

## Fort Calhoun

### 3Q/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

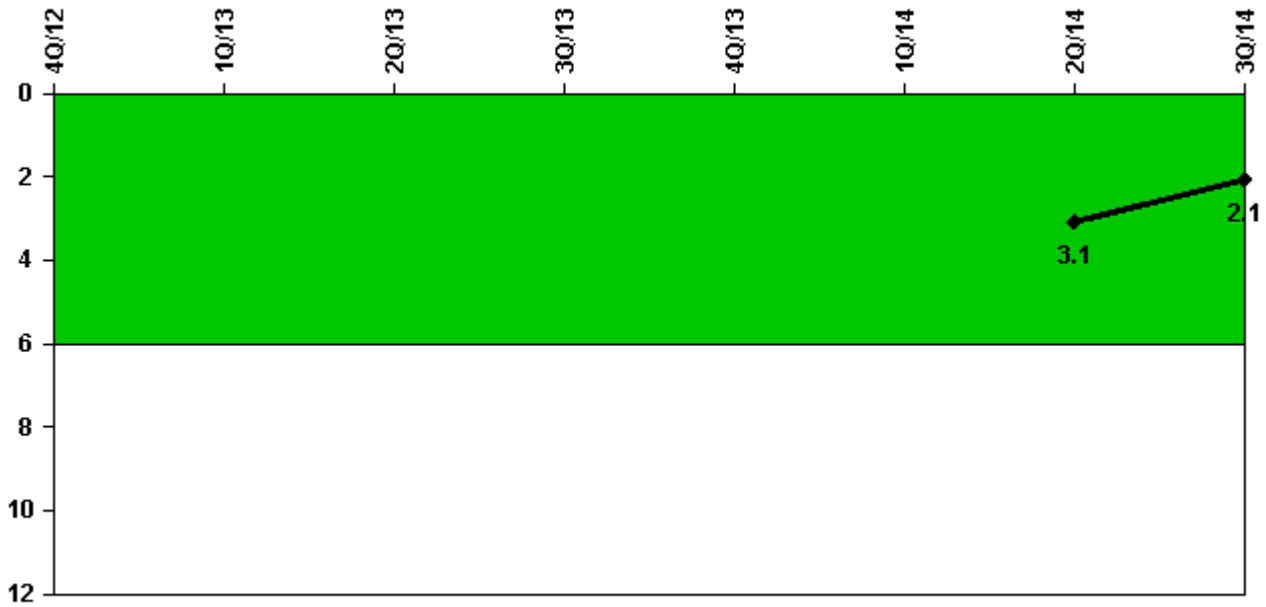
#### Notes

Unplanned Scrams per 7000 Critical Hrs	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14
Unplanned scrams	0	0	0	0	0	2.0	0	0
Critical hours	0	0	0	0	317.2	2026.9	2184.0	2208.0
Indicator value	N/A	N/A	N/A	N/A	N/A	N/A	3.1	2.1

Licensee Comments:

2Q/14: During the second quarter the station critical hours exceeded the minimum 2400 hour required to calculate this indicator. With low critical hours the PI is white due to the two scrams from the first quarter.

### Unplanned Power Changes per 7000 Critical Hrs



Thresholds: White > 6.0

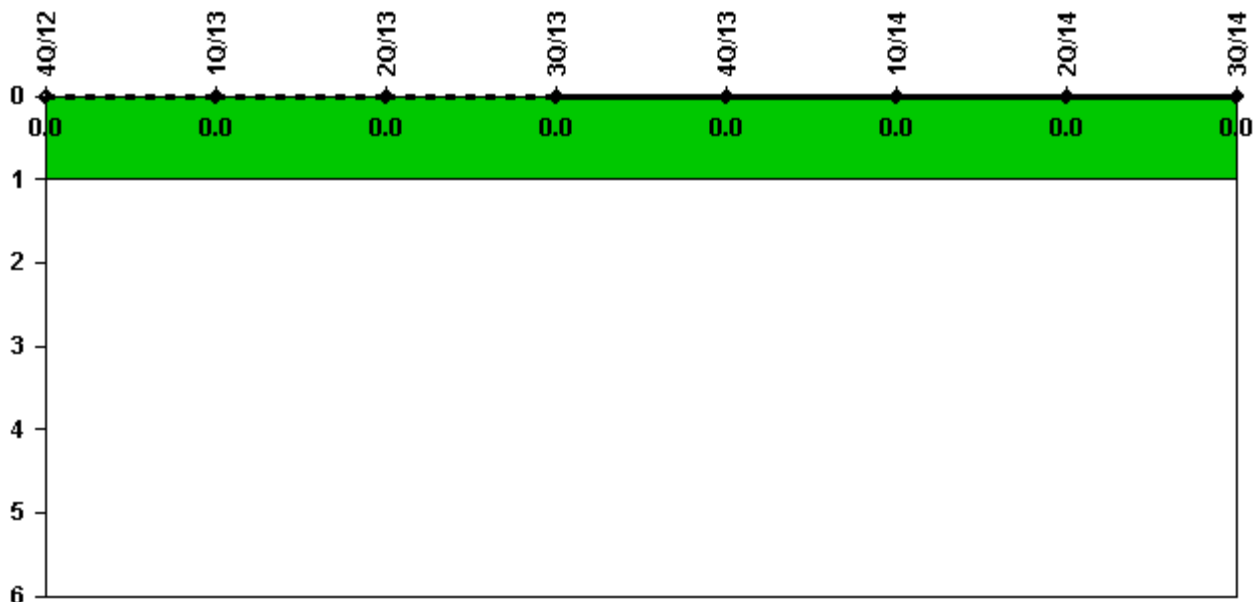
#### Notes

Unplanned Power Changes per 7000 Critical Hrs	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14
Unplanned power changes	0	0	0	0	0	1.0	1.0	0
Critical hours	0	0	0	0	317.2	2026.9	2184.0	2208.0
<b>Indicator value</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>3.1</b>	<b>2.1</b>

Licensee Comments:

1Q/14: Correct an error discovered during a review.

### Unplanned Scrams with Complications



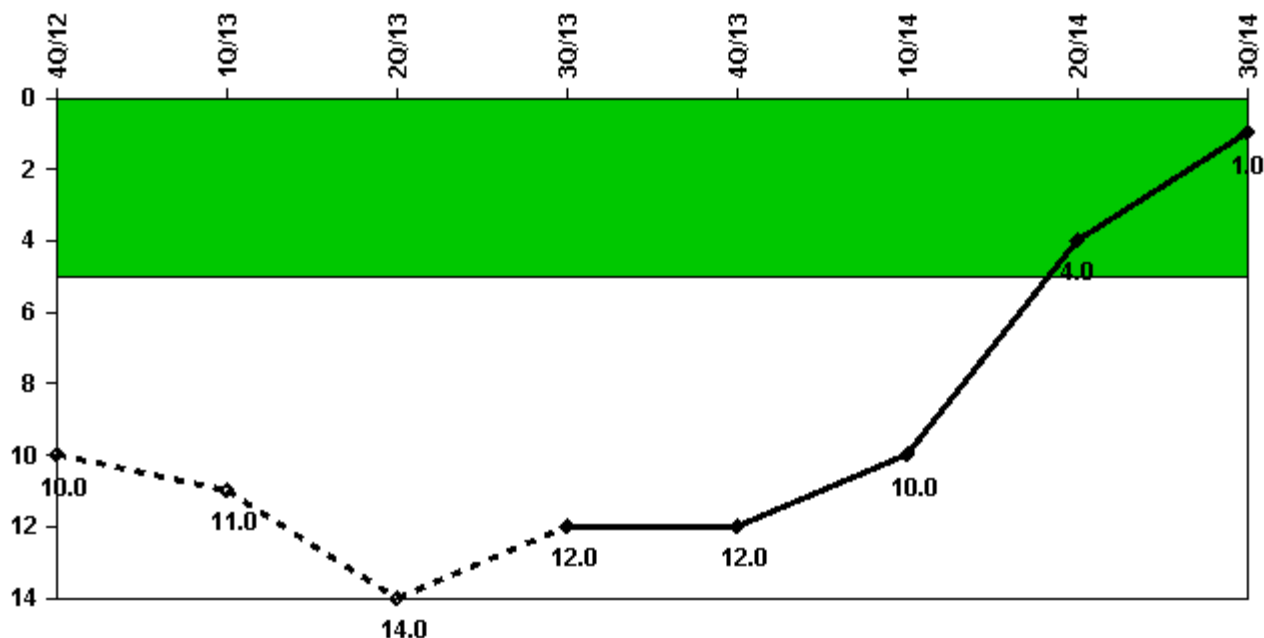
Thresholds: White > 1.0

#### Notes

Unplanned Scrams with Complications	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14
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/12	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14
Safety System Functional Failures	1	2	6	3	1	0	0	0
<b>Indicator value</b>	<b>10</b>	<b>11</b>	<b>14</b>	<b>12</b>	<b>12</b>	<b>10</b>	<b>4</b>	<b>1</b>

Licensee Comments:

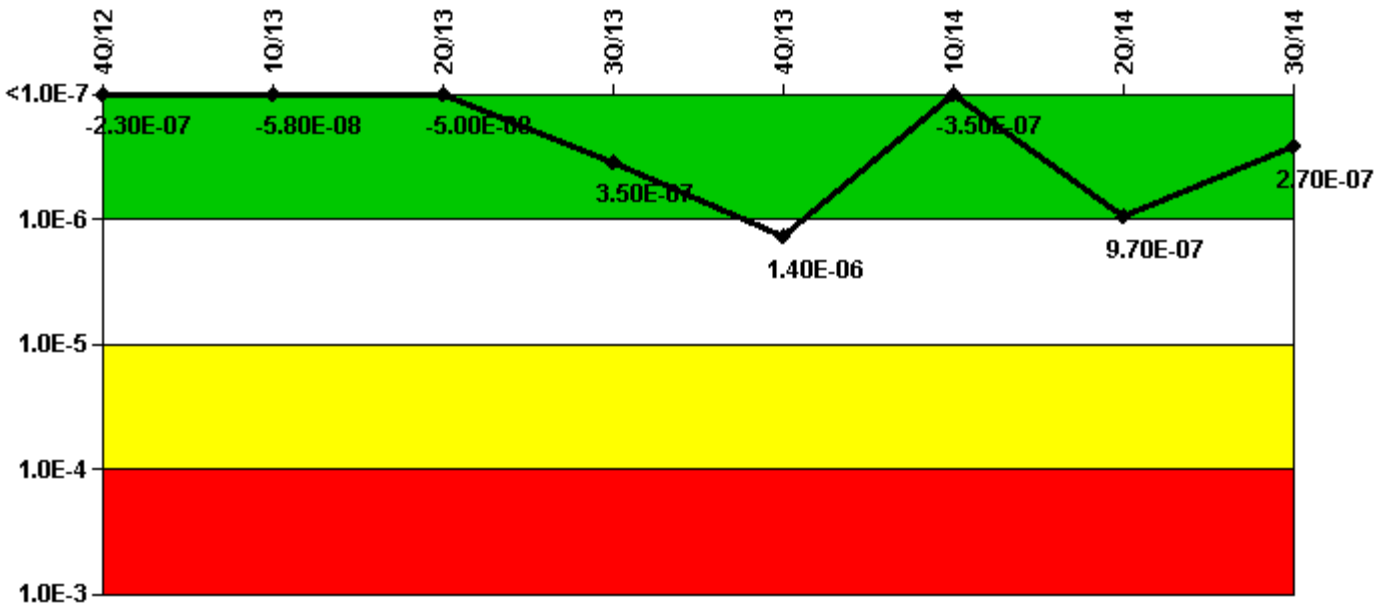
4Q/13: LER 2013-017, Containment Spray Pump Design Documents do not Support Operation in Runout

3Q/13: LER 2013-010, "HPSI Pump Flow Imbalance," 2013-011 "Inadequate Design for High Energy Line Break in Rooms 13 and 19 of the Auxiliary Building," LER 2013-012, "Intake Structure Crane Seismic Qualification"

2Q/13: LER 2013-003, "Calculations Indicate the HPSI Pumps Operate in Run-out " LER 2013-004, "Inverters Inoperable During Emergency Diesel Generator Operation" LER 2013-005, "CRHVAC Mod Not Properly Evaluated" LER 2013-006, "Use of Teflon in LPSI and CS Pump Mechanical Seals" LER 2013-008, "Previously Installed GE IAV Relays Failed Seismic Testing" LER 2013-009, "Tornado Missile Vulnerabilities"

1Q/13: LER 2013-002, "CVCS Class 1 & 2 Charging Supports are Unanalyzed" LER 2012-021, "HCV-2987, HPSI Alternate Header Isolation Valve"

### 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/12	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14
UAI (ΔCDF)	1.66E-07	3.24E-07	3.13E-07	6.84E-07	1.68E-06	-1.98E-08	1.26E-06	3.67E-07
URI (ΔCDF)	-3.95E-07	-3.82E-07	-3.63E-07	-3.35E-07	-3.33E-07	-3.29E-07	-2.88E-07	-1.02E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-2.30E-07	-5.80E-08	-5.00E-08	3.50E-07	1.40E-06	-3.50E-07	9.70E-07	2.70E-07

Licensee Comments:

2Q/14: Risk Cap Invoked.

1Q/14: Risk Cap Invoked.

4Q/13: Risk Cap Invoked. The white performance indicator is due to 31 months without critical hours and normal diesel maintenance.

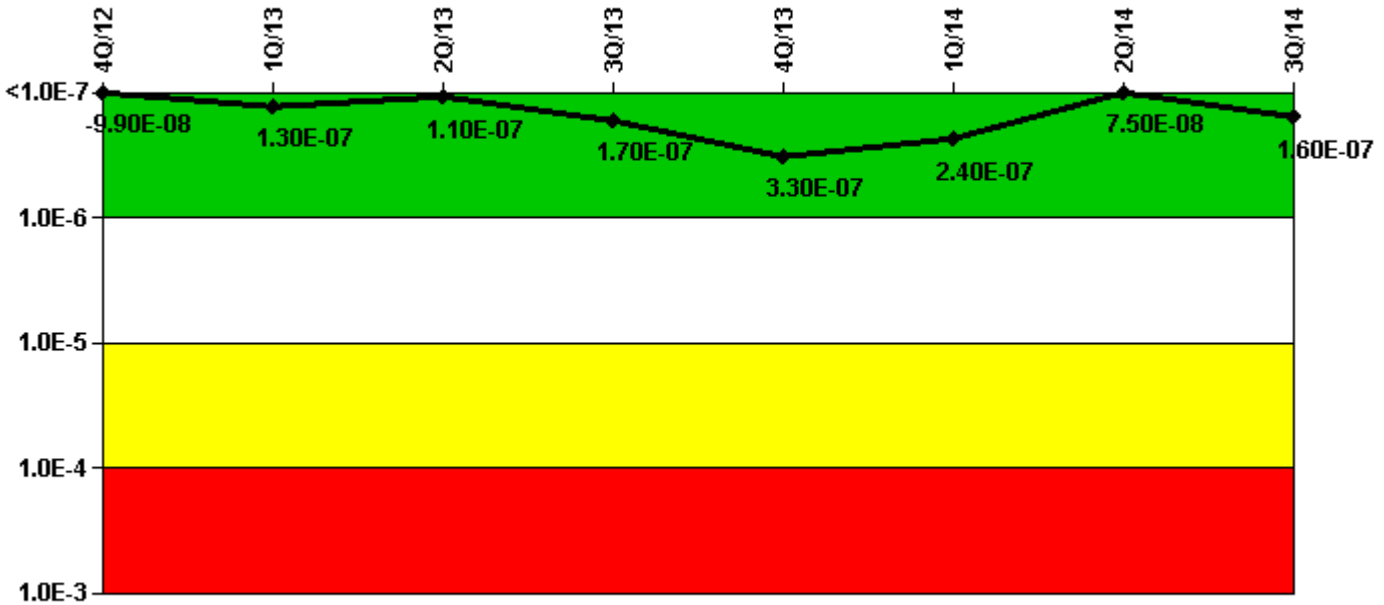
3Q/13: Risk Cap Invoked.

2Q/13: Risk Cap Invoked.

1Q/13: Risk Cap Invoked.

4Q/12: Risk Cap Invoked.

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



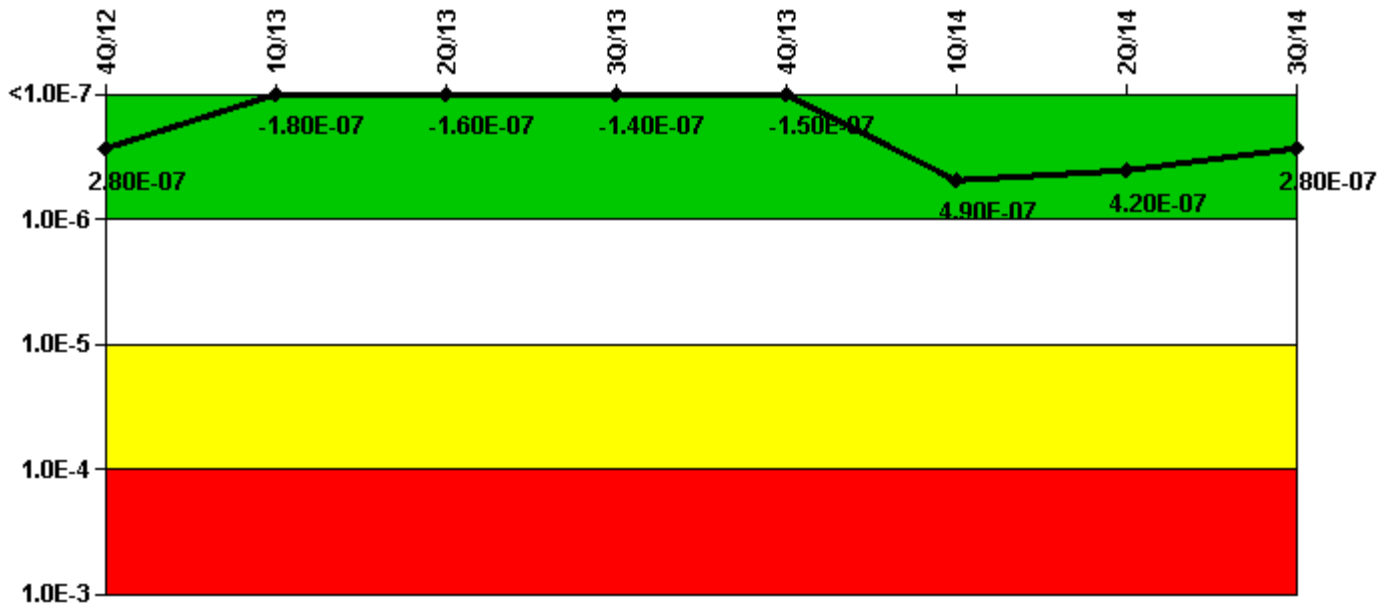
Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

#### Notes

Mitigating Systems Performance Index, High Pressure Injection System	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14
UAI ( $\Delta$ CDF)	-3.46E-08	-3.97E-08	-5.11E-08	1.30E-08	1.61E-07	6.67E-08	-1.01E-07	-7.74E-08
URI ( $\Delta$ CDF)	-6.42E-08	1.66E-07	1.65E-07	1.61E-07	1.71E-07	1.70E-07	1.76E-07	2.35E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
<b>Indicator value</b>	<b>-9.90E-08</b>	<b>1.30E-07</b>	<b>1.10E-07</b>	<b>1.70E-07</b>	<b>3.30E-07</b>	<b>2.40E-07</b>	<b>7.50E-08</b>	<b>1.60E-07</b>

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	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14
UAI (ΔCDF)	-7.37E-08	-7.37E-08	-7.37E-08	-7.37E-08	-7.37E-08	5.99E-08	1.92E-08	1.48E-08
URI (ΔCDF)	3.51E-07	-1.10E-07	-8.67E-08	-6.47E-08	-8.10E-08	4.28E-07	4.04E-07	2.68E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	2.80E-07	-1.80E-07	-1.60E-07	-1.40E-07	-1.50E-07	4.90E-07	4.20E-07	2.80E-07

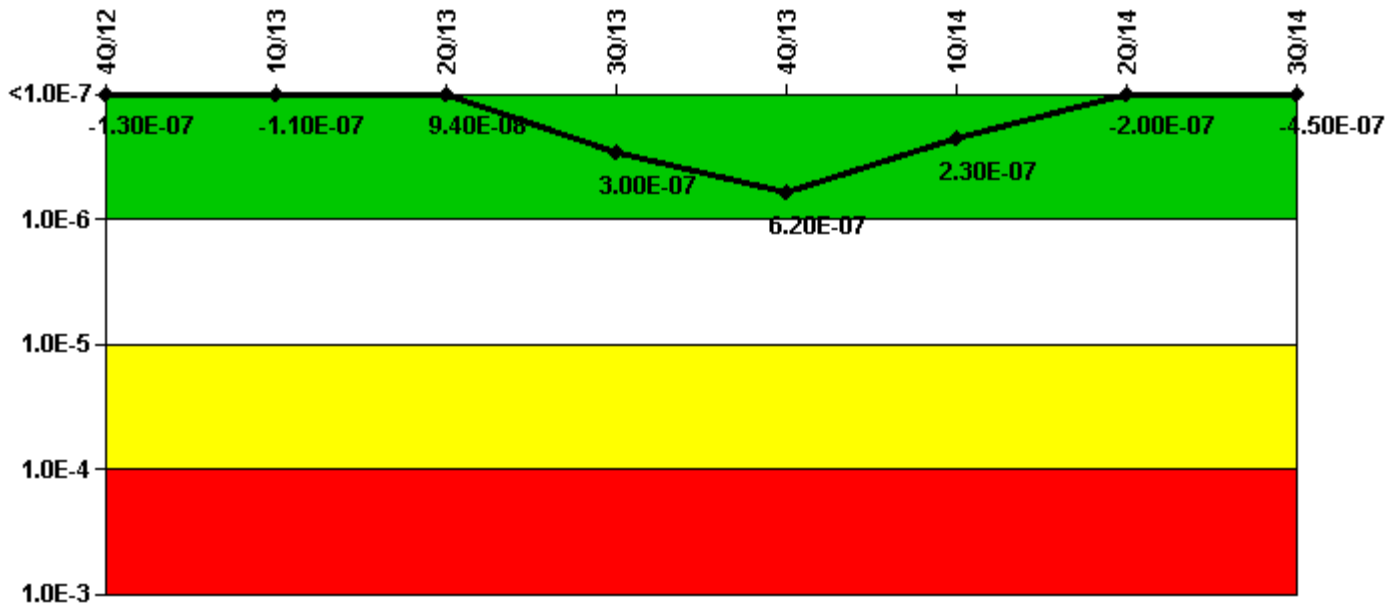
#### Licensee Comments:

3Q/14: Risk Cap Invoked. An additional failure was added to the first quarter 2014 that was discovered during NRC inspection.

2Q/14: Risk Cap Invoked.

1Q/14: Risk Cap Invoked.

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



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

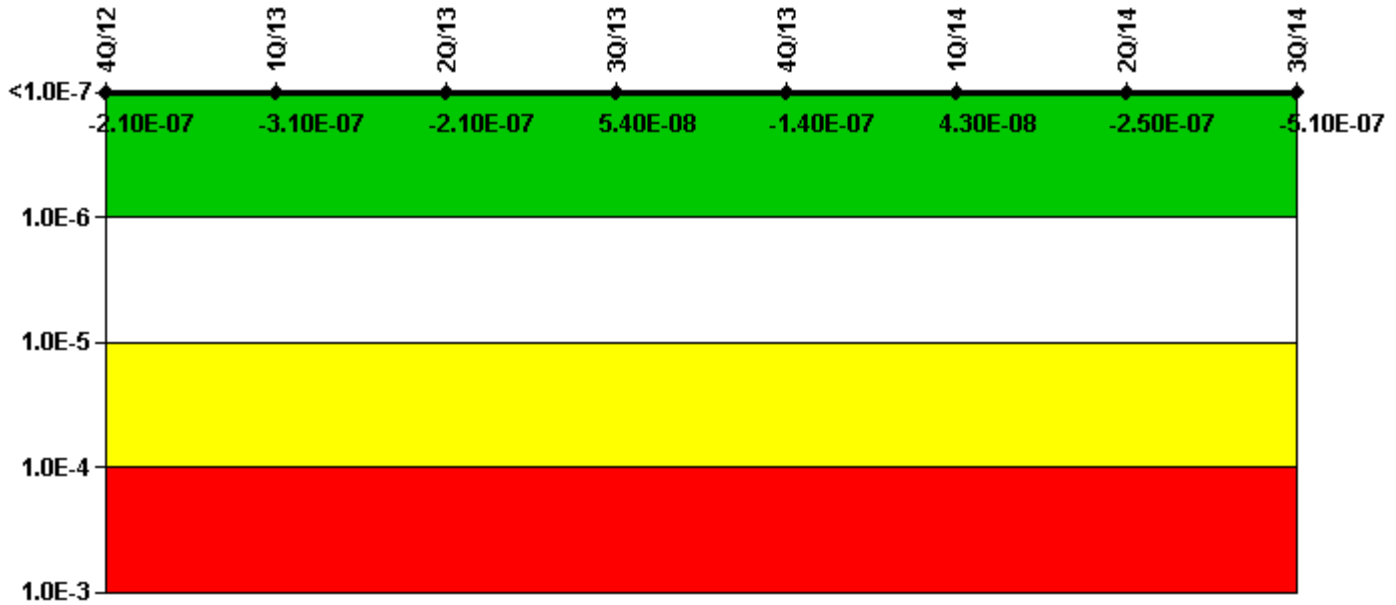
#### Notes

Mitigating Systems Performance Index, Residual Heat Removal System	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14
UAI ( $\Delta$ CDF)	-9.21E-08	-6.84E-08	1.33E-07	3.46E-07	6.70E-07	2.78E-07	-1.68E-07	-4.35E-07
URI ( $\Delta$ CDF)	-3.38E-08	-3.80E-08	-3.94E-08	-4.16E-08	-4.57E-08	-4.57E-08	-3.54E-08	-1.12E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-1.30E-07	-1.10E-07	9.40E-08	3.00E-07	6.20E-07	2.30E-07	-2.00E-07	-4.50E-07

Licensee Comments: none



### Mitigating Systems Performance Index, Cooling Water Systems



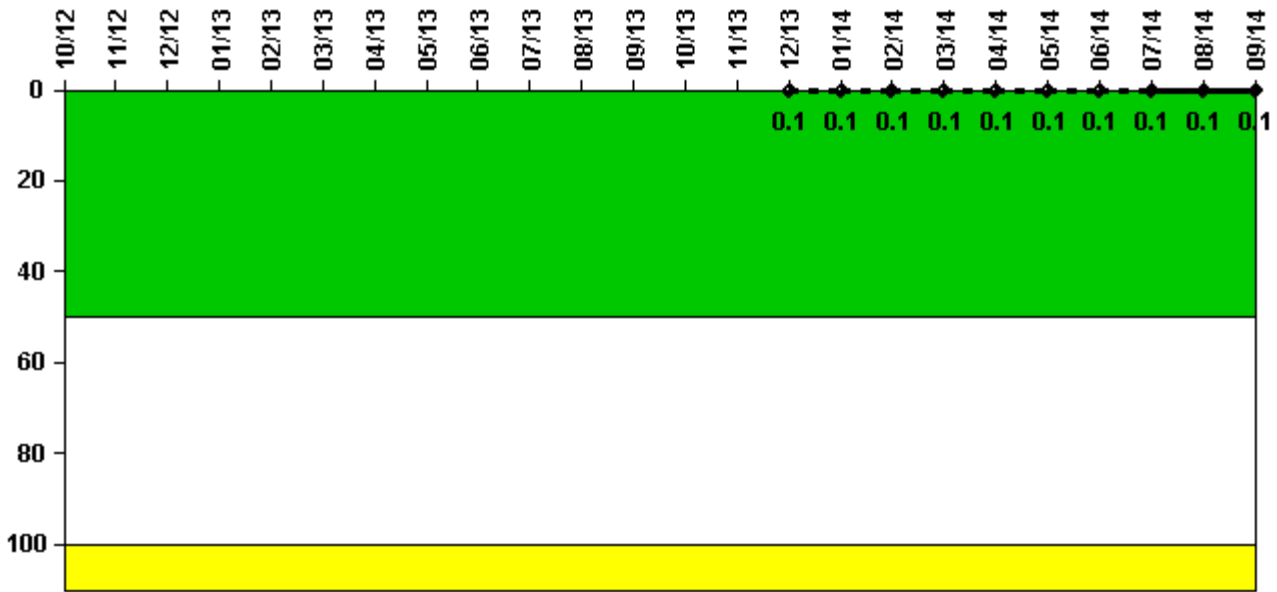
Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

#### Notes

Mitigating Systems Performance Index, Cooling Water Systems	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14
UAI ( $\Delta$ CDF)	-1.79E-07	-2.74E-07	-1.77E-07	8.36E-08	-1.08E-07	7.14E-08	-2.27E-07	-5.20E-07
URI ( $\Delta$ CDF)	-3.26E-08	-3.16E-08	-3.09E-08	-2.97E-08	-2.94E-08	-2.83E-08	-2.74E-08	1.15E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-2.10E-07	-3.10E-07	-2.10E-07	5.40E-08	-1.40E-07	4.30E-08	-2.50E-07	-5.10E-07

Licensee Comments: none

### Reactor Coolant System Activity



Thresholds: White > 50.0 Yellow > 100.0

#### Notes

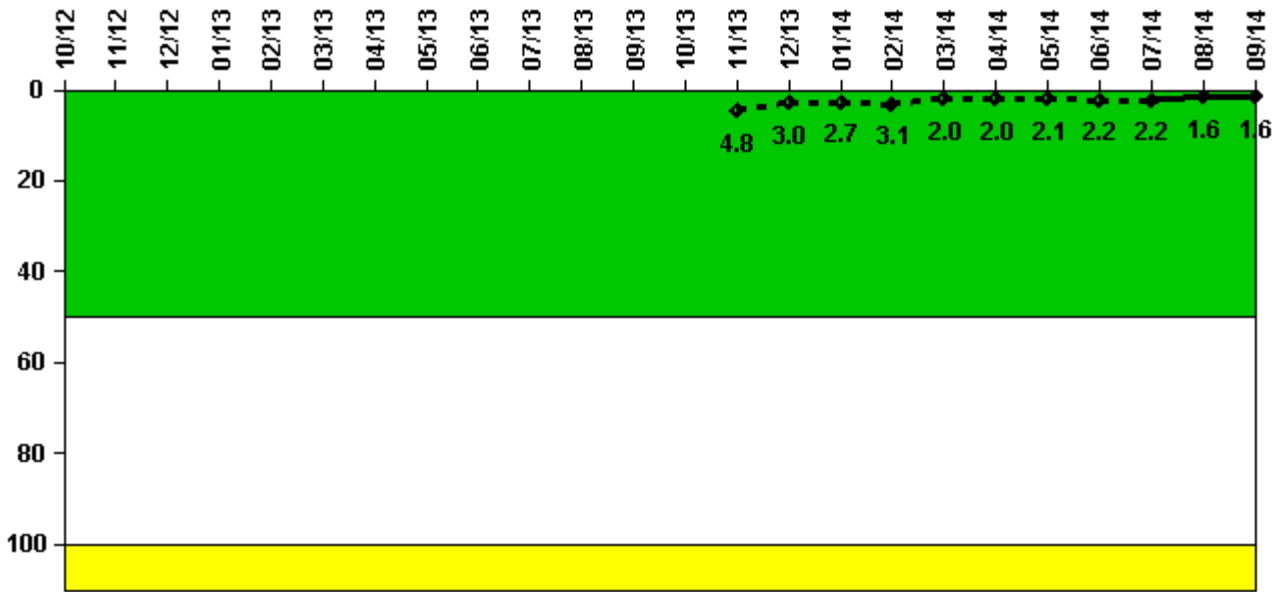
Reactor Coolant System Activity	10/12	11/12	12/12	1/13	2/13	3/13	4/13	5/13	6/13	7/13	8/13	9/13
Maximum activity	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Reactor Coolant System Activity	10/13	11/13	12/13	1/14	2/14	3/14	4/14	5/14	6/14	7/14	8/14	9/14
Maximum activity	N/A	N/A	0.000837	0.000949	0.001030	0.000960	0.001000	0.001170	0.001160	0.001140	0.001230	0.001300
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	N/A	N/A	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

Licensee Comments: none

### Reactor Coolant System Leakage



Thresholds: White > 50.0 Yellow > 100.0

#### Notes

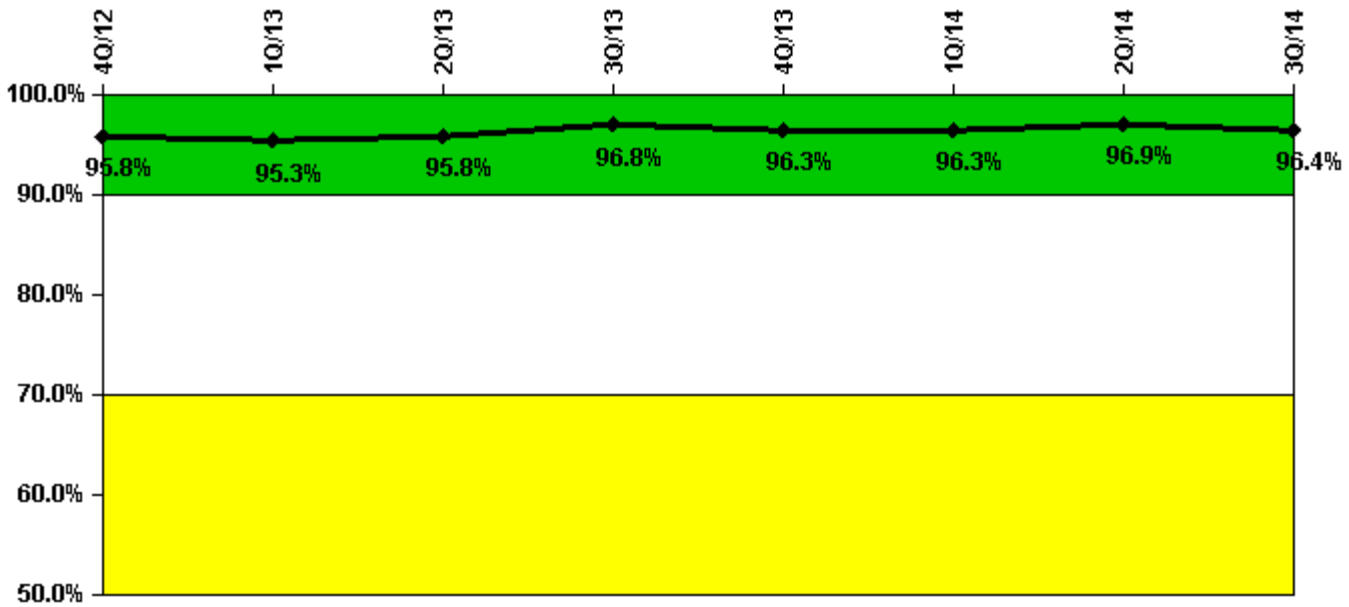
Reactor Coolant System Leakage	10/12	11/12	12/12	1/13	2/13	3/13	4/13	5/13	6/13	7/13	8/13	9/13
Maximum leakage	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Reactor Coolant System Leakage	10/13	11/13	12/13	1/14	2/14	3/14	4/14	5/14	6/14	7/14	8/14	9/14
Maximum leakage	N/A	0.484	0.299	0.273	0.308	0.203	0.201	0.210	0.217	0.216	0.160	0.155
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	N/A	4.8	3.0	2.7	3.1	2.0	2.0	2.1	2.2	2.2	1.6	1.6

Licensee Comments: none

### Drill/Exercise Performance



Thresholds: White < 90.0% Yellow < 70.0%

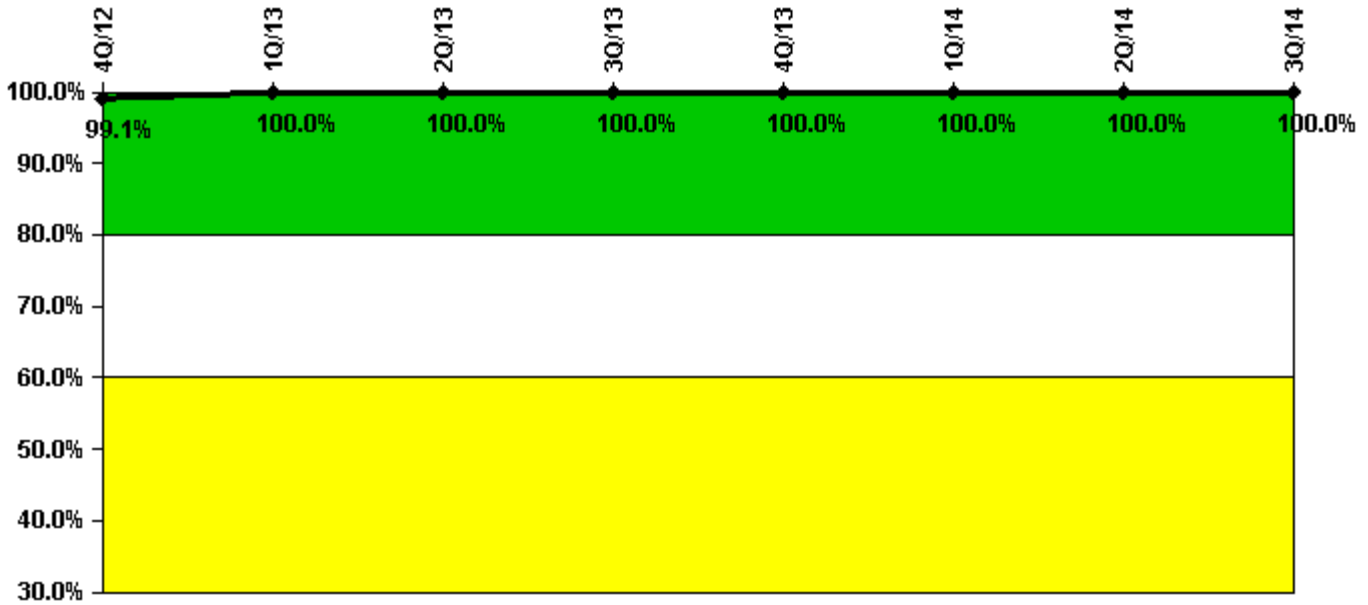
#### Notes

Drill/Exercise Performance	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14
Successful opportunities	24.0	16.0	83.0	30.0	29.0	30.0	34.0	77.0
Total opportunities	24.0	16.0	87.0	30.0	31.0	32.0	34.0	81.0
Indicator value	95.8%	95.3%	95.8%	96.8%	96.3%	96.3%	96.9%	96.4%

Licensee Comments:

3Q/14: Minor corrections were made in the fourth quarter 2013 and first quarter 2014 data due to NRC and internal reviews.

### ERO Drill Participation



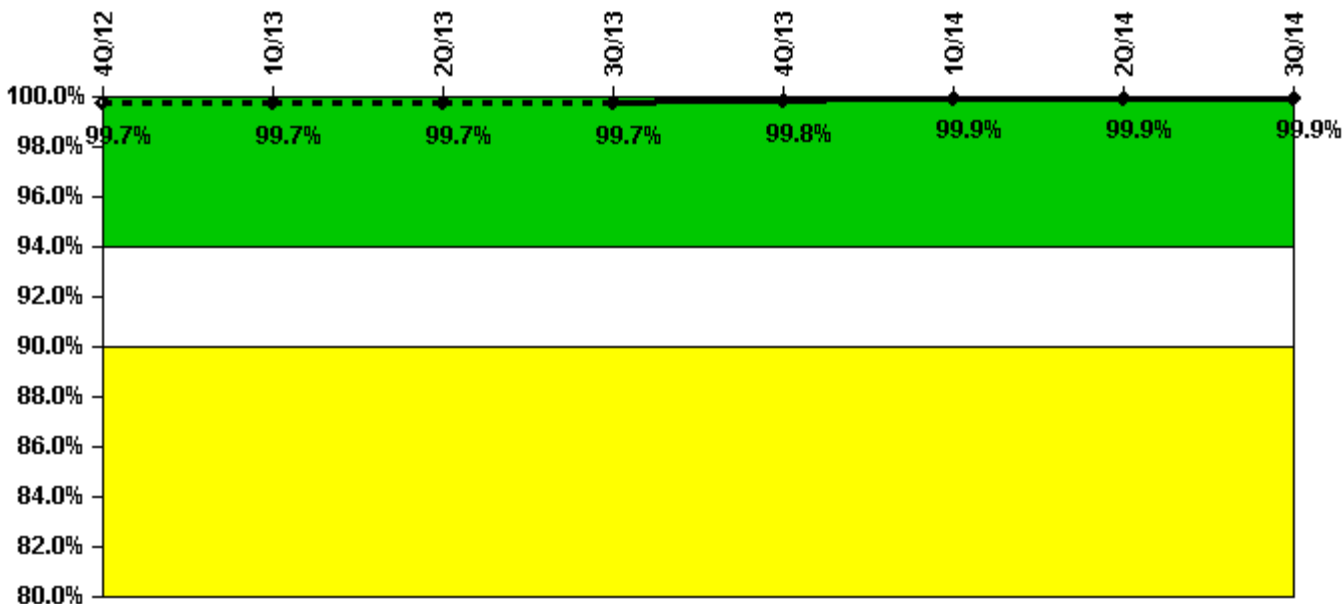
Thresholds: White < 80.0% Yellow < 60.0%

#### Notes

ERO Drill Participation	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14
Participating Key personnel	108.0	109.0	105.0	105.0	109.0	110.0	118.0	111.0
Total Key personnel	109.0	109.0	105.0	105.0	109.0	110.0	118.0	111.0
Indicator value	99.1%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Licensee Comments: none

### Alert & Notification System



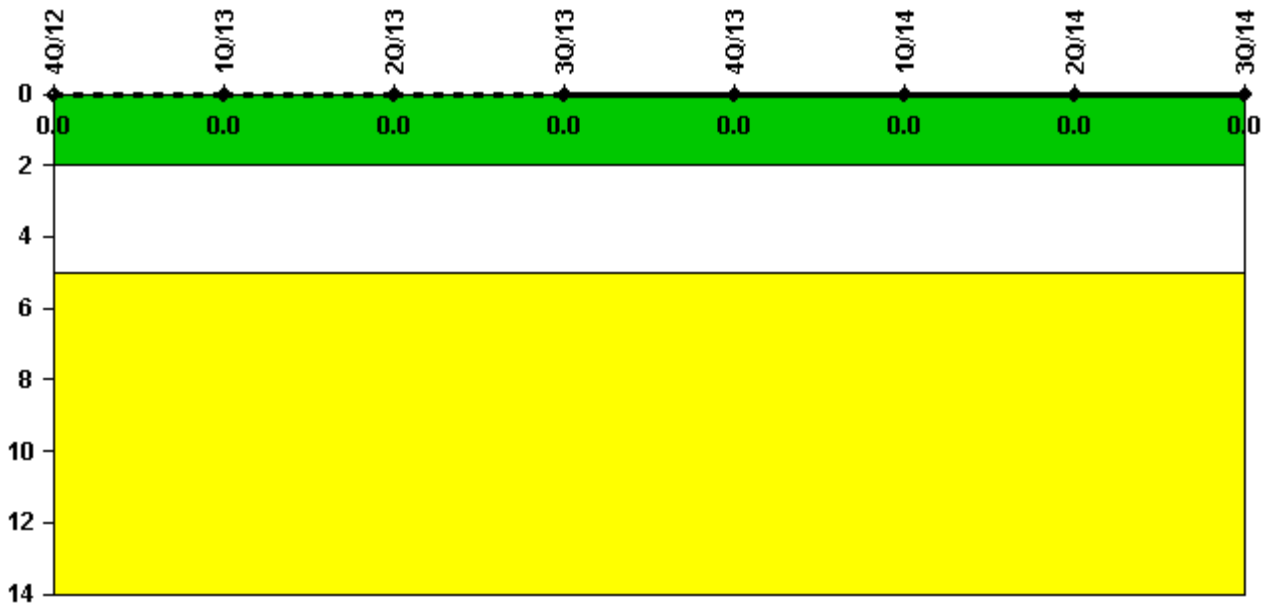
Thresholds: White < 94.0% Yellow < 90.0%

#### Notes

Alert & Notification System	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14
Successful siren-tests	803	704	807	908	706	807	707	907
Total sirens-tests	808	707	808	909	707	808	707	909
Indicator value	99.7%	99.7%	99.7%	99.7%	99.8%	99.9%	99.9%	99.9%

Licensee Comments: none

### Occupational Exposure Control Effectiveness



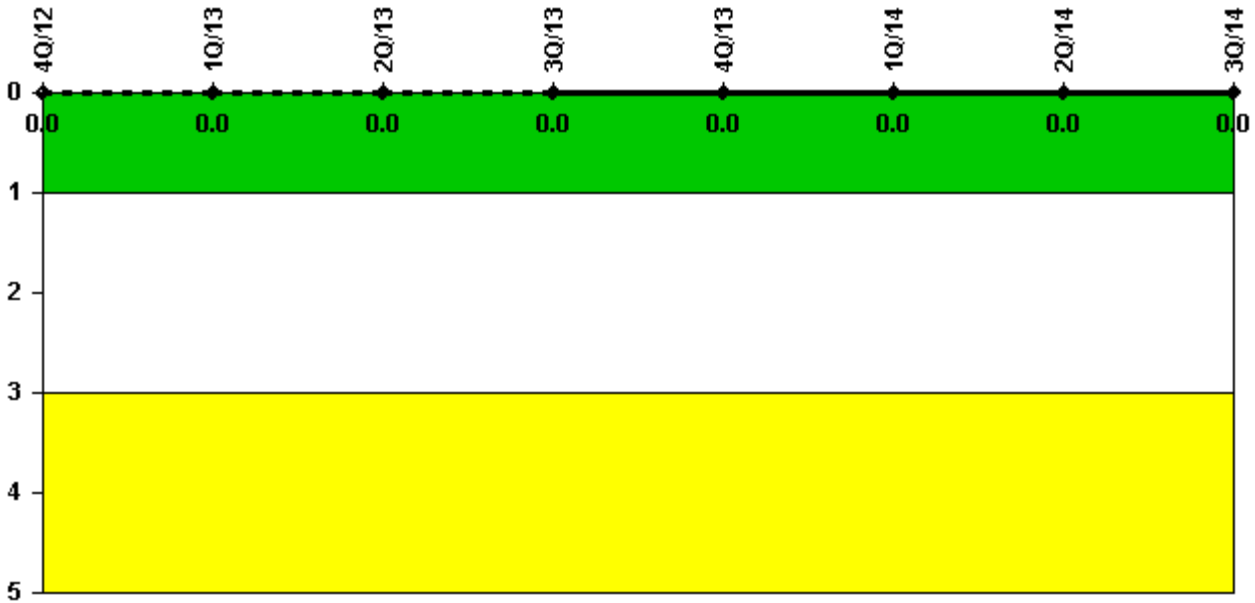
Thresholds: White > 2.0 Yellow > 5.0

#### Notes

Occupational Exposure Control Effectiveness	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/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>	<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/12	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14
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: November 3, 2014*