

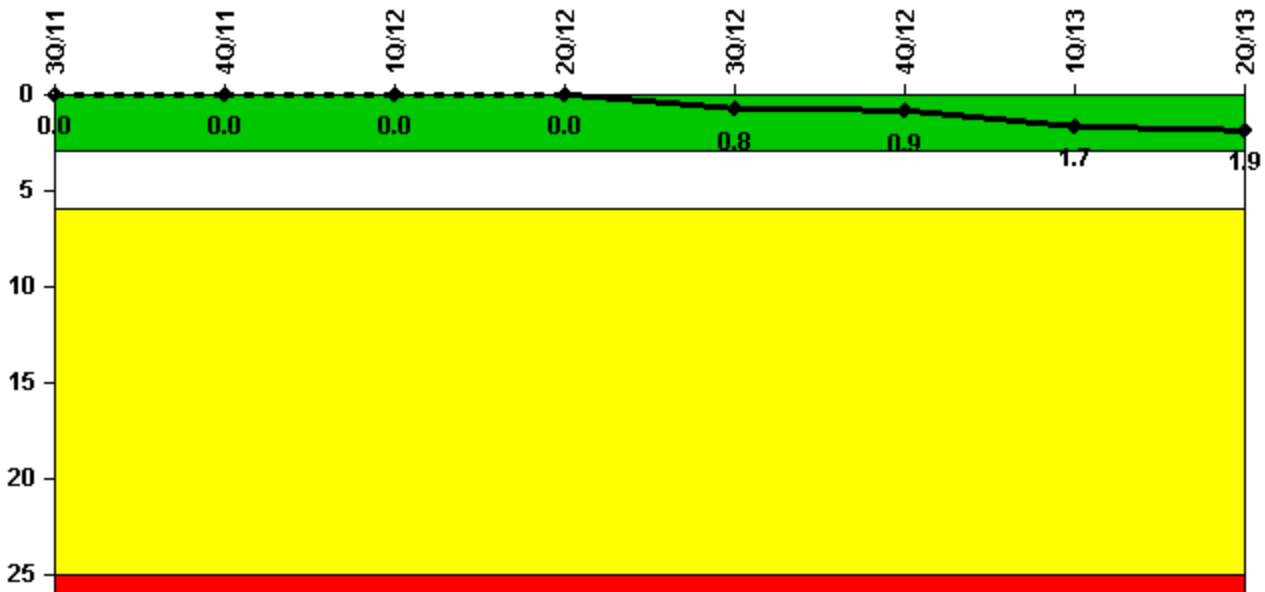
# Arkansas Nuclear 2

## 2Q/2013 Performance Indicators

The solid trend line represents the current reporting period.

Licensee's General Comments: none

### Unplanned Scrams per 7000 Critical Hrs



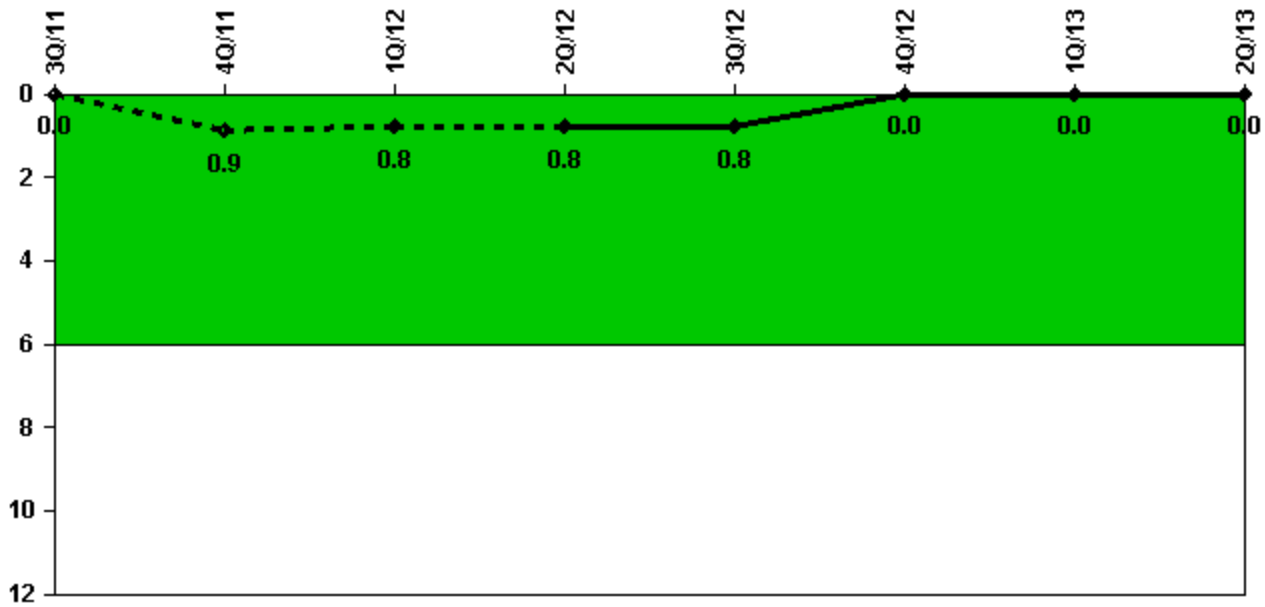
Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

### Notes

Unplanned Scrams per 7000 Critical Hrs	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13
Unplanned scrams	0	0	0	0	1.0	0	1.0	0
Critical hours	2208.0	2209.0	2183.0	2184.0	1755.3	1987.5	2142.8	1526.7
Indicator value	0	0	0	0	0.8	0.9	1.7	1.9

Licensee Comments: none

### Unplanned Power Changes per 7000 Critical Hrs



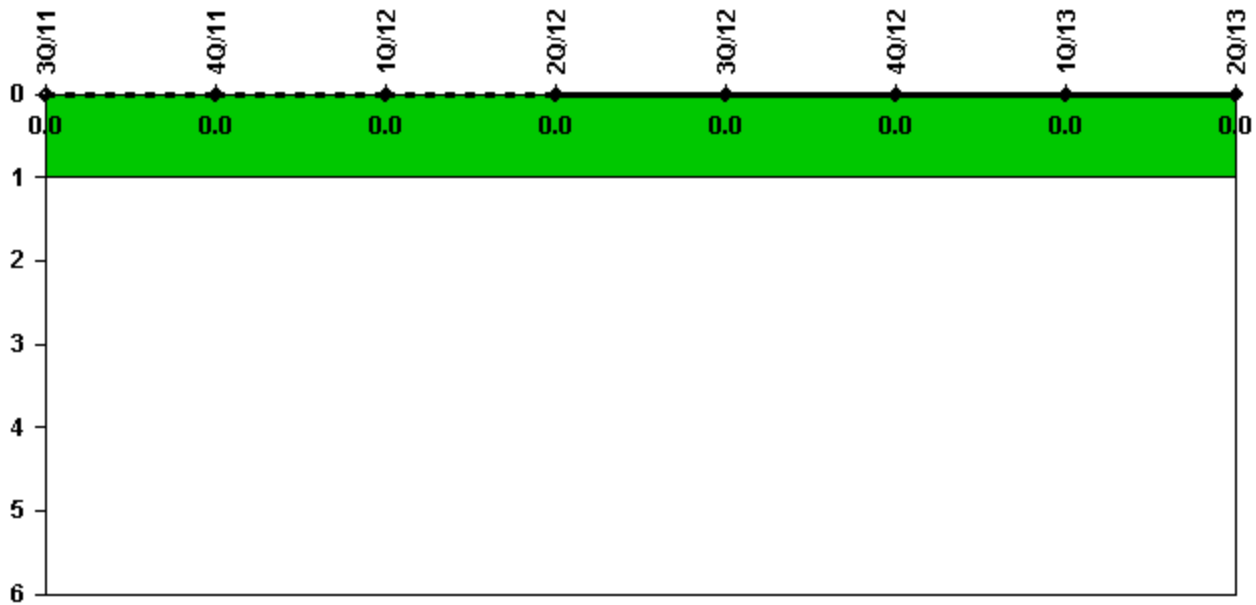
Thresholds: White > 6.0

#### Notes

Unplanned Power Changes per 7000 Critical Hrs	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13
Unplanned power changes	0	1.0	0	0	0	0	0	0
Critical hours	2208.0	2209.0	2183.0	2184.0	1755.3	1987.5	2142.8	1526.7
<b>Indicator value</b>	<b>0</b>	<b>0.9</b>	<b>0.8</b>	<b>0.8</b>	<b>0.8</b>	<b>0</b>	<b>0</b>	<b>0</b>

Licensee Comments: none

### Unplanned Scrams with Complications



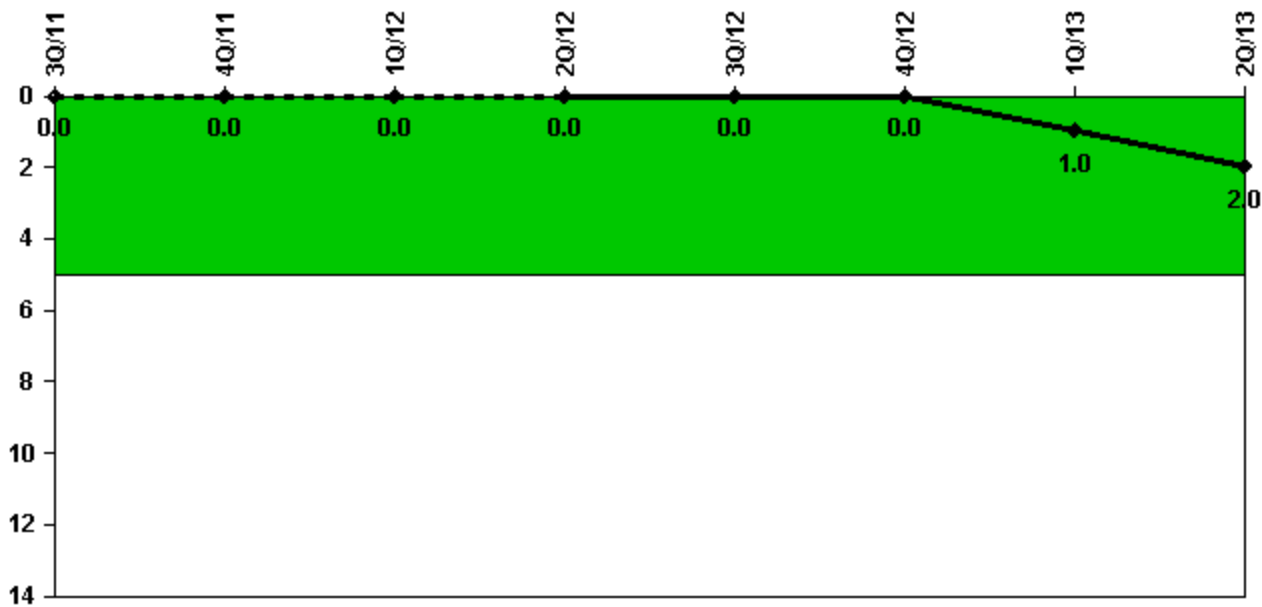
Thresholds: White > 1.0

#### Notes

Unplanned Scrams with Complications	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13
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

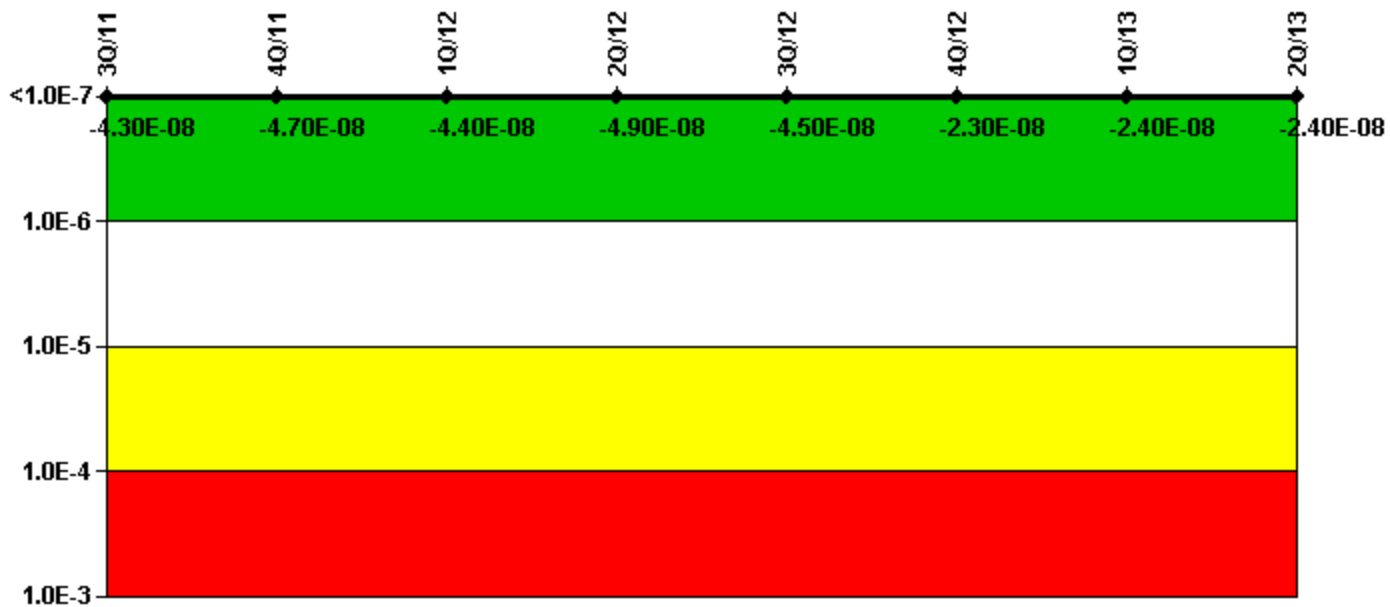
Safety System Functional Failures (PWR)	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13
Safety System Functional Failures	0	0	0	0	0	0	1	1
<b>Indicator value</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>2</b>

Licensee Comments:

2Q/13: April 2013 - Licensee Event Report 50-368/2013-002-00: Emergency Control Room Chiller Inoperability

1Q/13: Licensee Event Report 50-368/2013-001-00 submitted in February, 2012.

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



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

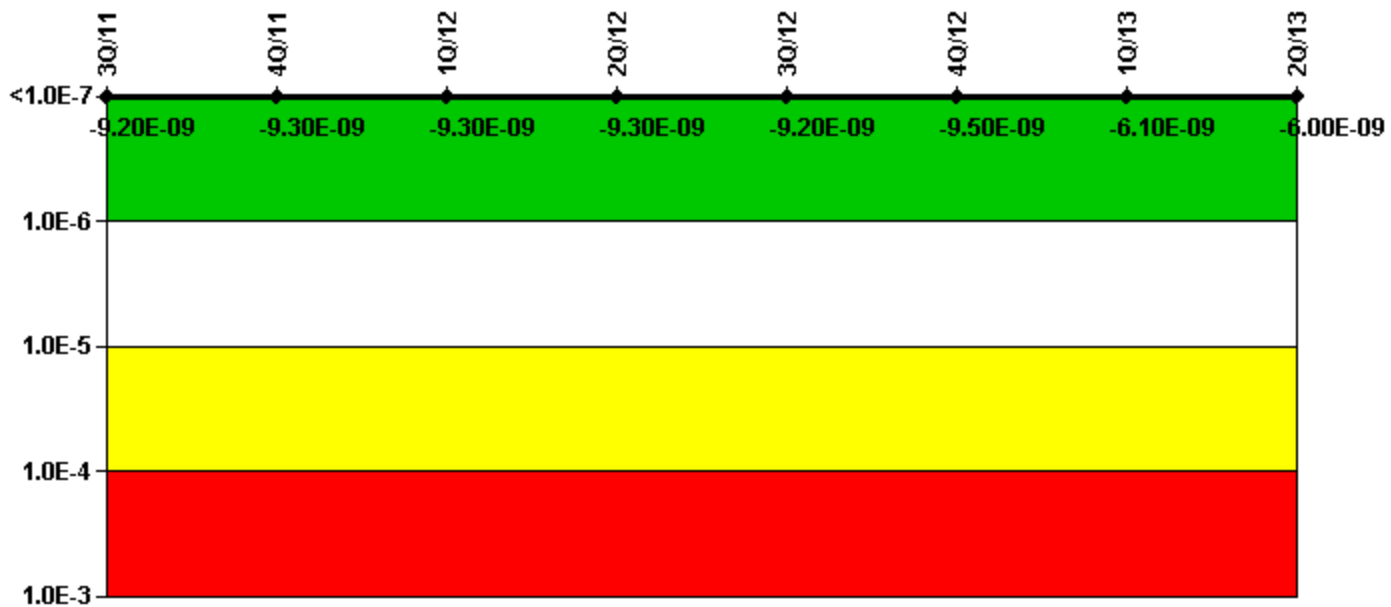
#### Notes

Mitigating Systems Performance Index, Emergency AC Power System	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13
UAI ( $\Delta$ CDF)	1.56E-08	9.45E-09	9.14E-09	8.46E-09	8.38E-09	3.12E-08	3.13E-08	3.36E-08
URI ( $\Delta$ CDF)	-5.85E-08	-5.65E-08	-5.34E-08	-5.70E-08	-5.36E-08	-5.42E-08	-5.53E-08	-5.72E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-4.30E-08	-4.70E-08	-4.40E-08	-4.90E-08	-4.50E-08	-2.30E-08	-2.40E-08	-2.40E-08

Licensee Comments:

1Q/12: The ANO-2 MSPI Basis Document was revised in the 1Q2012 to add the Emergency Diesel Generator (EDG) fuel oil transfer pumps to the scope of the EDG supercomponent boundary. There were no MSPI coefficient changes required as a result of this revision.

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



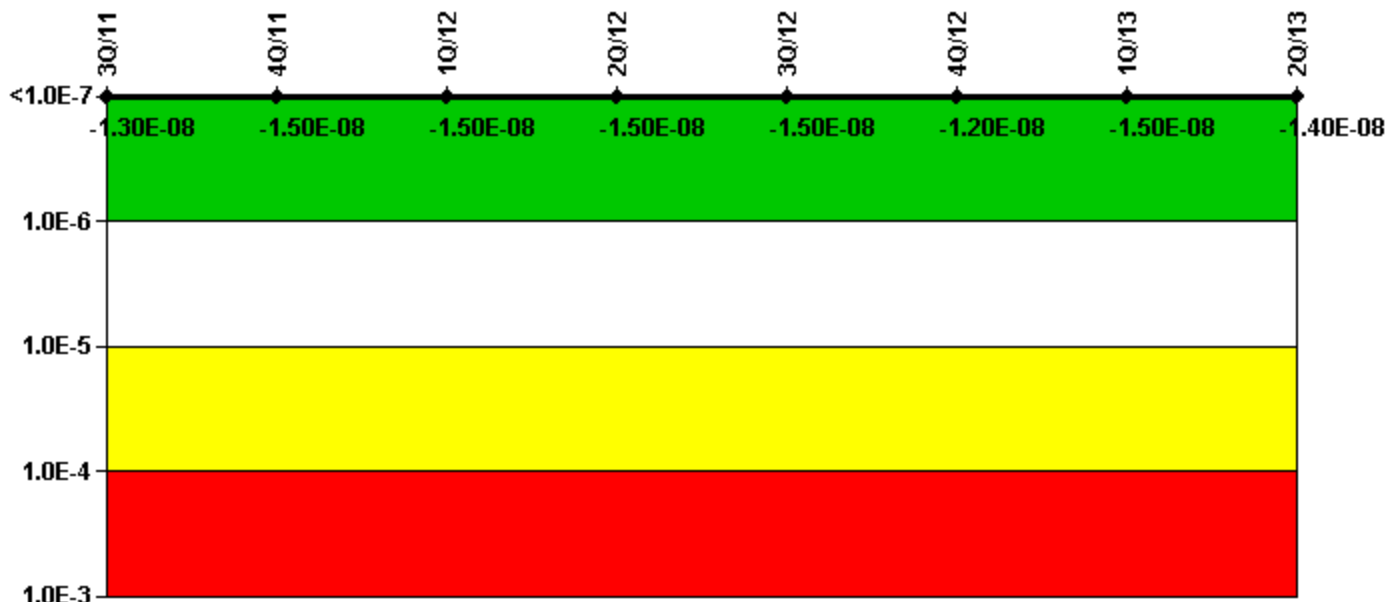
Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

#### Notes

Mitigating Systems Performance Index, High Pressure Injection System	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13
UAI ( $\Delta$ CDF)	-4.59E-09	-4.59E-09	-4.59E-09	-4.59E-09	-4.59E-09	-4.59E-09	-1.06E-09	-8.77E-10
URI ( $\Delta$ CDF)	-4.60E-09	-4.69E-09	-4.73E-09	-4.76E-09	-4.58E-09	-4.94E-09	-5.02E-09	-5.13E-09
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-9.20E-09	-9.30E-09	-9.30E-09	-9.30E-09	-9.20E-09	-9.50E-09	-6.10E-09	-6.00E-09

Licensee Comments: none

### Mitigating Systems Performance Index, Heat Removal System



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

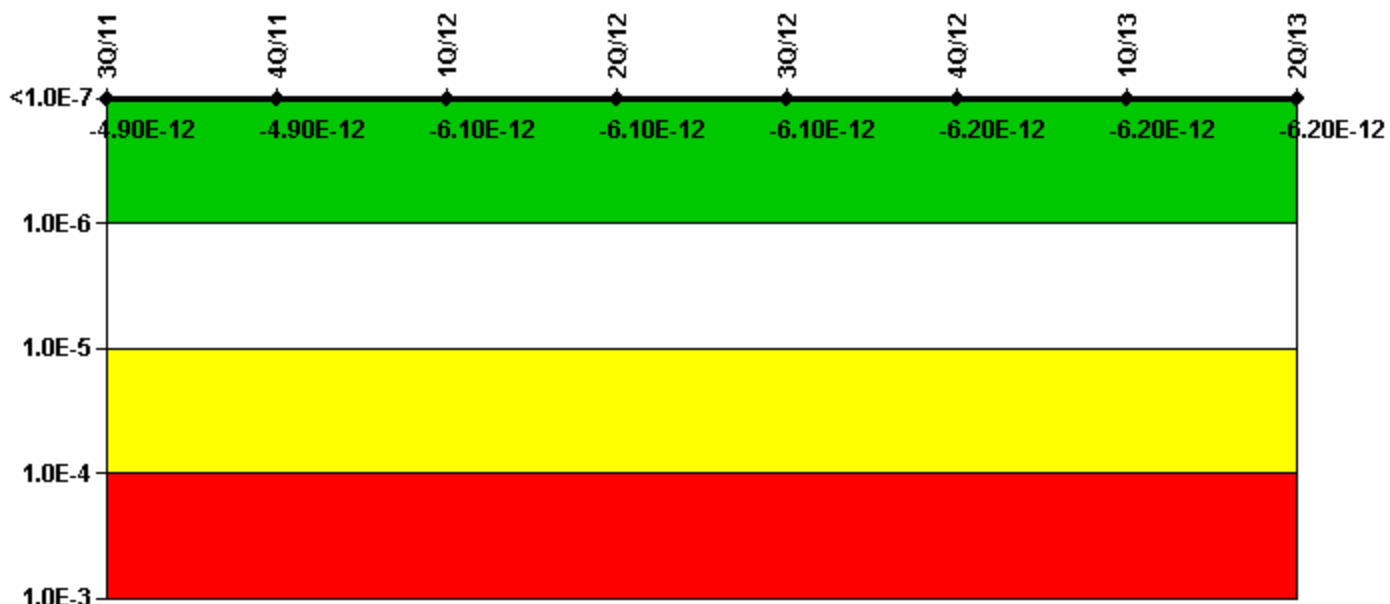
#### Notes

Mitigating Systems Performance Index, Heat Removal System	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13
UAI ( $\Delta$ CDF)	1.19E-10	-1.52E-09	-1.29E-09	-2.12E-09	-2.16E-09	1.15E-09	-2.04E-09	-1.35E-10
URI ( $\Delta$ CDF)	-1.34E-08	-1.34E-08	-1.35E-08	-1.33E-08	-1.32E-08	-1.31E-08	-1.33E-08	-1.34E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-1.30E-08	-1.50E-08	-1.50E-08	-1.50E-08	-1.50E-08	-1.20E-08	-1.50E-08	-1.40E-08

Licensee Comments:

2Q/13: In May, a high oil level condition was identified for the 2P-7A Emergency Feedwater Pump. An engineering evaluation is in progress to evaluate the condition. Any performance indicator impact as a result of the evaluation will be reported in the following quarter, as instructed by NEI 99-02 Reporting Guidance.

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



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

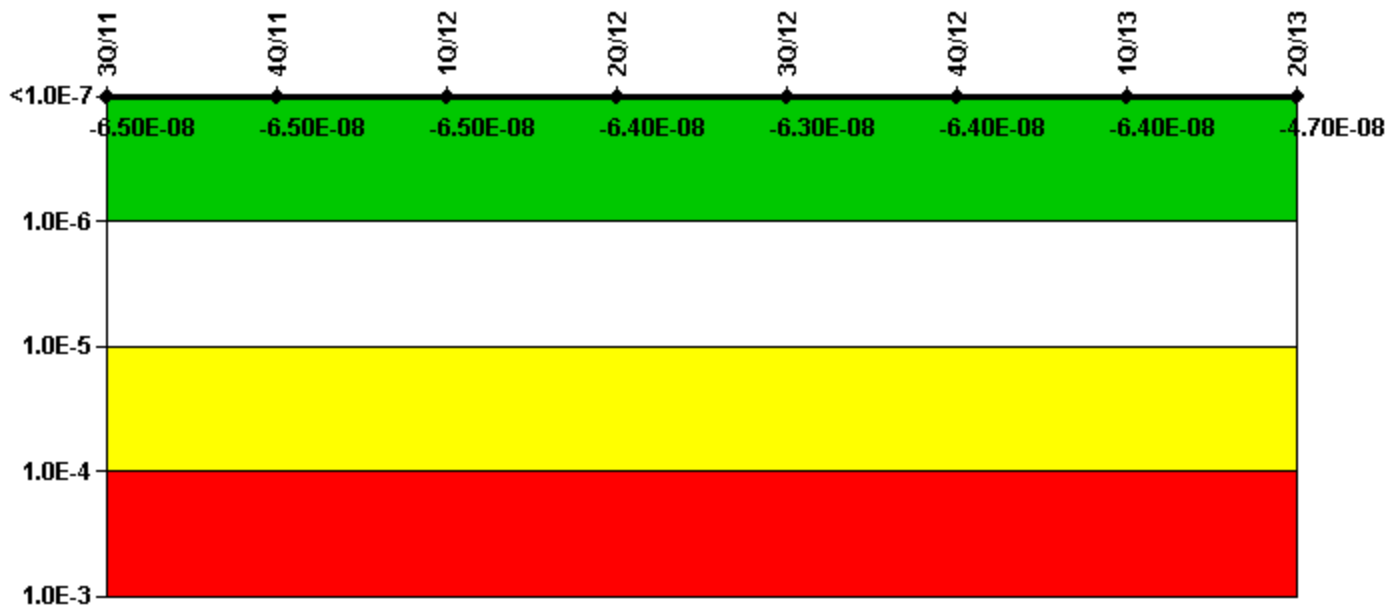
#### Notes

Mitigating Systems Performance Index, Residual Heat Removal System	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13
UAI ( $\Delta$ CDF)	-3.23E-12	-3.23E-12	-4.49E-12	-4.49E-12	-4.49E-12	-4.49E-12	-4.49E-12	-4.49E-12
URI ( $\Delta$ CDF)	-1.62E-12	-1.62E-12	-1.66E-12	-1.66E-12	-1.59E-12	-1.73E-12	-1.76E-12	-1.73E-12
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-4.90E-12	-4.90E-12	-6.10E-12	-6.10E-12	-6.10E-12	-6.20E-12	-6.20E-12	-6.20E-12

Licensee Comments: none



### Mitigating Systems Performance Index, Cooling Water Systems



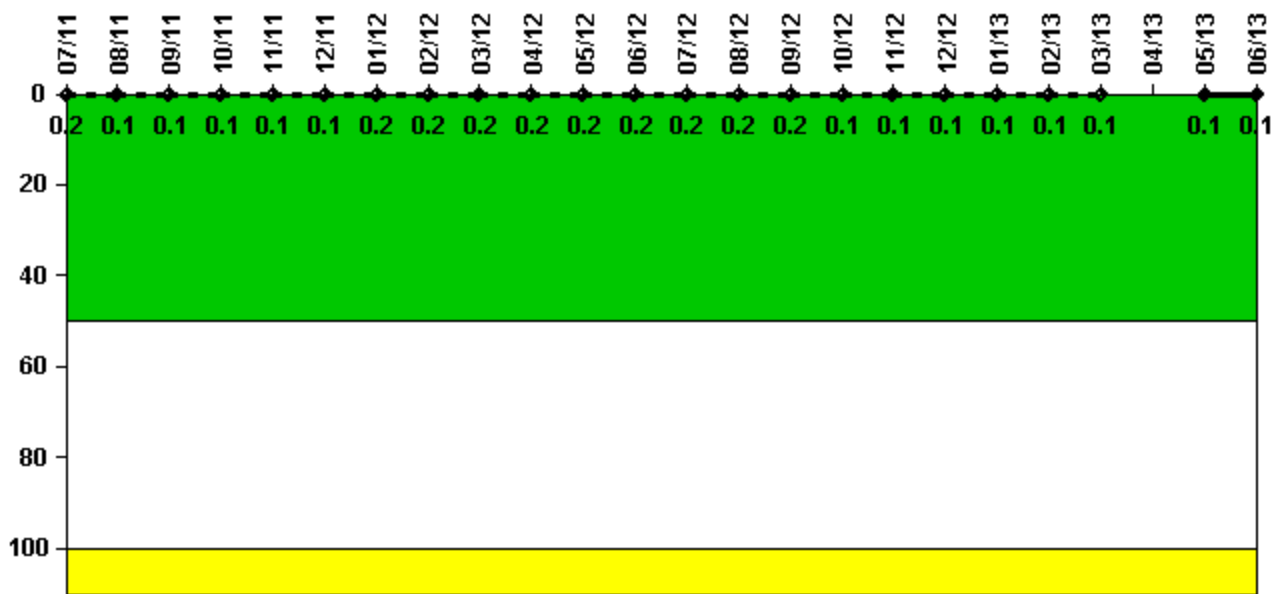
Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

#### Notes

Mitigating Systems Performance Index, Cooling Water Systems	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13
UAI ( $\Delta$ CDF)	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
URI ( $\Delta$ CDF)	-6.52E-08	-6.54E-08	-6.54E-08	-6.40E-08	-6.32E-08	-6.40E-08	-6.45E-08	-4.71E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-6.50E-08	-6.50E-08	-6.50E-08	-6.40E-08	-6.30E-08	-6.40E-08	-6.40E-08	-4.70E-08

Licensee Comments: none

### Reactor Coolant System Activity



Thresholds: White > 50.0 Yellow > 100.0

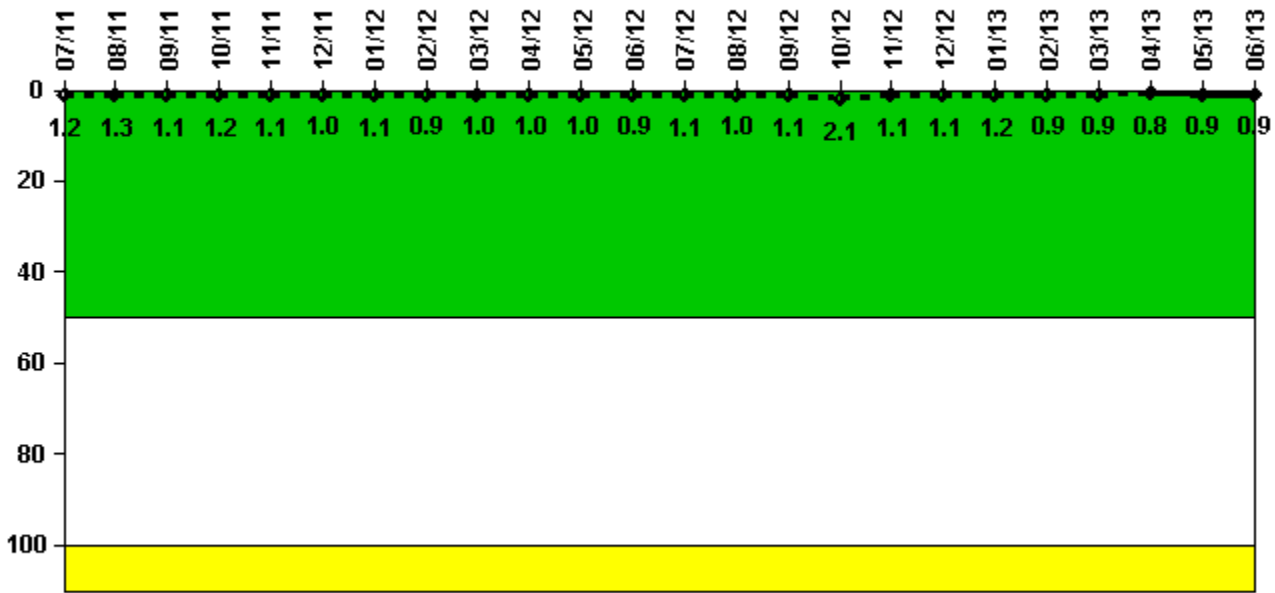
#### Notes

Reactor Coolant System Activity	7/11	8/11	9/11	10/11	11/11	12/11	1/12	2/12	3/12	4/12	5/12	6/12
Maximum activity	0.002030	0.001350	0.001440	0.001440	0.001470	0.001450	0.001570	0.001580	0.001640	0.001650	0.001700	0.001710
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	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2
Reactor Coolant System Activity	7/12	8/12	9/12	10/12	11/12	12/12	1/13	2/13	3/13	4/13	5/13	6/13
Maximum activity	0.001720	0.001780	0.001760	0.000649	0.000720	0.000747	0.000775	0.000820	0.000811	N/A	0.000823	0.000846
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	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	N/A	0.1	0.1

Licensee Comments:

6/13: ANO-2 was not at steady state power as defined in NEI 99-02 for the entire month of April.

### Reactor Coolant System Leakage



Thresholds: White > 50.0 Yellow > 100.0

#### Notes

Reactor Coolant System Leakage	7/11	8/11	9/11	10/11	11/11	12/11	1/12	2/12	3/12	4/12	5/12	6/12
Maximum leakage	0.115	0.126	0.111	0.115	0.110	0.102	0.105	0.093	0.095	0.100	0.096	0.094
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	1.2	1.3	1.1	1.2	1.1	1.0	1.1	0.9	1.0	1.0	1.0	0.9

Reactor Coolant System Leakage	7/12	8/12	9/12	10/12	11/12	12/12	1/13	2/13	3/13	4/13	5/13	6/13
Maximum leakage	0.105	0.102	0.106	0.212	0.113	0.114	0.123	0.092	0.090	0.076	0.088	0.094
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	1.1	1.0	1.1	2.1	1.1	1.1	1.2	0.9	0.9	0.8	0.9	0.9

Licensee Comments:

6/13: Total Leakage is being reported in lieu of Identified Leakage.

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

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

9/12: Total Leakage is being reported in lieu of Identified Leakage.

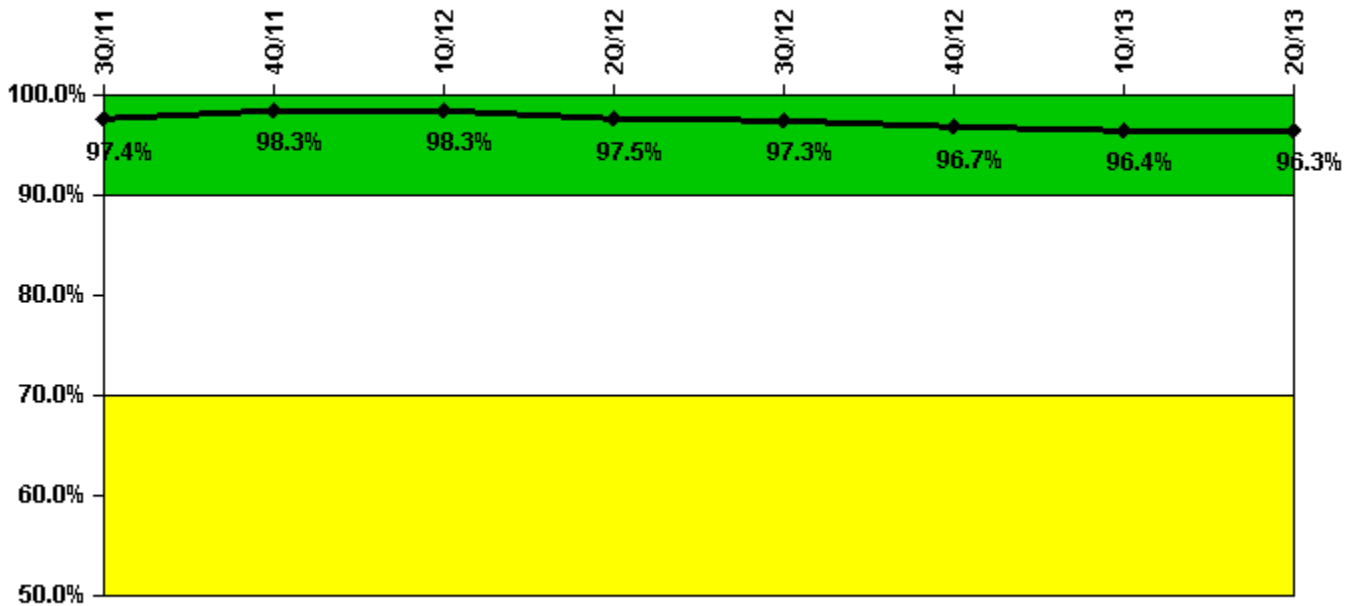
6/12: Total Leakage is being reported in lieu of Identified Leakage

3/12: Total Leakage is being reported in lieu of Identified Leakage.

12/11: Total Leakage is being reported in lieu of Identified Leakage.

9/11: Total Leakage is being reported in lieu of Identified Leakage.

### Drill/Exercise Performance



Thresholds: White < 90.0% Yellow < 70.0%

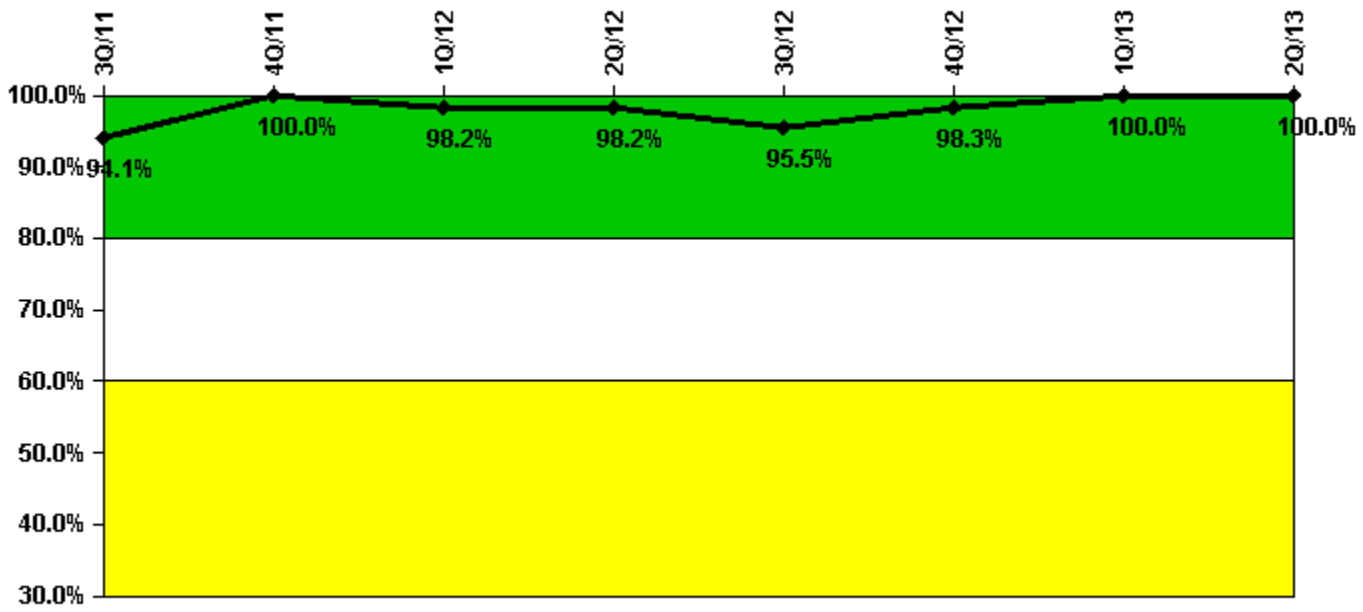
### Notes

Drill/Exercise Performance	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13
Successful opportunities	17.0	9.0	21.0	48.0	16.0	13.0	26.0	8.0
Total opportunities	17.0	10.0	21.0	50.0	16.0	15.0	27.0	8.0
Indicator value	97.4%	98.3%	98.3%	97.5%	97.3%	96.7%	96.4%	96.3%

### Licensee Comments:

3Q/11: The April 2011 ERO Drill Exercise Performance was revised with the 3rd quarter 2011 submittal. April Successful Drills and Total Drills were reduced from 11 each, to 10 each. This revision does not affect the indicator color.

### ERO Drill Participation



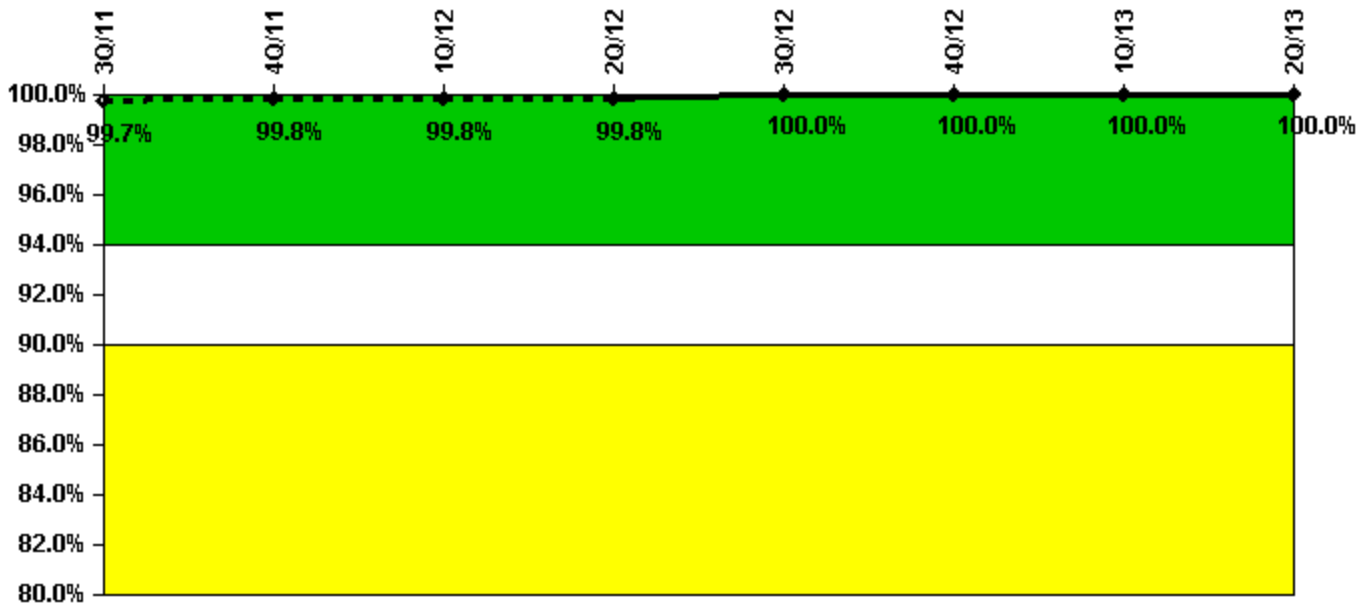
Thresholds: White < 80.0% Yellow < 60.0%

#### Notes

ERO Drill Participation	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13
Participating Key personnel	111.0	114.0	111.0	112.0	106.0	115.0	84.0	81.0
Total Key personnel	118.0	114.0	113.0	114.0	111.0	117.0	84.0	81.0
Indicator value	94.1%	100.0%	98.2%	98.2%	95.5%	98.3%	100.0%	100.0%

Licensee Comments: none

### Alert & Notification System



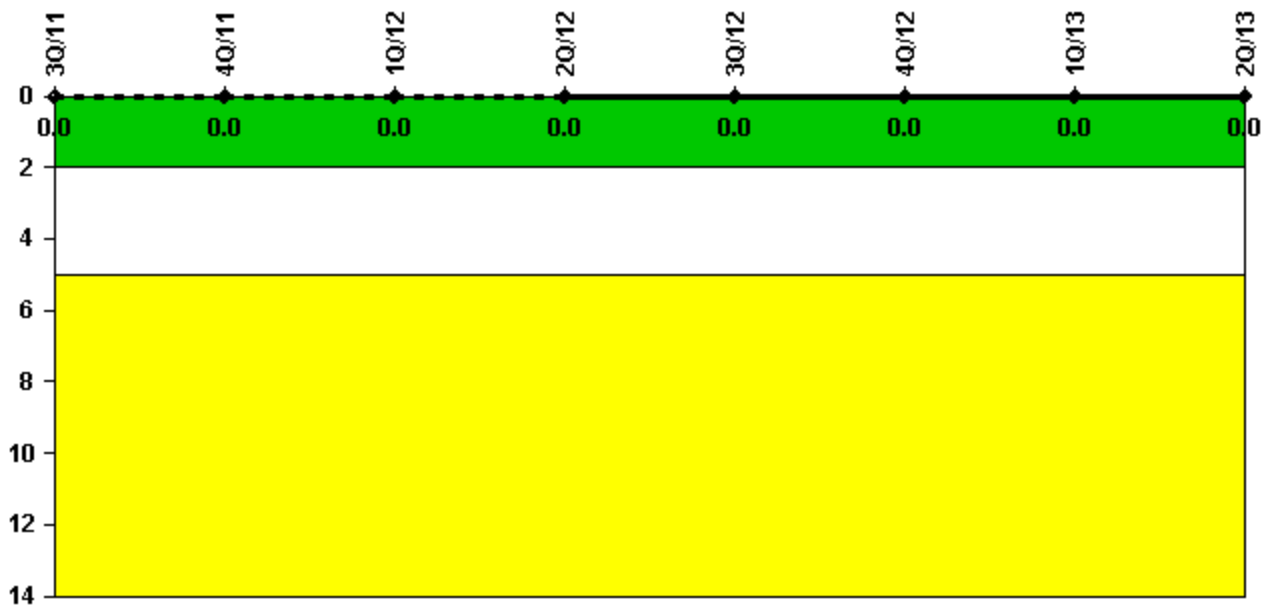
Thresholds: White < 94.0% Yellow < 90.0%

#### Notes

Alert & Notification System	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13
Successful siren-tests	146	147	147	147	147	147	147	147
Total sirens-tests	147	147	147	147	147	147	147	147
Indicator value	99.7%	99.8%	99.8%	99.8%	100.0%	100.0%	100.0%	100.0%

Licensee Comments: none

### Occupational Exposure Control Effectiveness



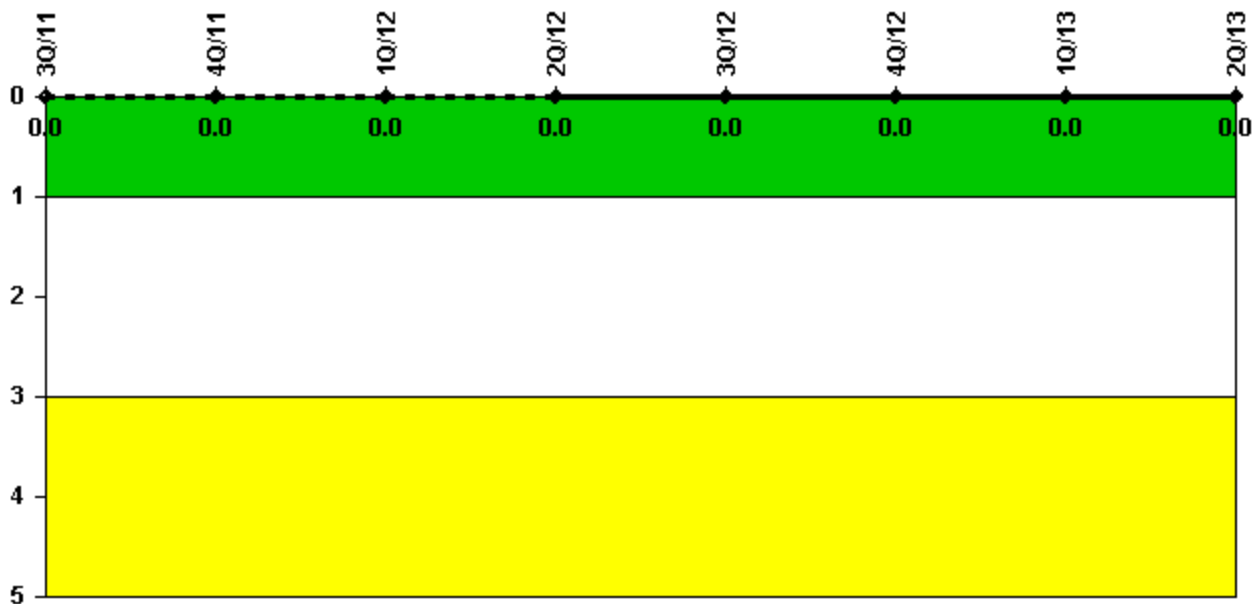
Thresholds: White > 2.0 Yellow > 5.0

**Notes**

Occupational Exposure Control Effectiveness	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/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>	<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	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13
RETS/ODCM 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

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: August 19, 2013*