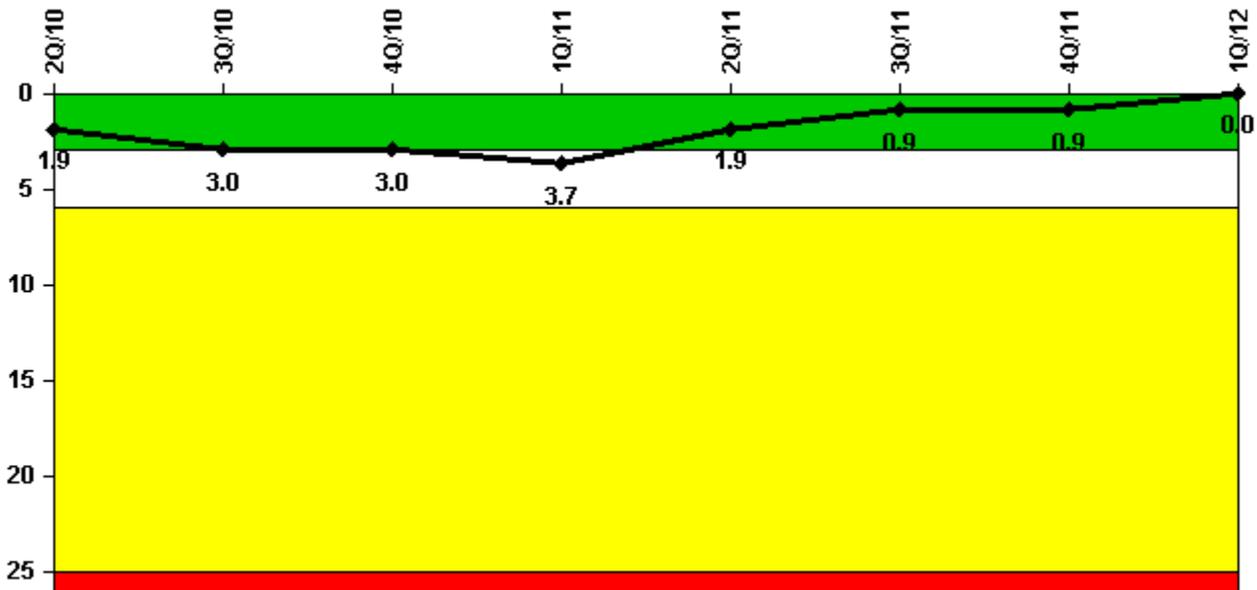


# Susquehanna 1

## 1Q/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

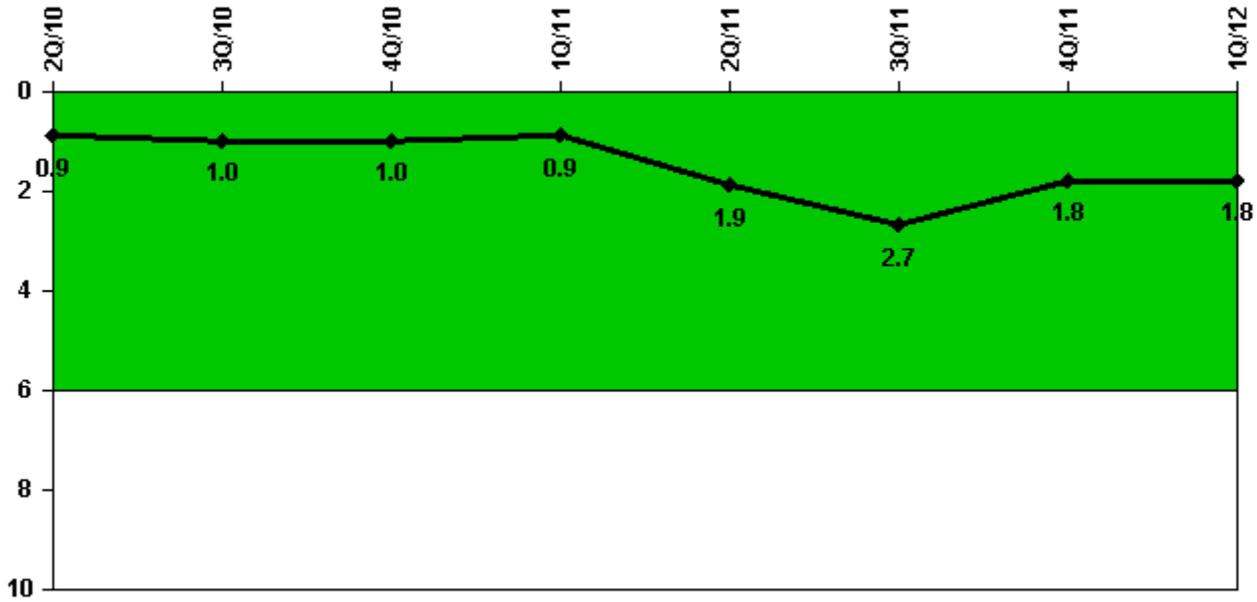
Unplanned Scrams per 7000 Critical Hrs	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12
Unplanned scrams	2.0	1.0	0	1.0	0	0	0	0
Critical hours	1667.0	1794.1	2209.0	1981.8	1291.5	2208.0	2209.0	2165.2
Indicator value	1.9	3.0	3.0	3.7	1.9	0.9	0.9	0

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



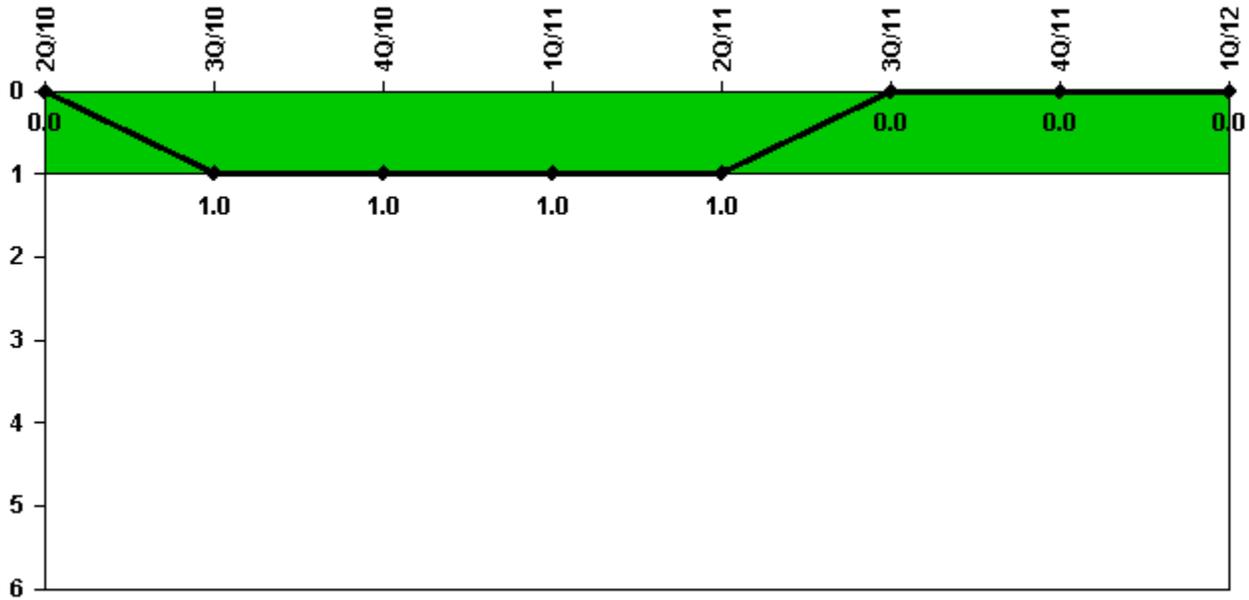
Thresholds: White > 6.0

### Notes

Unplanned Power Changes per 7000 Critical Hrs	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12
Unplanned power changes	0	0	1.0	0	1.0	1.0	0	0
Critical hours	1667.0	1794.1	2209.0	1981.8	1291.5	2208.0	2209.0	2165.2
Indicator value	0.9	1.0	1.0	0.9	1.9	2.7	1.8	1.8

Licensee Comments: none

## Unplanned Scrams with Complications



Thresholds: White > 1.0

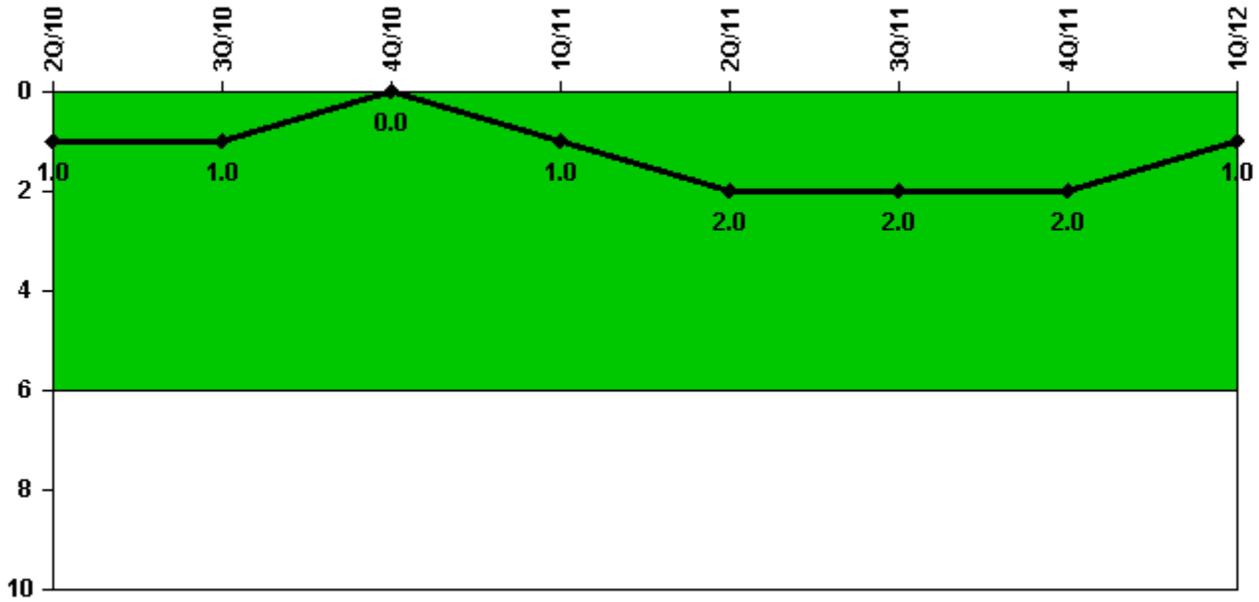
### Notes

Unplanned Scrams with Complications	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12
Scrams with complications	0	1.0	0	0	0	0	0	0
Indicator value	0.0	1.0	1.0	1.0	1.0	0.0	0.0	0.0

Licensee Comments:

4Q/10: The 3rd quarter 2010 data is revised from 0 to 1 Unplanned Scram with Complications based on the July 16, 2010 Unit 1 shutdown (LER 2010-003-00) which was previously reported as an Unplanned Scram per 7,000 Critical Hours. During the fourth quarter of 2010 it was determined that this scram should be reclassified as an Unplanned Scram with Complications, in accordance with NEI 99-02, Regulatory Assessment Performance Indicator Guideline. There is no safety significance associated with this change, and the color of both the Unit 1 Unplanned Scram per 7,000 Critical Hours and the Unit 1 Unplanned Scram with Complications performance indicators remains Green.

## Safety System Functional Failures (BWR)



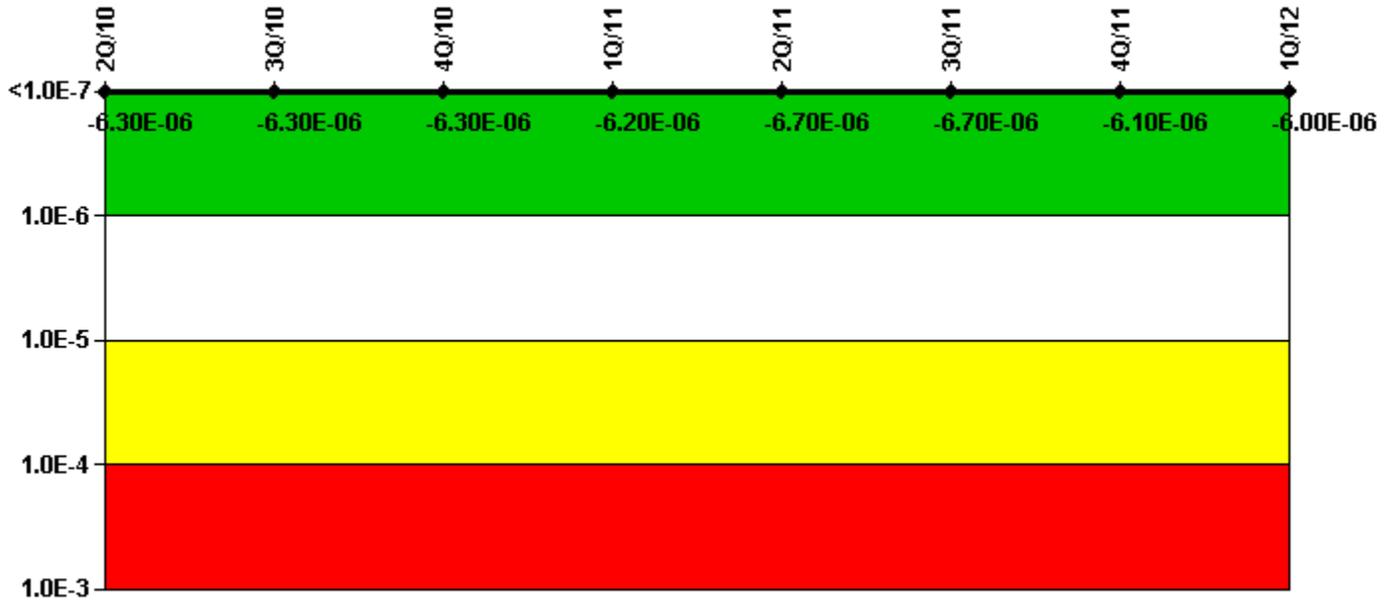
Thresholds: White > 6.0

### Notes

Safety System Functional Failures (BWR)	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12
Safety System Functional Failures	0	0	0	1	1	0	0	0
Indicator value	1	1	0	1	2	2	2	1

Licensee Comments: none

# 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	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12
UAI ( $\Delta$ CDF)	-2.88E-08	-2.82E-08	-2.88E-08	-1.85E-08	-2.11E-08	3.96E-10	1.92E-07	1.92E-07
URI ( $\Delta$ CDF)	-6.29E-06	-6.24E-06	-6.23E-06	-6.19E-06	-6.72E-06	-6.75E-06	-6.25E-06	-6.24E-06
PLE	NO							
Indicator value	-6.30E-06	-6.30E-06	-6.30E-06	-6.20E-06	-6.70E-06	-6.70E-06	-6.10E-06	-6.00E-06

Licensee Comments:

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.

4Q/10: Risk Cap Invoked. Changed PRA Parameter(s). The Emergency Diesel Generator data previously reported for the first, second, and third quarters of 2010 is revised based on changed PRA parameters and the resulting revision to the MSPI coefficients in the SSES MSPI Basis Document. There is no safety significance associated with this change, and the color of the current Emergency Diesel Generator Performance Indicator remains Green.

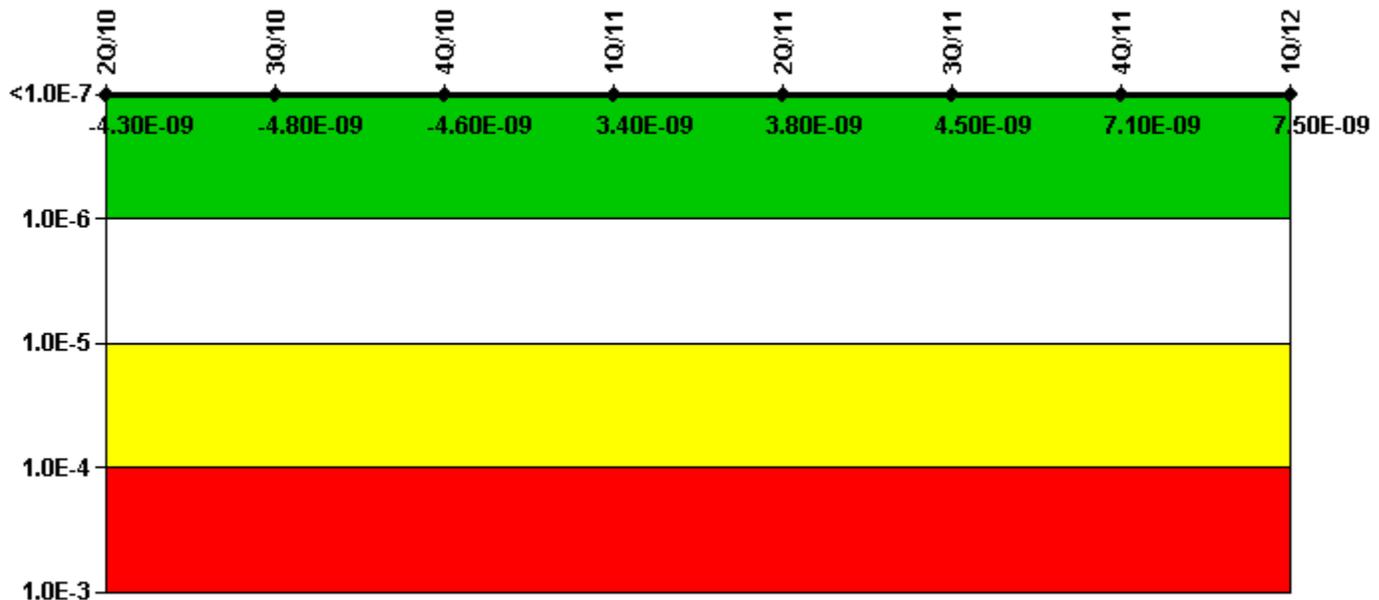
3Q/10: Risk Cap Invoked. Changed PRA Parameter(s).

3Q/10: Risk Cap Invoked.

2Q/10: Risk Cap Invoked. Changed PRA Parameter(s).

2Q/10: 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	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12
UAI ( $\Delta$ CDF)	1.96E-09	2.23E-09	2.00E-09	1.00E-08	1.04E-08	1.11E-08	1.40E-08	1.42E-08
URI ( $\Delta$ CDF)	-6.30E-09	-6.99E-09	-6.63E-09	-6.61E-09	-6.61E-09	-6.61E-09	-6.89E-09	-6.67E-09
PLE	NO							
Indicator value	-4.30E-09	-4.80E-09	-4.60E-09	3.40E-09	3.80E-09	4.50E-09	7.10E-09	7.50E-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

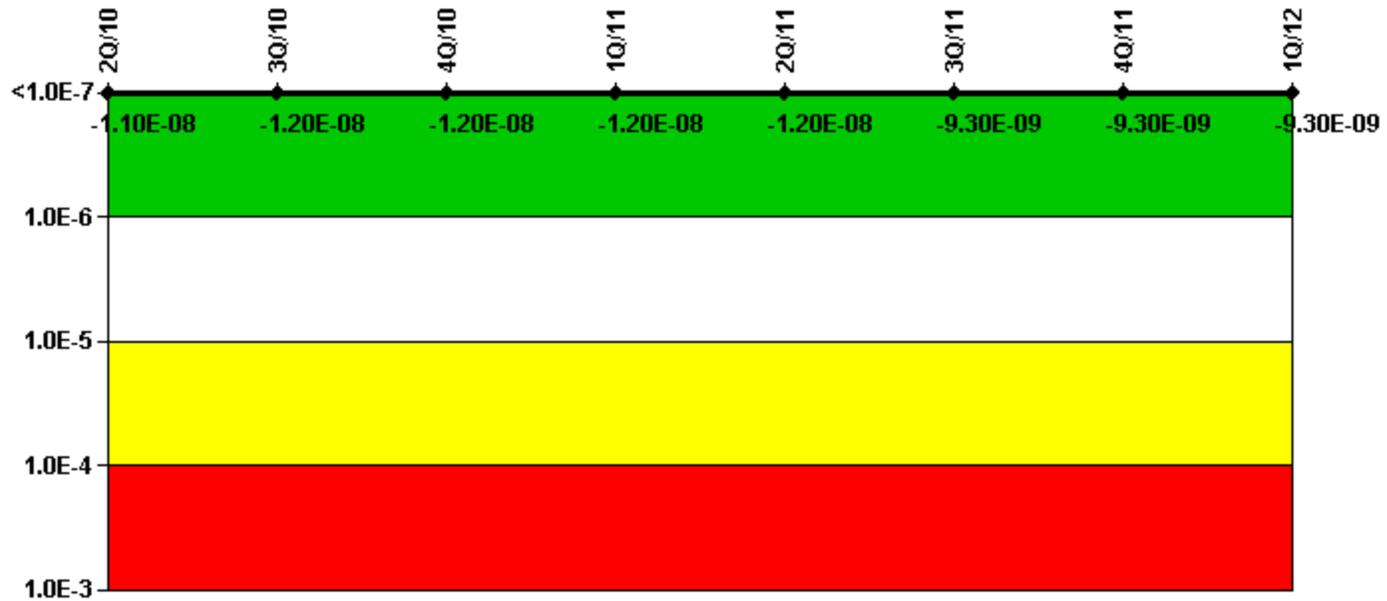
4Q/10: Changed PRA Parameter(s). The High Pressure Coolant Injection data previously reported for the first, second, and third quarters of 2010 is revised based on changed PRA parameters and the resulting revision to the MSPI coefficients in the SSES MSPI Basis Document. There is no safety significance associated with this change, and the color of the current High Pressure Coolant Injection Performance Indicator remains Green.

4Q/10: The High Pressure Coolant Injection data previously reported for the first, second, and third quarters of 2010 is revised based on changed PRA parameters and the resulting revision to the MSPI coefficients in the SSES MSPI Basis Document. There is no safety significance associated with this change, and the color of the current High Pressure Coolant Injection Performance Indicator remains Green.

3Q/10: Changed PRA Parameter(s).

2Q/10: Changed PRA Parameter(s).

### 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	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12
UAI ( $\Delta$ CDF)	-2.69E-09	-4.06E-09	-4.06E-09	-4.06E-09	-4.06E-09	-8.88E-10	-8.88E-10	-8.89E-10
URI ( $\Delta$ CDF)	-7.99E-09	-8.12E-09	-7.86E-09	-8.14E-09	-8.14E-09	-8.39E-09	-8.39E-09	-8.39E-09
PLE	NO							
Indicator value	-1.10E-08	-1.20E-08	-1.20E-08	-1.20E-08	-1.20E-08	-9.30E-09	-9.30E-09	-9.30E-09

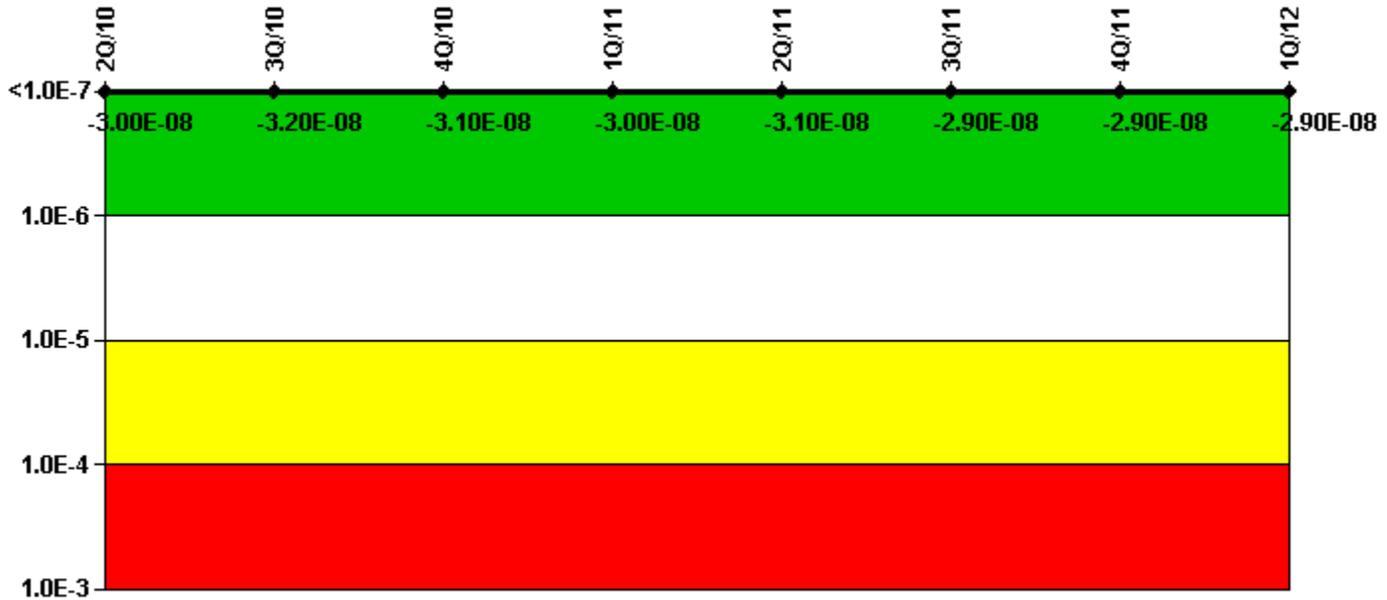
Licensee Comments:

4Q/10: Changed PRA Parameter(s). The Reactor Core Isolation Cooling data previously reported for the first, second, and third quarters of 2010 is revised based on changed PRA parameters and the resulting revision to the MSPI coefficients in the SSES MSPI Basis Document. There is no safety significance associated with this change, and the color of the current Reactor Core Isolation Cooling Performance Indicator remains Green.

3Q/10: Changed PRA Parameter(s).

2Q/10: Changed PRA Parameter(s).

# 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	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12
UAI (ΔCDF)	5.70E-10	-5.46E-10	-6.35E-10	-8.89E-10	-8.44E-10	1.85E-09	1.85E-09	1.85E-09
URI (ΔCDF)	-3.05E-08	-3.10E-08	-3.02E-08	-2.95E-08	-2.97E-08	-3.06E-08	-3.07E-08	-3.13E-08
PLE	NO							
Indicator value	-3.00E-08	-3.20E-08	-3.10E-08	-3.00E-08	-3.10E-08	-2.90E-08	-2.90E-08	-2.90E-08

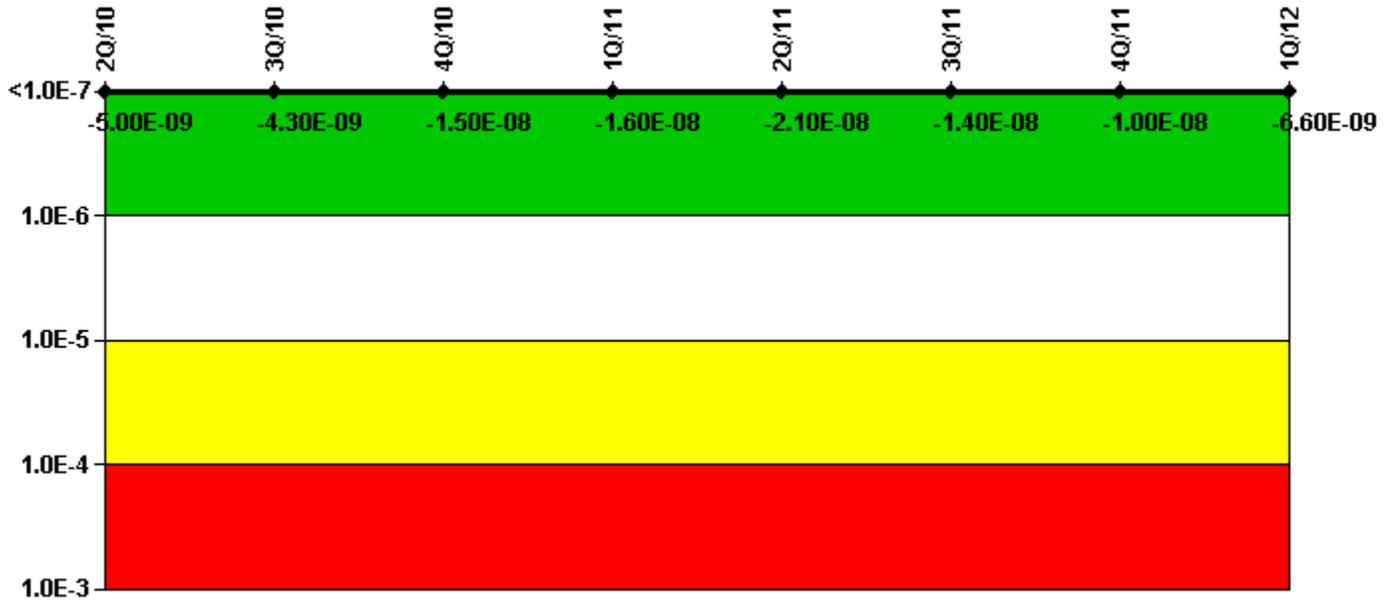
Licensee Comments:

4Q/10: Changed PRA Parameter(s). The Residual Heat Removal data previously reported for the first, second, and third quarters of 2010 is revised based on changed PRA parameters and the resulting revision to the MSPI coefficients in the SSES MSPI Basis Document. There is no safety significance associated with this change, and the color of the current Residual Heat Removal Performance Indicator remains Green.

3Q/10: Changed PRA Parameter(s).

2Q/10: Changed PRA Parameter(s).

# 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	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12
UAI (ΔCDF)	2.71E-08	2.77E-08	1.66E-08	1.60E-08	1.10E-08	1.85E-08	2.25E-08	2.64E-08
URI (ΔCDF)	-3.21E-08	-3.20E-08	-3.18E-08	-3.17E-08	-3.24E-08	-3.29E-08	-3.30E-08	-3.30E-08
PLE	NO							
Indicator value	-5.00E-09	-4.30E-09	-1.50E-08	-1.60E-08	-2.10E-08	-1.40E-08	-1.00E-08	-6.60E-09

## 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.

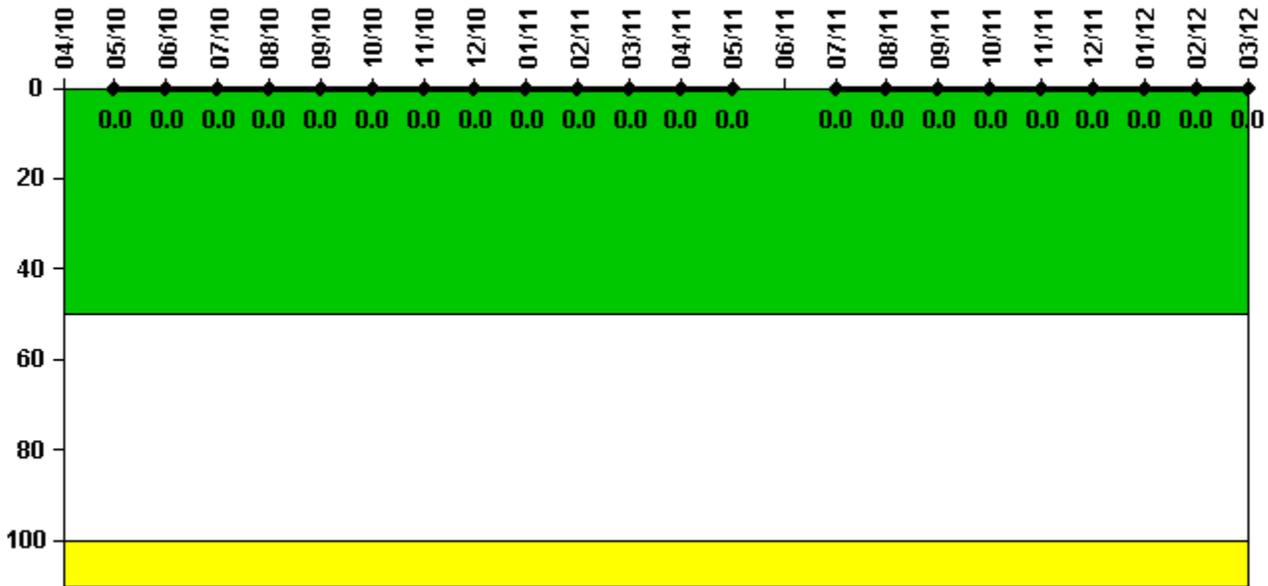
4Q/10: Changed PRA Parameter(s). The Residual Heat Removal Service Water / Emergency Service Water data previously reported for the first, second, and third quarters of 2010 is revised based on changed PRA parameters and the resulting revision to the MSPI coefficients in the SSES MSPI Basis Document. There is no safety significance associated with this change, and the color of the current Residual Heat Removal Service Water / Emergency Service Water Performance Indicator remains Green.

4Q/10: The Residual Heat Removal Service Water / Emergency Service Water data previously reported for the first, second, and third quarters of 2010 is revised based on changed PRA parameters and the resulting revision to the MSPI coefficients in the SSES MSPI Basis Document. There is no safety significance associated with this change, and the color of the current Residual Heat Removal Service Water / Emergency Service Water Performance Indicator remains Green.

3Q/10: Changed PRA Parameter(s).

2Q/10: Changed PRA Parameter(s).

## Reactor Coolant System Activity



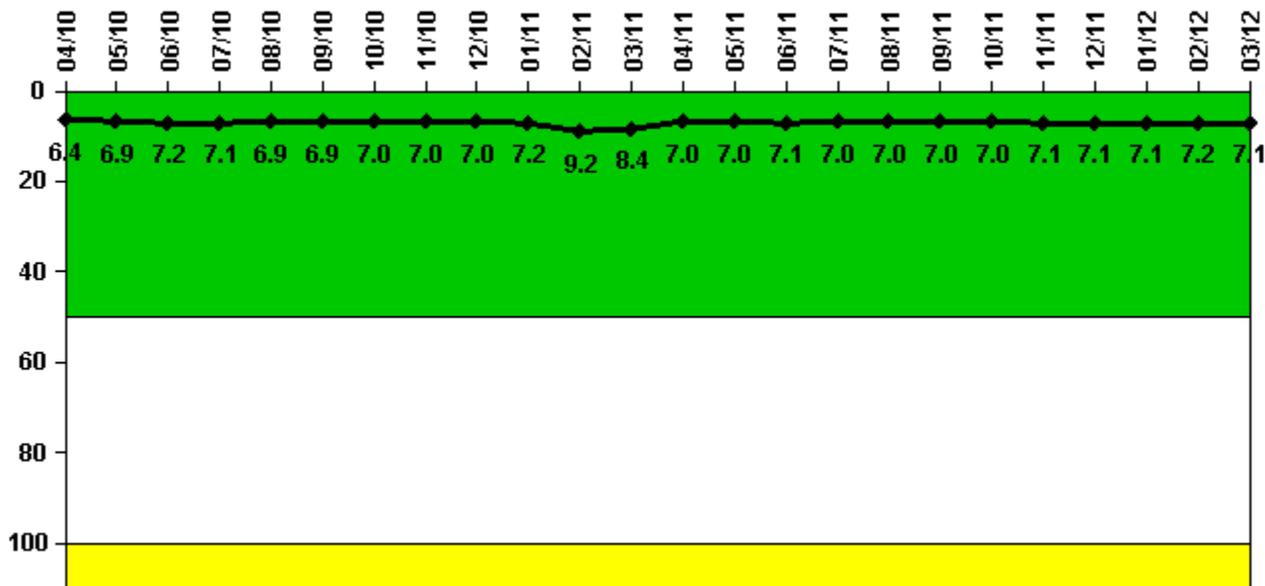
Thresholds: White > 50.0 Yellow > 100.0

### Notes

Reactor Coolant System Activity	4/10	5/10	6/10	7/10	8/10	9/10	10/10	11/10	12/10	1/11	2/11	3/11
Maximum activity	N/A	0.000004	0.000005	0.000005	0.000005	0.000005	0.000005	0.000006	0.000010	0.000007	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	N/A	0	0	0	0	0	0	0	0	0	0	0
Reactor Coolant System Activity	4/11	5/11	6/11	7/11	8/11	9/11	10/11	11/11	12/11	1/12	2/12	3/12
Maximum activity	0.000007	0.000008	N/A	0.000006	0.000007	0.000007	0.000007	0.000007	0.000007	0.000008	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
Indicator value	0	0	N/A	0	0	0	0	0	0	0	0	0

Licensee Comments: none

## Reactor Coolant System Leakage



Thresholds: White > 50.0 Yellow > 100.0

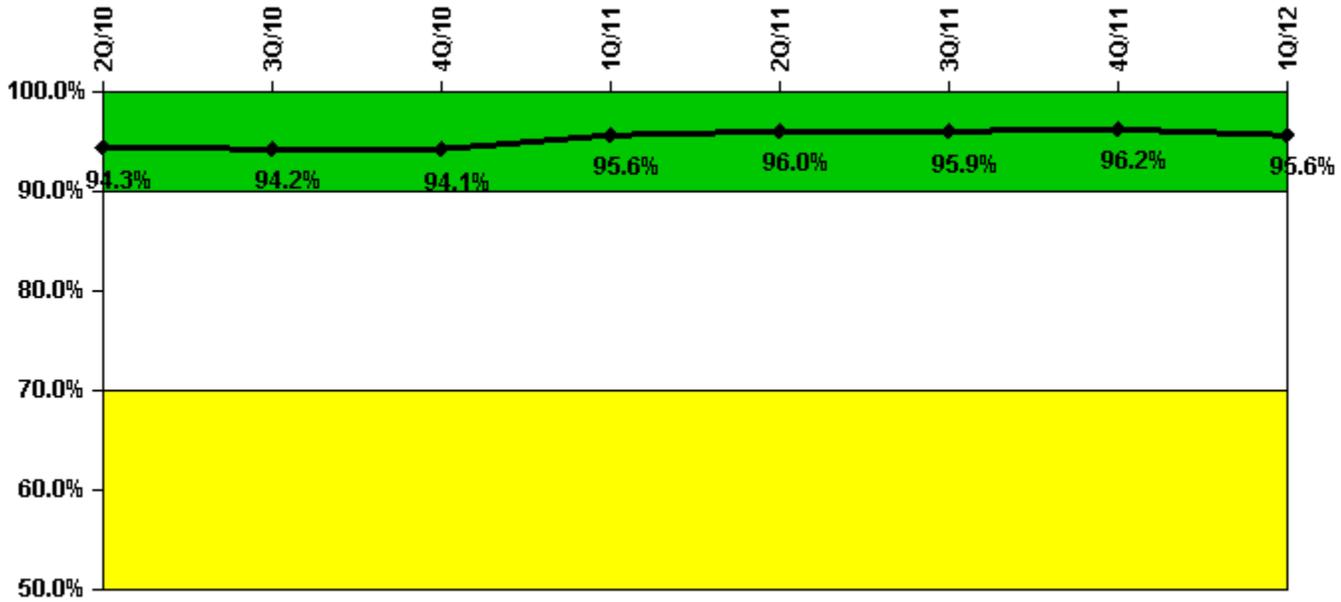
### Notes

<b>Reactor Coolant System Leakage</b>	<b>4/10</b>	<b>5/10</b>	<b>6/10</b>	<b>7/10</b>	<b>8/10</b>	<b>9/10</b>	<b>10/10</b>	<b>11/10</b>	<b>12/10</b>	<b>1/11</b>	<b>2/11</b>	<b>3/11</b>
Maximum leakage	1.590	1.730	1.800	1.770	1.730	1.720	1.740	1.740	1.740	1.790	2.300	2.090
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
Indicator value	6.4	6.9	7.2	7.1	6.9	6.9	7.0	7.0	7.0	7.2	9.2	8.4
<b>Reactor Coolant System Leakage</b>	<b>4/11</b>	<b>5/11</b>	<b>6/11</b>	<b>7/11</b>	<b>8/11</b>	<b>9/11</b>	<b>10/11</b>	<b>11/11</b>	<b>12/11</b>	<b>1/12</b>	<b>2/12</b>	<b>3/12</b>
Maximum leakage	1.740	1.760	1.780	1.740	1.750	1.760	1.760	1.770	1.770	1.770	1.790	1.780
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
Indicator value	7.0	7.0	7.1	7.0	7.0	7.0	7.0	7.1	7.1	7.1	7.2	7.1

### 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



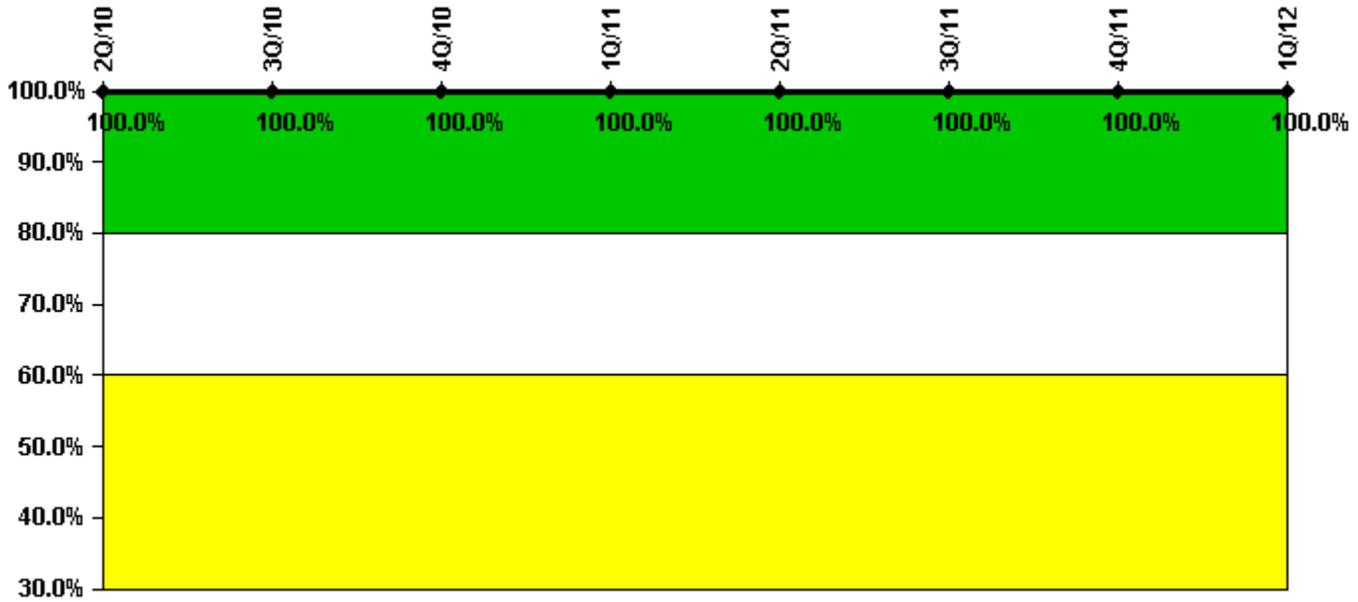
Thresholds: White < 90.0% Yellow < 70.0%

### Notes

Drill/Exercise Performance	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12
Successful opportunities	67.0	35.0	18.0	0	21.0	21.0	10.0	23.0
Total opportunities	69.0	36.0	21.0	0	21.0	22.0	10.0	25.0
Indicator value	94.3%	94.2%	94.1%	95.6%	96.0%	95.9%	96.2%	95.6%

Licensee Comments: none

# ERO Drill Participation



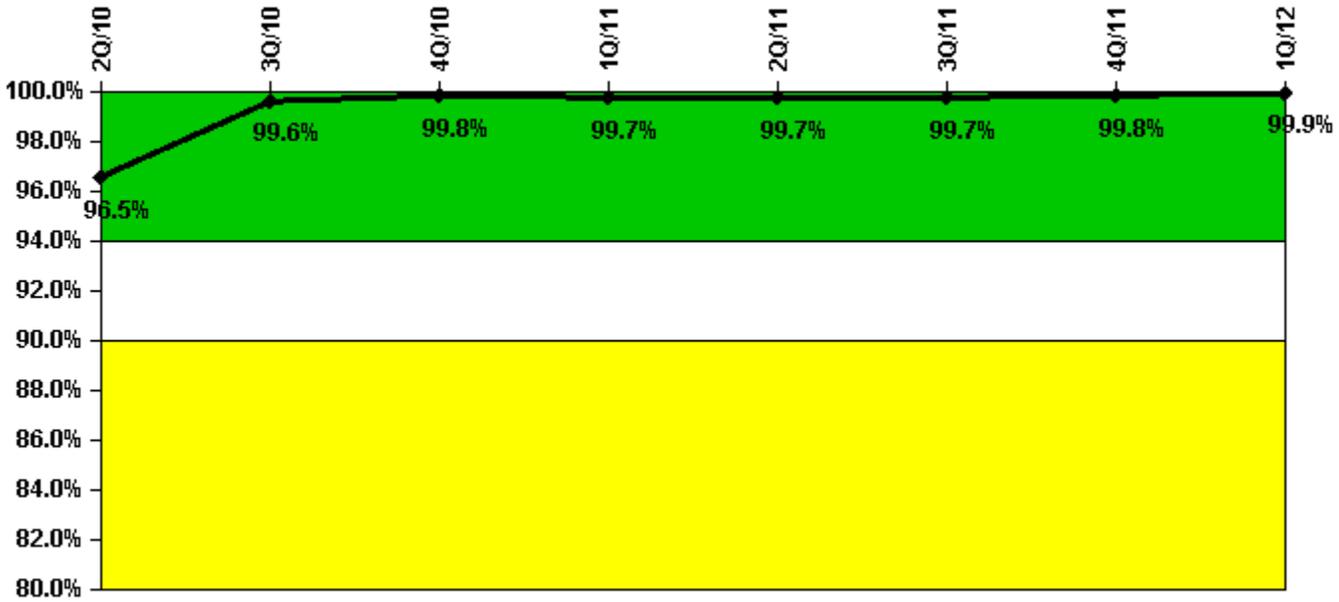
Thresholds: White < 80.0% Yellow < 60.0%

## Notes

ERO Drill Participation	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12
Participating Key personnel	69.0	68.0	68.0	70.0	74.0	72.0	71.0	75.0
Total Key personnel	69.0	68.0	68.0	70.0	74.0	72.0	71.0	75.0
Indicator value	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Licensee Comments: none

# Alert & Notification System



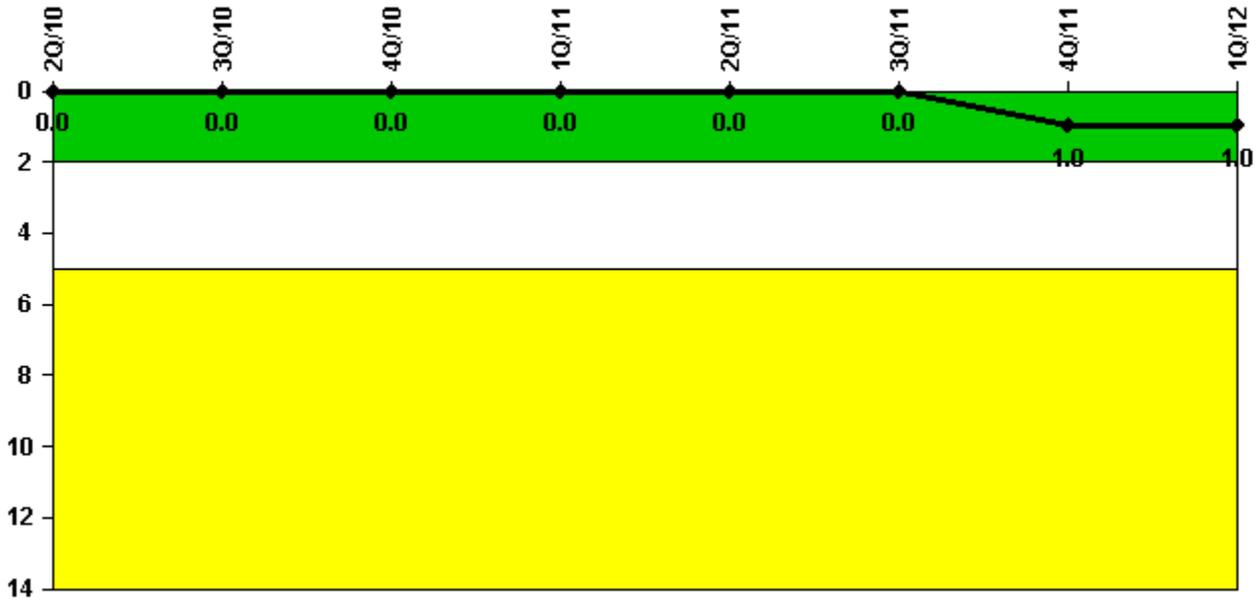
Thresholds: White < 94.0% Yellow < 90.0%

## Notes

Alert & Notification System	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12
Successful siren-tests	608	605	606	531	606	607	608	608
Total sirens-tests	608	608	608	532	608	608	608	608
Indicator value	96.5%	99.6%	99.8%	99.7%	99.7%	99.7%	99.8%	99.9%

Licensee Comments: none

# Occupational Exposure Control Effectiveness



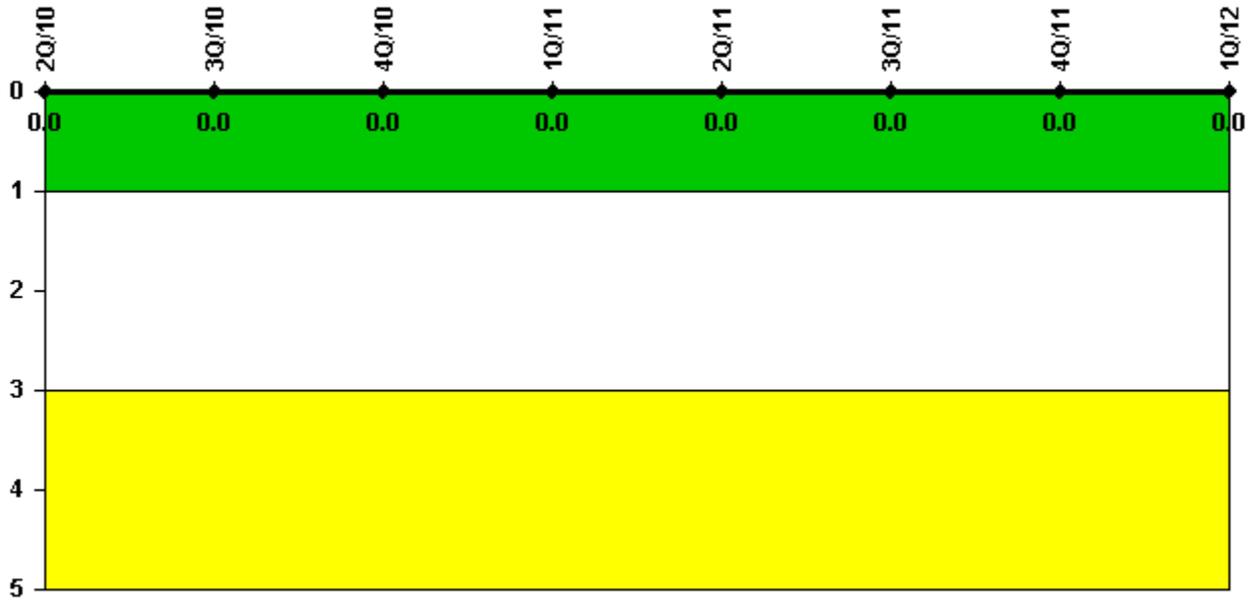
Thresholds: White > 2.0 Yellow > 5.0

## Notes

Occupational Exposure Control Effectiveness	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12
High radiation area occurrences	0	0	0	0	0	0	1	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>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>

Licensee Comments: none

## RETS/ODCM Radiological Effluent



Thresholds: White > 1.0 Yellow > 3.0

### Notes

RETS/ODCM Radiological Effluent	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12
RETS/ODCM occurrences	0	0	0	0	0	0	0	0
Indicator value	0	0	0	0	0	0	0	0

Licensee Comments: none

[Security](#) information not publicly available.