

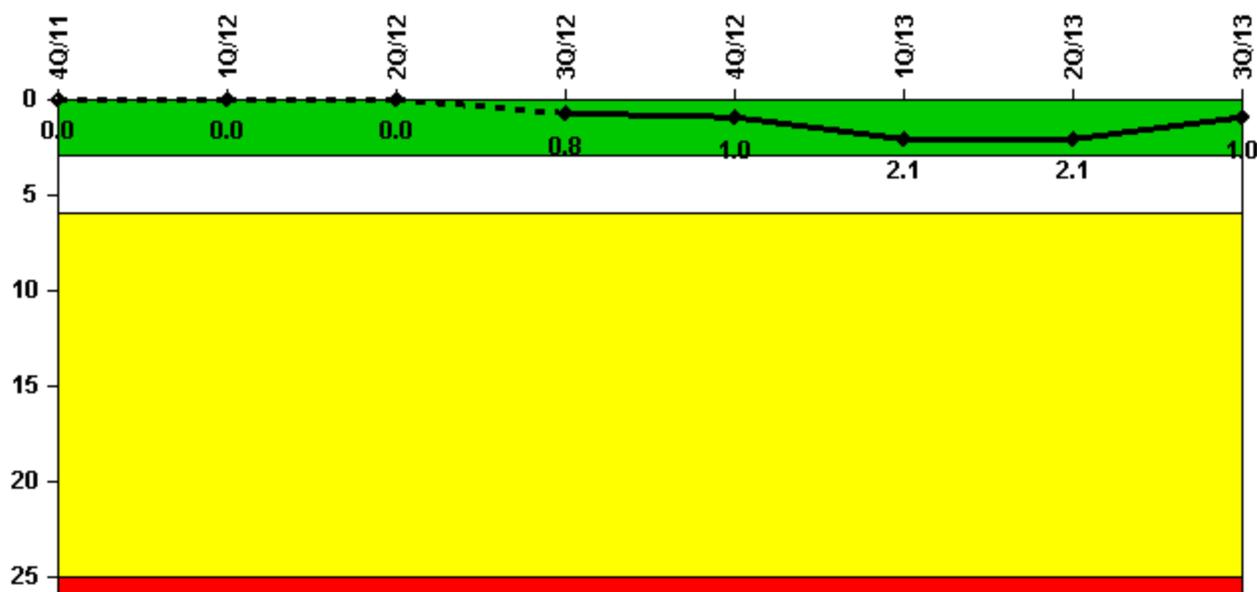
## Sequoyah 2

### 3Q/2013 Performance Indicators

The solid trend line represents the current reporting period.

Licensee's General Comments: none

#### Unplanned Scrams per 7000 Critical Hrs



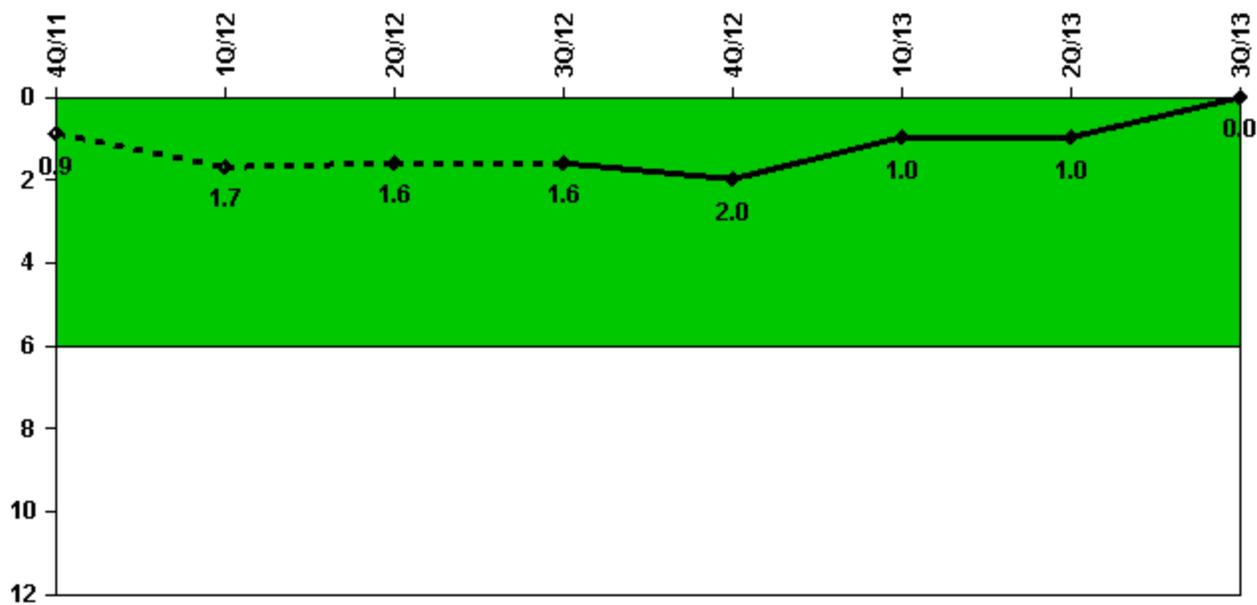
Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

#### 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	1.0	0	1.0	0	0
Critical hours	2209.0	2183.0	2184.0	2167.9	336.0	2055.3	2184.0	2208.0
Indicator value	0	0	0	0.8	1.0	2.1	2.1	1.0

Licensee Comments: none

### Unplanned Power Changes per 7000 Critical Hrs



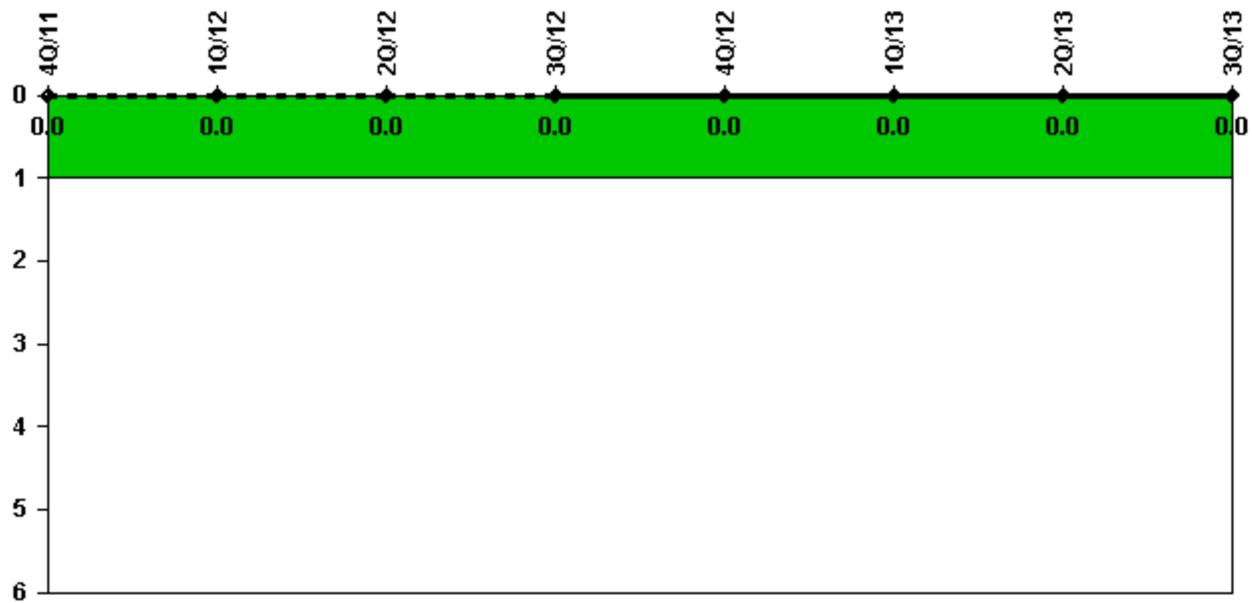
Thresholds: White > 6.0

#### 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	1.0	0	1.0	0	0	0	0
Critical hours	2209.0	2183.0	2184.0	2167.9	336.0	2055.3	2184.0	2208.0
<b>Indicator value</b>	<b>0.9</b>	<b>1.7</b>	<b>1.6</b>	<b>1.6</b>	<b>2.0</b>	<b>1.0</b>	<b>1.0</b>	<b>0</b>

Licensee Comments: none

### Unplanned Scrams with Complications



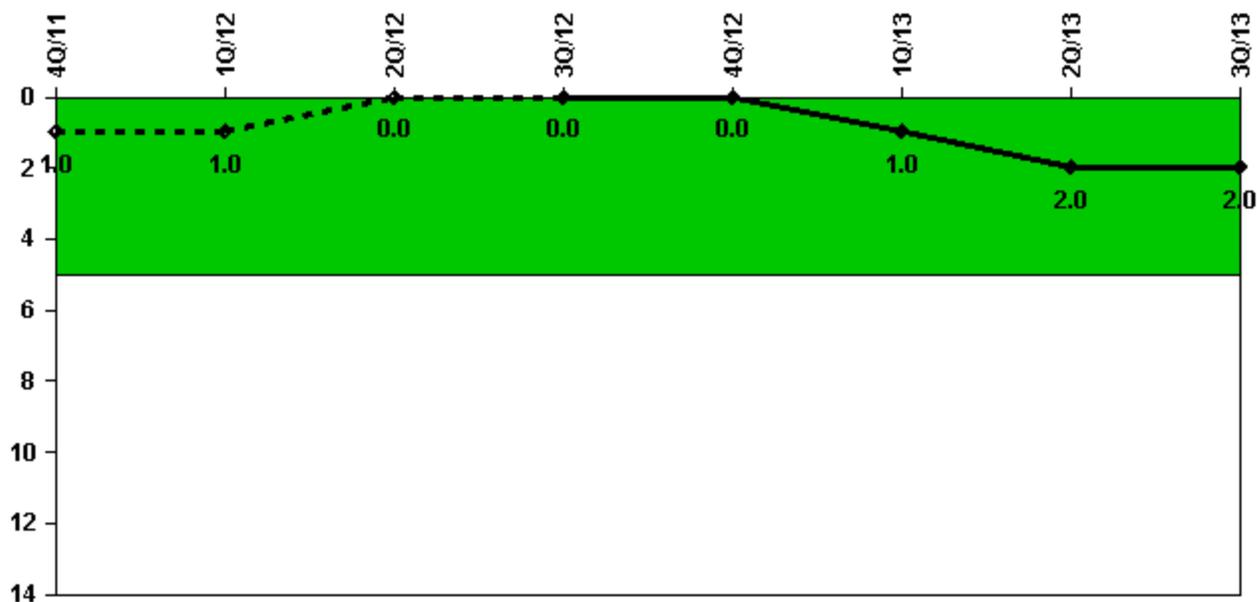
Thresholds: White > 1.0

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

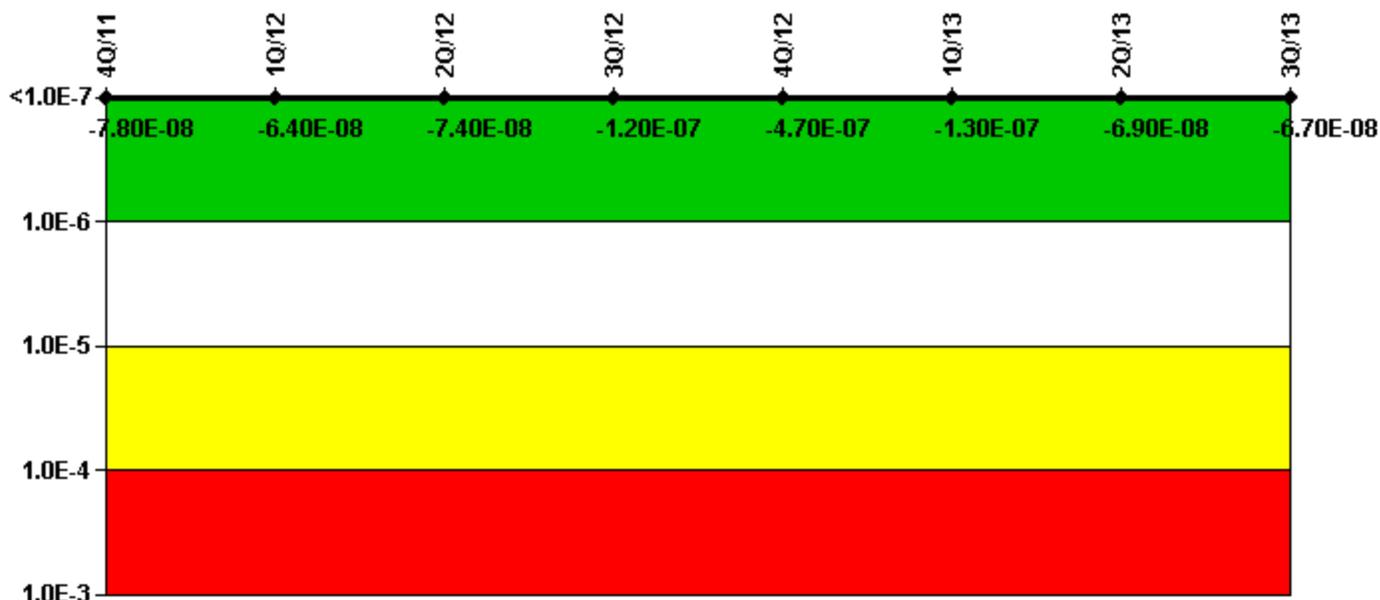
Licensee Comments:

2Q/13: LER 327/328/2013-001-00

1Q/13: LER 20-327/2012-001

4Q/12: The PRA Model of Record was revised 9/1/2012, updating the PRA model using the CAFTA program. The base numbers used in the MSPI database were also updated in accordance with NEI 99-02 Rev 6. As a result of the PRA model change, the CDF, Fussel-Vesely and Basic Event Probabilities for all monitored trains and components were revised.

### 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)	1.37E-08	2.48E-08	1.19E-08	1.09E-08	3.15E-08	5.43E-08	9.92E-08	1.06E-07
URI (ΔCDF)	-9.14E-08	-8.88E-08	-8.63E-08	-1.31E-07	-5.01E-07	-1.80E-07	-1.68E-07	-1.74E-07
PLE	NO							
Indicator value	-7.80E-08	-6.40E-08	-7.40E-08	-1.20E-07	-4.70E-07	-1.30E-07	-6.90E-08	-6.70E-08

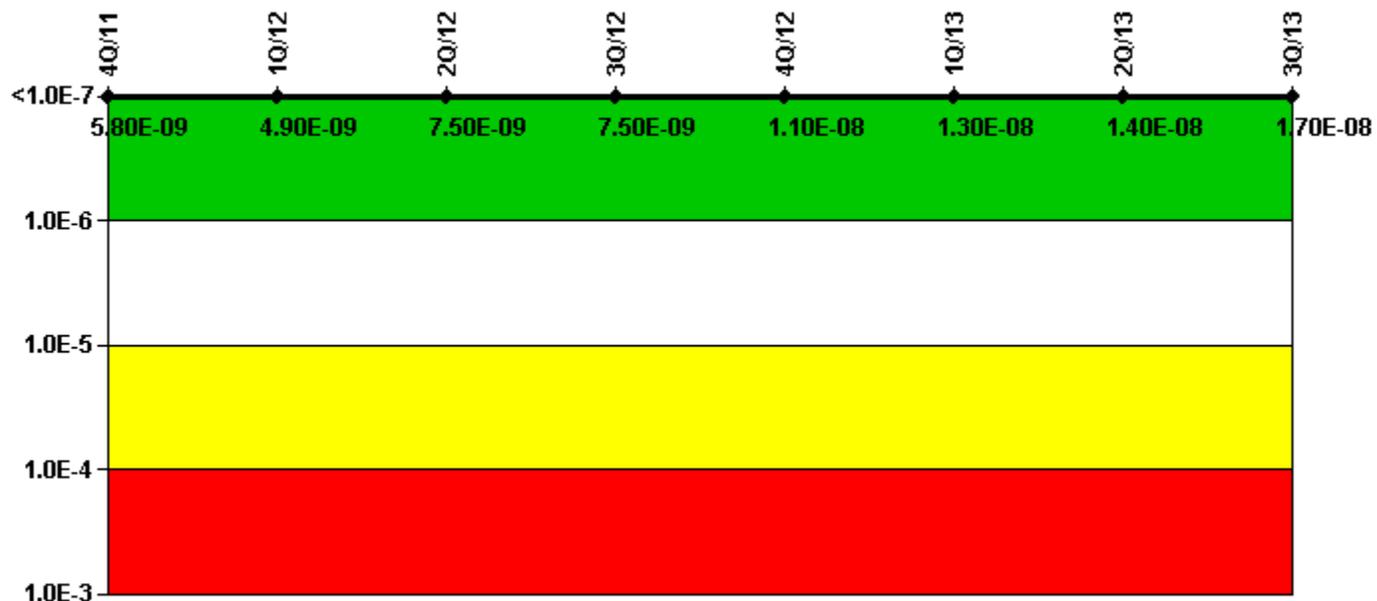
#### Licensee Comments:

4Q/12: Changed PRA Parameter(s). The PRA Model of Record was revised 9/1/2012, updating the PRA model using the CAFTA program. The base numbers used in the MSPI database were also updated in accordance with NEI 99-02 Rev 6. As a result of the PRA model change, the CDF, Fussel-Vesely and Basic Event Probabilities for all monitored trains and components were revised.

1Q/12: Changed PRA Parameter(s). Revised PRA values and scoping for the PRA Model of Record dated 5/27/11 as recalculated in Calc MDN-000-999-2011-0255 Rev 1 & 2 including adding the EDG FO Pumps to scope as required by a FAQ to NEI 99-02. Errors in calc Rev 0 corrected in CDE back thru 3rd quarter 2011 as required by NEI 99-02. Ref PER 483857.

4Q/11: Changed PRA Parameter(s).

### 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 ( $\Delta$ CDF)	6.21E-09	5.37E-09	7.90E-09	7.92E-09	1.13E-08	1.33E-08	1.44E-08	1.80E-08
URI ( $\Delta$ CDF)	-4.34E-10	-4.35E-10	-4.35E-10	-4.36E-10	-6.92E-10	-6.93E-10	-6.94E-10	-6.95E-10
PLE	NO							
Indicator value	5.80E-09	4.90E-09	7.50E-09	7.50E-09	1.10E-08	1.30E-08	1.40E-08	1.70E-08

#### Licensee Comments:

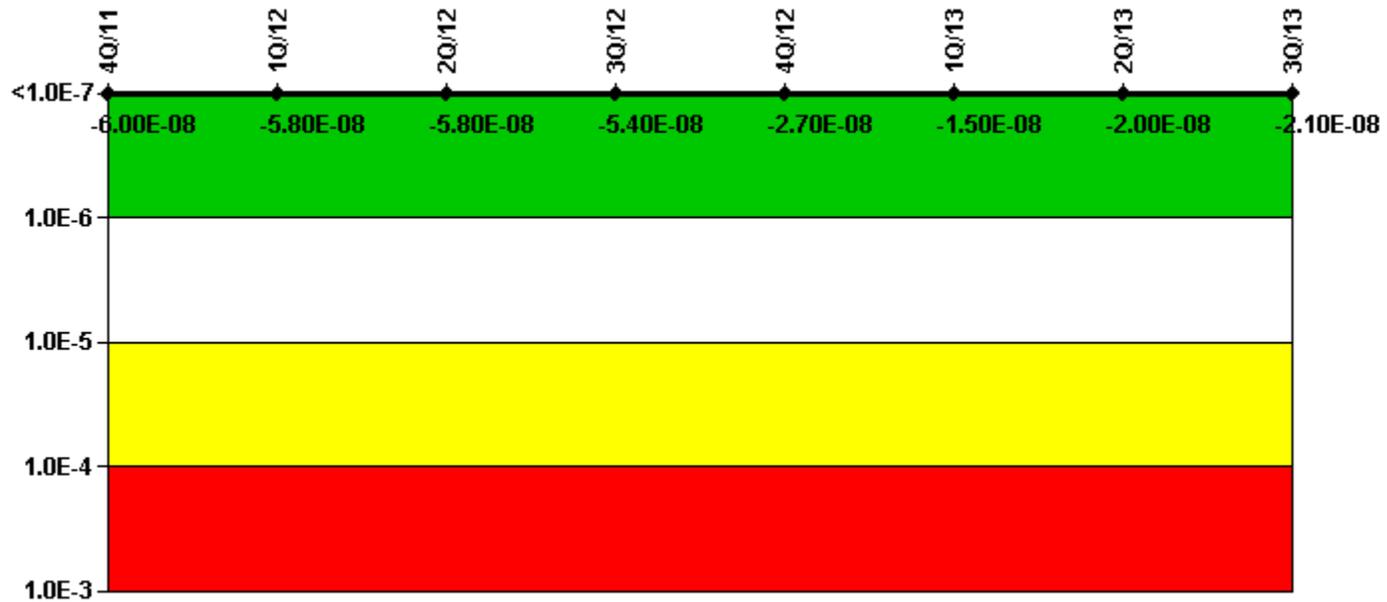
4Q/12: Changed PRA Parameter(s). The PRA Model of Record was revised 9/1/2012, updating the PRA model using the CAFTA program. The base numbers used in the MSPI database were also updated in accordance with NEI 99-02 Rev 6. As a result of the PRA model change, the CDF, Fussel-Vesely and Basic Event Probabilities for all monitored trains and components were revised.

1Q/12: Changed PRA Parameter(s). Revised PRA values and scoping for the PRA Model of Record dated 5/27/11 as recalculated in Calc MDN-000-999-2011-0255 Rev 1 & 2. Errors in calc Rev 0 corrected in CDE back thru 3rd quarter 2011 as required by NEI 99-02. Ref PER 483857.

1Q/12: Revised PRA values and scoping for the PRA Model of Record dated 5/27/11 as recalculated in Calc MDN-000-999-2011-0255 Rev 1 & 2. Errors in calc Rev 0 corrected in CDE back thru 3rd quarter 2011 as required by NEI 99-02. Ref PER 483857.

4Q/11: 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	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13
UAI ( $\Delta$ CDF)	2.54E-08	2.52E-08	2.40E-08	2.94E-08	1.78E-08	3.08E-08	2.52E-08	2.47E-08
URI ( $\Delta$ CDF)	-8.51E-08	-8.35E-08	-8.22E-08	-8.36E-08	-4.47E-08	-4.55E-08	-4.54E-08	-4.54E-08
PLE	NO							
Indicator value	<b>-6.00E-08</b>	<b>-5.80E-08</b>	<b>-5.80E-08</b>	<b>-5.40E-08</b>	<b>-2.70E-08</b>	<b>-1.50E-08</b>	<b>-2.00E-08</b>	<b>-2.10E-08</b>

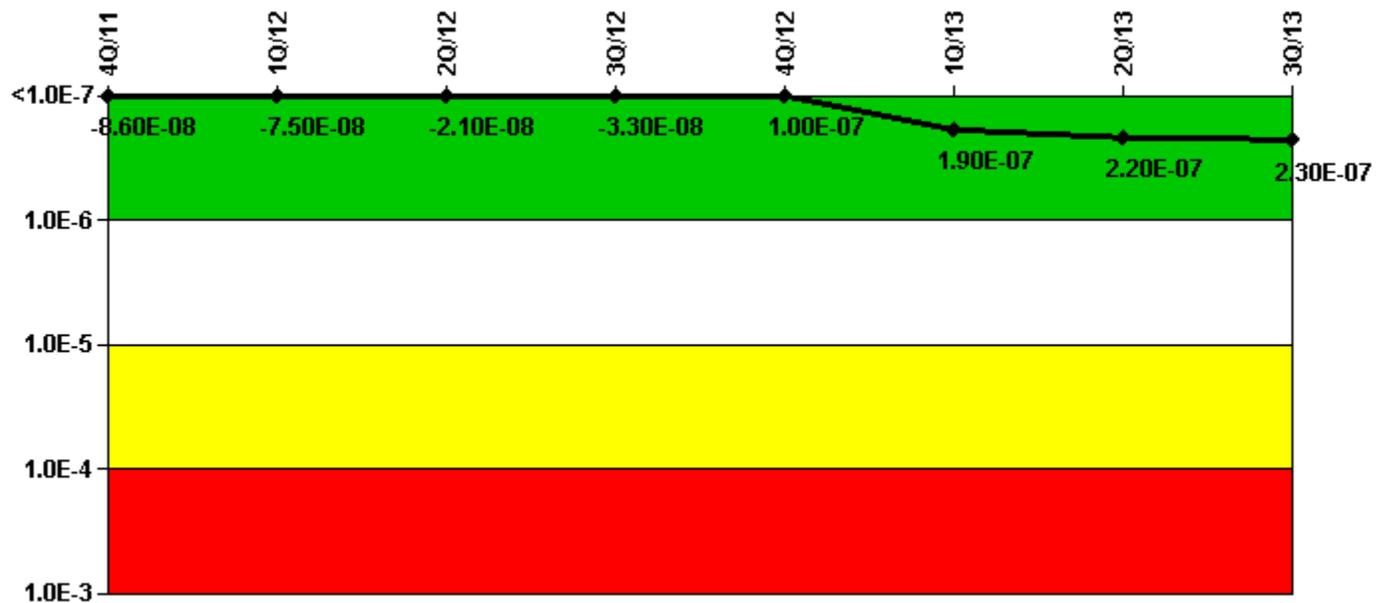
Licensee Comments:

4Q/12: Changed PRA Parameter(s). The PRA Model of Record was revised 9/1/2012, updating the PRA model using the CAFTA program. The base numbers used in the MSPI database were also updated in accordance with NEI 99-02 Rev 6. As a result of the PRA model change, the CDF, Fussel-Vesely and Basic Event Probabilities for all monitored trains and components were revised.

1Q/12: Revised PRA values and scoping for the PRA Model of Record dated 5/27/11 as recalculated in Calc MDN-000-999-2011-0255 Rev 1 & 2. Errors in calc Rev 0 corrected in CDE back thru 3rd quarter 2011 as required by NEI 99-02. Ref PER 483857.

1Q/12: Revised PRA values and scoping for the PRA Model of Record dated 5/27/11 as recalculated in Calc MDN-000-999-2011-0255 Rev 1 & 2. Errors in calc Rev 0 corrected in CDE back thru 3rd quarter 2011 as required by NEI 99-02. Ref PER 483857.

### 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)	1.16E-07	1.28E-07	1.81E-07	1.69E-07	3.64E-07	4.53E-07	4.93E-07	4.99E-07
URI ( $\Delta$ CDF)	-2.02E-07	-2.02E-07	-2.02E-07	-2.02E-07	-2.64E-07	-2.66E-07	-2.69E-07	-2.72E-07
PLE	NO							
Indicator value	-8.60E-08	-7.50E-08	-2.10E-08	-3.30E-08	1.00E-07	1.90E-07	2.20E-07	2.30E-07

#### Licensee Comments:

4Q/12: Changed PRA Parameter(s). The PRA Model of Record was revised 9/1/2012, updating the PRA model using the CAFTA program. The base numbers used in the MSPI database were also updated in accordance with NEI 99-02 Rev 6. As a result of the PRA model change, the CDF, Fussel-Vesely and Basic Event Probabilities for all monitored trains and components were revised.

4Q/12: The PRA Model of Record was revised 9/1/2012, updating the PRA model using the CAFTA program. The base numbers used in the MSPI database were also updated in accordance with NEI 99-02 Rev 6. As a result of the PRA model change, the CDF, Fussel-Vesely and Basic Event Probabilities for all monitored trains and components were revised.

1Q/12: Revised PRA values and scoping for the PRA Model of Record dated 5/27/11 as recalculated in Calc MDN-000-999-2011-0255 Rev 1 & 2. Errors in calc Rev 0 corrected in CDE back thru 3rd quarter 2011 as required by NEI 99-02. Ref PER 483857.

1Q/12: Revised PRA values and scoping for the PRA Model of Record dated 5/27/11 as recalculated in Calc MDN-000-999-2011-0255 Rev 1 & 2. Errors in calc Rev 0 corrected in CDE back thru 3rd quarter 2011 as required by NEI 99-02. Ref PER 483857.

1Q/12: Revised PRA values and scoping for the PRA Model of Record dated 5/27/11 as recalculated in Calc MDN-000-999-2011-0255 Rev 1 & 2. Errors in calc Rev 0 corrected in CDE back thru 3rd quarter 2011 as required by NEI 99-02. Ref PER 483857.

### 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)	6.17E-09	1.28E-08	2.09E-08	2.40E-08	7.72E-08	1.43E-07	2.02E-07	2.05E-07
						-1.28E-	-1.28E-	-1.28E-

URI ( $\Delta$ CDF)	-5.73E-08	-5.73E-08	-5.73E-08	-5.73E-08	-1.28E-07	07	07	07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
<b>Indicator value</b>	<b>-5.10E-08</b>	<b>-4.40E-08</b>	<b>-3.60E-08</b>	<b>-3.30E-08</b>	<b>-5.10E-08</b>	<b>1.40E-08</b>	<b>7.40E-08</b>	<b>7.60E-08</b>

## Licensee Comments:

3Q/13: Changed PRA Parameter(s). The planned unavailability baselines for all ERCW pumps were adjusted as needed to reflect past and current planned maintenance not performed every 3 years or less as specified by NEI 99-02.

2Q/13: Changed PRA Parameter(s). The planned unavailability baselines for all ERCW pumps were adjusted as needed to reflect past and current planned maintenance not performed every 3 years or less as specified by NEI 99-02.

1Q/13: The planned unavailability baselines for all ERCW pumps were adjusted as needed to reflect past and current planned maintenance not performed every 3 years or less as specified by NEI 99-02.

4Q/12: Changed PRA Parameter(s). The PRA Model of Record was revised 9/1/2012, updating the PRA model using the CAFTA program. The base numbers used in the MSPI database were also updated in accordance with NEI 99-02 Rev 6. As a result of the PRA model change, the CDF, Fussel-Vesely and Basic Event Probabilities for all monitored trains and components were revised. The planned unavailability baselines for all ERCW pumps were adjusted as needed to reflect past and current planned maintenance not performed every 3 years or less as specified by NEI 99-02.

3Q/12: Changed PRA Parameter(s). The planned unavailability baselines for all ERCW pumps were adjusted as needed to reflect past and current planned maintenance not performed every 3 years or less as specified by NEI 99-02.

3Q/12: Changed PRA Parameter(s). The planned unavailability baselines for all ERCW pumps were adjusted as needed to reflect past and current planned maintenance not performed every 3 years or less as specified by NEI 99-02.

2Q/12: Changed PRA Parameter(s). The planned unavailability baselines for all ERCW pumps were adjusted as needed to reflect past and current planned maintenance not performed every 3 years or less as specified by NEI 99-02.

2Q/12: The planned unavailability baselines for all ERCW pumps were adjusted as needed to reflect past and current planned maintenance not performed every 3 years or less as specified by NEI 99-02.

1Q/12: Changed PRA Parameter(s). Revised PRA values and scoping for the PRA Model of Record dated 5/27/11 as recalculated in Calc MDN-000-999-2011-0255 Rev 1 & 2. Errors in calc Rev 0 corrected in CDE back thru 3rd quarter 2011 as required by NEI 99-02. Ref PER 483857. The planned unavailability baselines for all ERCW pumps were adjusted as needed to reflect past and current planned maintenance not performed every 3 years or less as specified by NEI 99-02.

1Q/12: Changed PRA Parameter(s). Revised PRA values and scoping for the PRA Model of Record dated 5/27/11 as recalculated in Calc MDN-000-999-2011-0255 Rev 1 & 2. Errors in calc Rev 0 corrected in CDE back thru 3rd quarter 2011 as required by NEI 99-02. Ref PER 483857. The planned unavailability baselines for all ERCW pumps were adjusted as needed to reflect past and current planned maintenance not performed every 3 years or less as specified by NEI 99-02.

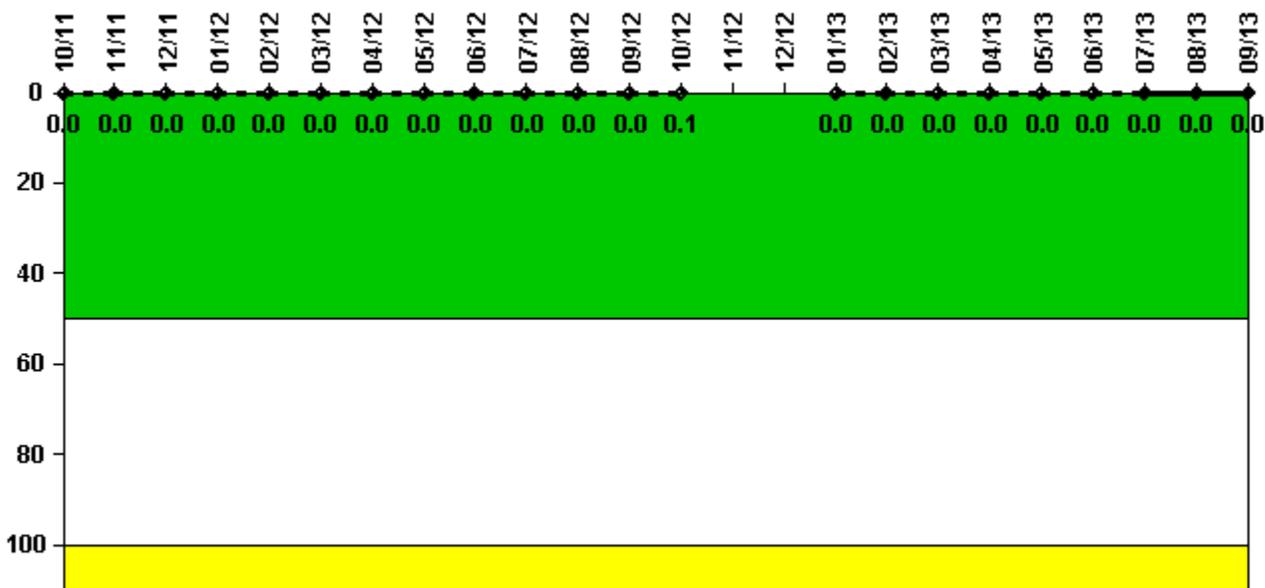
4Q/11: Changed PRA Parameter(s). The planned unavailability baselines for all ERCW pumps were adjusted as needed to reflect past and current planned maintenance not performed every 3 years or less as specified by NEI

99-02.

4Q/11: The planned unavailability baselines for all ERCW pumps were adjusted as needed to reflect past and current planned maintenance not performed every 3 years or less as specified by NEI 99-02.

4Q/11: Changed PRA Parameter(s). The planned unavailability baselines for all ERCW pumps were adjusted as needed to reflect past and current planned maintenance not performed every 3 years or less as specified by NEI 99-02.

### Reactor Coolant System Activity



Thresholds: White > 50.0 Yellow > 100.0

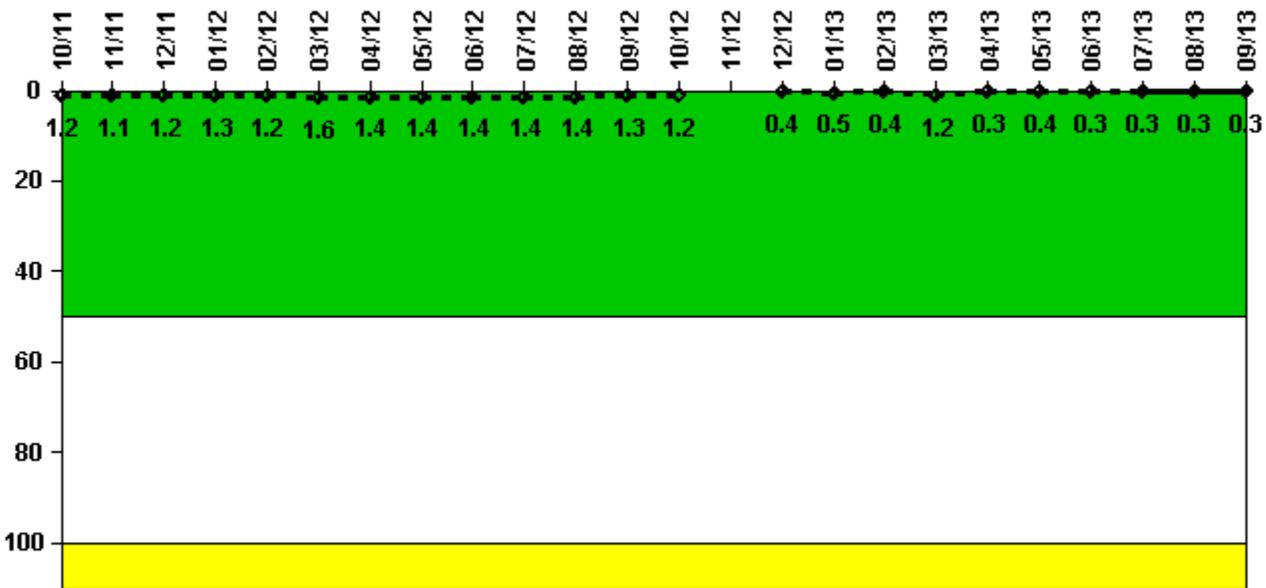
### Notes

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	0.000077	0.000089	0.000101	0.000117	0.000124	0.000122	0.000139	0.000144	0.000156	0.000155	0.000154	0.000139
Technical specification limit	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
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	0.000178	N/A	N/A	0.000056	0.000070	0.000081	0.000087	0.000013	0.000098	0.000113	0.000112	0.000120
Technical specification limit	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
<b>Indicator value</b>	<b>0.1</b>	<b>N/A</b>	<b>N/A</b>	<b>0</b>								

Licensee Comments: none

### Reactor Coolant System Leakage



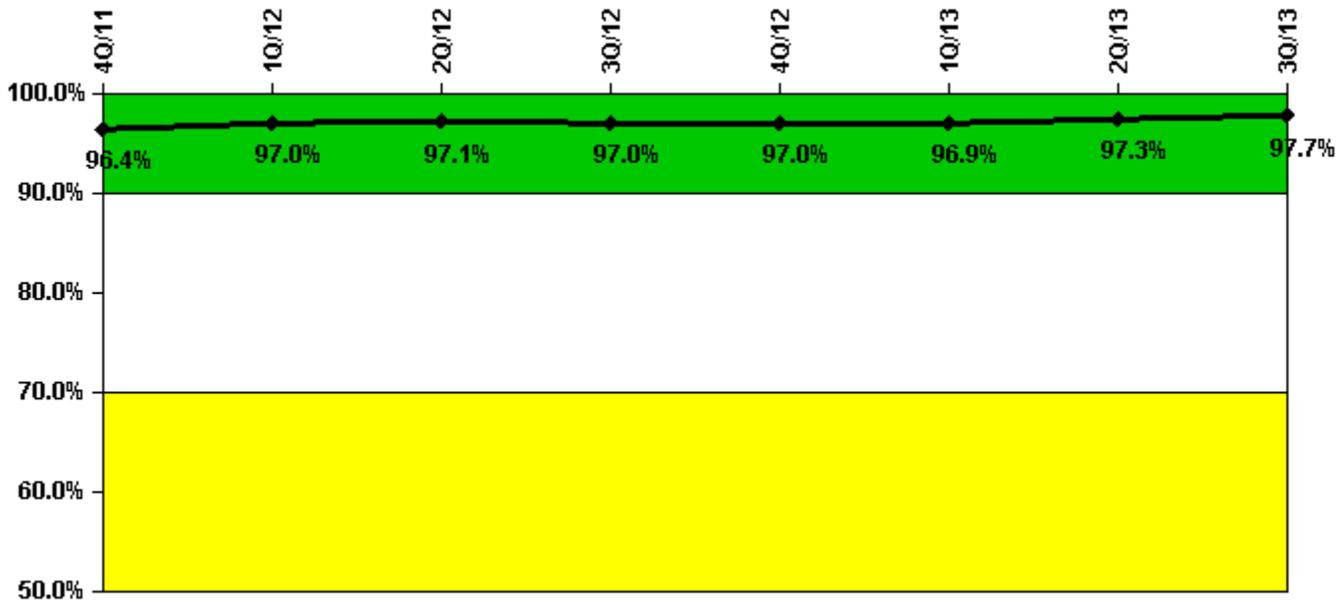
Thresholds: White > 50.0 Yellow > 100.0

### 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	0.120	0.110	0.120	0.130	0.120	0.160	0.140	0.140	0.140	0.140	0.140	0.130
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>1.2</b>	<b>1.1</b>	<b>1.2</b>	<b>1.3</b>	<b>1.2</b>	<b>1.6</b>	<b>1.4</b>	<b>1.4</b>	<b>1.4</b>	<b>1.4</b>	<b>1.4</b>	<b>1.3</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	0.120	N/A	0.040	0.050	0.040	0.120	0.030	0.040	0.030	0.030	0.030	0.030
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>1.2</b>	<b>N/A</b>	<b>0.4</b>	<b>0.5</b>	<b>0.4</b>	<b>1.2</b>	<b>0.3</b>	<b>0.4</b>	<b>0.3</b>	<b>0.3</b>	<b>0.3</b>	<b>0.3</b>

Licensee Comments: none

### Drill/Exercise Performance



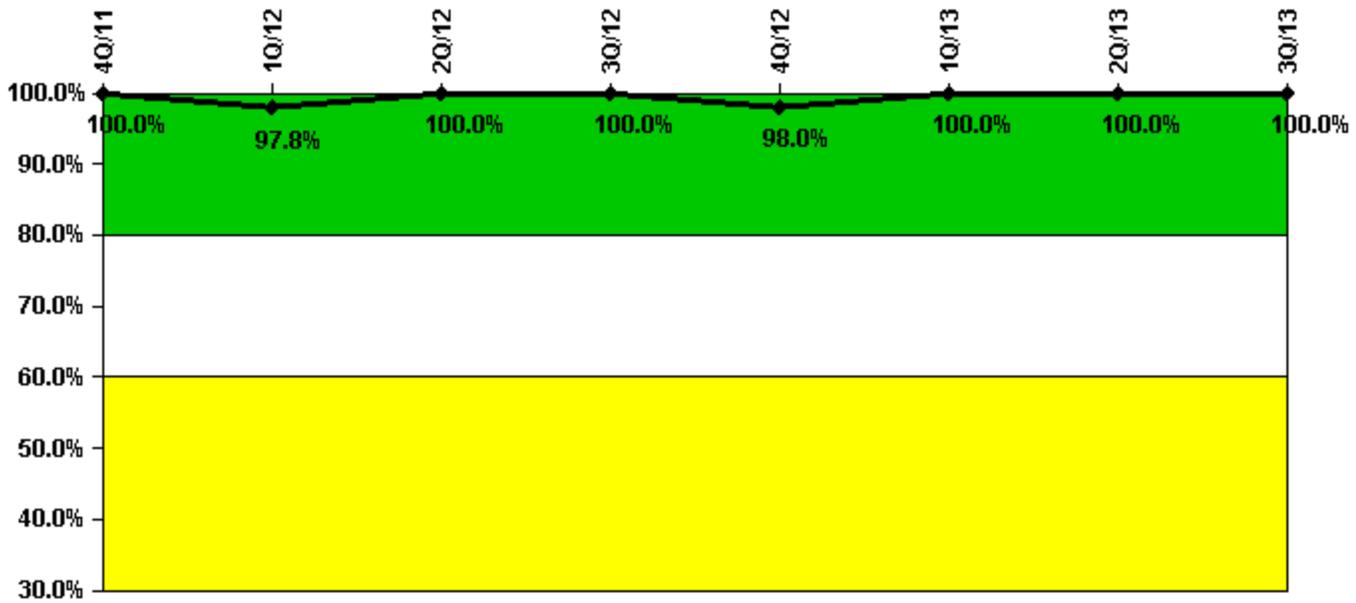
Thresholds: White < 90.0% Yellow < 70.0%

### Notes

Drill/Exercise Performance	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13
Successful opportunities	70.0	6.0	32.0	87.0	10.0	41.0	50.0	82.0
Total opportunities	73.0	6.0	32.0	90.0	10.0	42.0	50.0	84.0
Indicator value	96.4%	97.0%	97.1%	97.0%	97.0%	96.9%	97.3%	97.7%

Licensee Comments: none

### ERO Drill Participation



Thresholds: White < 80.0% Yellow < 60.0%

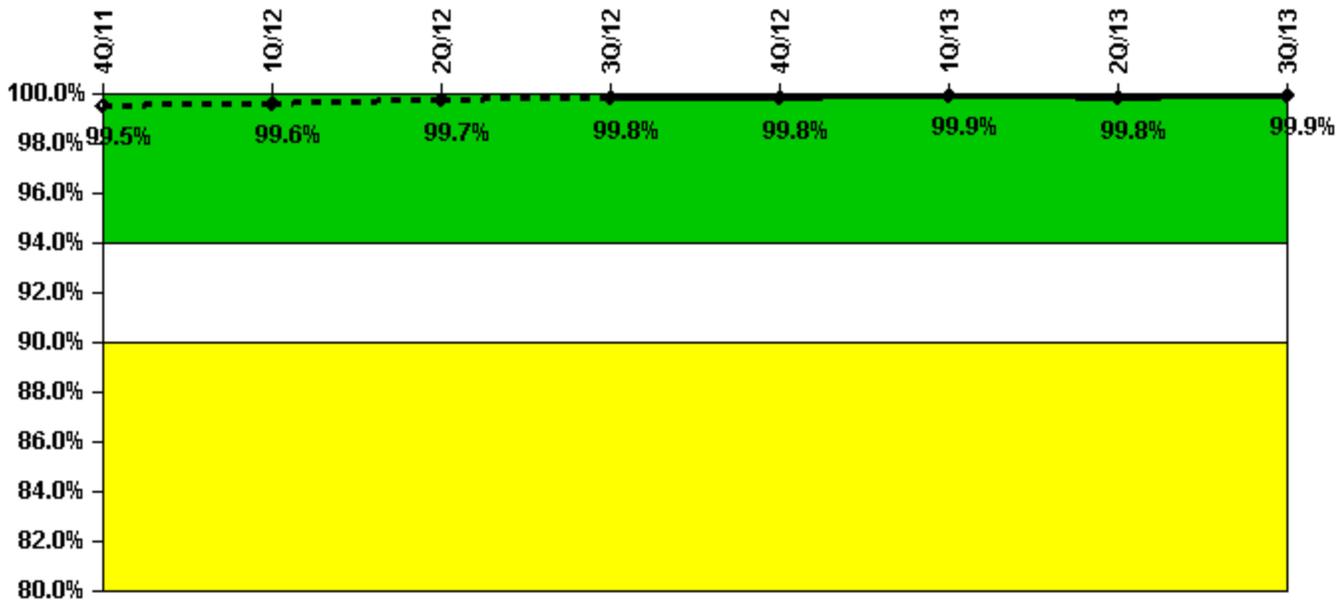
#### Notes

ERO Drill Participation	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13
Participating Key personnel	90.0	88.0	99.0	97.0	99.0	97.0	98.0	97.0
Total Key personnel	90.0	90.0	99.0	97.0	101.0	97.0	98.0	97.0
Indicator value	100.0%	97.8%	100.0%	100.0%	98.0%	100.0%	100.0%	100.0%

Licensee Comments:

2Q/13: During a subsequent review, an error was found in June. Error corrected.

### Alert & Notification System



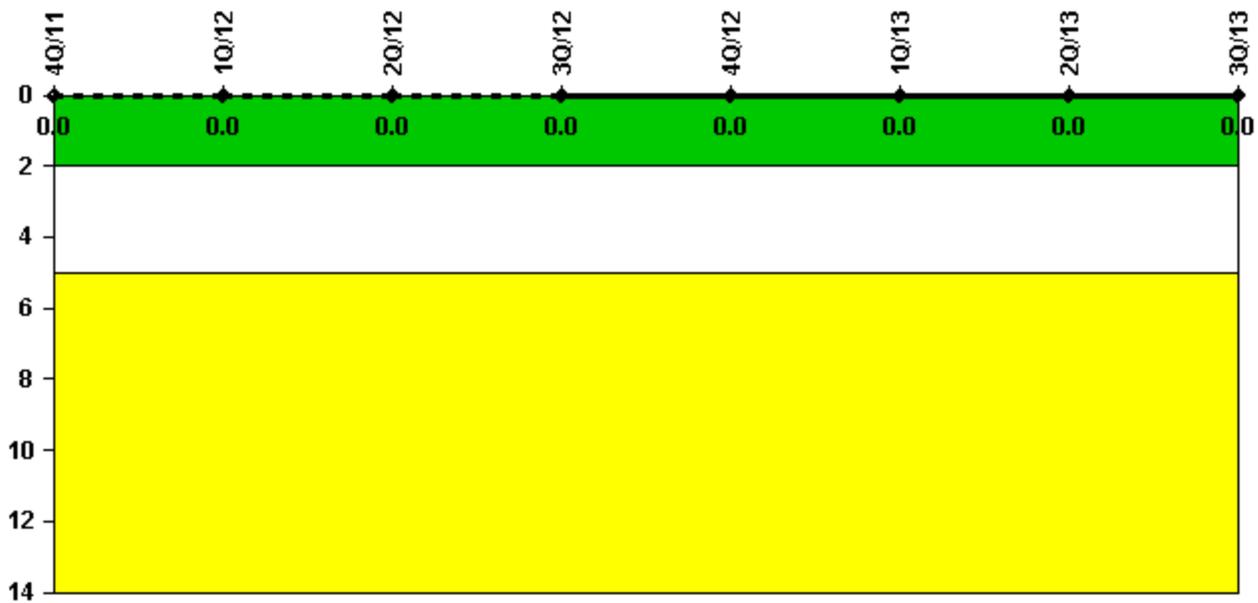
Thresholds: White < 94.0% Yellow < 90.0%

#### Notes

Alert & Notification System	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13
Successful siren-tests	862	863	864	861	753	978	889	1014
Total sirens-tests	864	864	864	864	755	978	890	1016
Indicator value	99.5%	99.6%	99.7%	99.8%	99.8%	99.9%	99.8%	99.9%

Licensee Comments: none

### Occupational Exposure Control Effectiveness



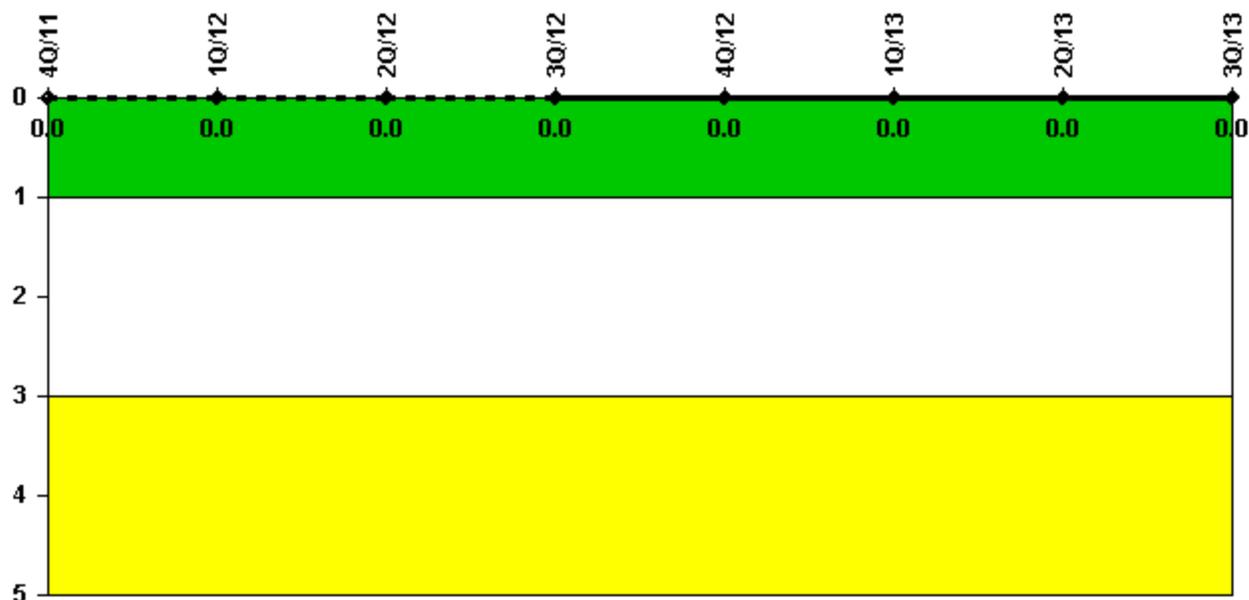
Thresholds: White > 2.0 Yellow > 5.0

#### 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	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	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
<b>Indicator value</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.

 [Action Matrix Summary](#) | [Inspection Findings Summary](#) | [PI Summary](#) | [Reactor Oversight Process](#)

*Last Modified: October 22, 2013*