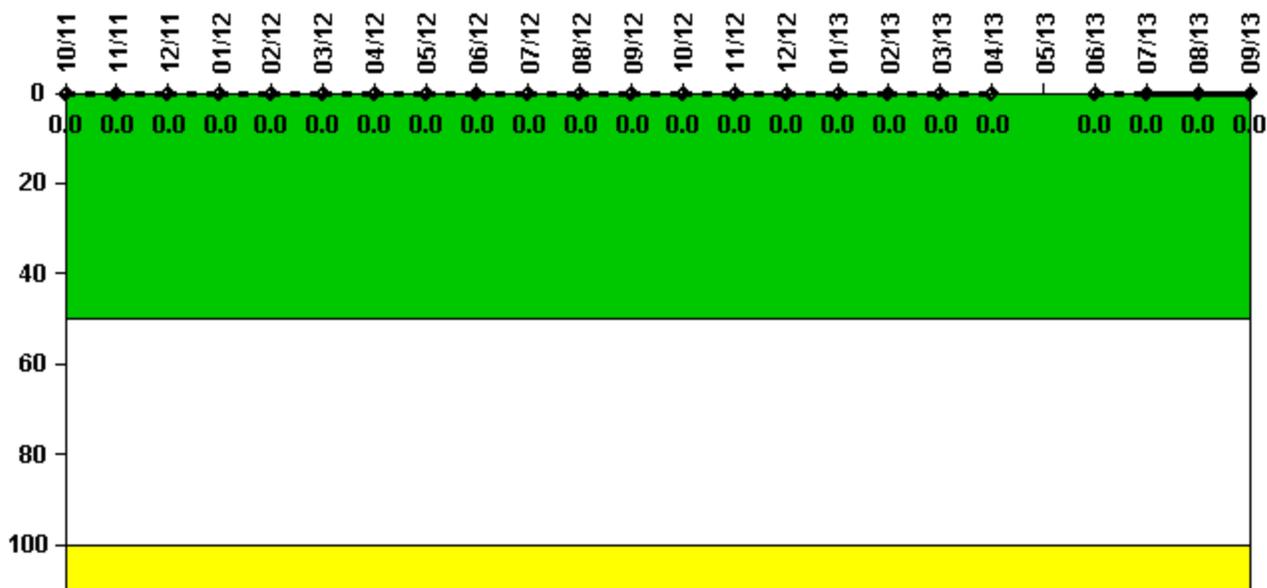
#### Notes

Mitigating Systems Performance Index, Cooling Water Systems	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13
UAI (ΔCDF)	2.88E-08	2.87E-08	3.54E-08	4.01E-08	5.98E-08	3.61E-08	4.39E-08	6.92E-08
URI (ΔCDF)	-2.90E-08	-2.91E-08	-2.95E-08	-2.99E-08	-3.04E-08	-3.04E-08	-3.07E-08	-3.10E-08
PLE	NO							
Indicator value	-2.80E-10	-4.20E-10	5.90E-09	1.00E-08	2.90E-08	5.70E-09	1.30E-08	3.80E-08

#### Licensee Comments:

4Q/11: Previously reported data for 3Q2009, 2Q2010, and 3Q2010 is revised for operational non-test strokes of valves HV01224A1 and HV01224B1. This change provides more conservative values for the stroke count. There is no safety significance associated with this change. The PI color was green before the data revision and it remains green after the change.

### Reactor Coolant System Activity



Thresholds: White > 50.0 Yellow > 100.0

#### Notes

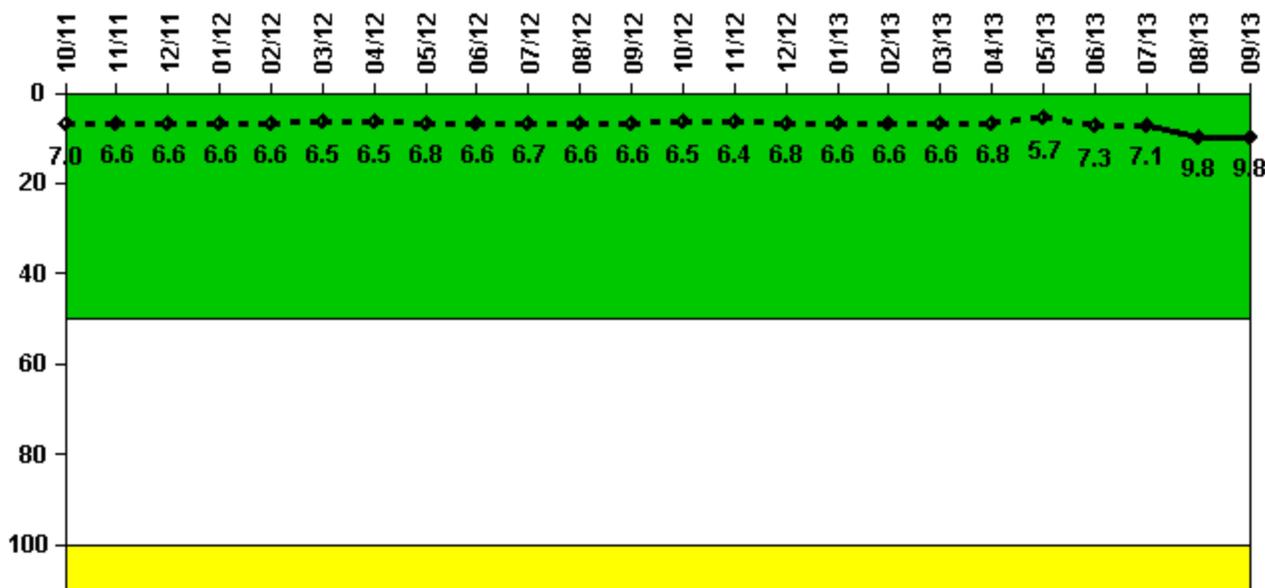
Reactor Coolant System Activity	10/11	11/11	12/11	1/12	2/12	3/12	4/12	5/12	6/12	7/12	8/12	9/12
Maximum activity	0.000005	0.000005	0.000005	0.000006	0.000005	0.000005	0.000007	0.000005	0.000004	0.000004	0.000005	0.000006
Technical specification limit	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Indicator value	0	0	0	0	0	0	0	0	0	0	0	0

Reactor Coolant System Activity	10/12	11/12	12/12	1/13	2/13	3/13	4/13	5/13	6/13	7/13	8/13	9/13
Maximum activity	0.000004	0.000004	0.000005	0.000005	0.000006	0.000006	0.000006	N/A	0.000004	0.000004	0.000005	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	N/A	0	0	0	0

Licensee Comments: none

### Reactor Coolant System Leakage



Thresholds: White > 50.0 Yellow > 100.0

#### Notes

Reactor Coolant System Leakage	10/11	11/11	12/11	1/12	2/12	3/12	4/12	5/12	6/12	7/12	8/12	9/12
Maximum leakage	1.740	1.650	1.650	1.650	1.640	1.630	1.630	1.710	1.640	1.680	1.660	1.650
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
<b>Indicator value</b>	<b>7.0</b>	<b>6.6</b>	<b>6.6</b>	<b>6.6</b>	<b>6.6</b>	<b>6.5</b>	<b>6.5</b>	<b>6.8</b>	<b>6.6</b>	<b>6.7</b>	<b>6.6</b>	<b>6.6</b>

Reactor Coolant System Leakage	10/12	11/12	12/12	1/13	2/13	3/13	4/13	5/13	6/13	7/13	8/13	9/13
Maximum leakage	1.620	1.600	1.700	1.650	1.650	1.660	1.710	1.430	1.820	1.770	2.450	2.440
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
<b>Indicator value</b>	<b>6.5</b>	<b>6.4</b>	<b>6.8</b>	<b>6.6</b>	<b>6.6</b>	<b>6.6</b>	<b>6.8</b>	<b>5.7</b>	<b>7.3</b>	<b>7.1</b>	<b>9.8</b>	<b>9.8</b>

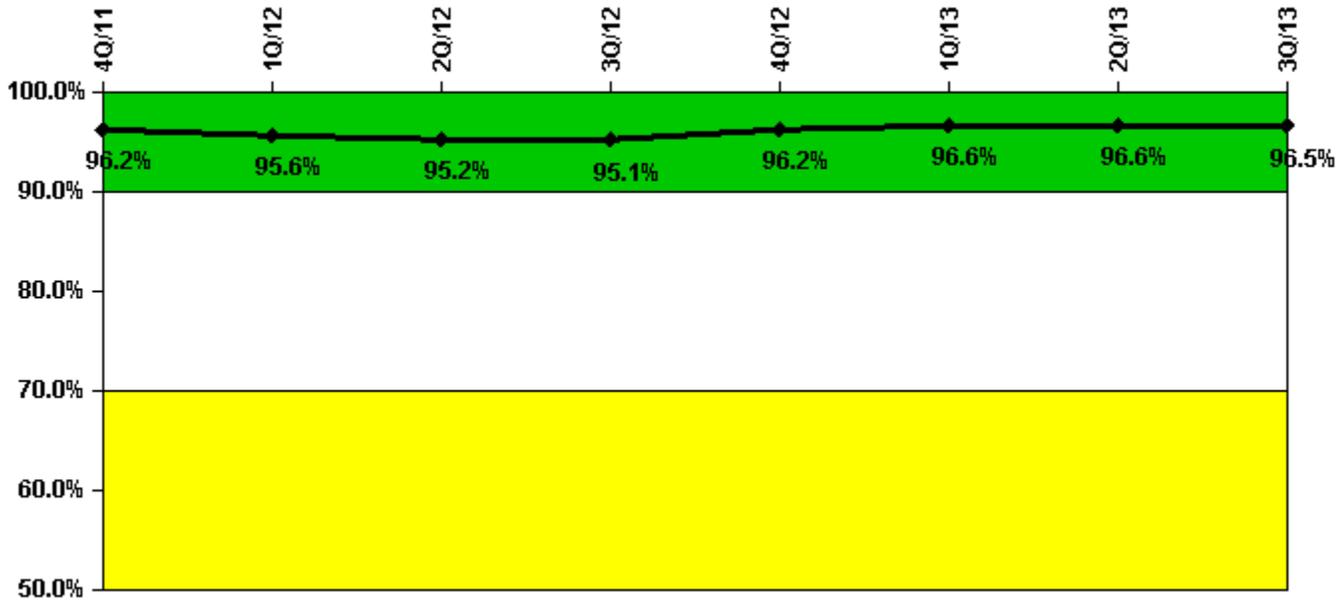
#### Licensee Comments:

6/13: Previously reported data for Reactor Coolant System Leakage for the months of May 2012, July 2012 and October 2012 is revised due to data entry errors. There is no safety significance associated with these changes. The PI color was green before the data revision and it remains green after the changes.

3/12: The Unit 2 RCSL data for May 2011 originally reported as 0 was changed to N/A because the unit was shutdown for the entire month of May. This change has no safety significance and has no effect on the PI color, which is green.

12/11: Previously reported data for Reactor Coolant System Leakage for the period from 1Q2010 through 2Q2011 is revised to provide the correct value for maximum monthly identified leakage. There is no safety significance associated with this change. The PI color was green before the data revision and it remains green after the change.

### Drill/Exercise Performance



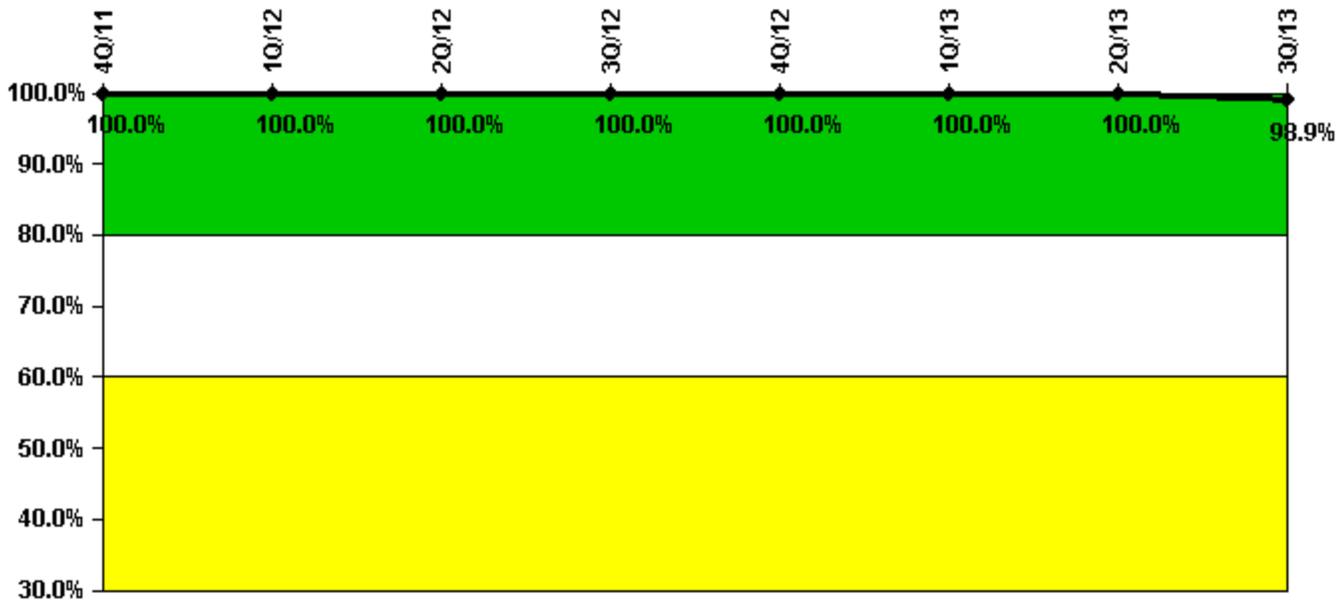
Thresholds: White < 90.0% Yellow < 70.0%

#### Notes

Drill/Exercise Performance	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13
Successful opportunities	10.0	23.0	12.0	32.0	7.0	18.0	18.0	19.0
Total opportunities	10.0	25.0	12.0	33.0	8.0	18.0	18.0	20.0
<b>Indicator value</b>	<b>96.2%</b>	<b>95.6%</b>	<b>95.2%</b>	<b>95.1%</b>	<b>96.2%</b>	<b>96.6%</b>	<b>96.6%</b>	<b>96.5%</b>

Licensee Comments: none

### ERO Drill Participation



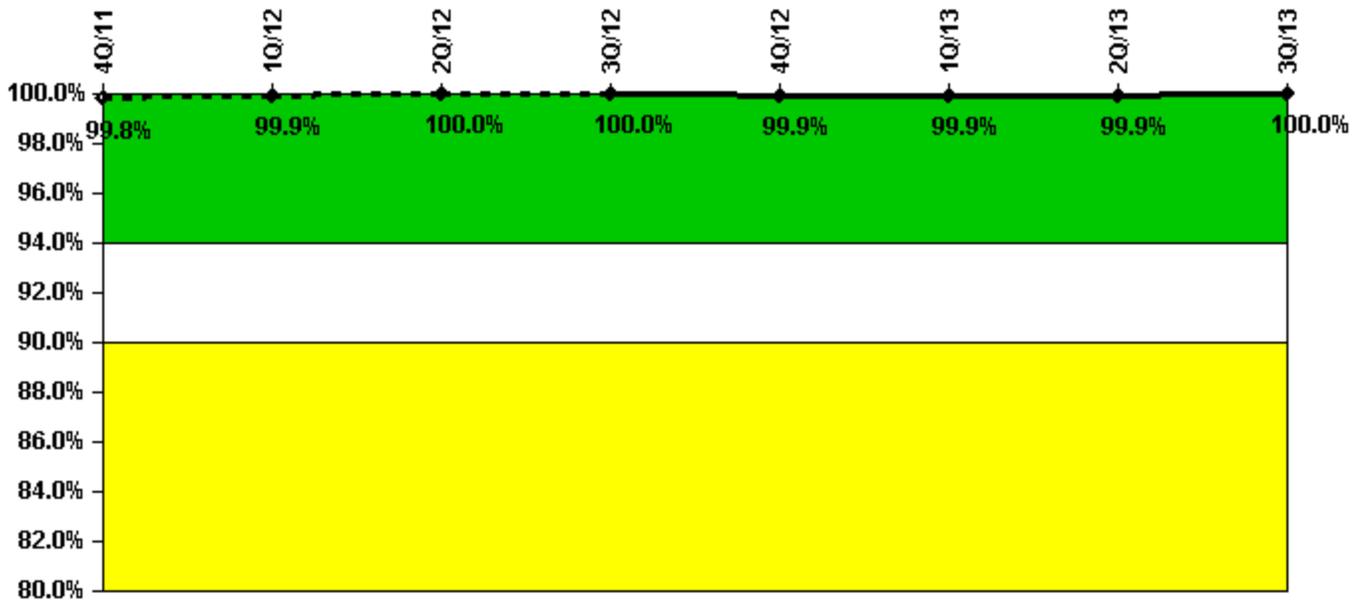
Thresholds: White < 80.0% Yellow < 60.0%

#### Notes

ERO Drill Participation	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13
Participating Key personnel	71.0	75.0	75.0	74.0	77.0	80.0	82.0	86.0
Total Key personnel	71.0	75.0	75.0	74.0	77.0	80.0	82.0	87.0
Indicator value	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	98.9%

Licensee Comments: none

### Alert & Notification System



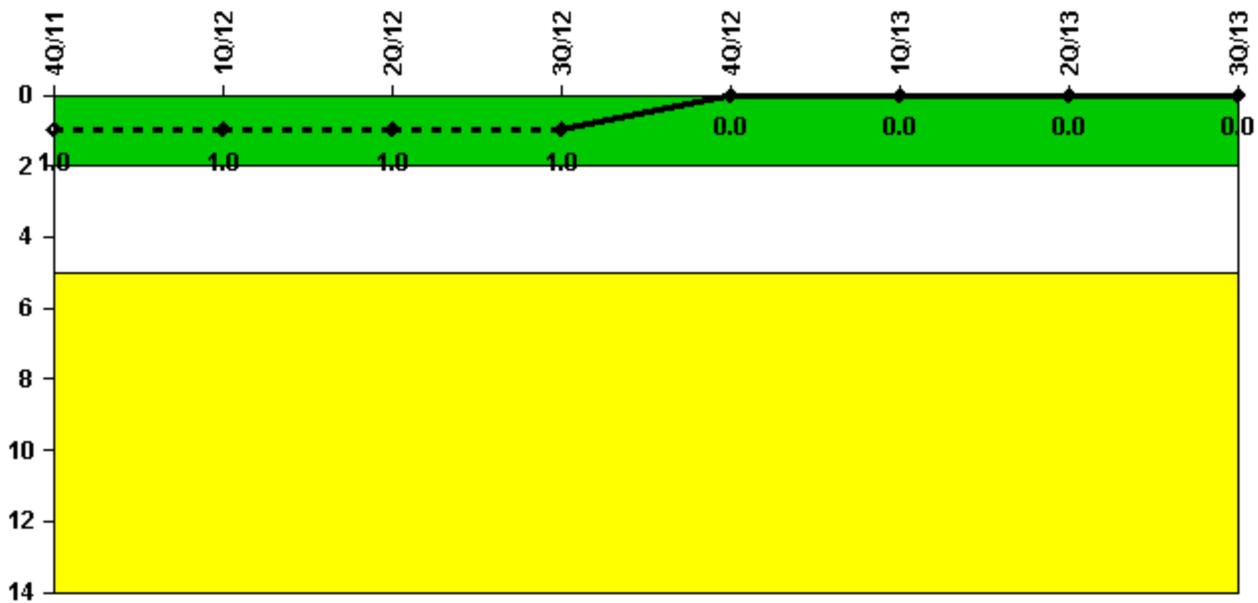
Thresholds: White < 94.0% Yellow < 90.0%

#### Notes

Alert & Notification System	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13
Successful siren-tests	608	608	532	607	531	608	532	608
Total sirens-tests	608	608	532	608	532	608	532	608
Indicator value	99.8%	99.9%	100.0%	100.0%	99.9%	99.9%	99.9%	100.0%

Licensee Comments: none

### Occupational Exposure Control Effectiveness



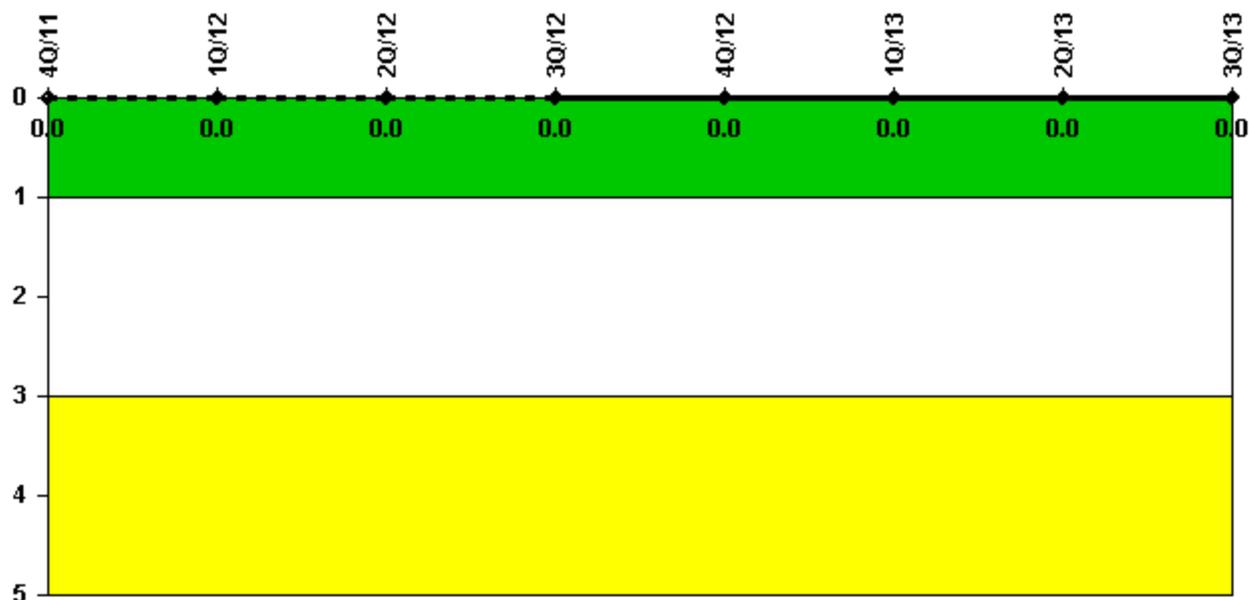
Thresholds: White > 2.0 Yellow > 5.0

#### Notes

Occupational Exposure Control Effectiveness	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13
High radiation area occurrences	1	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>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

Licensee Comments: none

### RETS/ODCM Radiological Effluent



Thresholds: White > 1.0 Yellow > 3.0

#### Notes

RETS/ODCM Radiological Effluent	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/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: October 22, 2013*