

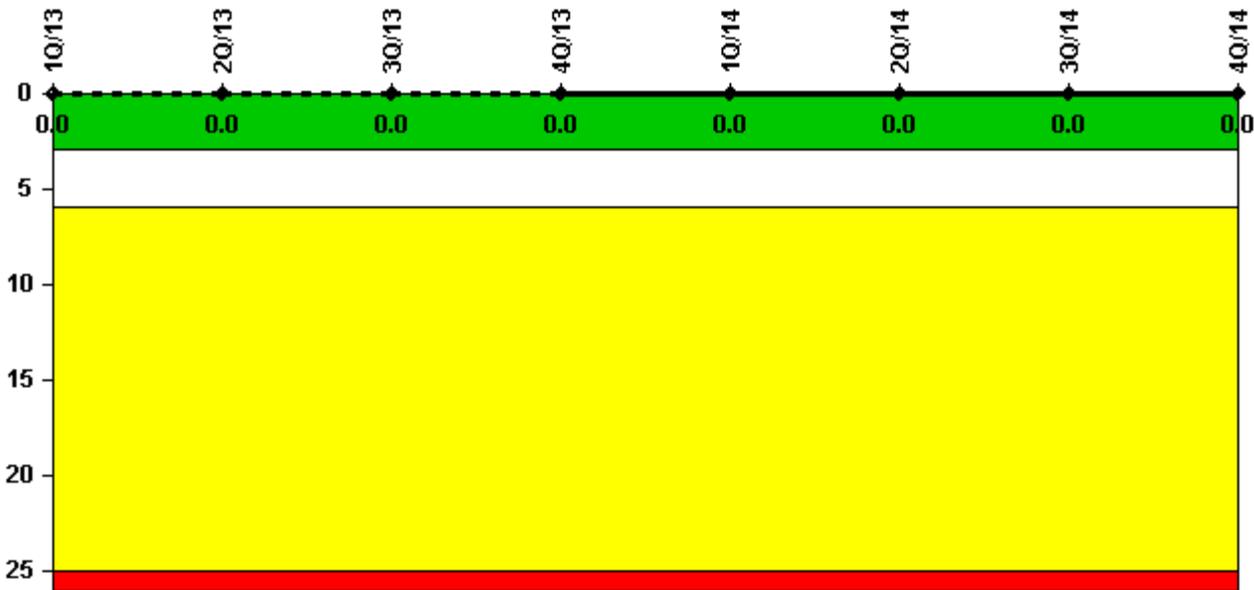
# Arkansas Nuclear 1

## 4Q/2014 Performance Indicators

The solid trend line represents the current reporting period.

Licensee's General Comments: none

### Unplanned Scrams per 7000 Critical Hrs



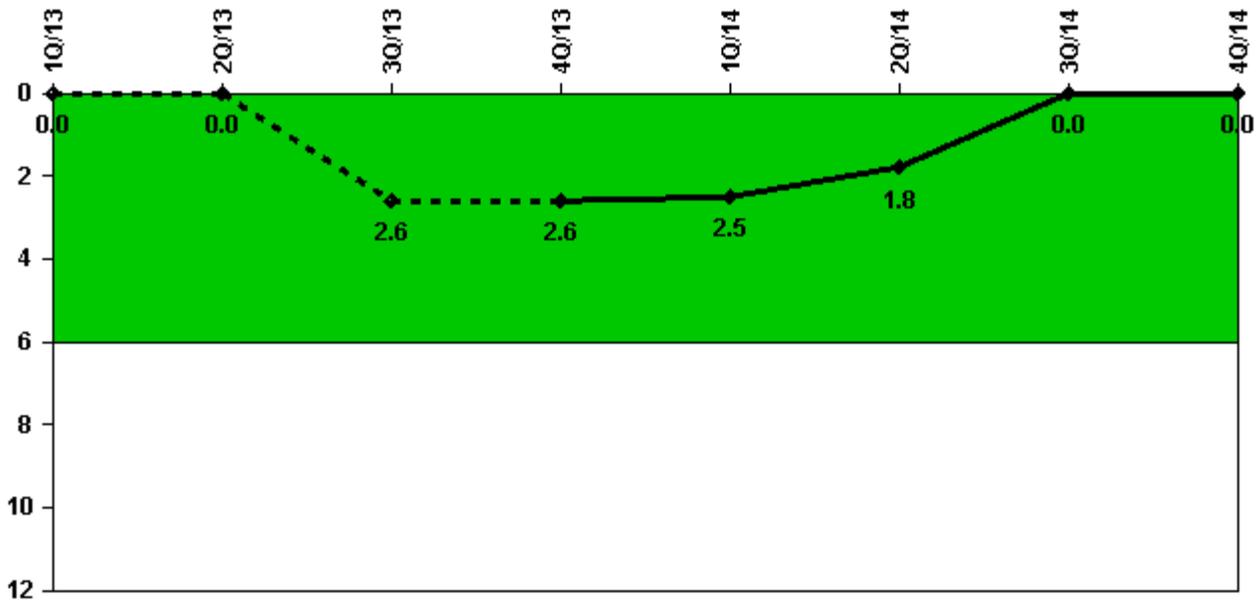
Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

### Notes

Unplanned Scrams per 7000 Critical Hrs	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14
Unplanned scrams	0	0	0	0	0	0	0	0
Critical hours	1975.0	0	1288.6	2209.0	2159.0	2184.0	2208.0	2209.0
<b>Indicator value</b>	<b>0</b>							

Licensee Comments: none

### Unplanned Power Changes per 7000 Critical Hrs



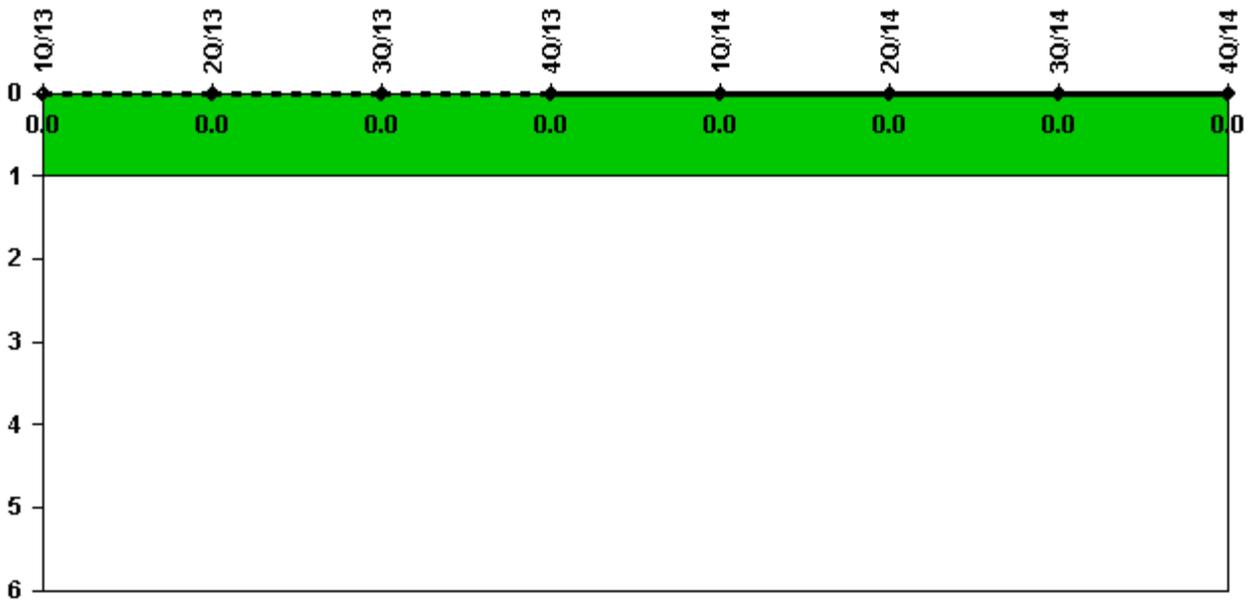
Thresholds: White > 6.0

#### Notes

Unplanned Power Changes per 7000 Critical Hrs	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14
Unplanned power changes	0	0	2.0	0	0	0	0	0
Critical hours	1975.0	0	1288.6	2209.0	2159.0	2184.0	2208.0	2209.0
<b>Indicator value</b>	<b>0</b>	<b>0</b>	<b>2.6</b>	<b>2.6</b>	<b>2.5</b>	<b>1.8</b>	<b>0</b>	<b>0</b>

Licensee Comments: none

### Unplanned Scrams with Complications



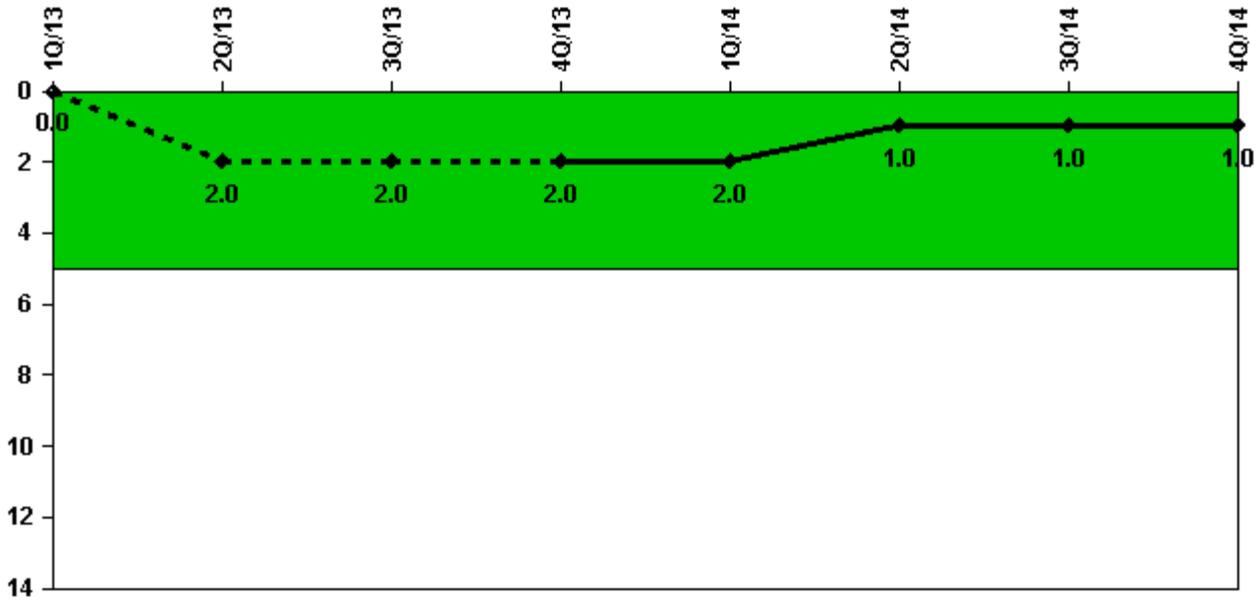
Thresholds: White > 1.0

#### Notes

Unplanned Scrams with Complications	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14
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

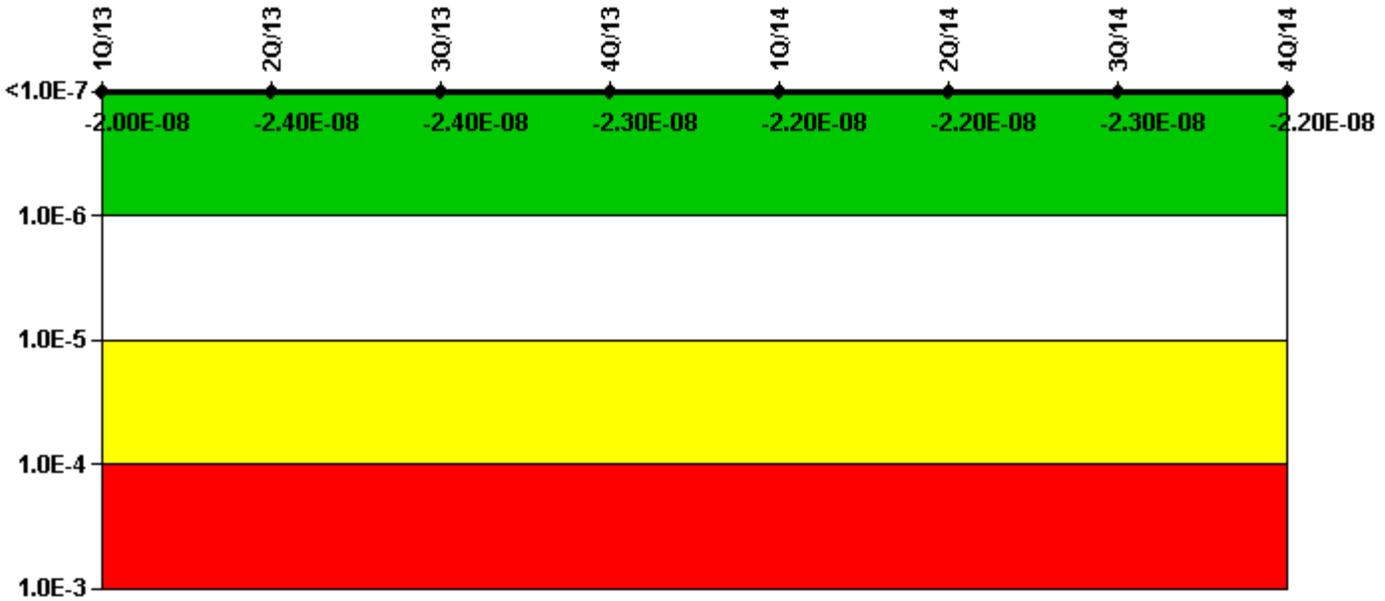
#### Notes

Safety System Functional Failures (PWR)	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14
Safety System Functional Failures	0	2	0	0	0	1	0	0
<b>Indicator value</b>	<b>0</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>1</b>

Licensee Comments:

2Q/13: April 2013 - Licensee Event Report 50-368/2013-002-00: Emergency Control Room Chiller Inoperability.  
 May 2013 - Licensee Event Report 50-313/2013-001-00: ANO-1 Main Generator Stator Temporary Lift Assembly Failure

### Mitigating Systems Performance Index, Emergency AC Power System



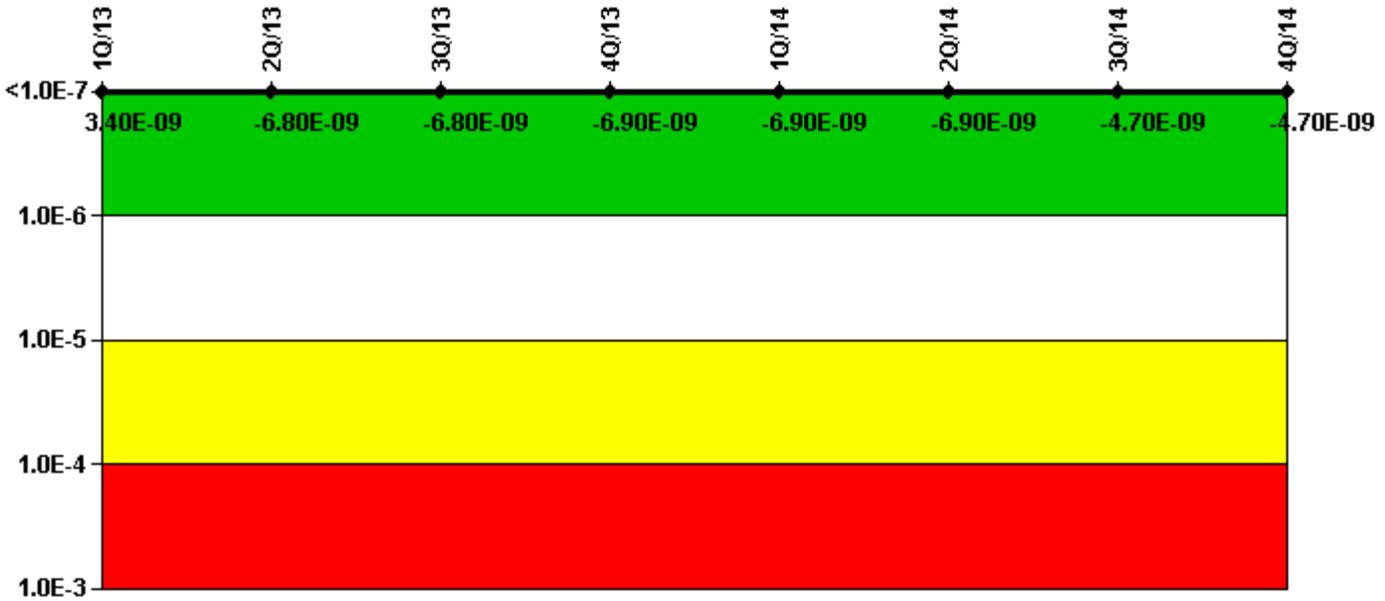
Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

#### Notes

Mitigating Systems Performance Index, Emergency AC Power System	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14
UAI ( $\Delta$ CDF)	-2.38E-09	-2.42E-09	-2.20E-09	-1.98E-09	-6.29E-10	-6.26E-10	-2.20E-09	-2.21E-09
URI ( $\Delta$ CDF)	-1.77E-08	-2.17E-08	-2.18E-08	-2.14E-08	-2.16E-08	-2.17E-08	-2.11E-08	-2.03E-08
PLE	NO							
Indicator value	-2.00E-08	-2.40E-08	-2.40E-08	-2.30E-08	-2.20E-08	-2.20E-08	-2.30E-08	-2.20E-08

Licensee Comments: none

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



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

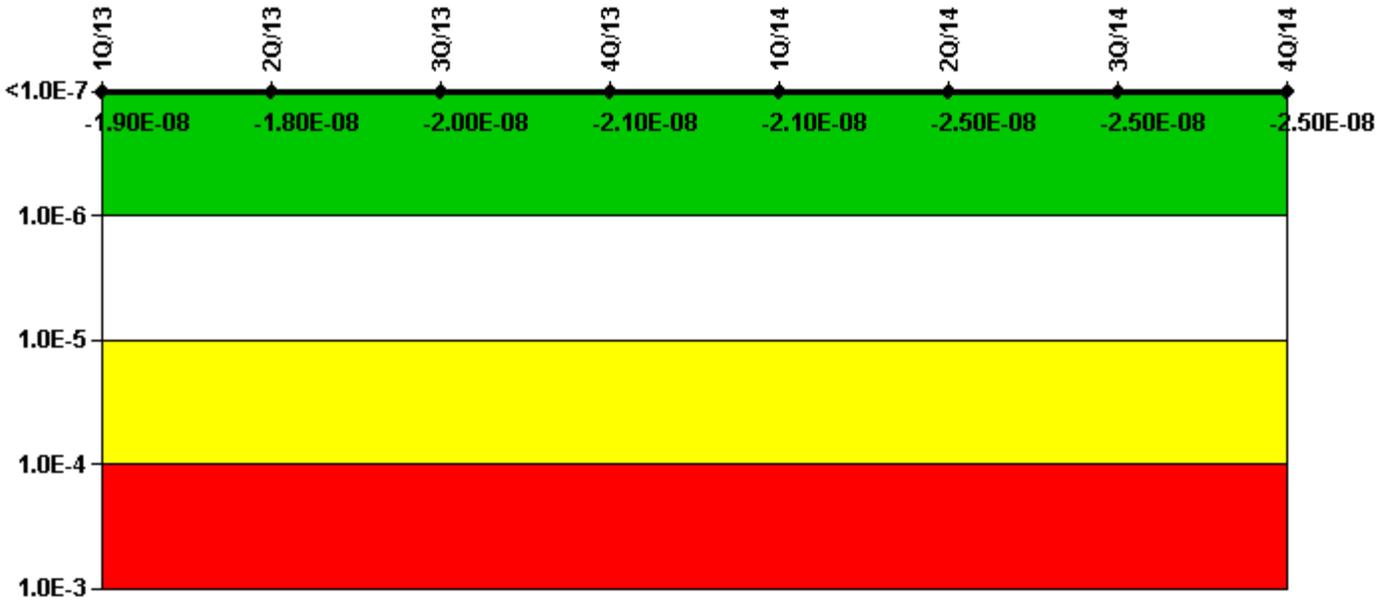
#### Notes

Mitigating Systems Performance Index, High Pressure Injection System	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14
UAI ( $\Delta$ CDF)	-8.92E-12	-7.71E-12	-4.32E-12	-8.30E-12	-8.30E-12	-8.30E-12	-8.24E-12	-8.34E-12
URI ( $\Delta$ CDF)	3.38E-09	-6.78E-09	-6.82E-09	-6.90E-09	-6.93E-09	-6.94E-09	-4.66E-09	-4.67E-09
PLE	NO							
Indicator value	3.40E-09	-6.80E-09	-6.80E-09	-6.90E-09	-6.90E-09	-6.90E-09	-4.70E-09	-4.70E-09

Licensee Comments:

3Q/14: ANO-1 HPI Reliability for P36A in August was revised. Oper Non-Test demands and Run Hours were originally reported under Test. This change does not affect the color of this indicator.

### Mitigating Systems Performance Index, Heat Removal System



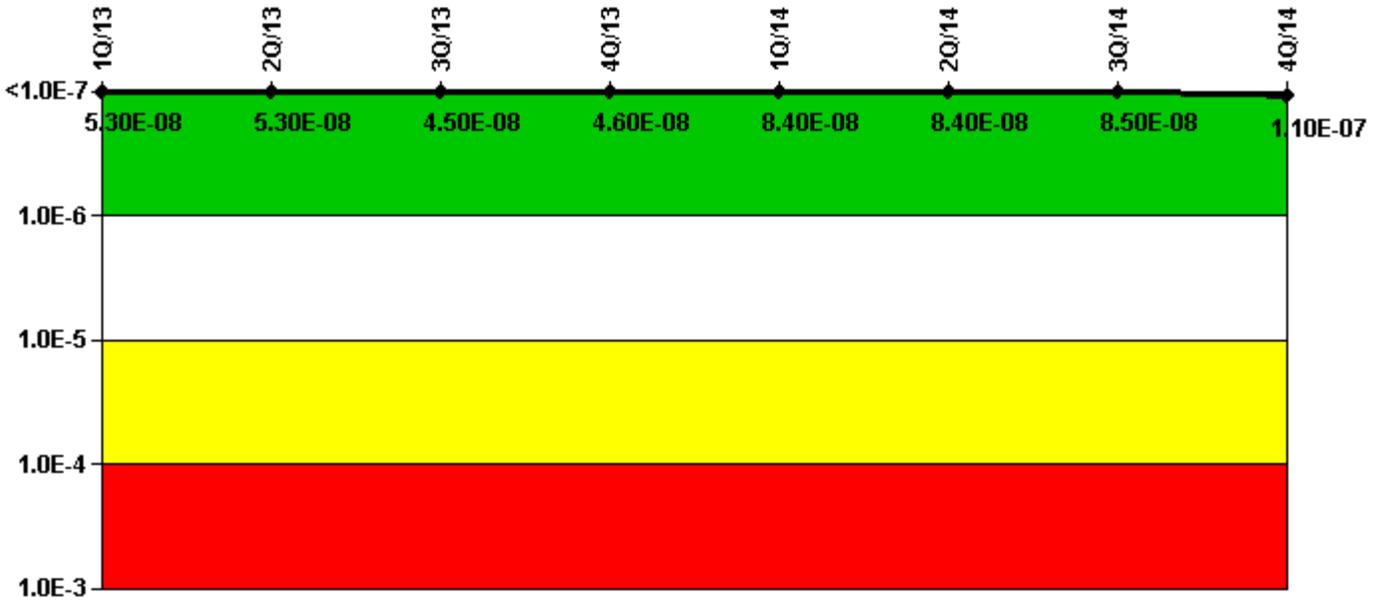
Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

**Notes**

Mitigating Systems Performance Index, Heat Removal System	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14
UAI ( $\Delta$ CDF)	8.43E-09	7.53E-09	3.87E-09	1.29E-09	4.28E-10	-3.29E-09	-4.02E-09	-4.59E-09
URI ( $\Delta$ CDF)	-2.72E-08	-2.58E-08	-2.35E-08	-2.28E-08	-2.17E-08	-2.17E-08	-2.06E-08	-2.01E-08
PLE	NO							
Indicator value	-1.90E-08	-1.80E-08	-2.00E-08	-2.10E-08	-2.10E-08	-2.50E-08	-2.50E-08	-2.50E-08

Licensee Comments: none

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



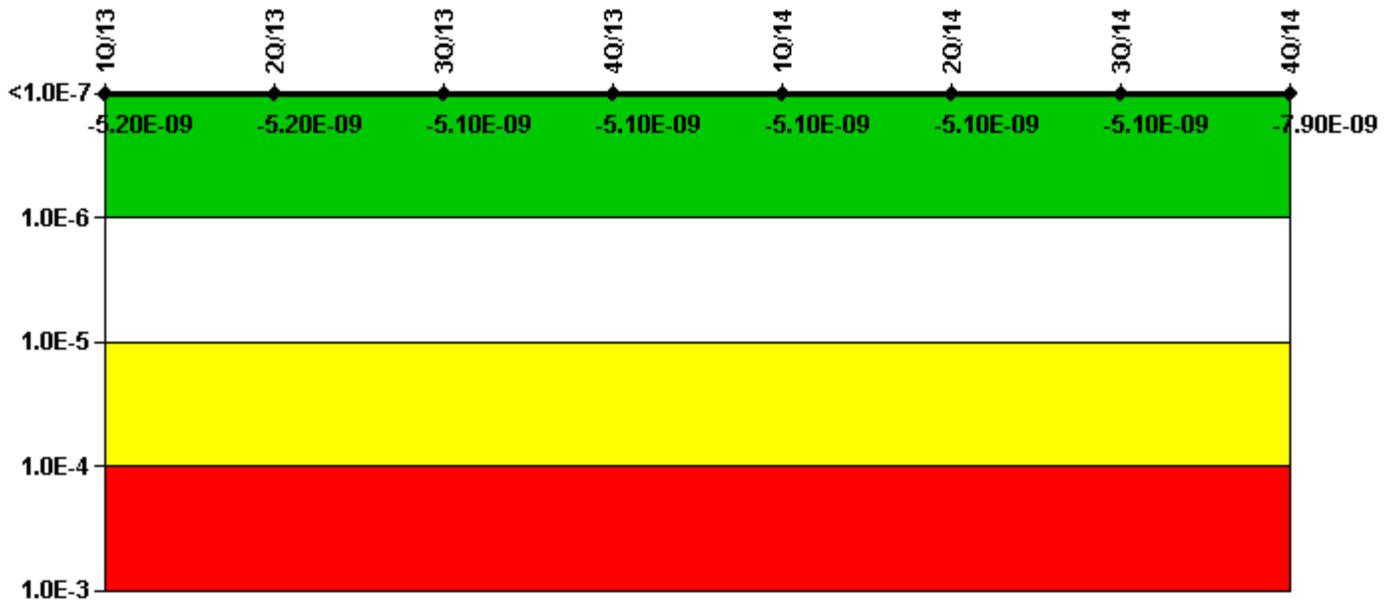
Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

#### Notes

Mitigating Systems Performance Index, Residual Heat Removal System	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14
UAI ( $\Delta$ CDF)	2.35E-09	5.45E-09	8.16E-09	8.16E-09	4.62E-08	4.66E-08	4.73E-08	5.58E-08
URI ( $\Delta$ CDF)	5.03E-08	4.75E-08	3.73E-08	3.76E-08	3.76E-08	3.76E-08	3.73E-08	5.08E-08
PLE	NO							
Indicator value	5.30E-08	5.30E-08	4.50E-08	4.60E-08	8.40E-08	8.40E-08	8.50E-08	1.10E-07

Licensee Comments: none

### Mitigating Systems Performance Index, Cooling Water Systems



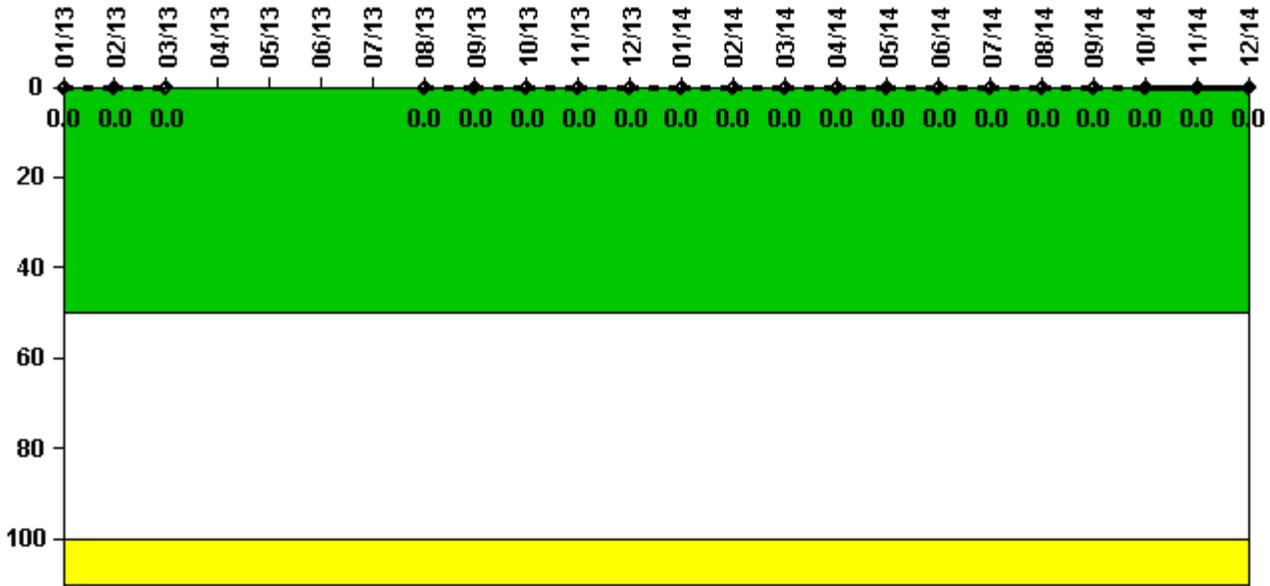
Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

#### Notes

Mitigating Systems Performance Index, Cooling Water Systems	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14
UAI ( $\Delta$ CDF)	-3.49E-09	-3.49E-09	-3.39E-09	-3.39E-09	-3.39E-09	-3.39E-09	-3.39E-09	-3.39E-09
URI ( $\Delta$ CDF)	-1.71E-09	-1.72E-09	-1.70E-09	-1.71E-09	-1.71E-09	-1.71E-09	-1.67E-09	-4.48E-09
PLE	NO							
Indicator value	-5.20E-09	-5.20E-09	-5.10E-09	-5.10E-09	-5.10E-09	-5.10E-09	-5.10E-09	-7.90E-09

Licensee Comments: none

### Reactor Coolant System Activity



Thresholds: White > 50.0 Yellow > 100.0

### Notes

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	0.000139	0.000142	0.000379	N/A	N/A	N/A	N/A	0.000066	0.000066	0.000066	0.000076	0.000089
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	0	0	N/A	N/A	N/A	N/A	0	0	0	0	0

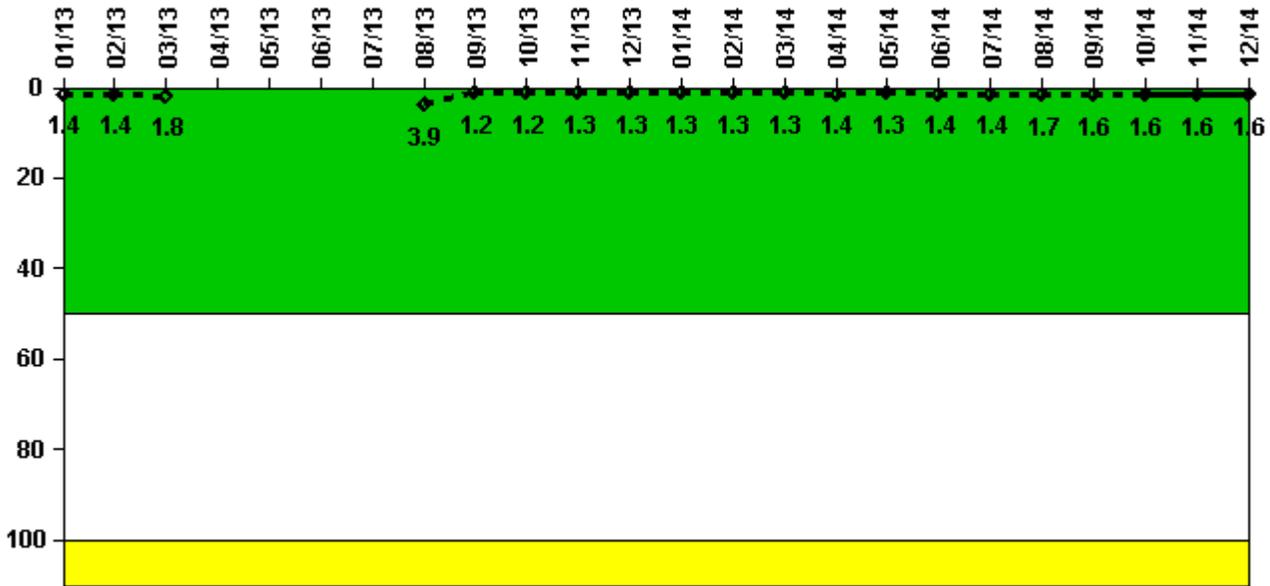
Reactor Coolant System Activity	1/14	2/14	3/14	4/14	5/14	6/14	7/14	8/14	9/14	10/14	11/14	12/14
Maximum activity	0.000082	0.000084	0.000161	0.000084	0.000063	0.000090	0.000142	0.000103	0.000157	0.000160	0.000185	0.000144
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	0	0	0	0	0	0	0	0	0	0	0	0

Licensee Comments:

9/13: ANO-1 was off line the entire month of July.

6/13: ANO-1 was off line for the entire second quarter 2013.

### Reactor Coolant System Leakage



Thresholds: White > 50.0 Yellow > 100.0

#### Notes

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	0.139	0.141	0.181	N/A	N/A	N/A	N/A	0.389	0.123	0.115	0.128	0.132
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	1.4	1.4	1.8	N/A	N/A	N/A	N/A	3.9	1.2	1.2	1.3	1.3

Reactor Coolant System Leakage	1/14	2/14	3/14	4/14	5/14	6/14	7/14	8/14	9/14	10/14	11/14	12/14
Maximum leakage	0.128	0.128	0.127	0.137	0.125	0.138	0.135	0.165	0.164	0.159	0.160	0.159
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	1.3	1.3	1.3	1.4	1.3	1.4	1.4	1.7	1.6	1.6	1.6	1.6

Licensee Comments:

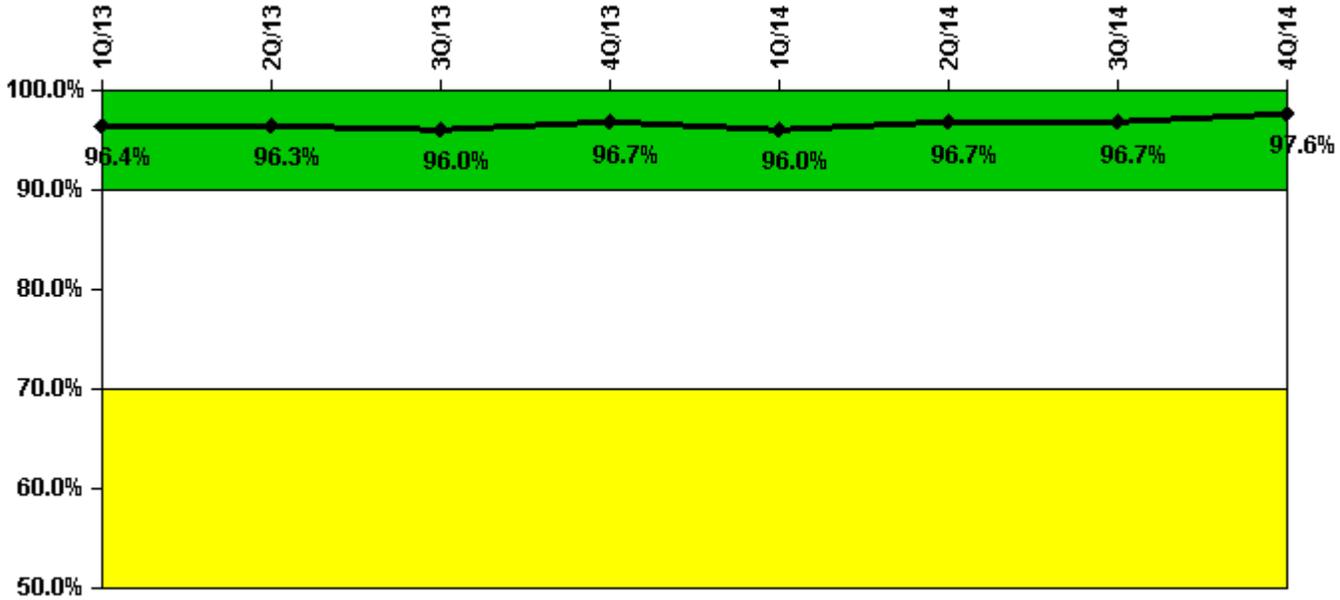
12/13: Total Leakage is being reported in lieu of Identified Leakage.

9/13: Total Leakage is being reported in lieu of Identified Leakage. ANO-1 was off line the entire month of July.

6/13: ANO-1 was off line for the entire second quarter 2013.

3/13: Total Leakage is being reported in lieu of Identified Leakage

### Drill/Exercise Performance



Thresholds: White < 90.0% Yellow < 70.0%

### Notes

Drill/Exercise Performance	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14
Successful opportunities	26.0	8.0	51.0	50.0	51.0	45.0	108.0	61.0
Total opportunities	27.0	8.0	53.0	51.0	54.0	45.0	111.0	61.0
Indicator value	<b>96.4%</b>	<b>96.3%</b>	<b>96.0%</b>	<b>96.7%</b>	<b>96.0%</b>	<b>96.7%</b>	<b>96.7%</b>	<b>97.6%</b>

### Licensee Comments:

3Q/14: The September Drill / Exercise Performance was revised to included three notification communicator drills. This change dose not affect the color of this indicator.

2Q/14: Change to correct counting of the number of drills performed in the 2nd qtr. (Changed October 2014 does not affect the color of this indicator)

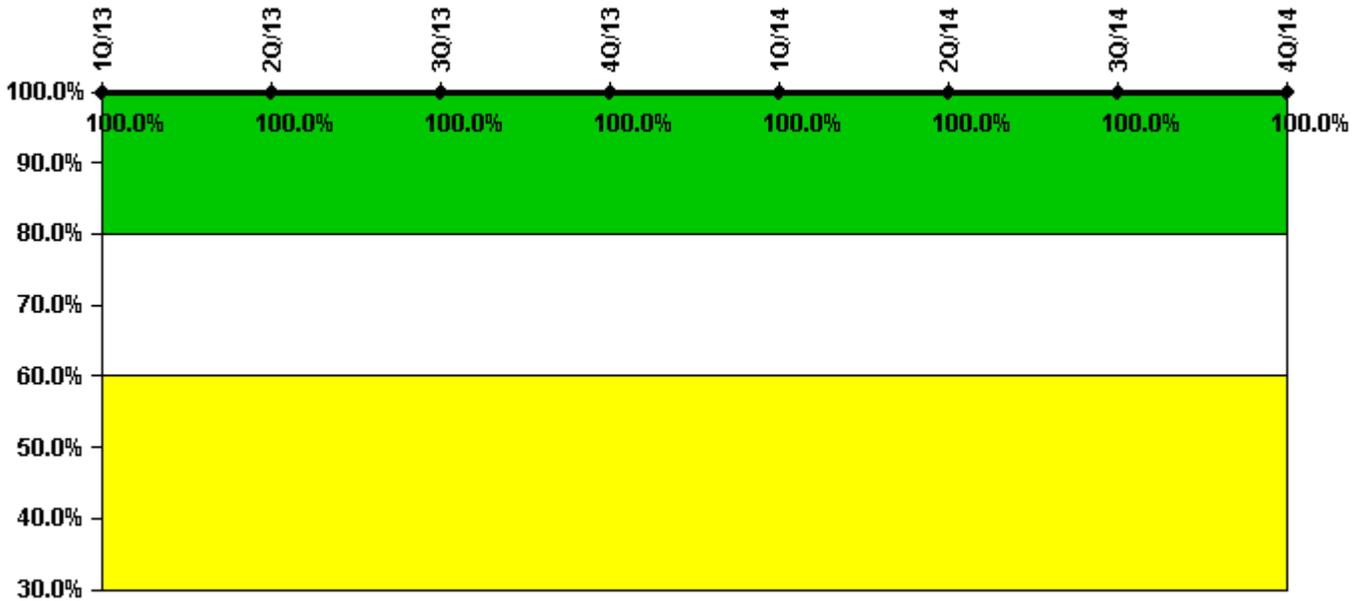
1Q/14: SM Classification failure during 2/25/2014 simulator set. EOF notification failure during 3/19/2014 full scale drill. EOF PAR failure furing 3/19/2014 full scale drill. (Changed October 2014 does not affect the color of this indicator)

4Q/13: Change to correct counting of the number of drills performed in the 4th qtr.

3Q/13: Change to correct counting of the number of drills performed in the 3rd qtr.

3Q/13: In January of 2014, five drills that were not previously counted were added to the 3rd Quarter 2013 Emergency Preparedness data.

### ERO Drill Participation



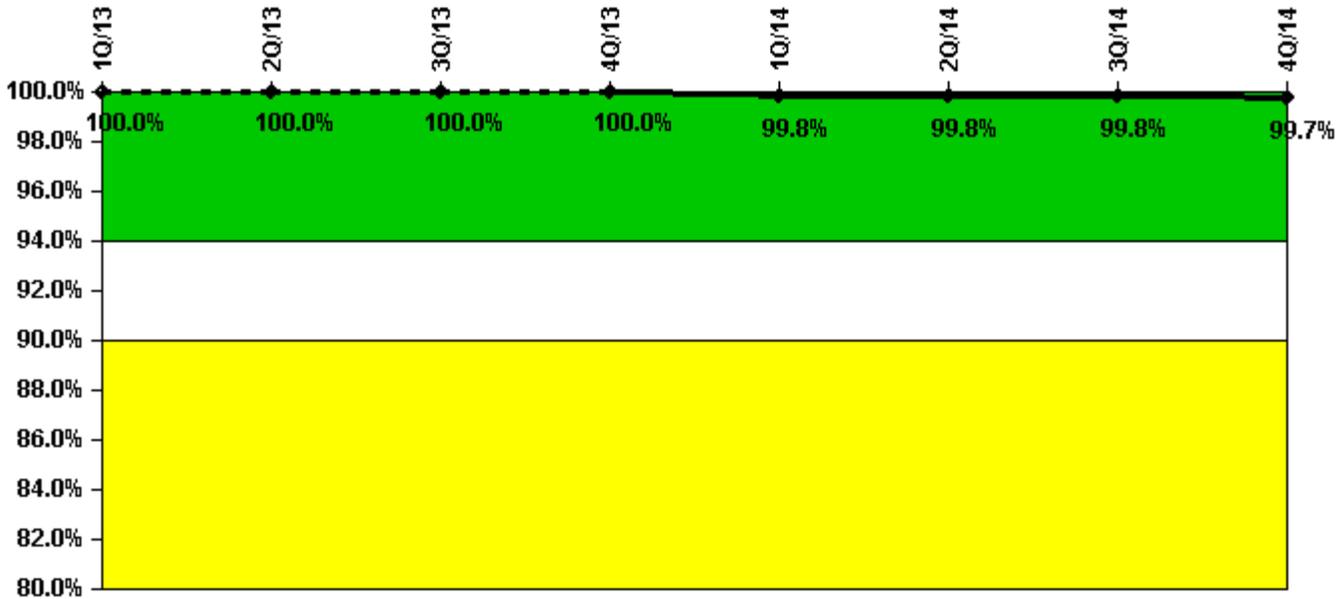
Thresholds: White < 80.0% Yellow < 60.0%

### Notes

ERO Drill Participation	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14
Participating Key personnel	84.0	81.0	98.0	99.0	103.0	118.0	119.0	116.0
Total Key personnel	84.0	81.0	98.0	99.0	103.0	118.0	119.0	116.0
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

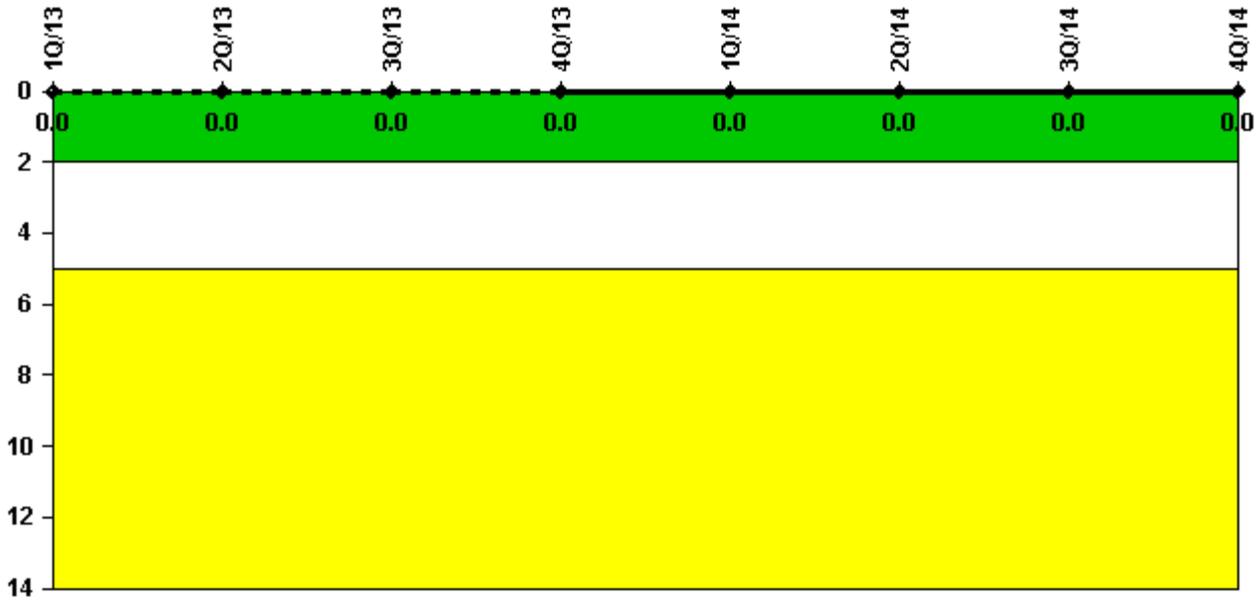
Alert & Notification System	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14
Successful siren-tests	147	147	146	147	146	147	147	146
Total sirens-tests	147	147	146	147	147	147	147	147
Indicator value	100.0%	100.0%	100.0%	100.0%	99.8%	99.8%	99.8%	99.7%

#### Licensee Comments:

1Q/14: February 2014 - 2z7 failed the initial siren test. Additional checks were performed and the siren tested sat. It also tested sat in March 2014 test. (CR-ANO-C-2014-02471) (Changed October 2014 does not affect the color of this indicator)

3Q/13: September 2013 -siren 3z5 did not appear on the test form. It could not be determined if the siren was actually rested, due to the length of time between testing and identification of the miss. Therefore, this siren is being removed from consideration in the ANS testing. (CR-ANO-C-2014-02471) (Changed October 2014 does not affect the color of this indicator)

### Occupational Exposure Control Effectiveness



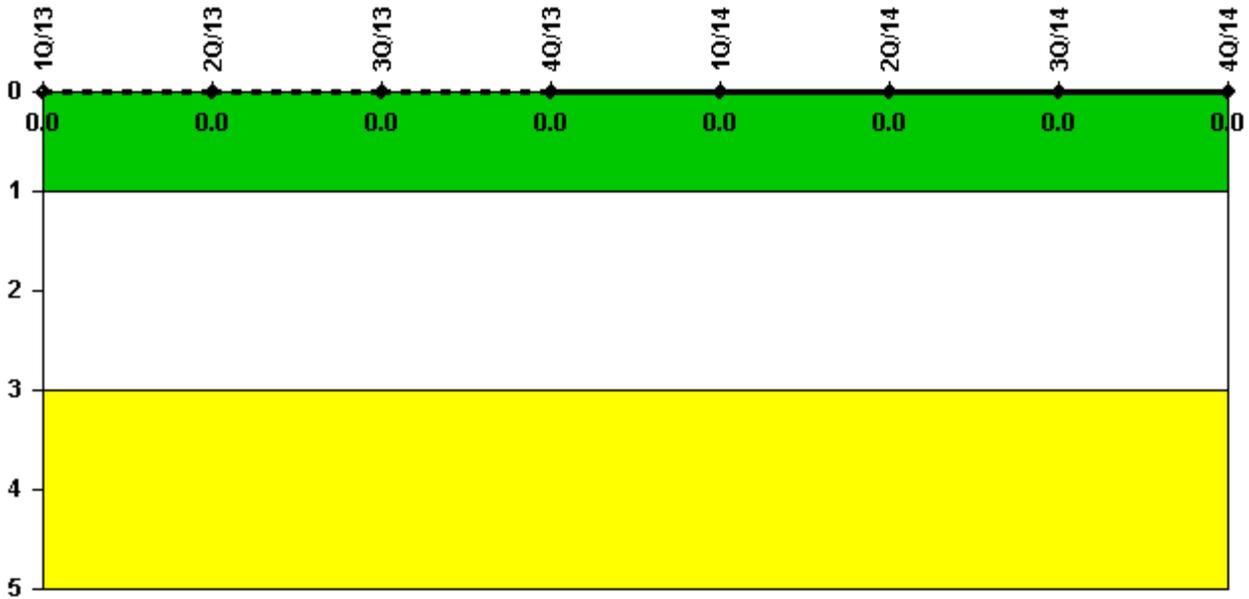
Thresholds: White > 2.0 Yellow > 5.0

#### Notes

Occupational Exposure Control Effectiveness	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14
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/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14
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: February 3, 2015*