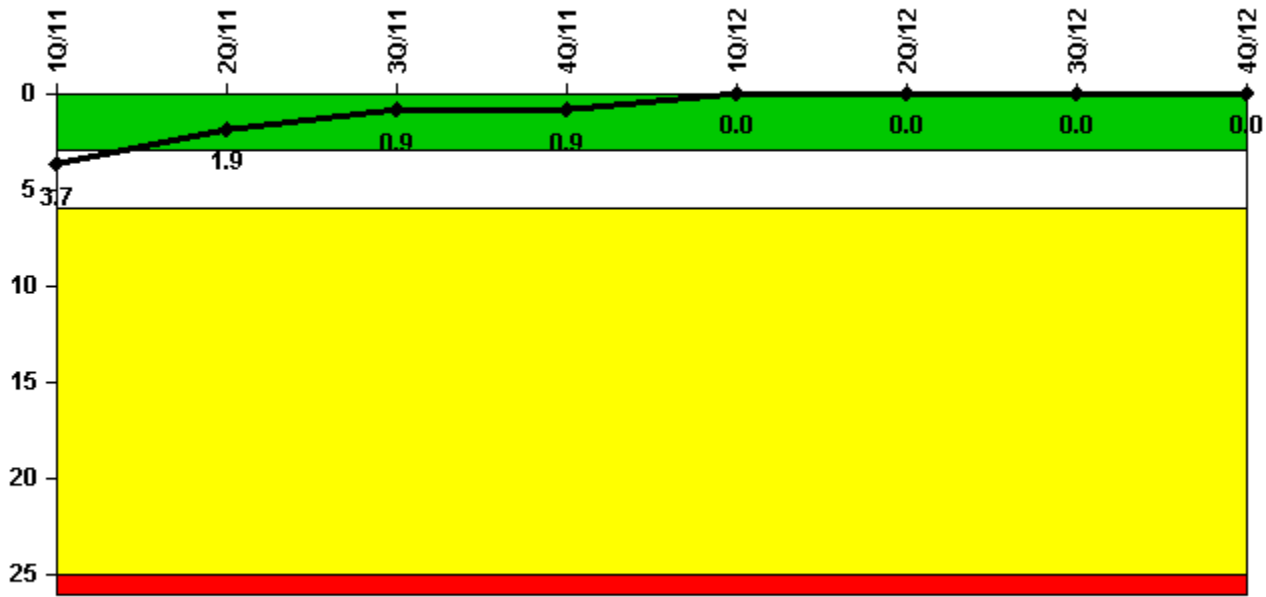


# Susquehanna 1

## 4Q/2012 Performance Indicators

Licensee's General Comments: none

### Unplanned Scrams per 7000 Critical Hrs



Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

### Notes

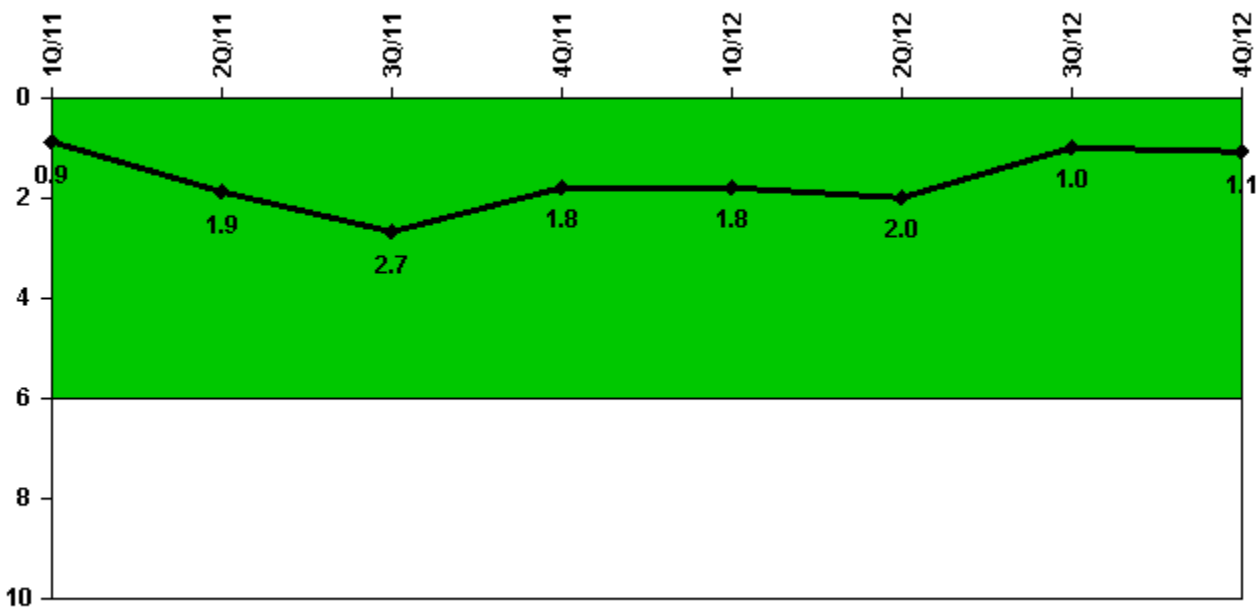
Unplanned Scrams per 7000 Critical Hrs	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12
Unplanned scrams	1.0	0	0	0	0	0	0	0
Critical hours	1981.8	1291.5	2208.0	2209.0	2165.2	353.0	2208.0	1792.2
<b>Indicator value</b>	<b>3.7</b>	<b>1.9</b>	<b>0.9</b>	<b>0.9</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

Licensee Comments:

1Q/12: Supplemental LER's 50-387/2011-002-01, 50-387/2010-002-02, and 50-387/2010-003-03 were submitted in February 2012 to provide updated information related to the previously reported unplanned scrams at Susquehanna Unit 1 in April, May, July 2010, and January 2011.

1Q/11: Within the last four quarters, Susquehanna Unit 1 has experienced four reactor scrams. These events cause the NRC IE01 Unplanned Scrams per 7000 Critical Hours PI to cross the GREEN/WHITE threshold.

### Unplanned Power Changes per 7000 Critical Hrs



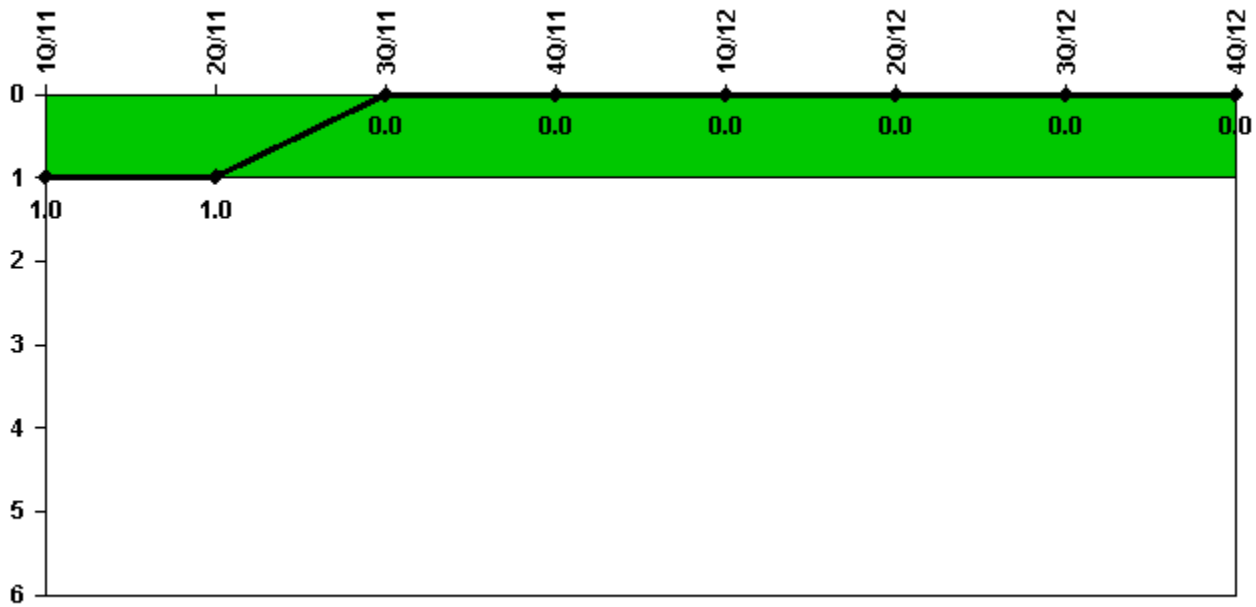
Thresholds: White > 6.0

#### Notes

Unplanned Power Changes per 7000 Critical Hrs	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12
Unplanned power changes	0	1.0	1.0	0	0	1.0	0	0
Critical hours	1981.8	1291.5	2208.0	2209.0	2165.2	353.0	2208.0	1792.2
<b>Indicator value</b>	<b>0.9</b>	<b>1.9</b>	<b>2.7</b>	<b>1.8</b>	<b>1.8</b>	<b>2.0</b>	<b>1.0</b>	<b>1.1</b>

Licensee Comments: none

### Unplanned Scrams with Complications



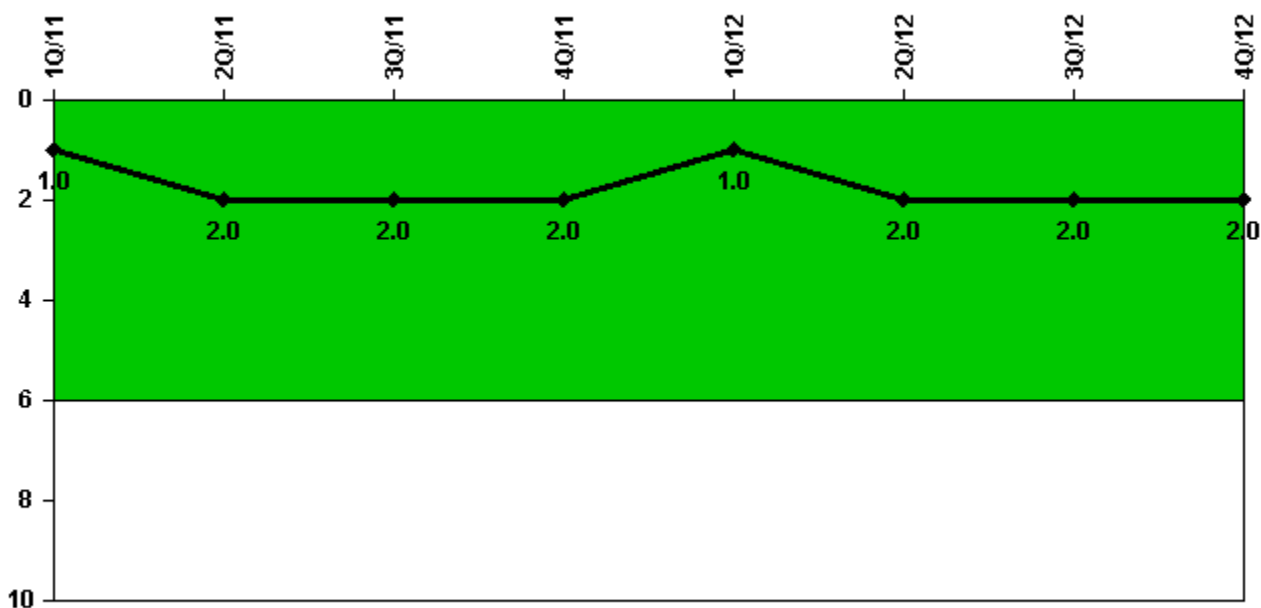
Thresholds: White > 1.0

#### Notes

Unplanned Scrams with Complications	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12
Scrams with complications	0	0	0	0	0	0	0	0
<b>Indicator value</b>	<b>1.0</b>	<b>1.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>

Licensee Comments: none

### Safety System Functional Failures (BWR)



Thresholds: White > 6.0

#### Notes

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

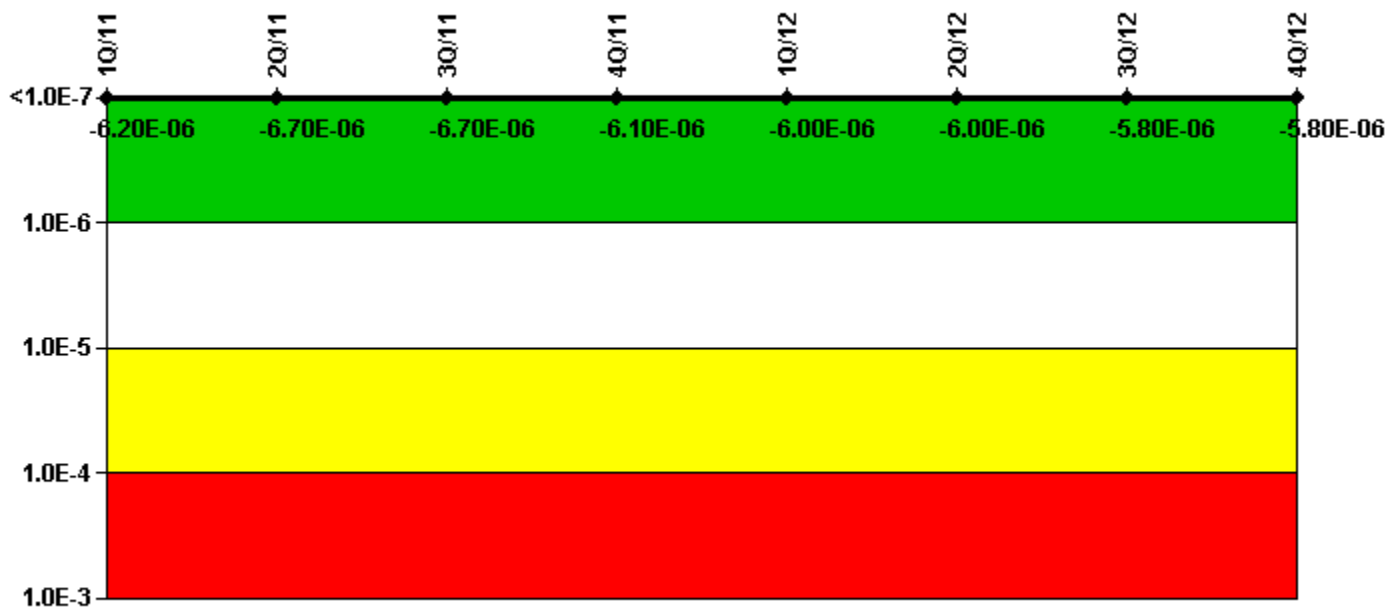
Licensee Comments:

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.

2Q/11: LER 50-387/2011-003, HPCI Valve Packing, was submitted to the NRC on April 26, 2011.

1Q/11: LER 50-387/2011-001, Single Point Vulnerability, was submitted to the NRC on March 2, 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	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12
UAI ( $\Delta$ CDF)	-1.85E-08	-2.11E-08	3.96E-10	1.92E-07	1.92E-07	2.13E-07	2.04E-07	2.06E-07
URI ( $\Delta$ CDF)	-6.19E-06	-6.72E-06	-6.75E-06	-6.25E-06	-6.24E-06	-6.18E-06	-6.03E-06	-5.96E-06
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-6.20E-06	-6.70E-06	-6.70E-06	-6.10E-06	-6.00E-06	-6.00E-06	-5.80E-06	-5.80E-06

Licensee Comments:

4Q/12: Risk Cap Invoked.

3Q/12: Risk Cap Invoked.

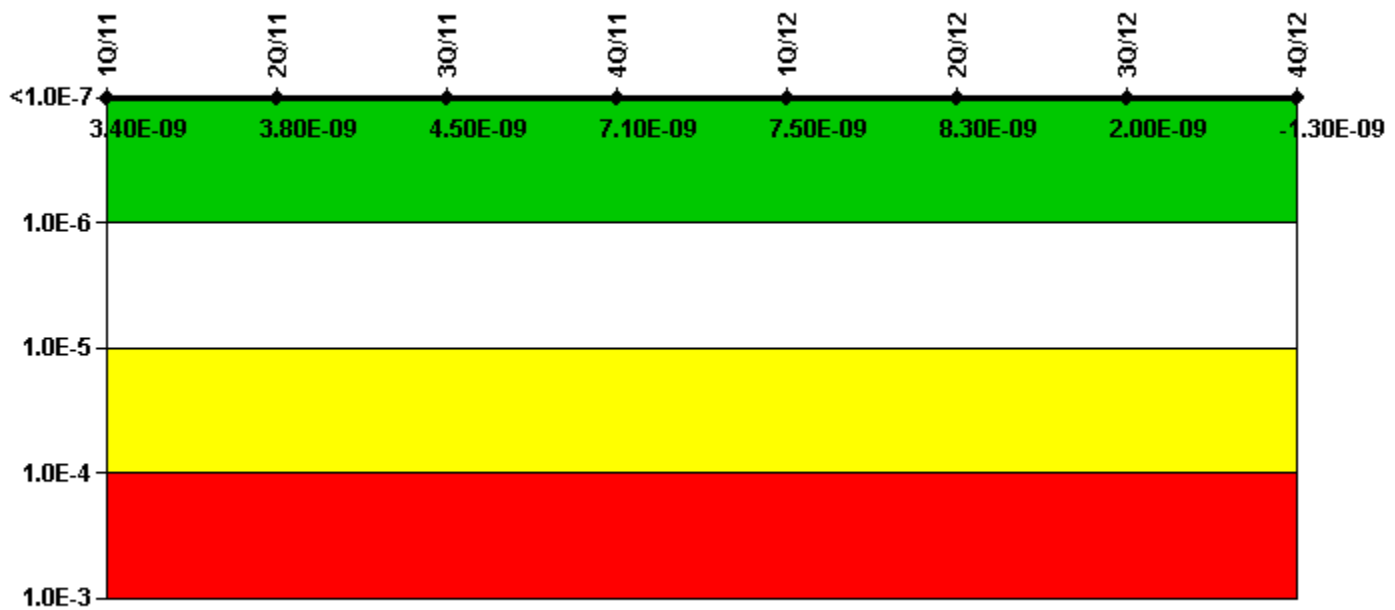
2Q/12: Risk Cap Invoked.

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.

1Q/11: Risk Cap Invoked.

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



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

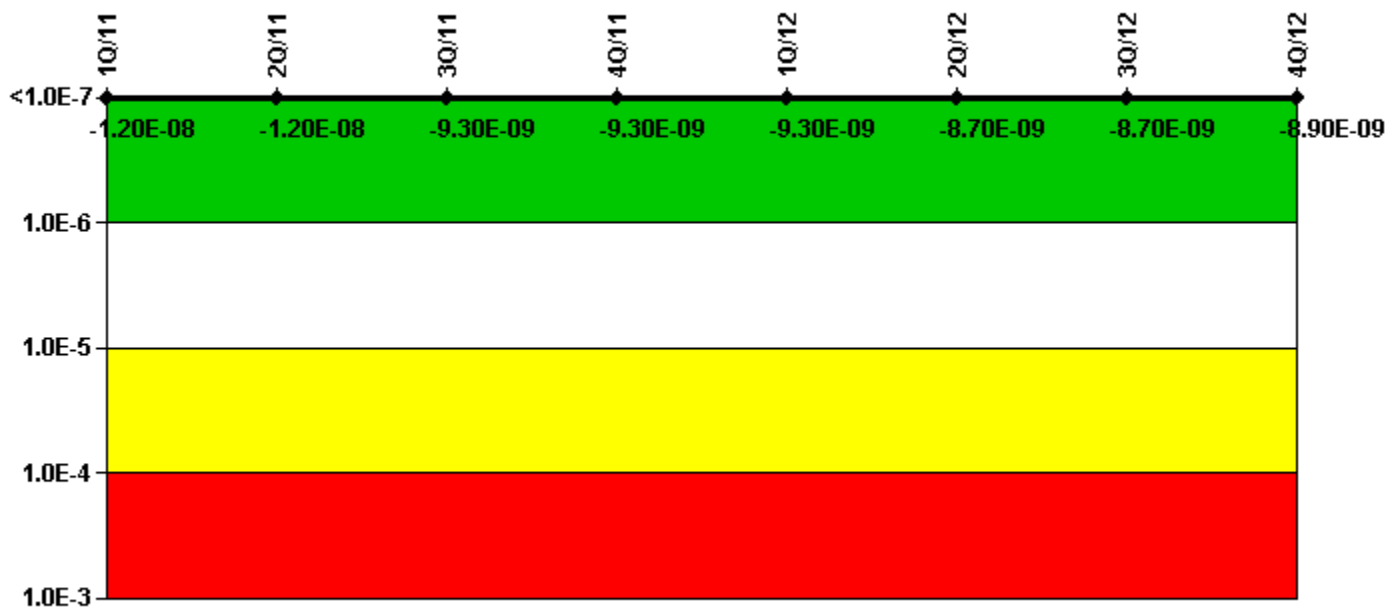
#### Notes

Mitigating Systems Performance Index, High Pressure Injection System	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12
UAI ( $\Delta$ CDF)	1.00E-08	1.04E-08	1.11E-08	1.40E-08	1.42E-08	1.50E-08	8.70E-09	5.38E-09
URI ( $\Delta$ CDF)	-6.61E-09	-6.61E-09	-6.61E-09	-6.89E-09	-6.67E-09	-6.71E-09	-6.71E-09	-6.71E-09
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	3.40E-09	3.80E-09	4.50E-09	7.10E-09	7.50E-09	8.30E-09	2.00E-09	-1.30E-09

Licensee Comments:

4Q/11: The 3Q2010 data is revised due to a data entry error for ESF Non-Test demands. 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, Heat Removal System



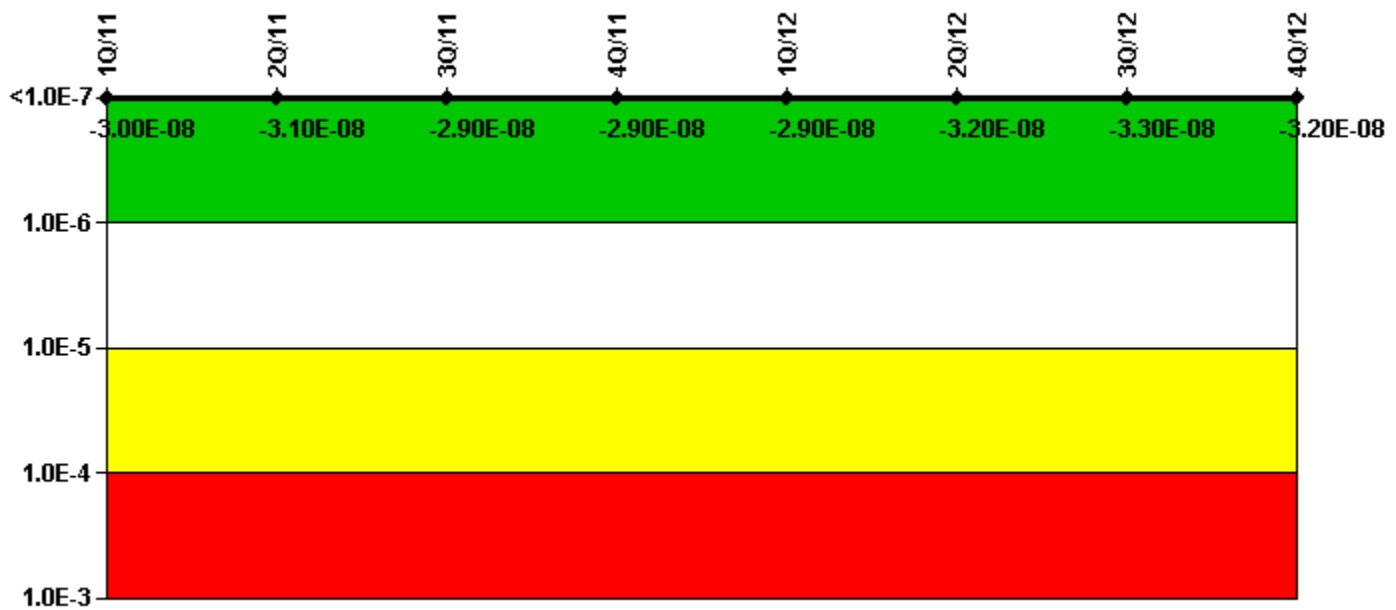
Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

#### Notes

Mitigating Systems Performance Index, Heat Removal System	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12
UAI ( $\Delta$ CDF)	-4.06E-09	-4.06E-09	-8.88E-10	-8.88E-10	-8.89E-10	-2.68E-10	-2.62E-10	-5.55E-10
URI ( $\Delta$ CDF)	-8.14E-09	-8.14E-09	-8.39E-09	-8.39E-09	-8.39E-09	-8.39E-09	-8.39E-09	-8.39E-09
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-1.20E-08	-1.20E-08	-9.30E-09	-9.30E-09	-9.30E-09	-8.70E-09	-8.70E-09	-8.90E-09

Licensee Comments: none

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



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

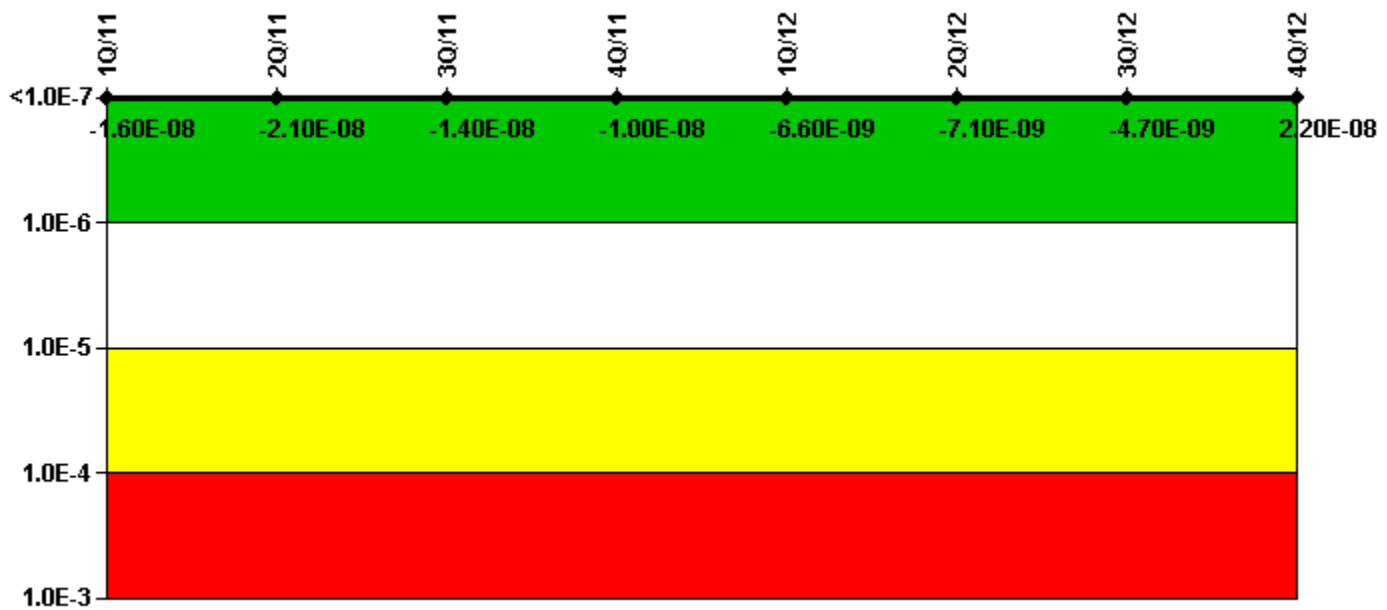
#### Notes

Mitigating Systems Performance Index, Residual Heat Removal System	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12
UAI ( $\Delta$ CDF)	-8.89E-10	-8.44E-10	1.85E-09	1.85E-09	1.85E-09	2.25E-09	1.38E-09	2.40E-09
URI ( $\Delta$ CDF)	-2.95E-08	-2.97E-08	-3.06E-08	-3.07E-08	-3.13E-08	-3.40E-08	-3.40E-08	-3.43E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-3.00E-08	-3.10E-08	-2.90E-08	-2.90E-08	-2.90E-08	-3.20E-08	-3.30E-08	-3.20E-08

Licensee Comments: none



### Mitigating Systems Performance Index, Cooling Water Systems



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

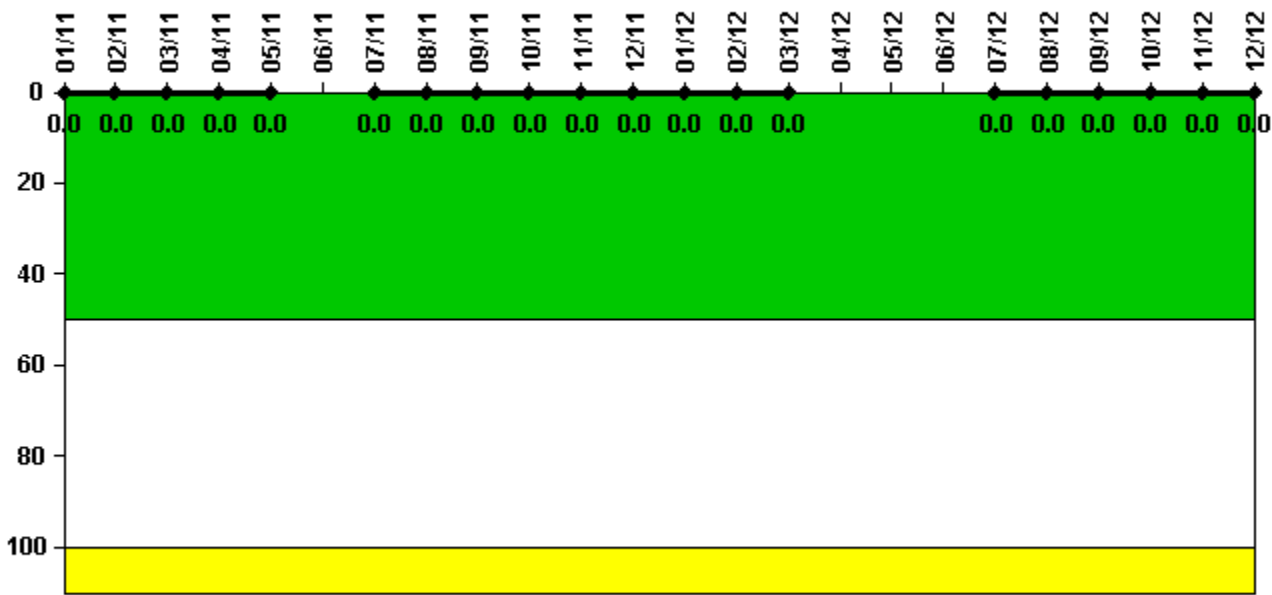
#### Notes

Mitigating Systems Performance Index, Cooling Water Systems	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12
UAI ( $\Delta$ CDF)	1.60E-08	1.10E-08	1.85E-08	2.25E-08	2.64E-08	2.68E-08	2.94E-08	5.67E-08
URI ( $\Delta$ CDF)	-3.17E-08	-3.24E-08	-3.29E-08	-3.30E-08	-3.30E-08	-3.38E-08	-3.42E-08	-3.47E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-1.60E-08	-2.10E-08	-1.40E-08	-1.00E-08	-6.60E-09	-7.10E-09	-4.70E-09	2.20E-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

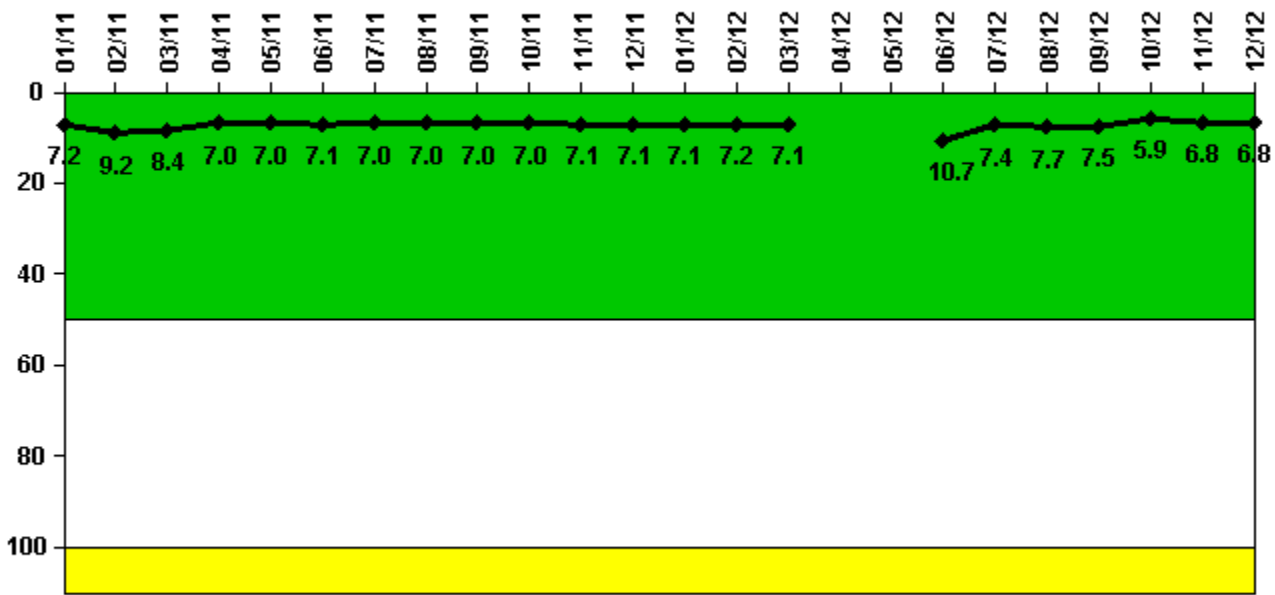
Reactor Coolant System Activity	1/11	2/11	3/11	4/11	5/11	6/11	7/11	8/11	9/11	10/11	11/11	12/11
Maximum activity	0.000007	0.000007	0.000008	0.000007	0.000008	N/A	0.000006	0.000007	0.000007	0.000007	0.000007	0.000007
Technical specification limit	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Indicator value	0	0	0	0	0	N/A	0	0	0	0	0	0

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	0.000008	0.000008	0.000007	N/A	N/A	N/A	0.000003	0.000005	0.000006	0.000005	0.000006	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
Indicator value	0	0	0	N/A	N/A	N/A	0	0	0	0	0	0

Licensee Comments: none

### Reactor Coolant System Leakage



Thresholds: White > 50.0 Yellow > 100.0

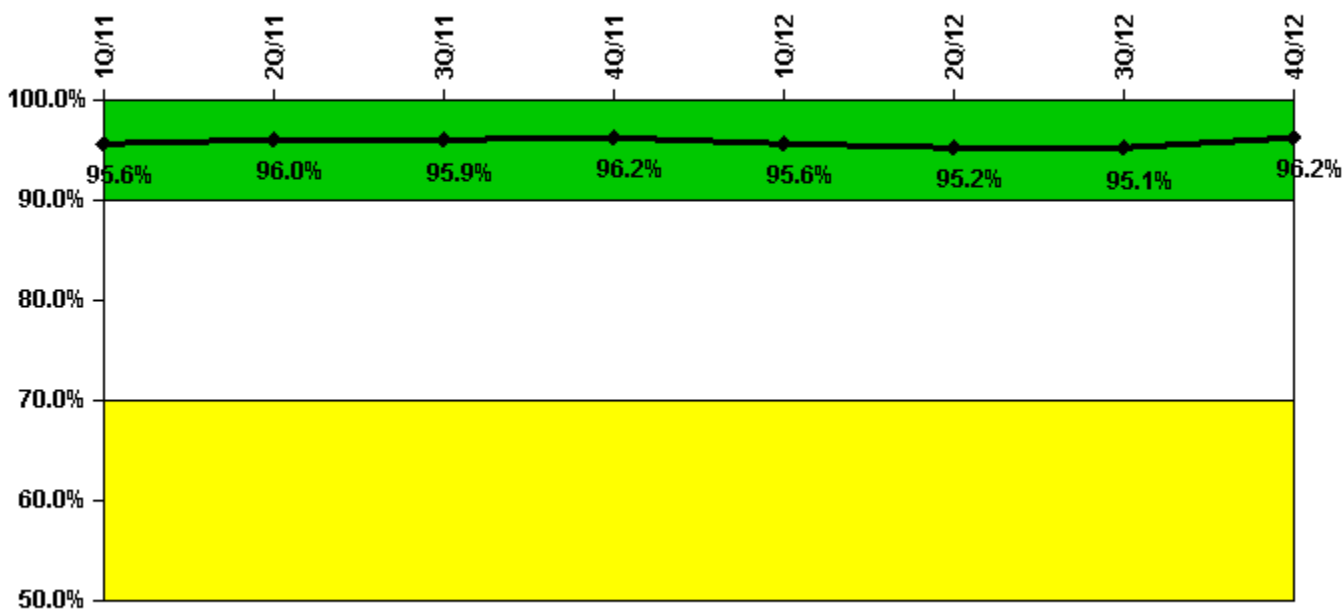
**Notes**

Reactor Coolant System Leakage	1/11	2/11	3/11	4/11	5/11	6/11	7/11	8/11	9/11	10/11	11/11	12/11
Maximum leakage	1.790	2.300	2.090	1.740	1.760	1.780	1.740	1.750	1.760	1.760	1.770	1.770
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>7.2</b>	<b>9.2</b>	<b>8.4</b>	<b>7.0</b>	<b>7.0</b>	<b>7.1</b>	<b>7.0</b>	<b>7.0</b>	<b>7.0</b>	<b>7.0</b>	<b>7.1</b>	<b>7.1</b>
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	1.770	1.790	1.780	N/A	N/A	2.680	1.860	1.920	1.880	1.478	1.710	1.700
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>7.1</b>	<b>7.2</b>	<b>7.1</b>	<b>N/A</b>	<b>N/A</b>	<b>10.7</b>	<b>7.4</b>	<b>7.7</b>	<b>7.5</b>	<b>5.9</b>	<b>6.8</b>	<b>6.8</b>

Licensee Comments:

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



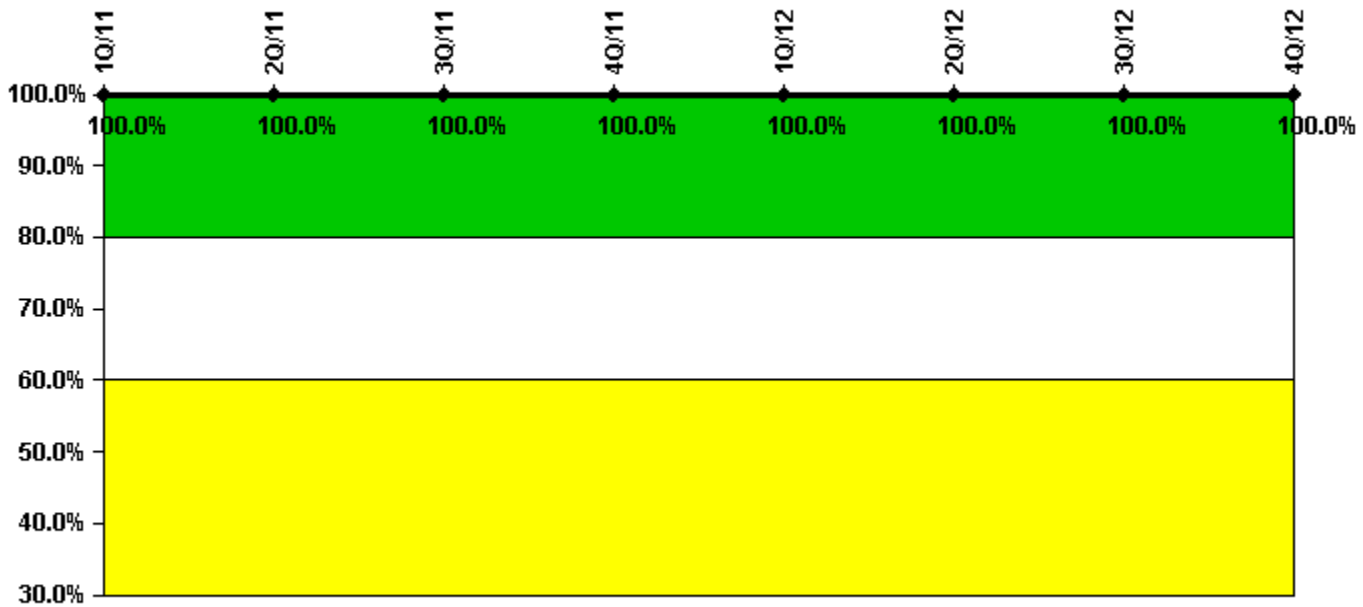
Thresholds: White < 90.0% Yellow < 70.0%

#### Notes

Drill/Exercise Performance	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12
Successful opportunities	0	21.0	21.0	10.0	23.0	12.0	32.0	7.0
Total opportunities	0	21.0	22.0	10.0	25.0	12.0	33.0	8.0
Indicator value	95.6%	96.0%	95.9%	96.2%	95.6%	95.2%	95.1%	96.2%

Licensee Comments: none

### ERO Drill Participation



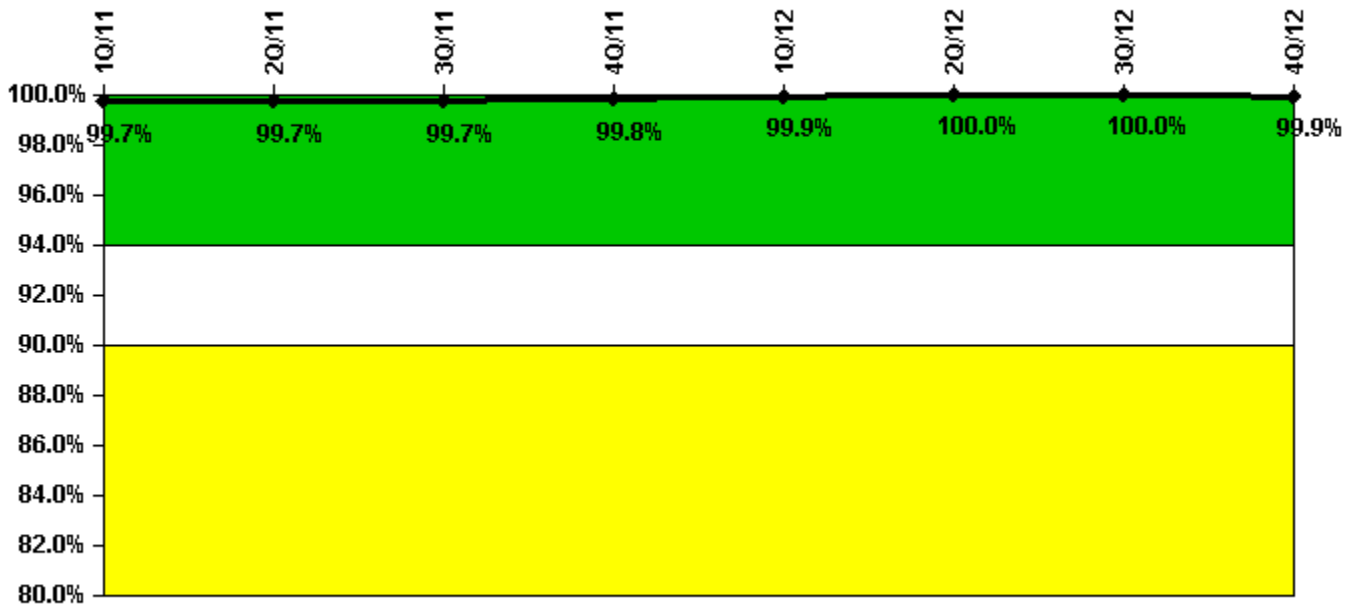
Thresholds: White < 80.0% Yellow < 60.0%

#### Notes

ERO Drill Participation	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12
Participating Key personnel	70.0	74.0	72.0	71.0	75.0	75.0	74.0	77.0
Total Key personnel	70.0	74.0	72.0	71.0	75.0	75.0	74.0	77.0
Indicator value	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Licensee Comments: none

### Alert & Notification System



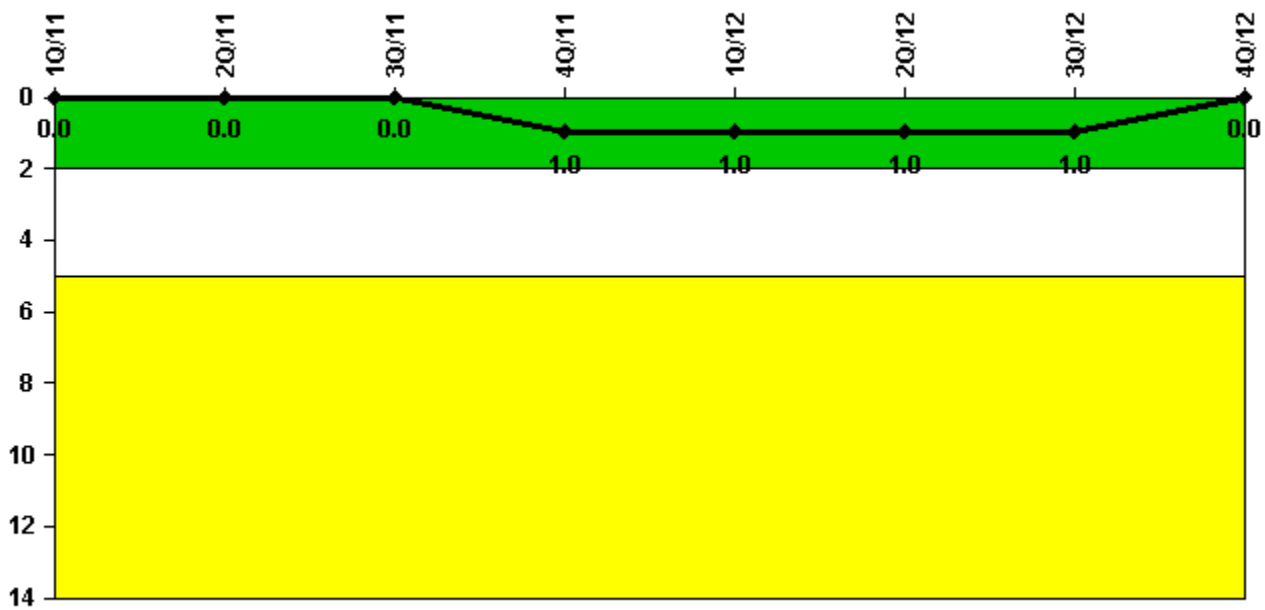
Thresholds: White < 94.0% Yellow < 90.0%

#### Notes

Alert & Notification System	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12
Successful siren-tests	531	606	607	608	608	532	607	531
Total sirens-tests	532	608	608	608	608	532	608	532
Indicator value	99.7%	99.7%	99.7%	99.8%	99.9%	100.0%	100.0%	99.9%

Licensee Comments: none

### Occupational Exposure Control Effectiveness



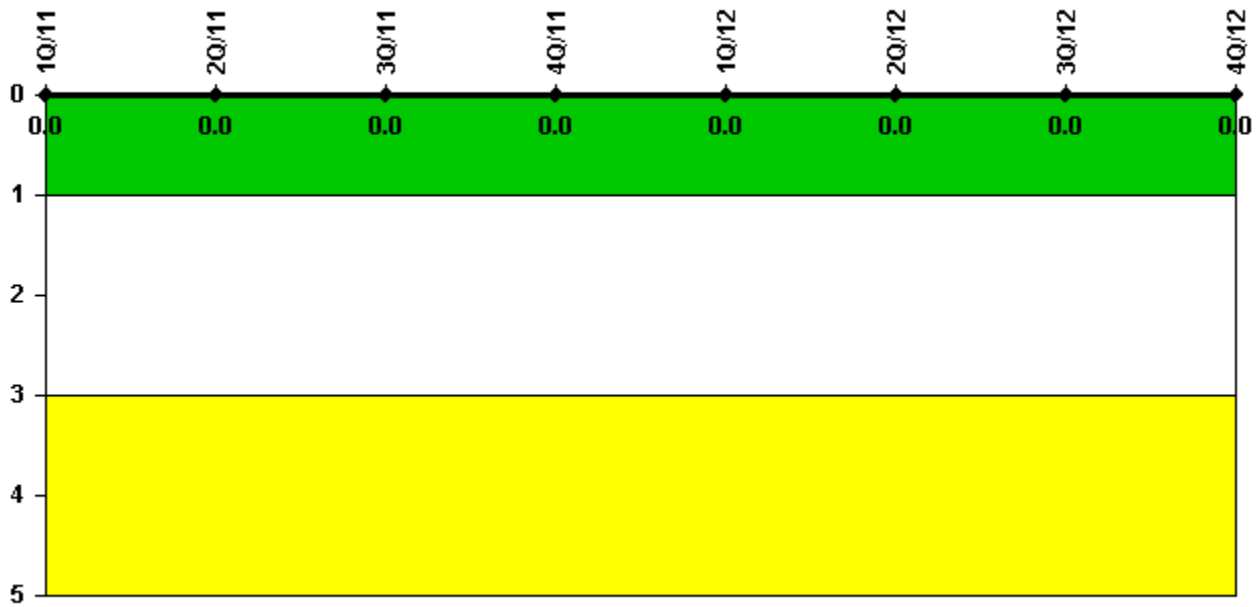
Thresholds: White > 2.0 Yellow > 5.0

#### Notes

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

Licensee Comments: none

### RETS/ODCM Radiological Effluent



Thresholds: White > 1.0 Yellow > 3.0

#### Notes

RETS/ODCM Radiological Effluent	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12
RETS/ODCM occurrences	0	0	0	0	0	0	0	0
<b>Indicator value</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

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.