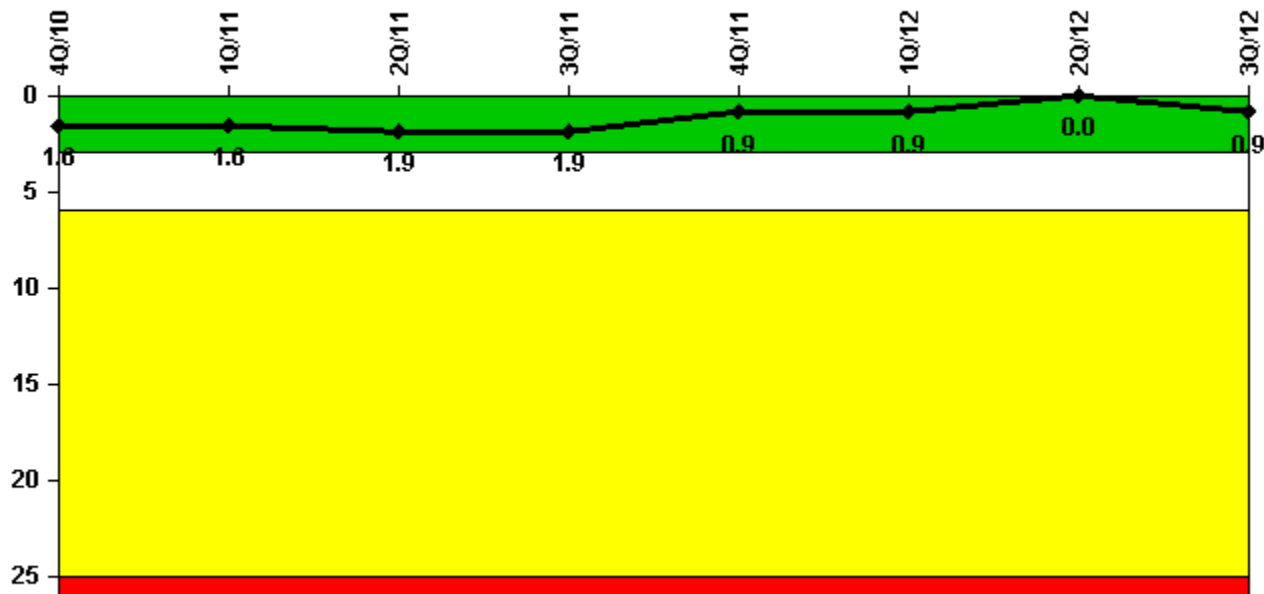


# Watts Bar 1

## 3Q/2012 Performance Indicators

Licensee's General Comments: none

### Unplanned Scrams per 7000 Critical Hrs



Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

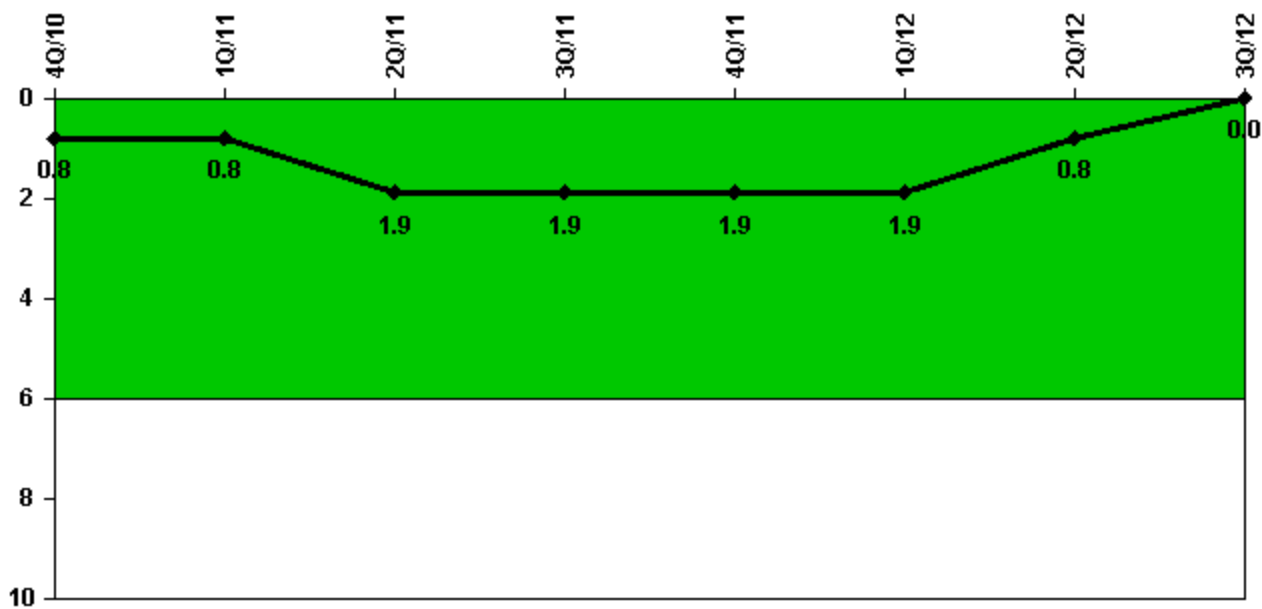
### Notes

Unplanned Scrams per 7000 Critical Hrs	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12
Unplanned scrams	1.0	0	1.0	0	0	0	0	1.0
Critical hours	2126.2	2159.0	1054.1	2208.0	2058.5	2183.0	2184.0	1667.4
<b>Indicator value</b>	<b>1.6</b>	<b>1.6</b>	<b>1.9</b>	<b>1.9</b>	<b>0.9</b>	<b>0.9</b>	<b>0</b>	<b>0.9</b>

Licensee Comments:

2Q/11: Automatic reactor trip May 29, 2011 due to turbine trip from Automatic Voltage Regulator.

### Unplanned Power Changes per 7000 Critical Hrs



Thresholds: White > 6.0

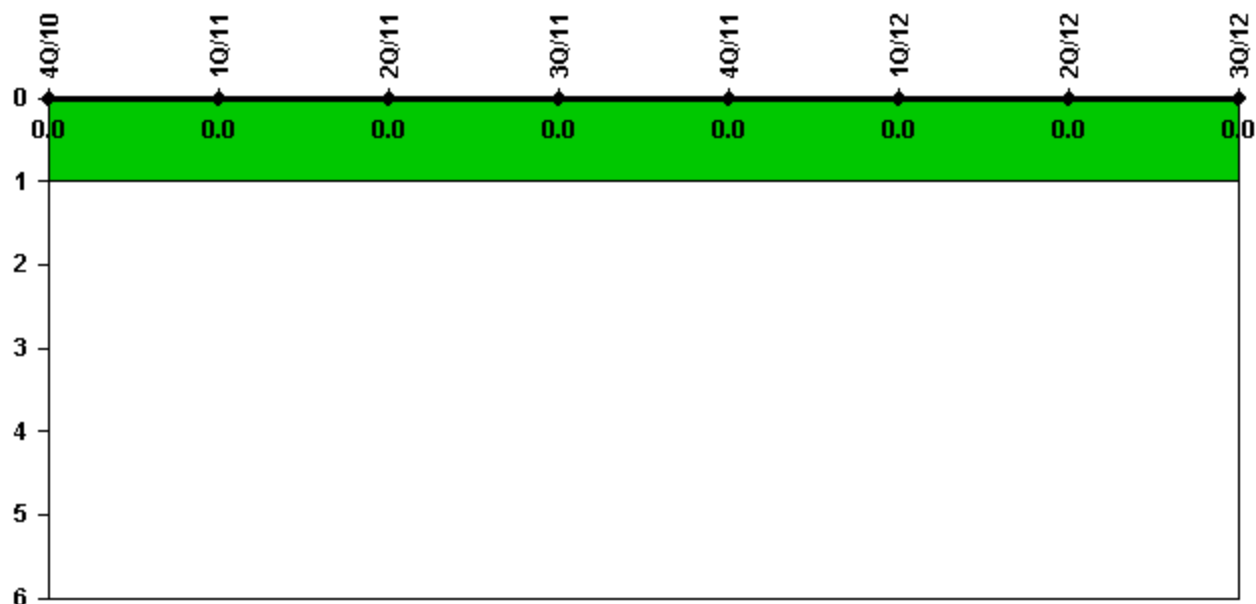
#### Notes

Unplanned Power Changes per 7000 Critical Hrs	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12
Unplanned power changes	0	0	1.0	1.0	0	0	0	0
Critical hours	2126.2	2159.0	1054.1	2208.0	2058.5	2183.0	2184.0	1667.4
<b>Indicator value</b>	<b>0.8</b>	<b>0.8</b>	<b>1.9</b>	<b>1.9</b>	<b>1.9</b>	<b>1.9</b>	<b>0.8</b>	<b>0</b>

Licensee Comments:

2Q/11: Manual turbine trip May 23, 2011 to repair EHC weld failure. Reactor remained critical.

### Unplanned Scrams with Complications



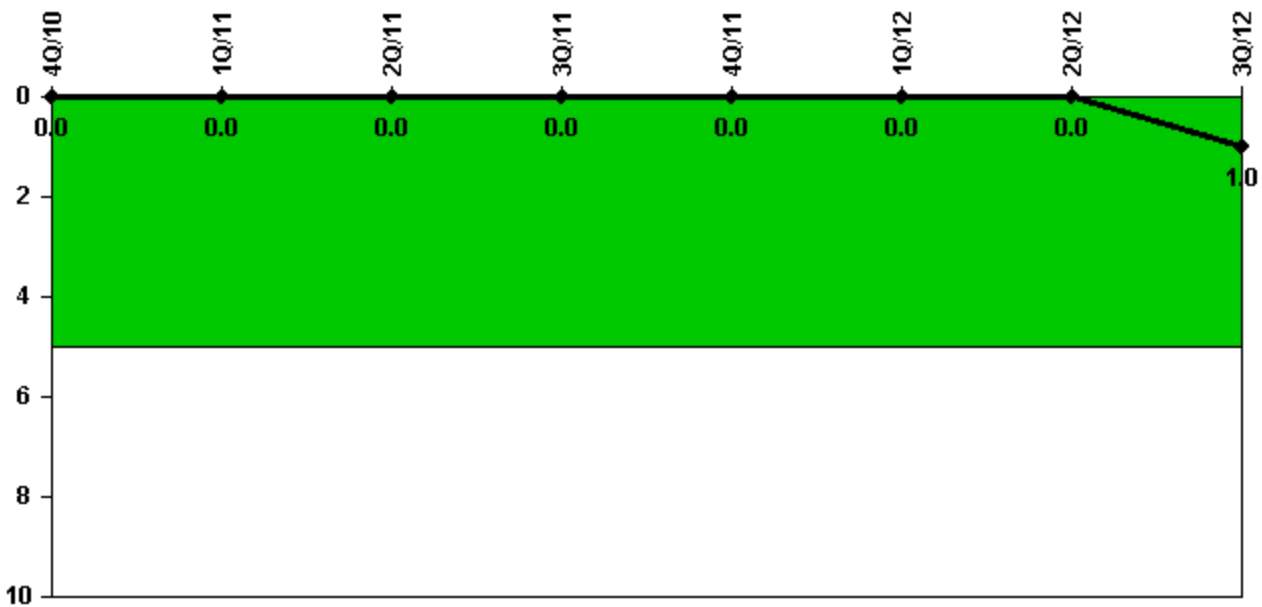
Thresholds: White > 1.0

#### Notes

Unplanned Scrams with Complications	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12
Scrams with complications	0	0	0	0	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>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>

Licensee Comments: none

### Safety System Functional Failures (PWR)



Thresholds: White > 5.0

#### Notes

Safety System Functional Failures (PWR)	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12
Safety System Functional Failures	0	0	0	0	0	0	0	1
<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>1</b>

Licensee Comments:

3Q/12: LER 2012-002 (B) Remove residual heat If the probable maximum flood level had occurred while raw water was required for shutdown cooling then WBNs ability to remove residual heat would have been lost; therefore, this is reported as a safety system functional failure.

### 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/10	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12
UAI ( $\Delta$ CDF)	3.13E-08	4.69E-07	5.10E-07	8.31E-07	9.20E-07	9.10E-07	7.44E-07	7.16E-07
URI ( $\Delta$ CDF)	-9.54E-08	-2.58E-06	-2.58E-06	-2.58E-06	-2.58E-06	-3.06E-06	-3.03E-06	-2.94E-06
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-6.40E-08	-2.10E-06	-2.10E-06	-1.70E-06	-1.70E-06	-2.10E-06	-2.30E-06	-2.20E-06

Licensee Comments:

4Q/11: Risk Cap Invoked.

4Q/11: Risk Cap Invoked.

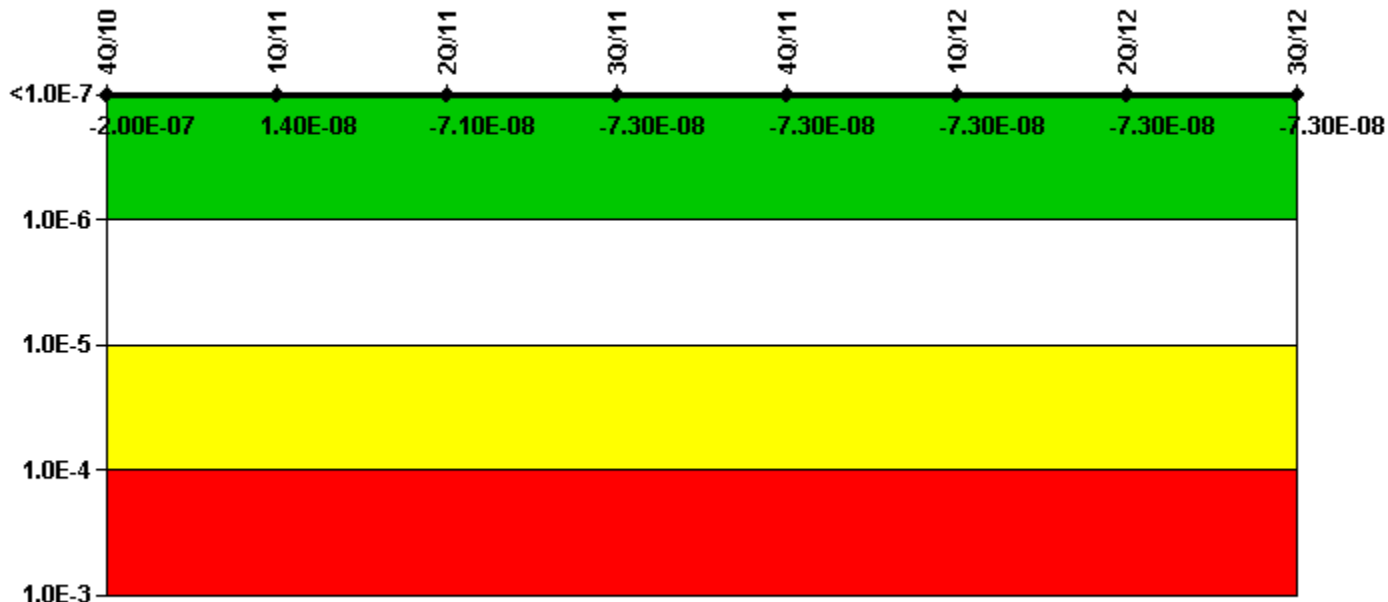
3Q/11: Risk Cap Invoked.

3Q/11: Risk Cap Invoked.

2Q/11: Risk Cap Invoked.

1Q/11: Risk Cap Invoked. During the 4Q2010 Watts Bar issued a CAFTA PRA model. The revision changed the PRA values for the MSPI Core Damage Frequency and the unavailability and unreliability values. This change is effective 1Q2011. The details are available in the Watts Bar Basis Document.

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



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

#### Notes

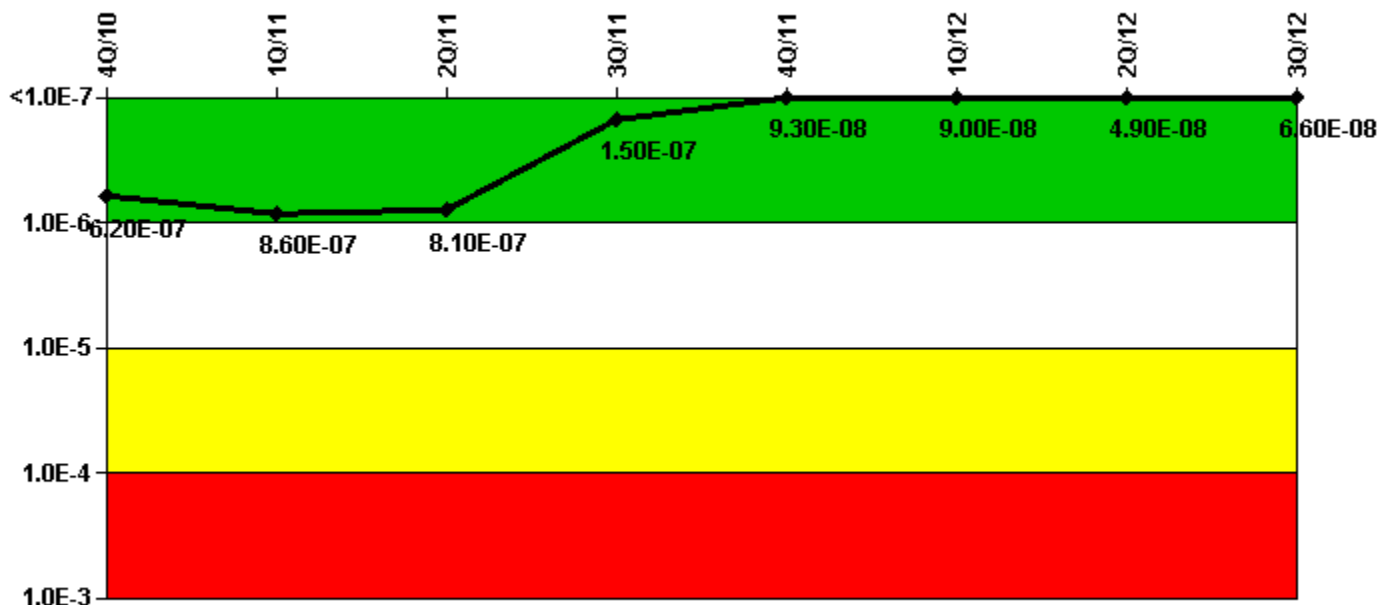
Mitigating Systems Performance Index, High Pressure Injection System	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12
UAI ( $\Delta$ CDF)	$-1.54E-08$	$-2.90E-08$	$-5.79E-08$	$-5.94E-08$	$-5.92E-08$	$-5.94E-08$	$-5.87E-08$	$-5.85E-08$
URI ( $\Delta$ CDF)	$-1.89E-07$	$4.34E-08$	$-1.36E-08$	$-1.37E-08$	$-1.39E-08$	$-1.40E-08$	$-1.42E-08$	$-1.43E-08$
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	$-2.00E-07$	$1.40E-08$	$-7.10E-08$	$-7.30E-08$	$-7.30E-08$	$-7.30E-08$	$-7.30E-08$	$-7.30E-08$

#### Licensee Comments:

1Q/11: During Fourth quarter of 2010 Watts Bar issued a CAFTA PRA model. The revision changed the PRA values for the MSPI Core Damage Frequency, and the unavailability and unreliability values. This change is effective first quarter 2011. The details are available in Watts Bar Basis Document.

4Q/10: Changed PRA Parameter(s). During PRA update for 1Q2011 data that was initially entered caused change in this quarter which was not intended. The data was corrected (returned to previous) and record was reapproved. No change in MSPI resulted for this quarter.

### Mitigating Systems Performance Index, Heat Removal System



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

#### Notes

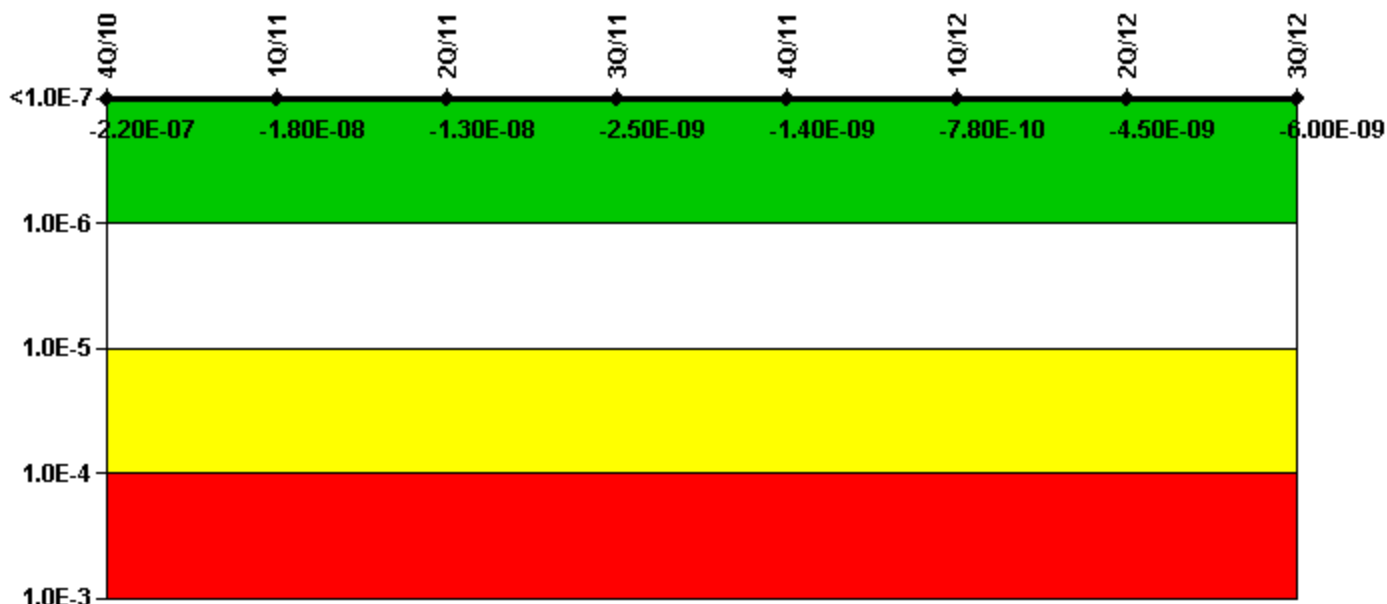
Mitigating Systems Performance Index, Heat Removal System	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12
UAI (ΔCDF)	3.71E-07	7.39E-07	6.84E-07	5.29E-07	4.71E-07	4.68E-07	4.27E-07	4.48E-07
URI (ΔCDF)	2.49E-07	1.22E-07	1.22E-07	-3.78E-07	-3.78E-07	-3.78E-07	-3.78E-07	-3.82E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	6.20E-07	8.60E-07	8.10E-07	1.50E-07	9.30E-08	9.00E-08	4.90E-08	6.60E-08

Licensee Comments:

2Q/11: Risk Cap Invoked.

1Q/11: Risk Cap Invoked. PRA recalculated their models and made AFW much more risk significant. Hours lost after remodeling on MDAFW Trains A and C and TDAFW Train C caused the drop close to White.

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



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

#### Notes

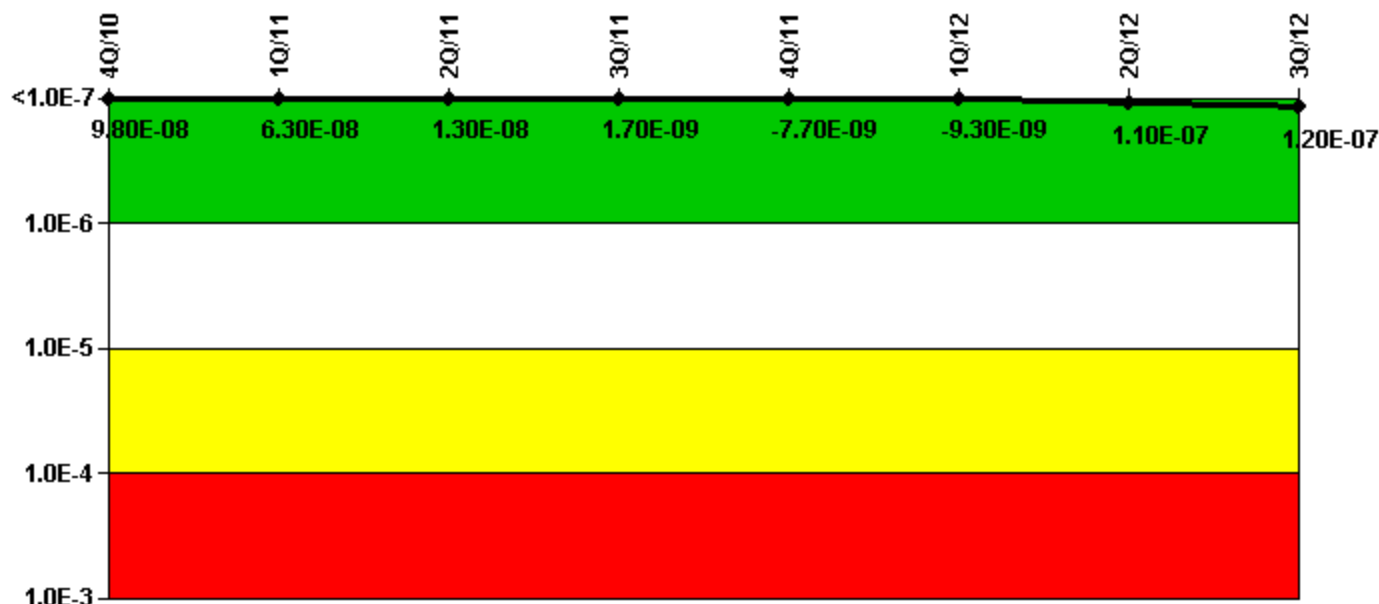
Mitigating Systems Performance Index, Residual Heat Removal System	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12
UAI ( $\Delta$ CDF)	3.71E-08	2.27E-08	2.84E-08	3.91E-08	4.06E-08	4.17E-08	3.83E-08	3.72E-08
URI ( $\Delta$ CDF)	-2.54E-07	-4.08E-08	-4.12E-08	-4.16E-08	-4.20E-08	-4.24E-08	-4.28E-08	-4.32E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-2.20E-07	-1.80E-08	-1.30E-08	-2.50E-09	-1.40E-09	-7.80E-10	-4.50E-09	-6.00E-09

Licensee Comments:

1Q/11: During Fourth quarter of 2010 Watts Bar issued a CAFTA PRA model. The revision changed the PRA values for the MSPI Core Damage Frequency, and the unavailability and unreliability values. This change is effective first quarter 2011. The details are available in Watts Bar Basis Document.



### Mitigating Systems Performance Index, Cooling Water Systems



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

#### Notes

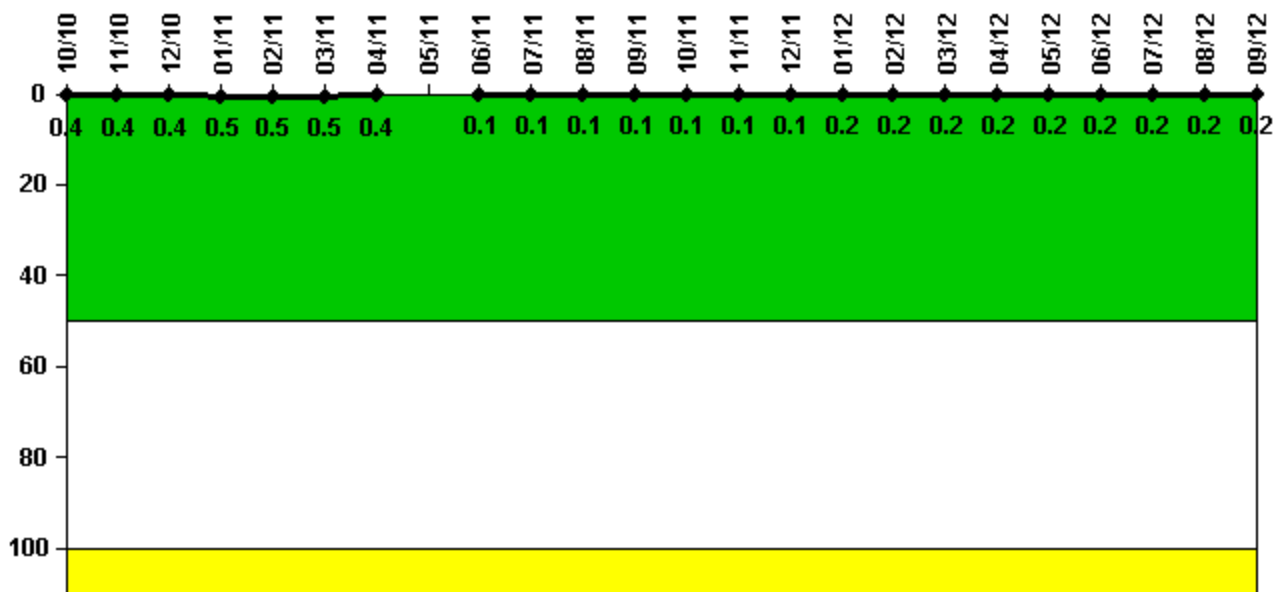
Mitigating Systems Performance Index, Cooling Water Systems	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12
UAI ( $\Delta$ CDF)	7.28E-08	4.97E-08	5.47E-08	5.02E-08	4.08E-08	3.92E-08	1.63E-07	1.65E-07
URI ( $\Delta$ CDF)	2.49E-08	1.29E-08	-4.16E-08	-4.85E-08	-4.85E-08	-4.85E-08	-4.85E-08	-4.85E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	9.80E-08	6.30E-08	1.30E-08	1.70E-09	-7.70E-09	-9.30E-09	1.10E-07	1.20E-07

Licensee Comments:

3Q/12: Change July 2011 MSPI value for G-B ERCW pump from planned to unplanned hours of 52.33.

1Q/11: During Fourth quarter of 2010 Watts Bar issued a CAFTA PRA model. The revision changed the PRA values for the MSPI Core Damage Frequency, and the unavailability and unreliability values. This change is effective first quarter 2011. The details are available in Watts Bar Basis Document.

### Reactor Coolant System Activity



Thresholds: White > 50.0 Yellow > 100.0

#### Notes

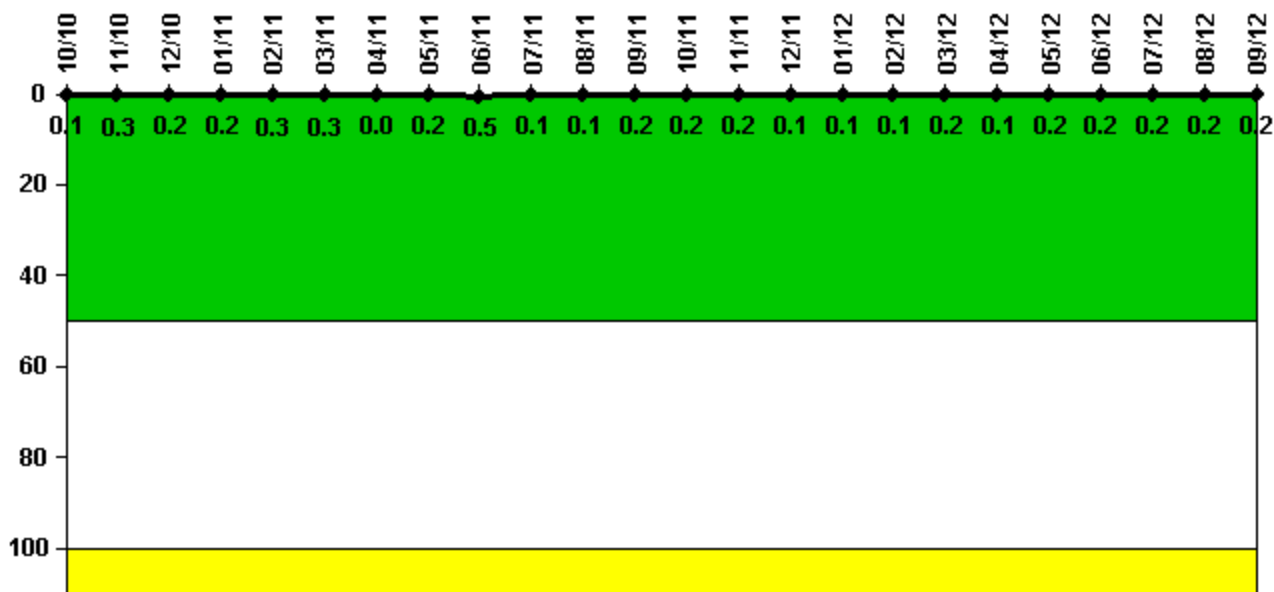
Reactor Coolant System Activity	10/10	11/10	12/10	1/11	2/11	3/11	4/11	5/11	6/11	7/11	8/11	9/11
Maximum activity	0.001161	0.001191	0.001186	0.001240	0.001306	0.001271	0.001073	N/A	0.000326	0.000338	0.000329	0.000336
Technical specification limit	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Indicator value	0.4	0.4	0.4	0.5	0.5	0.5	0.4	N/A	0.1	0.1	0.1	0.1

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	0.000358	0.000360	0.000388	0.000401	0.000405	0.000417	0.000434	0.000442	0.000450	0.000466	0.000480	0.000491
Technical specification limit	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Indicator value	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2

Licensee Comments: none

### Reactor Coolant System Leakage



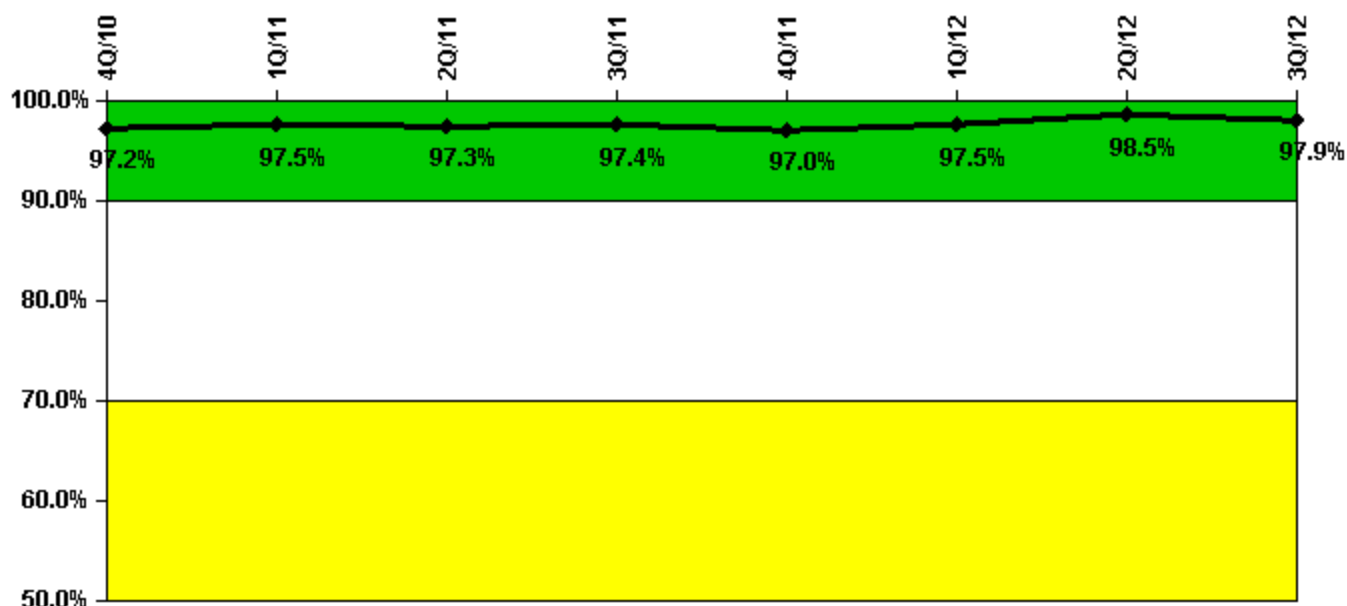
Thresholds: White > 50.0 Yellow > 100.0

#### Notes

Reactor Coolant System Leakage	10/10	11/10	12/10	1/11	2/11	3/11	4/11	5/11	6/11	7/11	8/11	9/11
Maximum leakage	0.010	0.030	0.020	0.020	0.030	0.030	0	0.020	0.050	0.010	0.010	0.020
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
<b>Indicator value</b>	<b>0.1</b>	<b>0.3</b>	<b>0.2</b>	<b>0.2</b>	<b>0.3</b>	<b>0.3</b>	<b>0</b>	<b>0.2</b>	<b>0.5</b>	<b>0.1</b>	<b>0.1</b>	<b>0.2</b>
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	0.020	0.020	0.010	0.010	0.010	0.020	0.010	0.020	0.020	0.020	0.020	0.020
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
<b>Indicator value</b>	<b>0.2</b>	<b>0.2</b>	<b>0.1</b>	<b>0.1</b>	<b>0.1</b>	<b>0.2</b>	<b>0.1</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>

Licensee Comments: none

### Drill/Exercise Performance



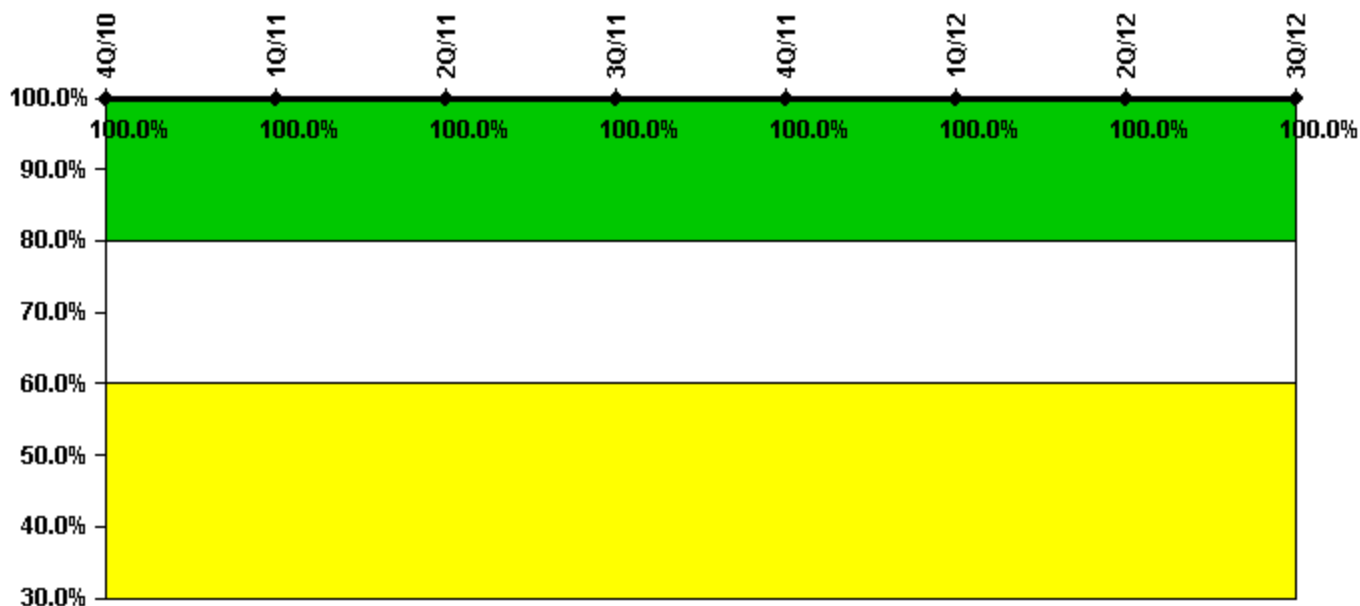
Thresholds: White < 90.0% Yellow < 70.0%

#### Notes

Drill/Exercise Performance	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12
Successful opportunities	64.0	32.0	49.0	60.0	64.0	35.0	25.0	1.0
Total opportunities	65.0	32.0	50.0	60.0	67.0	35.0	26.0	2.0
Indicator value	97.2%	97.5%	97.3%	97.4%	97.0%	97.5%	98.5%	97.9%

Licensee Comments: none

### ERO Drill Participation



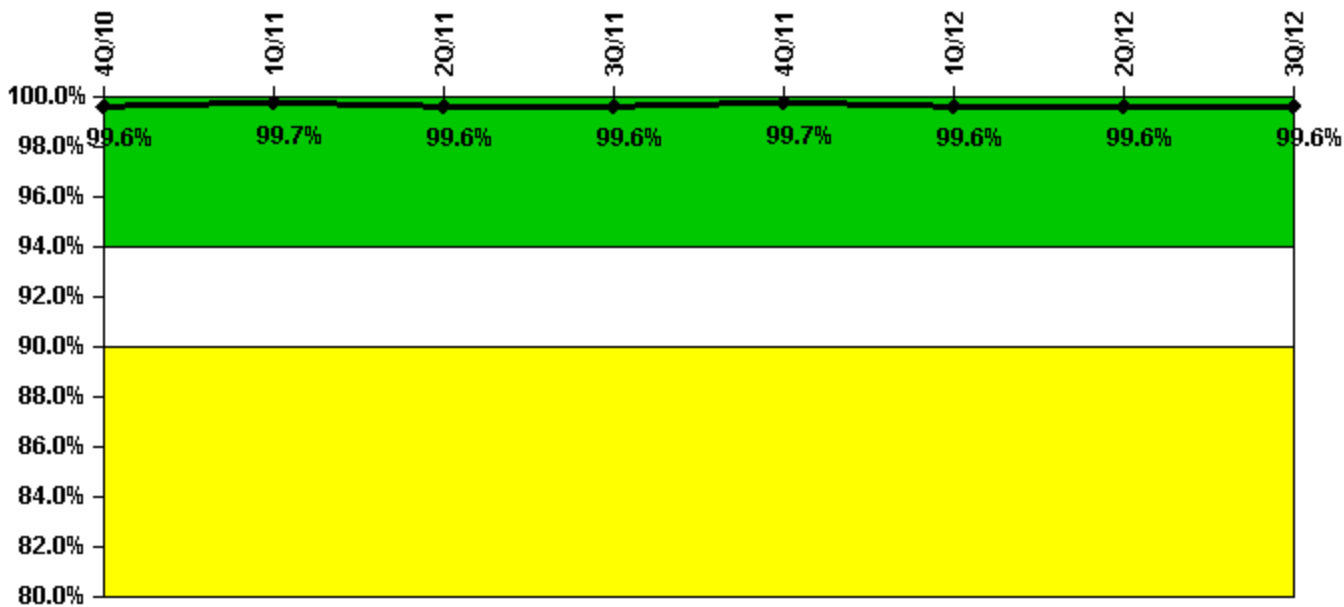
Thresholds: White < 80.0% Yellow < 60.0%

#### Notes

ERO Drill Participation	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12
Participating Key personnel	78.0	78.0	74.0	74.0	70.0	69.0	71.0	69.0
Total Key personnel	78.0	78.0	74.0	74.0	70.0	69.0	71.0	69.0
Indicator value	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Licensee Comments: none

### Alert & Notification System



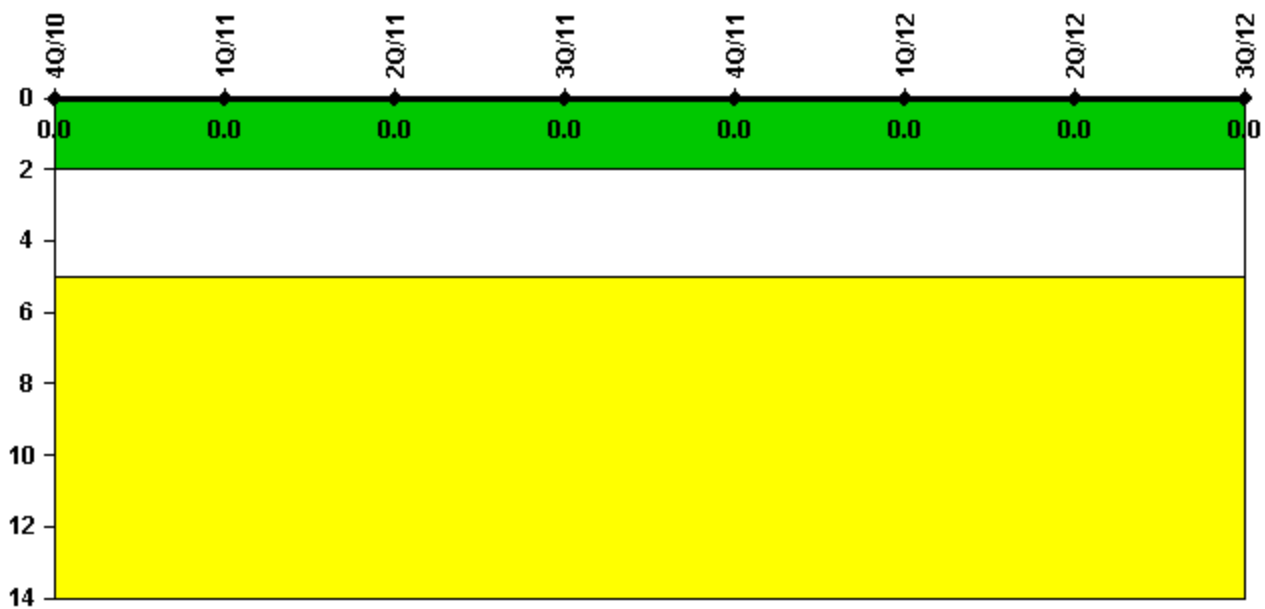
Thresholds: White < 94.0% Yellow < 90.0%

#### Notes

Alert & Notification System	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12
Successful siren-tests	887	692	887	788	790	788	787	789
Total sirens-tests	891	693	891	792	792	792	790	792
Indicator value	99.6%	99.7%	99.6%	99.6%	99.7%	99.6%	99.6%	99.6%

Licensee Comments: none

### Occupational Exposure Control Effectiveness



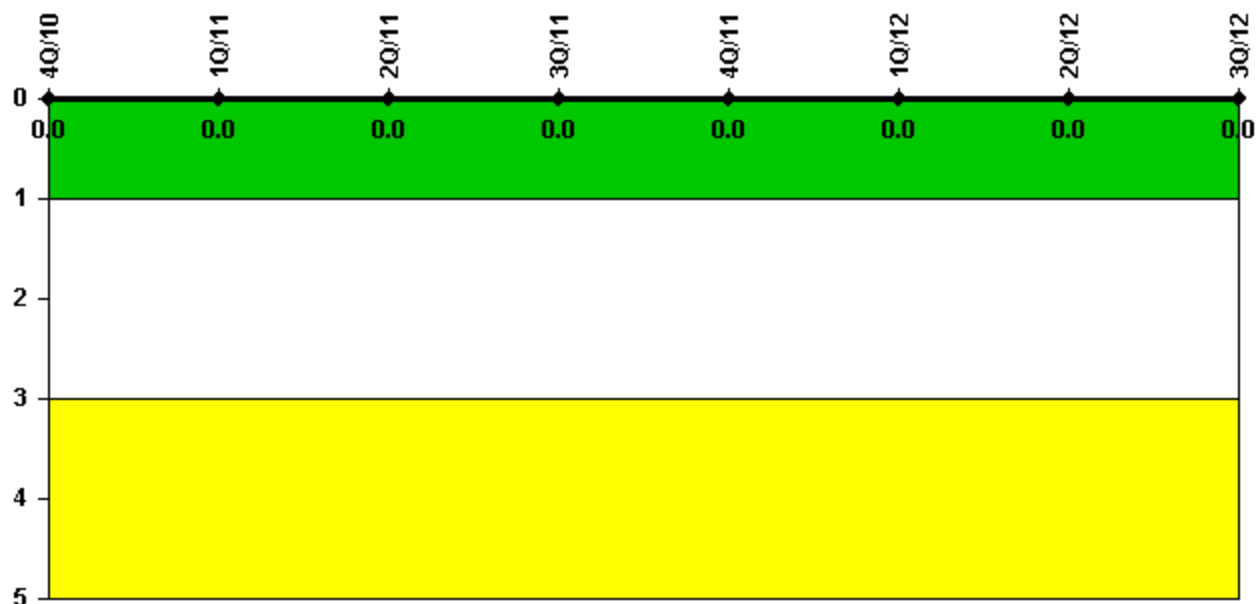
Thresholds: White > 2.0 Yellow > 5.0

#### Notes

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

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 24, 2012*