

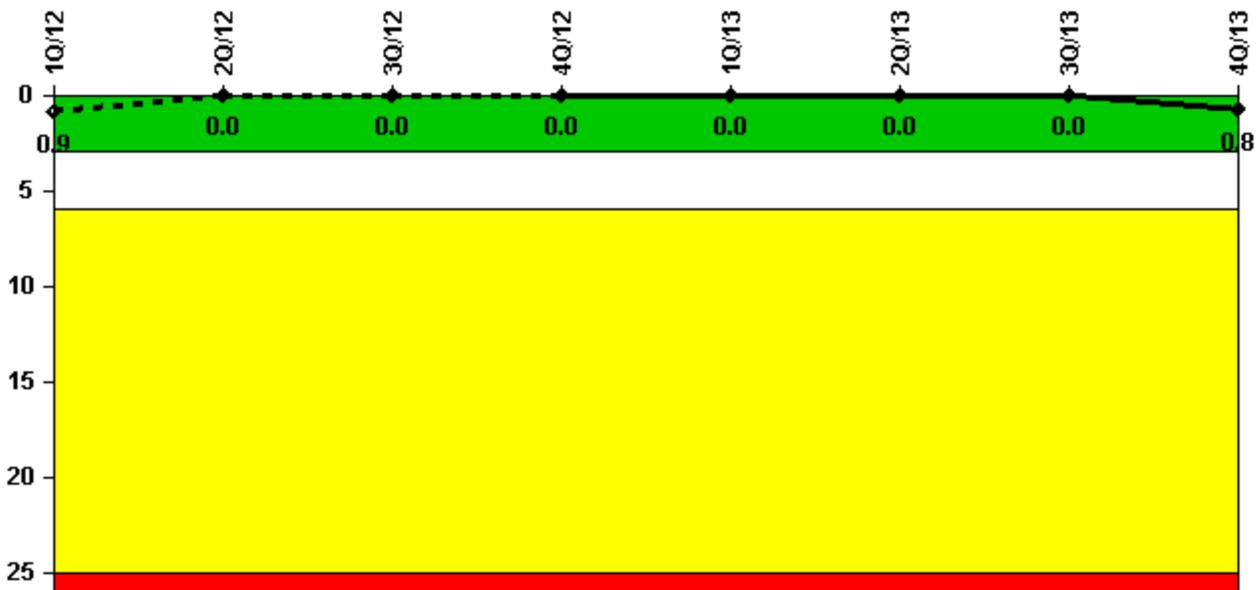
## Millstone 2

### 4Q/2013 Performance Indicators

The solid trend line represents the current reporting period.

Licensee's General Comments: none

#### Unplanned Scrams per 7000 Critical Hrs



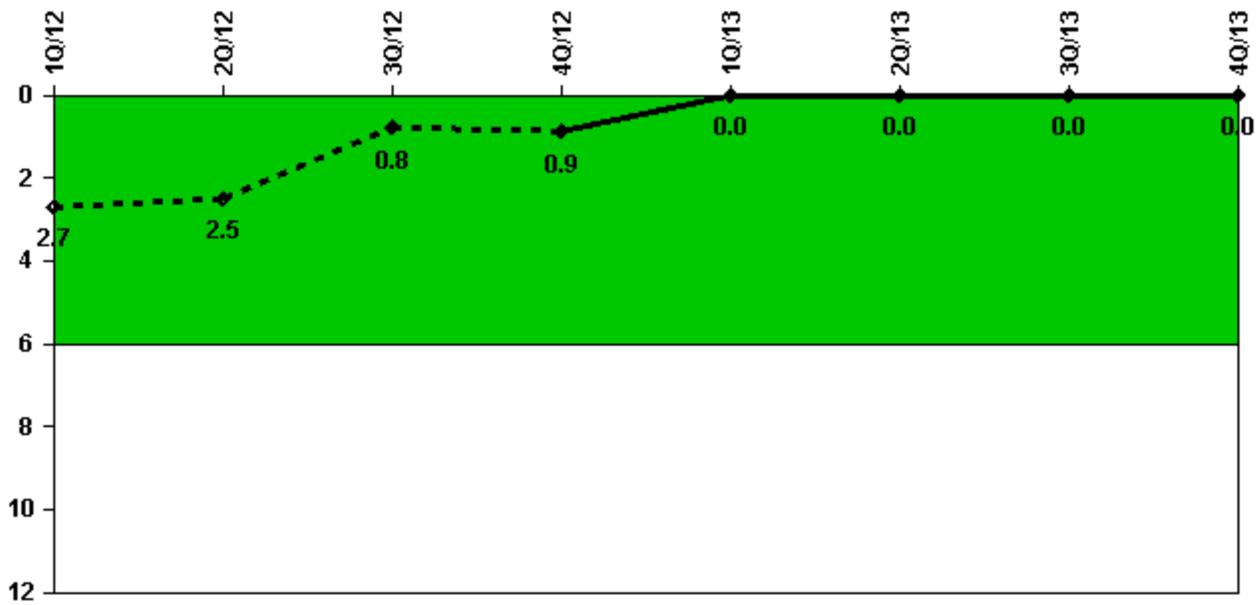
**Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0**

#### 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	1.0
Critical hours	2183.0	2184.0	1936.0	1104.3	2159.0	2184.0	2208.0	2170.4
<b>Indicator value</b>	<b>0.9</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.8</b>

Licensee Comments: none

### Unplanned Power Changes per 7000 Critical Hrs



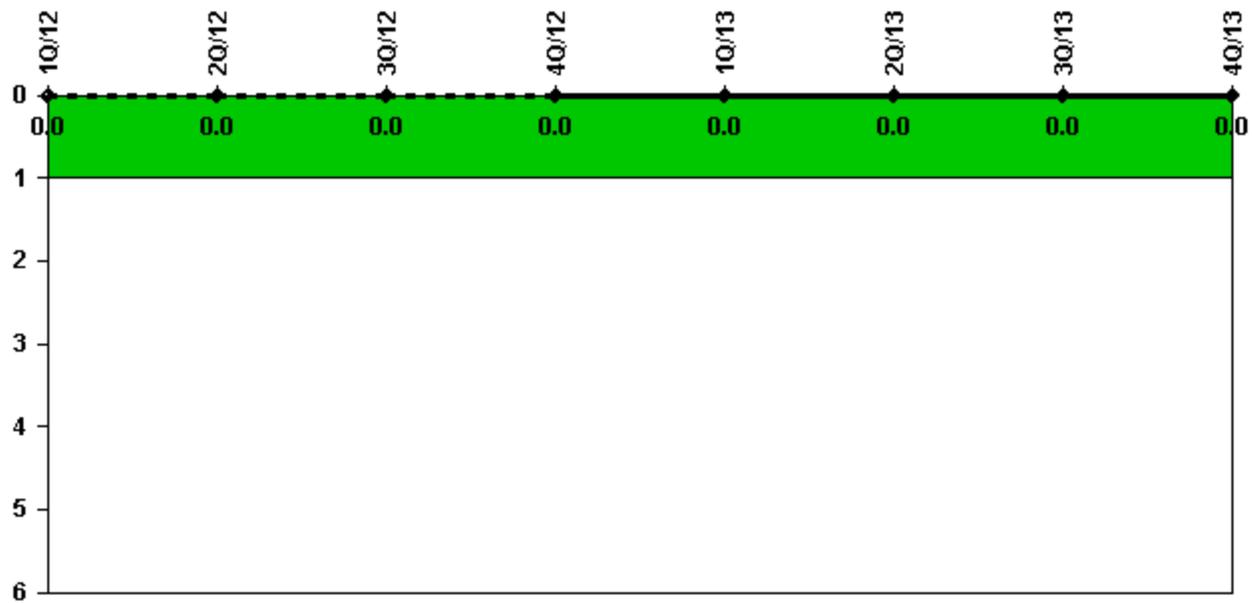
Thresholds: White > 6.0

#### 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	1.0	0	0	0	0	0	0	0
Critical hours	2183.0	2184.0	1936.0	1104.3	2159.0	2184.0	2208.0	2170.4
<b>Indicator value</b>	<b>2.7</b>	<b>2.5</b>	<b>0.8</b>	<b>0.9</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

Licensee Comments: none

### Unplanned Scrams with Complications



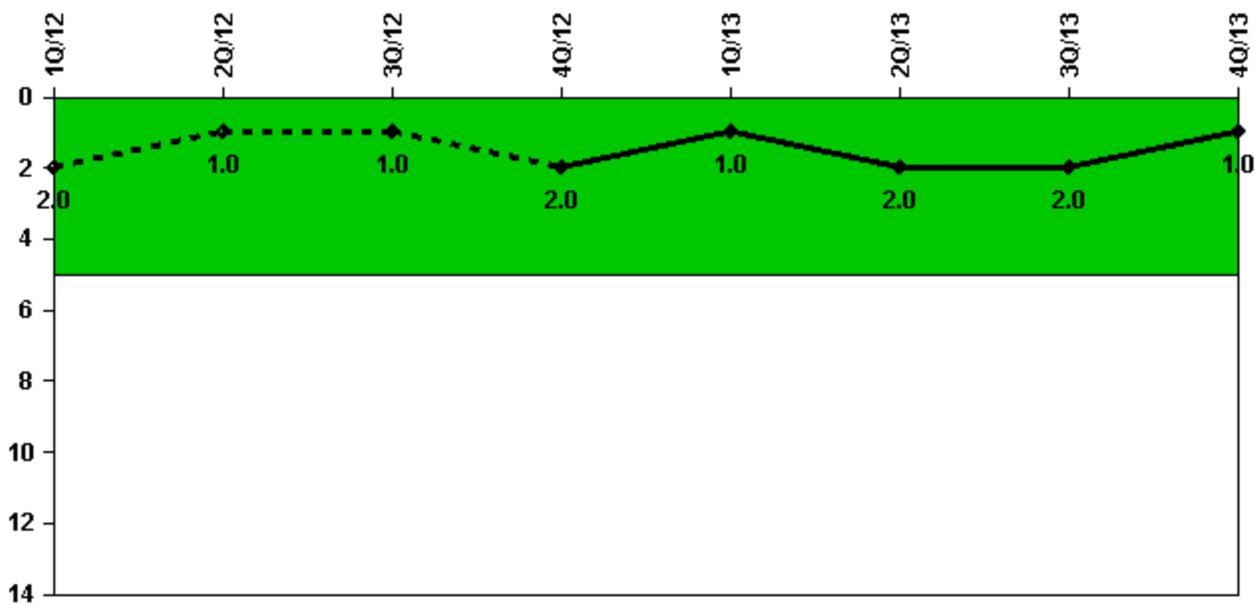
Thresholds: White > 1.0

#### 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 (PWR)



Thresholds: White > 5.0

#### Notes

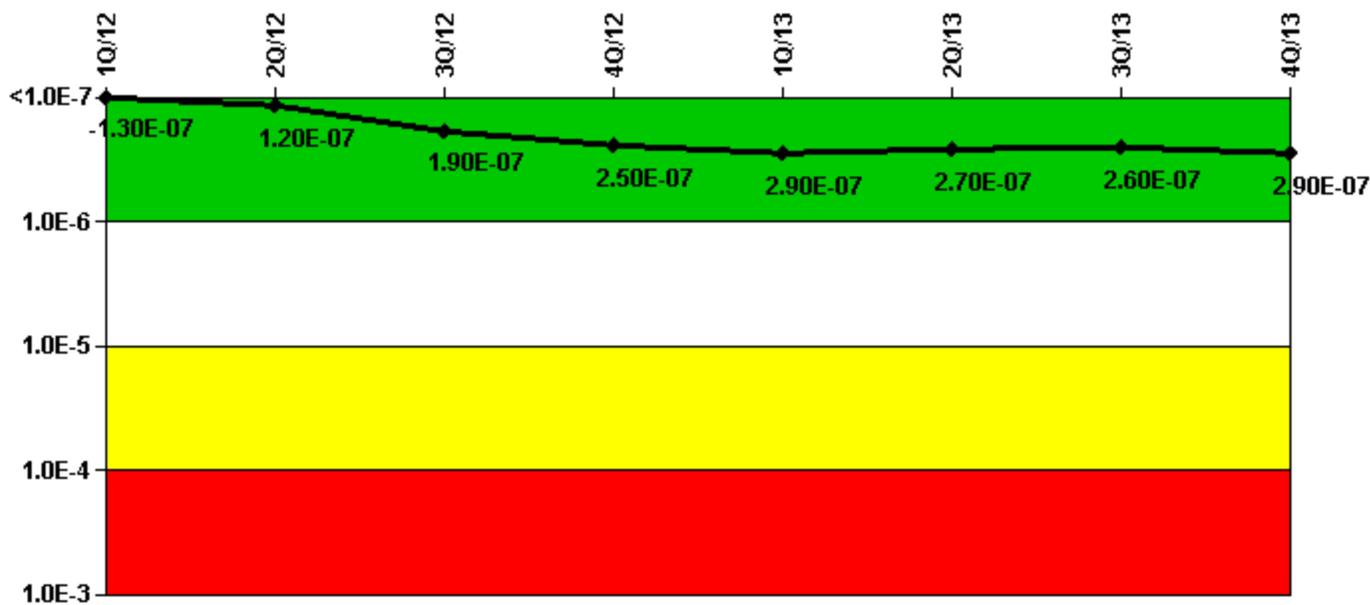
Safety System Functional Failures (PWR)	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13
Safety System Functional Failures	1	0	0	1	0	1	0	0
<b>Indicator value</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>1</b>	<b>2</b>	<b>2</b>	<b>1</b>

Licensee Comments:

2Q/13: LER 2013-002-00, Turbine Driven Auxiliary Feedwater Pump HELB Door Left Open During Surveillance Test

4Q/12: LER 2012-003-00, Potential For a Loss of Safety Function Due to Postulated Flood Conditions

### 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 (ΔCDF)	2.02E-08	4.15E-08	3.94E-08	4.71E-08	6.96E-08	4.03E-08	1.59E-08	1.92E-08
URI (ΔCDF)	-1.55E-07	8.19E-08	1.53E-07	2.07E-07	2.24E-07	2.34E-07	2.48E-07	2.68E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-1.30E-07	1.20E-07	1.90E-07	2.50E-07	2.90E-07	2.70E-07	2.60E-07	2.90E-07

#### Licensee Comments:

3Q/13: PRA parameters were updated in the 2nd quarter 2013 based on a model revision issued in the 1st quarter 2013. No changes to the threshold occurred.

4Q/12: Changed PRA Parameter(s). PRA parameters were updated based on a model revision issued in the 3rd quarter 2012. One of the issues that was under review in the 3rd quarter was determined to be a failure to load (8/12).

3Q/12: June 2012 data updated to identify a run failure on 6/29/12. It did not result in the indicator crossing the GREEN/WHITE threshold. A condition report on the diesel was written on 8/15/12 and the diesel heat exchanger on 9/26/12. These condition reports are under review. If these events are determined to be a failure the NRC Indicator data will be revised to reflect this failure in the 4th quarter.

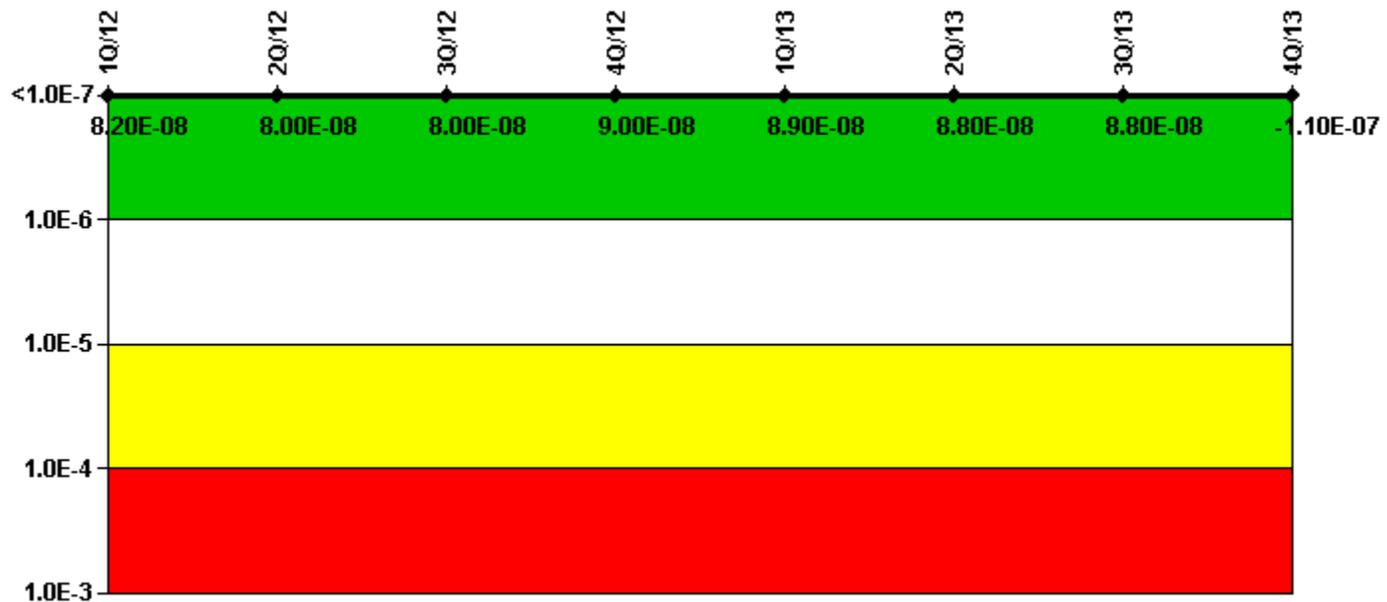
3Q/12: June 2012 data updated to identify a run failure on 6/29/12. It did not result in the indicator crossing the GREEN/WHITE threshold. A condition report on the diesel was written on 8/15/12 and the diesel heat exchanger on 9/26/12. These condition reports are under review. If these events are determined to be a failure the NRC

Indicator data will be revised to reflect this failure in the 4th quarter.

2Q/12: A condition report on the diesel was written on 6/29/12. This condition report is under review. If this event is determined to be a failure the 2nd quarter values will be updated in the 3rd quarter.

2Q/12: A condition report on the diesel was written on 6/29/12. This condition report is under review. If this event is determined to be a failure the 2nd quarter values will be updated in the 3rd quarter.

### 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)	-6.36E-08	-6.36E-08	-6.36E-08	-6.38E-08	-6.38E-08	-6.39E-08	-6.39E-08	-6.30E-08
URI ( $\Delta$ CDF)	1.46E-07	1.44E-07	1.43E-07	1.54E-07	1.52E-07	1.52E-07	1.52E-07	-4.65E-08
PLE	NO							
Indicator value	8.20E-08	8.00E-08	8.00E-08	9.00E-08	8.90E-08	8.80E-08	8.80E-08	-1.10E-07

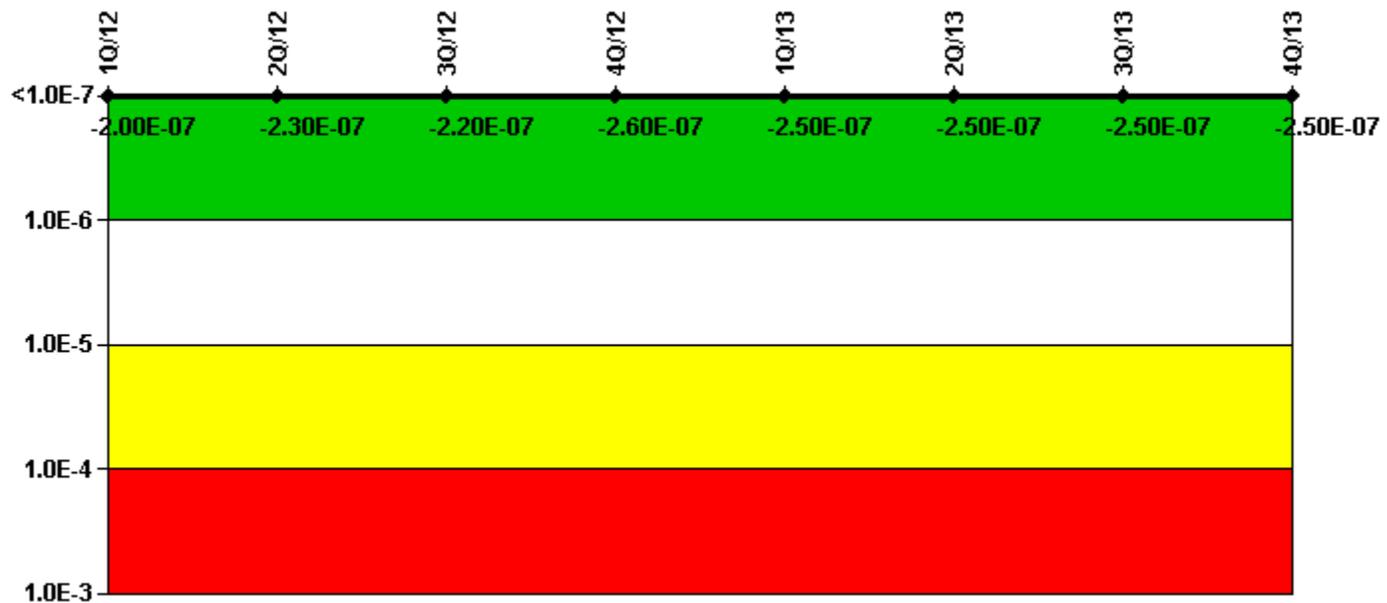
Licensee Comments:

3Q/13: PRA parameters were updated in the 2nd quarter 2013 based on a model revision issued in the 1st

quarter 2013. No changes to the threshold occurred.

4Q/12: Changed PRA Parameter(s). PRA parameters were updated based on a model revision issued in the 3rd quarter 2012.

### Mitigating Systems Performance Index, Heat Removal System



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

#### Notes

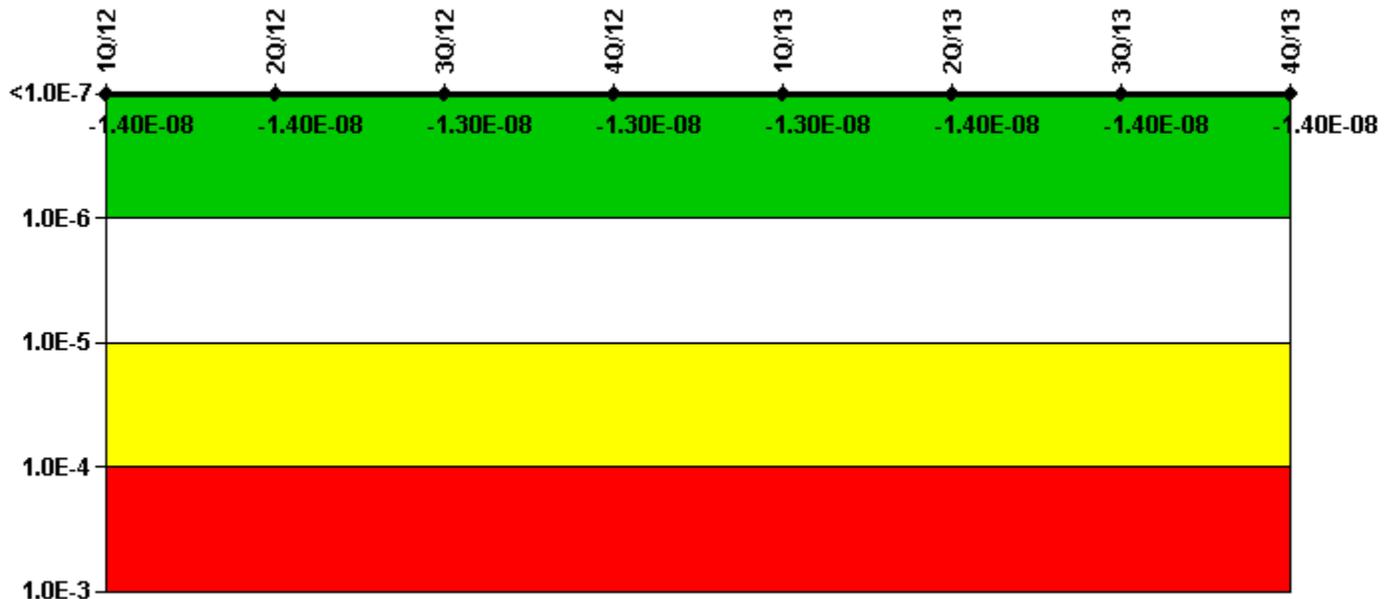
Mitigating Systems Performance Index, Heat Removal System	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13
UAI ( $\Delta$ CDF)	-6.15E-08	-8.75E-08	-8.74E-08	-9.99E-08	-8.94E-08	-9.83E-08	-9.83E-08	-9.84E-08
URI ( $\Delta$ CDF)	-1.37E-07	-1.38E-07	-1.31E-07	-1.62E-07	-1.58E-07	-1.53E-07	-1.53E-07	-1.49E-07
PLE	NO							
Indicator value	-2.00E-07	-2.30E-07	-2.20E-07	-2.60E-07	-2.50E-07	-2.50E-07	-2.50E-07	-2.50E-07

Licensee Comments:

3Q/13: PRA parameters were updated in the 2nd quarter 2013 based on a model revision issued in the 1st quarter 2013. No changes to the threshold occurred.

4Q/12: Changed PRA Parameter(s). PRA parameters were updated based on a model revision issued in the 3rd quarter 2012.

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



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

#### Notes

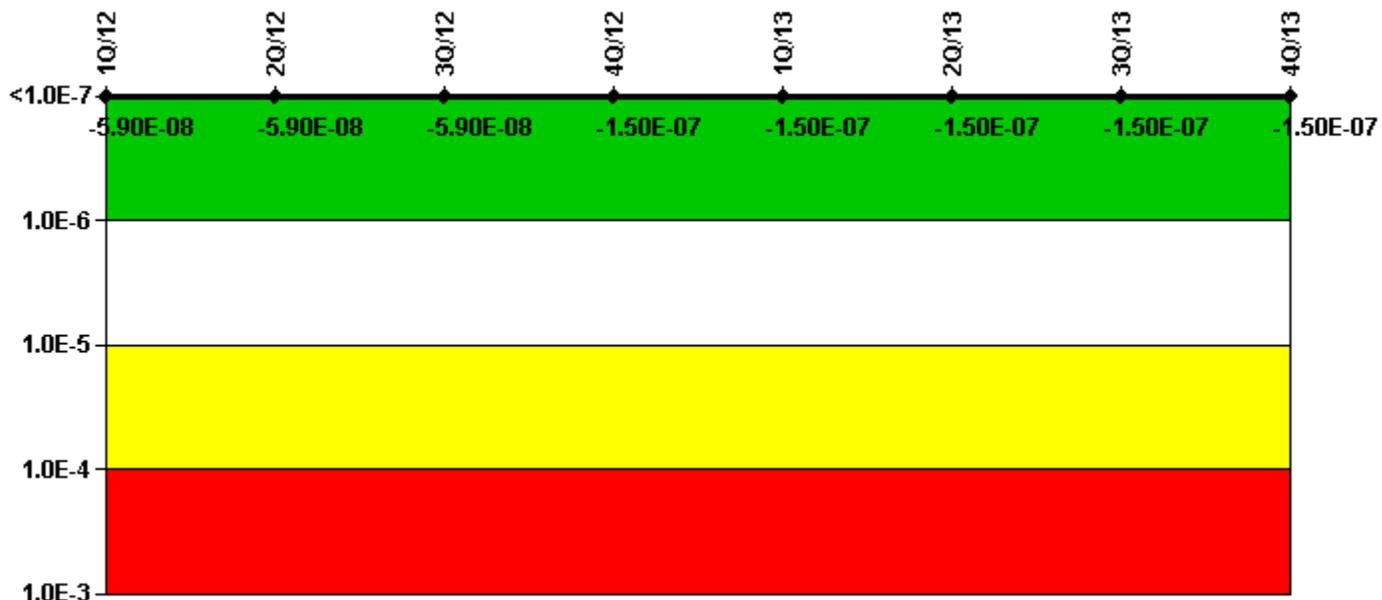
Mitigating Systems Performance Index, Residual Heat Removal System	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13
UAI ( $\Delta$ CDF)	-1.95E-10	-1.98E-10	-2.08E-10	-2.16E-10	-2.16E-10	-1.63E-10	-2.16E-10	-2.16E-10
URI ( $\Delta$ CDF)	-1.35E-08	-1.36E-08	-1.29E-08	-1.23E-08	-1.27E-08	-1.40E-08	-1.40E-08	-1.40E-08
PLE	NO							
Indicator value	-1.40E-08	-1.40E-08	-1.30E-08	-1.30E-08	-1.30E-08	-1.40E-08	-1.40E-08	-1.40E-08

#### Licensee Comments:

3Q/13: PRA parameters were updated in the 2nd quarter 2013 based on a model revision issued in the 1st quarter 2013. No changes to the threshold occurred.

4Q/12: Changed PRA Parameter(s). PRA parameters were updated based on a model revision issued in the 3rd quarter 2012.

### Mitigating Systems Performance Index, Cooling Water Systems



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

#### Notes

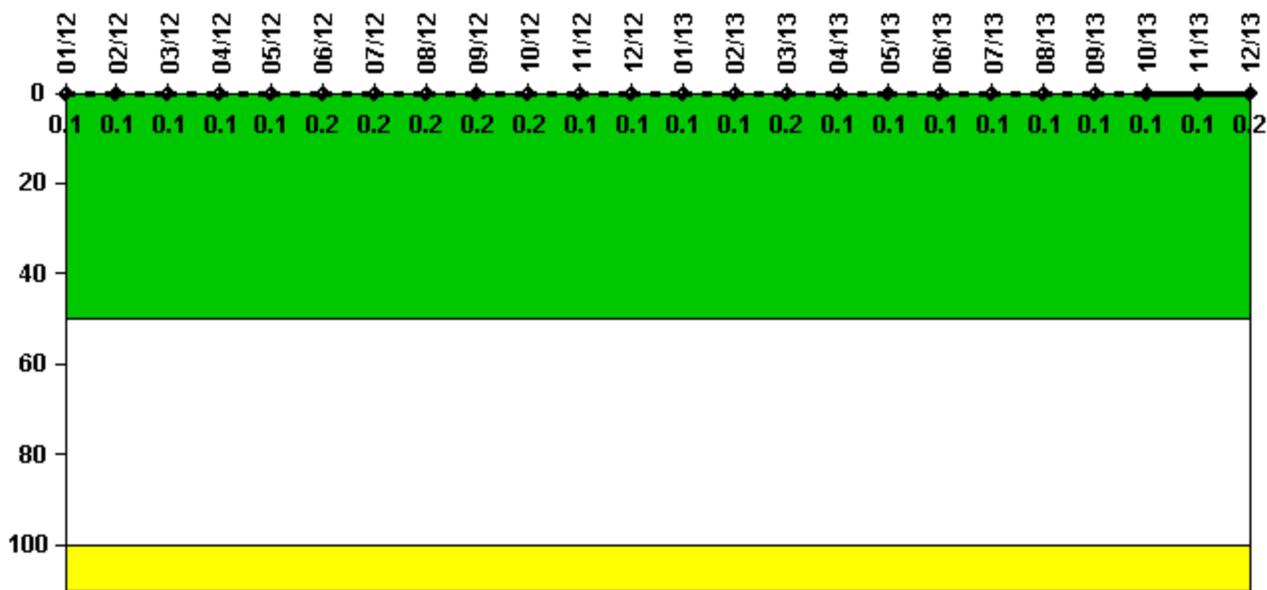
Mitigating Systems Performance Index, Cooling Water Systems	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13
UAI ( $\Delta$ CDF)	5.33E-09	5.05E-09	4.97E-09	6.36E-09	6.34E-09	6.24E-09	6.24E-09	6.23E-09
URI ( $\Delta$ CDF)	-6.42E-08	-6.42E-08	-6.42E-08	-1.55E-07	-1.55E-07	-1.54E-07	-1.54E-07	-1.54E-07
PLE	NO							
Indicator value	-5.90E-08	-5.90E-08	-5.90E-08	-1.50E-07	-1.50E-07	-1.50E-07	-1.50E-07	-1.50E-07

#### Licensee Comments:

3Q/13: PRA parameters were updated in the 2nd quarter 2013 based on a model revision issued in the 1st quarter 2013. No changes to the threshold occurred.

4Q/12: Changed PRA Parameter(s). PRA parameters were updated based on a model revision issued in the 3rd quarter 2012.

### Reactor Coolant System Activity



Thresholds: White > 50.0 Yellow > 100.0

#### Notes

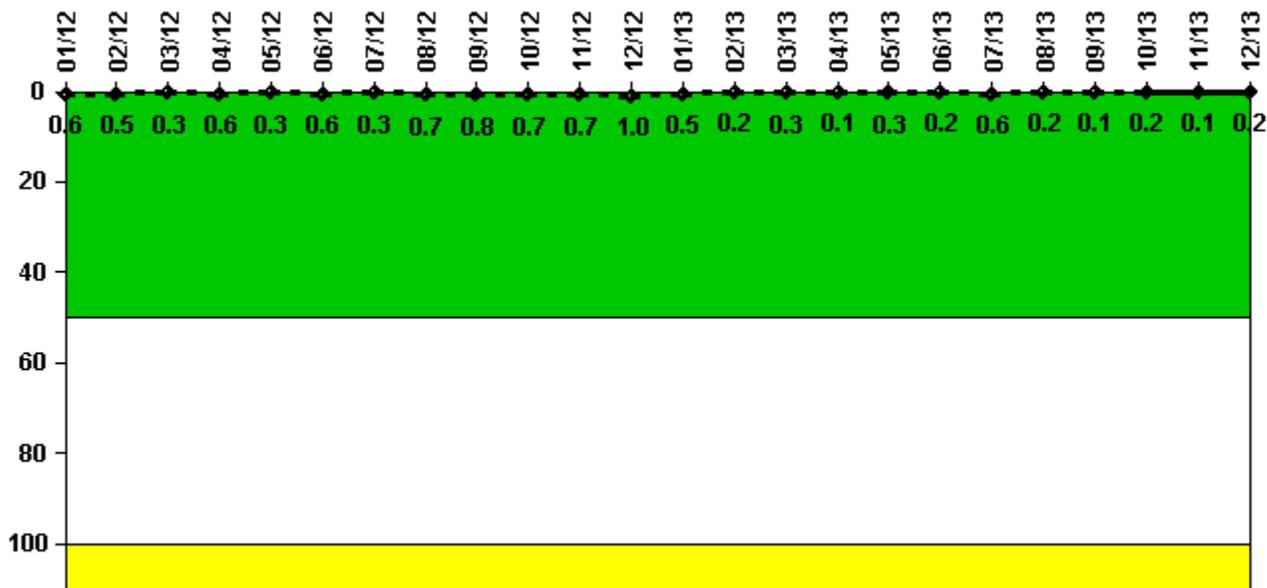
Reactor Coolant System Activity	1/12	2/12	3/12	4/12	5/12	6/12	7/12	8/12	9/12	10/12	11/12	12/12
Maximum activity	0.001250	0.001320	0.001450	0.001420	0.001430	0.001540	0.001600	0.001580	0.002050	0.001690	0.000828	0.000971
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1

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	0.001190	0.001090	0.001600	0.001210	0.001180	0.001280	0.001230	0.001330	0.001320	0.001410	0.001450	0.001520
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2

Licensee Comments: none

### Reactor Coolant System Leakage



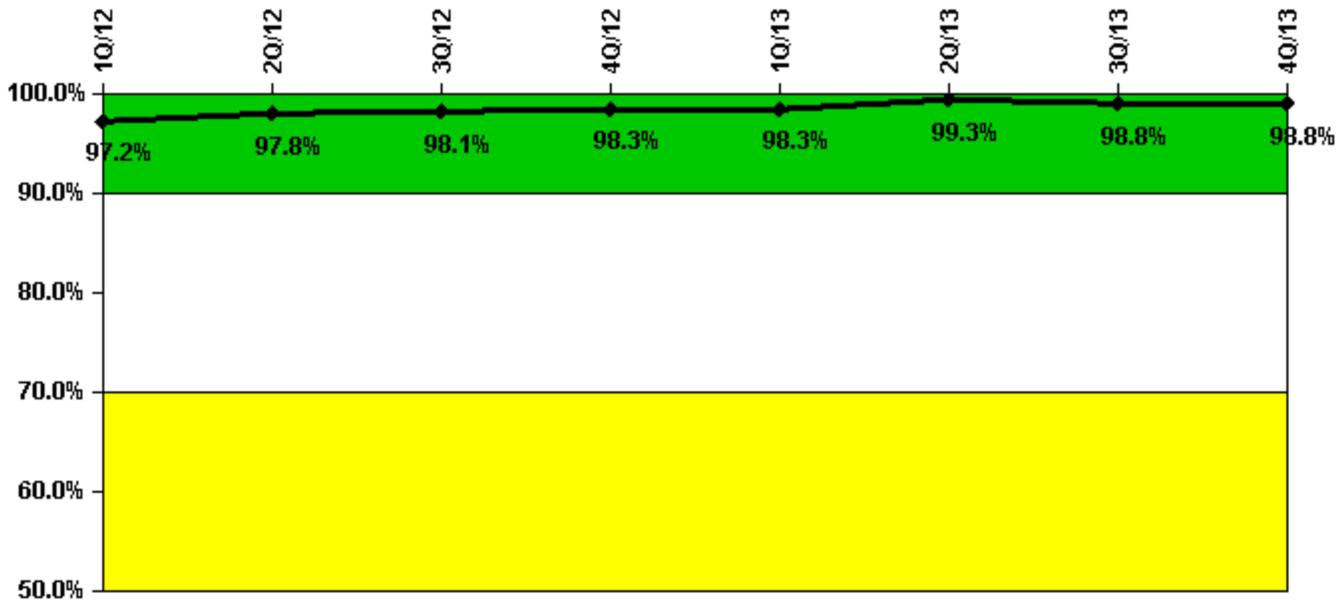
Thresholds: White > 50.0 Yellow > 100.0

#### 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	0.055	0.045	0.031	0.061	0.034	0.060	0.031	0.067	0.076	0.066	0.067	0.097
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
Indicator value	<b>0.6</b>	<b>0.5</b>	<b>0.3</b>	<b>0.6</b>	<b>0.3</b>	<b>0.6</b>	<b>0.3</b>	<b>0.7</b>	<b>0.8</b>	<b>0.7</b>	<b>0.7</b>	<b>1.0</b>
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	0.052	0.017	0.026	0.010	0.030	0.024	0.059	0.020	0.009	0.023	0.008	0.017
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
Indicator value	<b>0.5</b>	<b>0.2</b>	<b>0.3</b>	<b>0.1</b>	<b>0.3</b>	<b>0.2</b>	<b>0.6</b>	<b>0.2</b>	<b>0.1</b>	<b>0.2</b>	<b>0.1</b>	<b>0.2</b>

Licensee Comments: none

### Drill/Exercise Performance



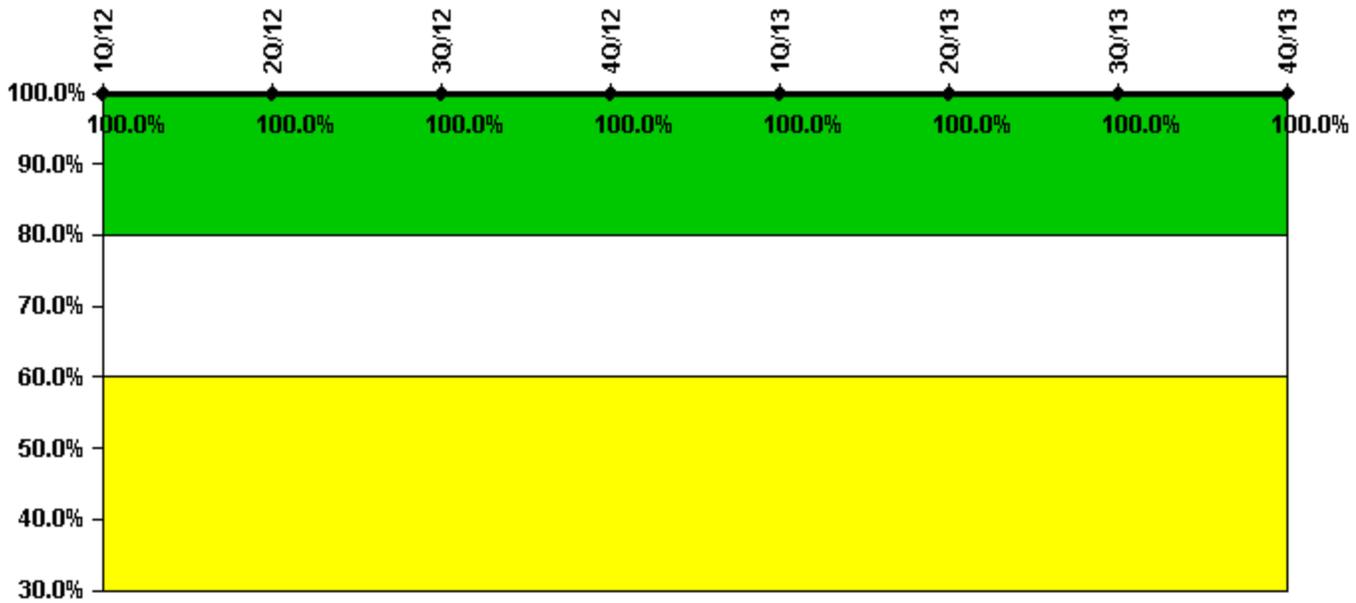
Thresholds: White < 90.0% Yellow < 70.0%

#### Notes

Drill/Exercise Performance	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13
Successful opportunities	34.0	32.0	58.0	20.0	35.0	26.0	20.0	26.0
Total opportunities	34.0	32.0	59.0	21.0	35.0	26.0	21.0	26.0
Indicator value	97.2%	97.8%	98.1%	98.3%	98.3%	99.3%	98.8%	98.8%

Licensee Comments: none

### ERO Drill Participation



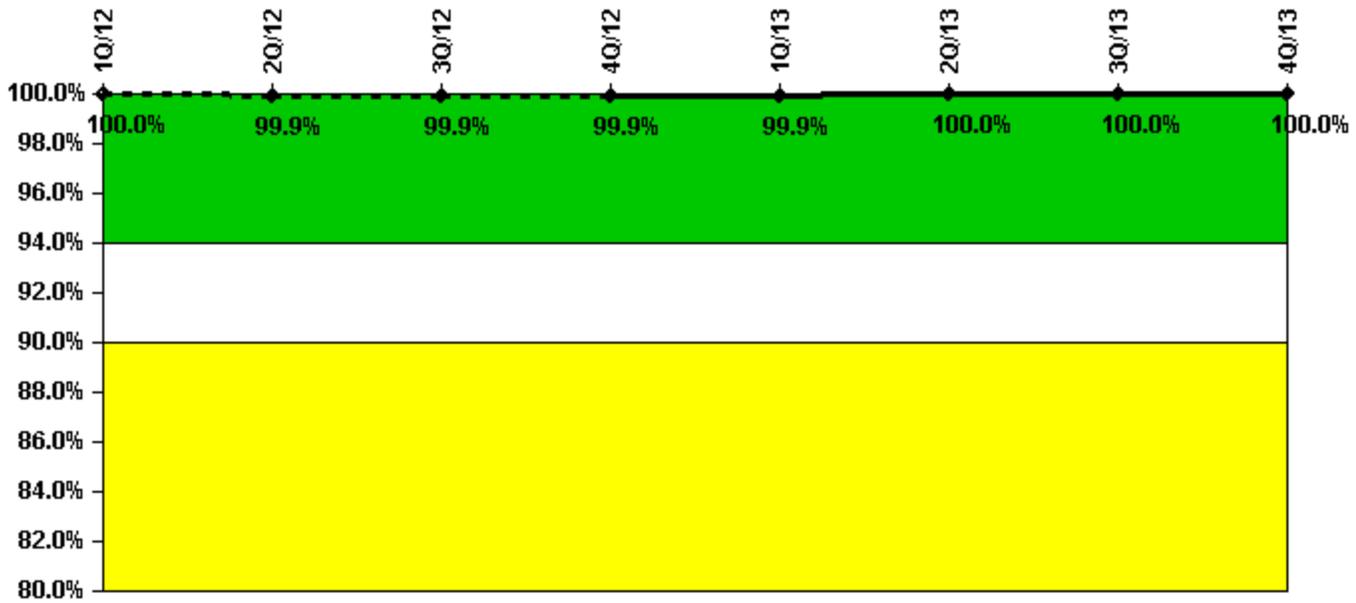
Thresholds: White < 80.0% Yellow < 60.0%

#### Notes

ERO Drill Participation	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13
Participating Key personnel	138.0	133.0	132.0	129.0	129.0	131.0	132.0	132.0
Total Key personnel	138.0	133.0	132.0	129.0	129.0	131.0	132.0	132.0
Indicator value	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Licensee Comments: none

### Alert & Notification System



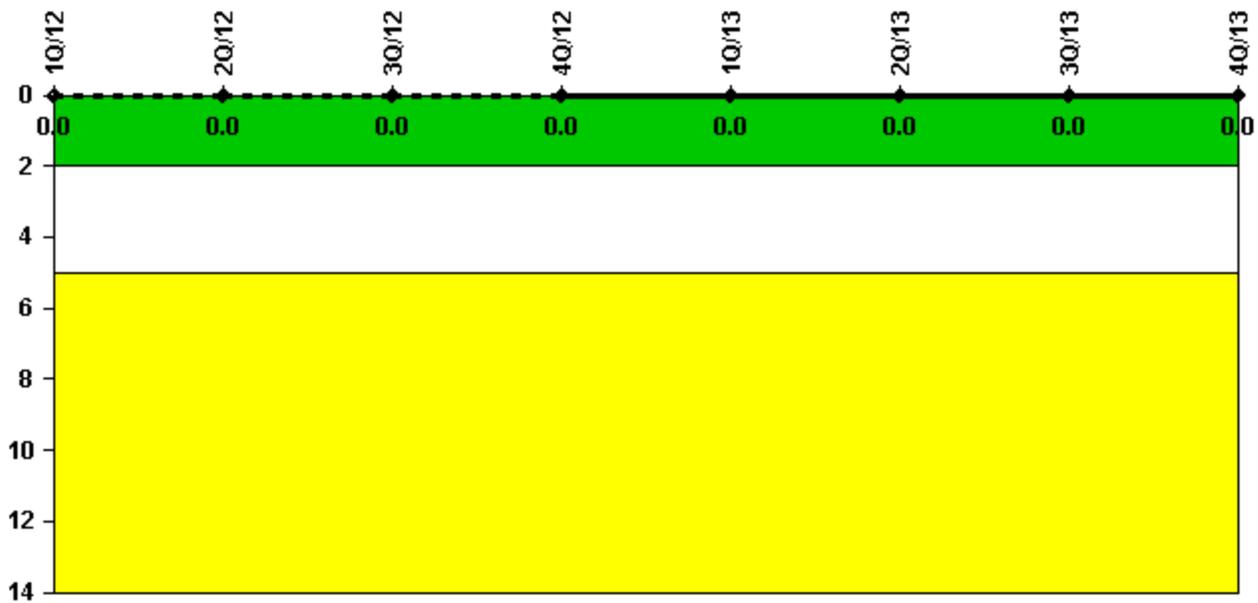
Thresholds: White < 94.0% Yellow < 90.0%

#### Notes

Alert & Notification System	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13
Successful siren-tests	474	473	474	552	474	553	474	553
Total sirens-tests	474	474	474	553	474	553	474	553
Indicator value	100.0%	99.9%	99.9%	99.9%	99.9%	100.0%	100.0%	100.0%

Licensee Comments: none

### Occupational Exposure Control Effectiveness



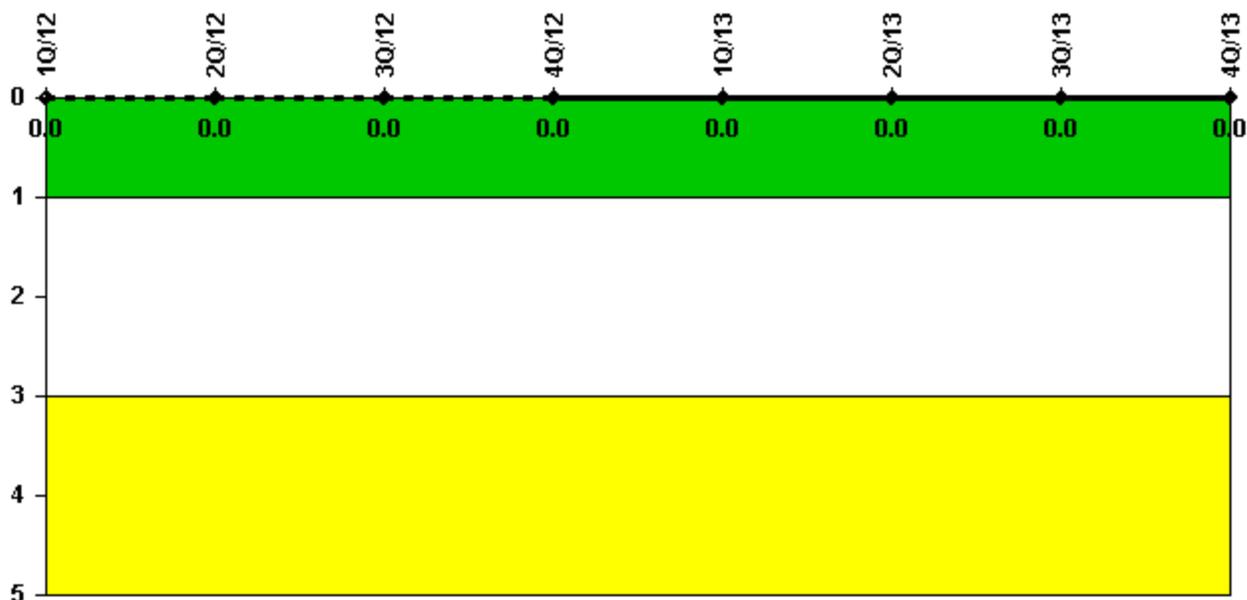
Thresholds: White > 2.0 Yellow > 5.0

#### 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*