

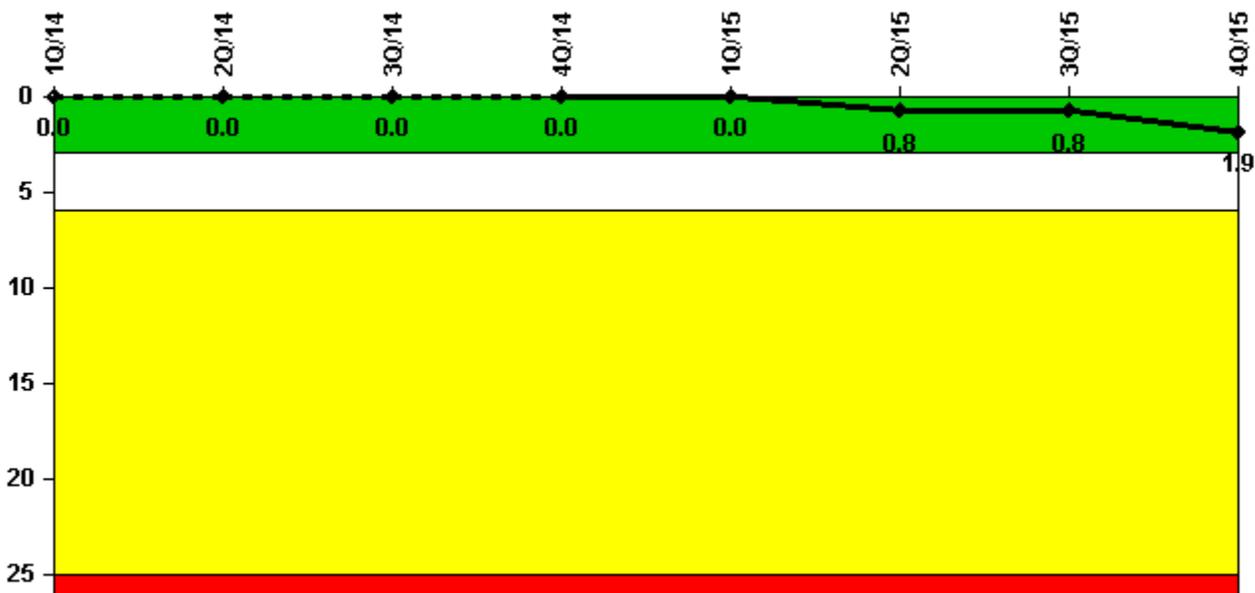
# Waterford 3

## 4Q/2015 Performance Indicators

The solid trend line represents the current reporting period.

Licensee's General Comments: 10/3/15 Reactor shutdown reason was inadvertently listed as unplanned scram with complications when it should have been indicated without complications.

**Unplanned Scrams per 7000 Critical Hrs**



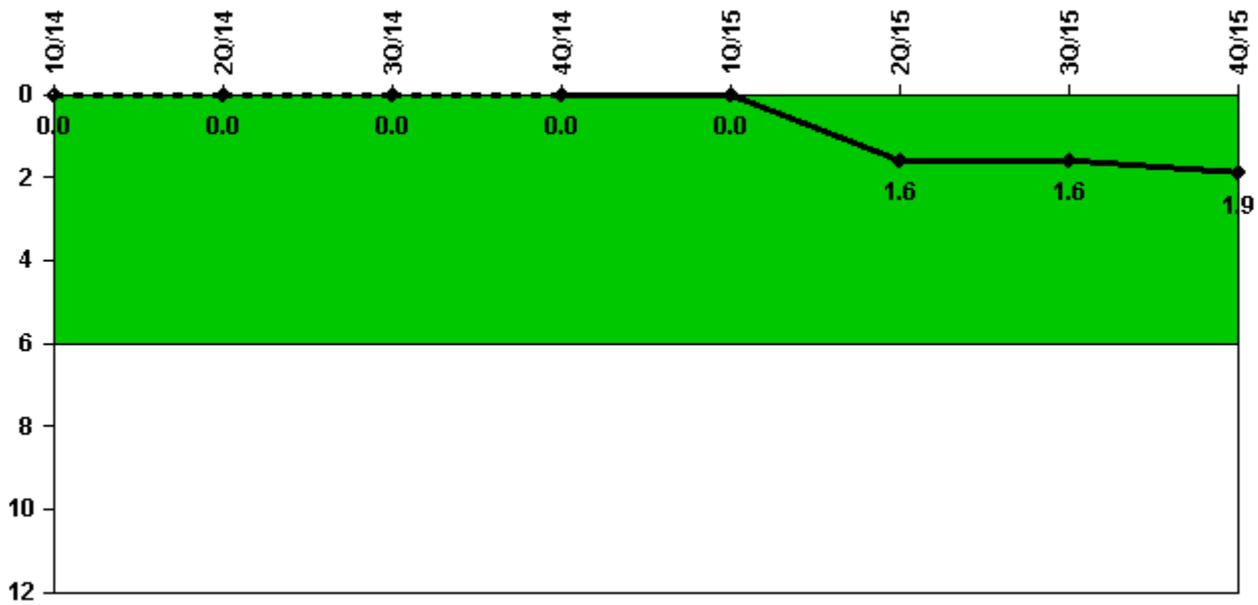
Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

### Notes

Unplanned Scrams per 7000 Critical Hrs	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15
Unplanned scrams	0	0	0	0	0	1.0	0	1.0
Critical hours	2159.0	1439.6	2208.0	2209.0	2159.0	2079.8	2208.0	929.5
Indicator value	0	0	0	0	0	0.8	0.8	1.9

Licensee Comments: none

### Unplanned Power Changes per 7000 Critical Hrs



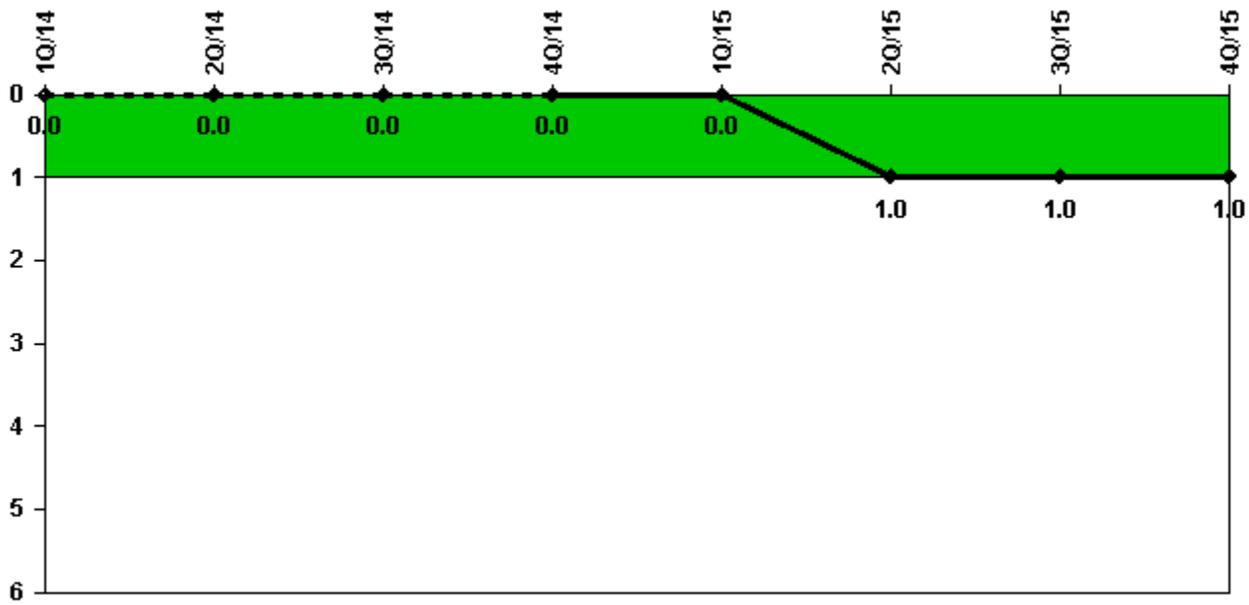
Thresholds: White > 6.0

#### Notes

Unplanned Power Changes per 7000 Critical Hrs	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15
Unplanned power changes	0	0	0	0	0	2.0	0	0
Critical hours	2159.0	1439.6	2208.0	2209.0	2159.0	2079.8	2208.0	929.5
<b>Indicator value</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1.6</b>	<b>1.6</b>	<b>1.9</b>

Licensee Comments: none

### Unplanned Scrams with Complications



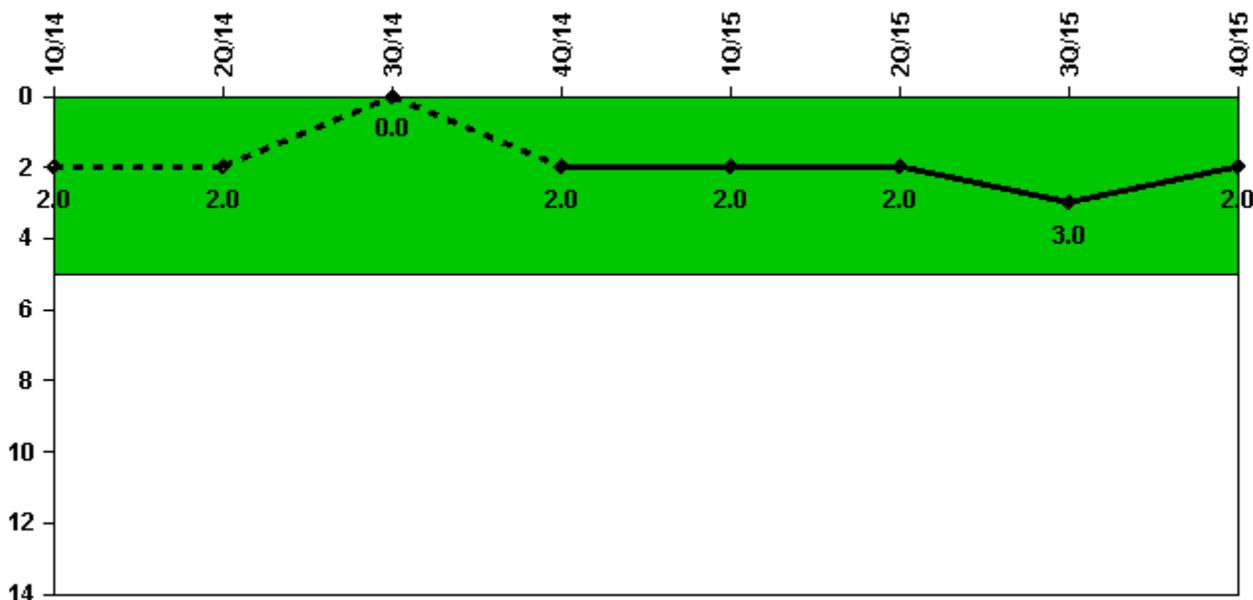
Thresholds: White > 1.0

#### Notes

Unplanned Scrams with Complications	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15
Scrams with complications	0	0	0	0	0	1.0	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>1.0</b>	<b>1.0</b>	<b>1.0</b>

Licensee Comments: none

### Safety System Functional Failures (PWR)



Thresholds: White > 5.0

#### Notes

Safety System Functional Failures (PWR)	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15
Safety System Functional Failures	0	0	0	2	0	0	1	1
<b>Indicator value</b>	<b>2</b>	<b>2</b>	<b>0</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>3</b>	<b>2</b>

#### Licensee Comments:

4Q/15: LER 2015-007-00 issued 10/23/2015. On 8/16/2015, Both A & B EDG declared inoperable, entry into TS 3.8.1.1 action f. - EDG A was declared inoperable following a trip on generator differential due to failed current transformer. Then EDG B, which was subsequently started per TS 3.8.1.1 action b(1), was declared inoperable due to exhaust fan not starting when diesel was started then TS 3.8.1.1 action f was entered.

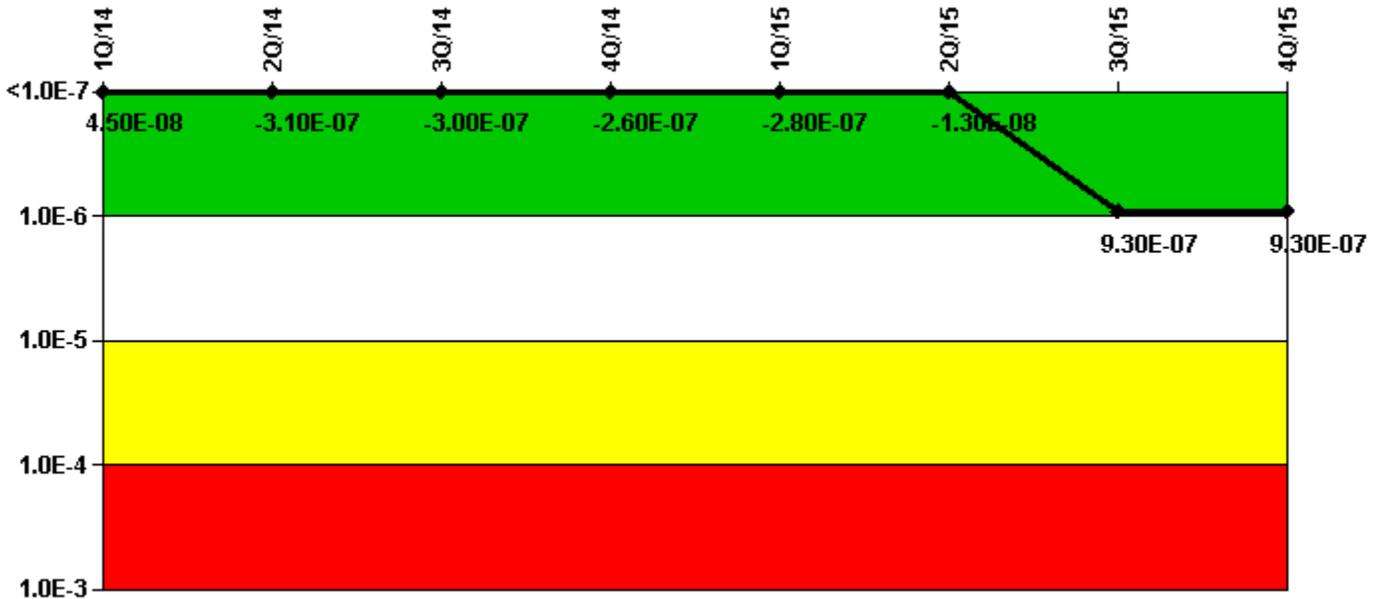
4Q/14: LER 2014-003-00 and LER 2014-004-00 both submitted 4th quarter as SSFF.

3Q/14: LER 2014-003-00 a SSFF was reported in Licensing Event Report LER 2014-003-00. This SSFF was originally reported with 3rd quarter 2014 data submittal for time of occurrence in error. This has been entered into the corrective action program under CR-WF3-2014-6299. The PI color will change from Yellow back to Green.

1Q/14: LER-2014-001-00 Retracting Change submitted to make it a SSFF - Engineering Analysis had determined it should still not be a SSFF. Changed back due to the system was capable of performing its safety function even though both trains were inoperable. LER currently being revised.

1Q/14: LER-2014-001-00 originally not determined to be a SSFF however, now after additional review is considered to be a SSFF due to past operability of both trains of the safety-related Containment Spray System being inoperable. LER is currently being revised.

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



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

#### Notes

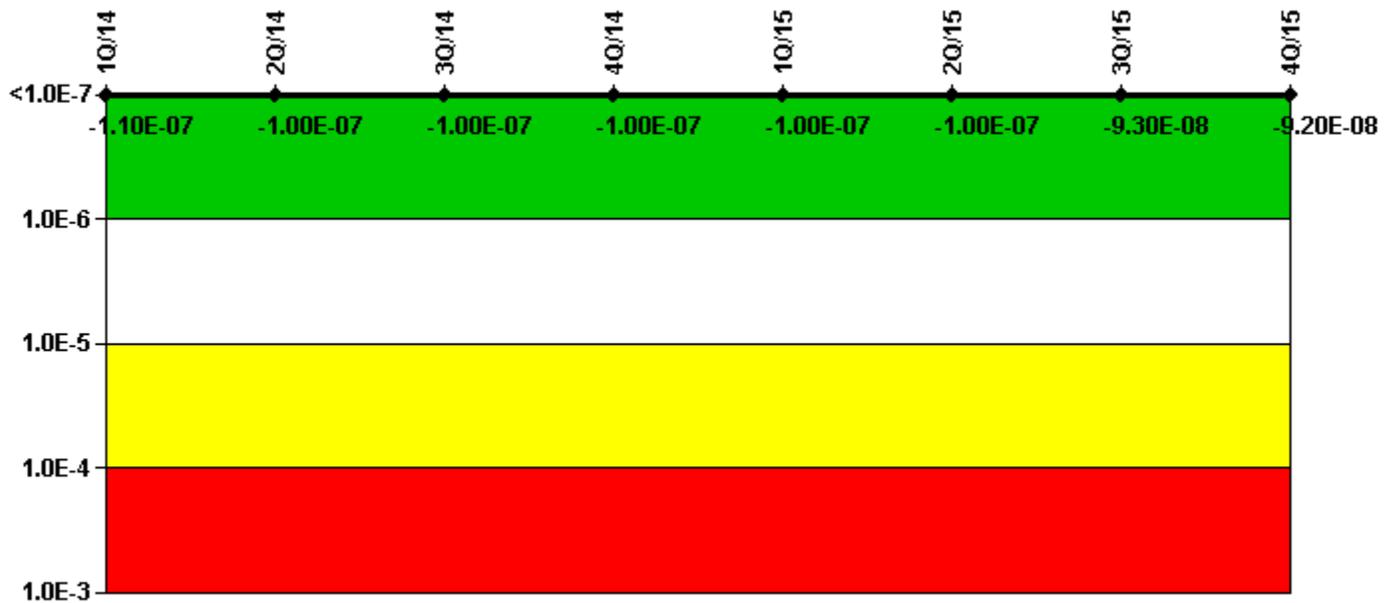
Mitigating Systems Performance Index, Emergency AC Power System	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15
UAI ( $\Delta$ CDF)	1.79E-07	1.09E-07	1.03E-07	1.32E-07	1.15E-07	3.81E-07	5.69E-07	5.71E-07
URI ( $\Delta$ CDF)	-1.34E-07	-4.15E-07	-4.04E-07	-3.95E-07	-3.95E-07	-3.95E-07	3.57E-07	3.56E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	4.50E-08	-3.10E-07	-3.00E-07	-2.60E-07	-2.80E-07	-1.30E-08	9.30E-07	9.30E-07

Licensee Comments:

4Q/15: Risk Cap Invoked.

3Q/15: Risk Cap Invoked.

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



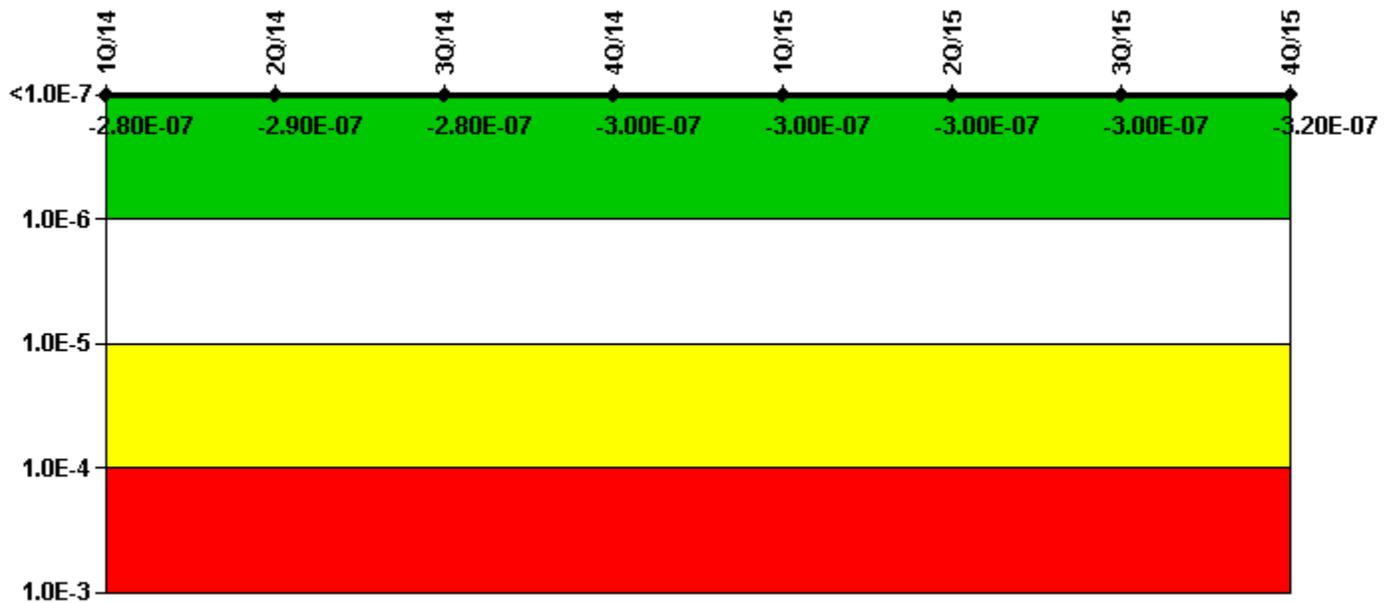
Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

#### Notes

Mitigating Systems Performance Index, High Pressure Injection System	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15
UAI ( $\Delta$ CDF)	-1.30E-08	-1.30E-08	-9.58E-09	-9.58E-09	-9.54E-09	-1.01E-08	-3.32E-10	-1.32E-09
URI ( $\Delta$ CDF)	-9.33E-08	-9.13E-08	-9.18E-08	-9.34E-08	-9.35E-08	-9.24E-08	-9.26E-08	-9.11E-08
PLE	NO							
Indicator value	-1.10E-07	-1.00E-07	-1.00E-07	-1.00E-07	-1.00E-07	-1.00E-07	-9.30E-08	-9.20E-08

Licensee Comments: none

### Mitigating Systems Performance Index, Heat Removal System



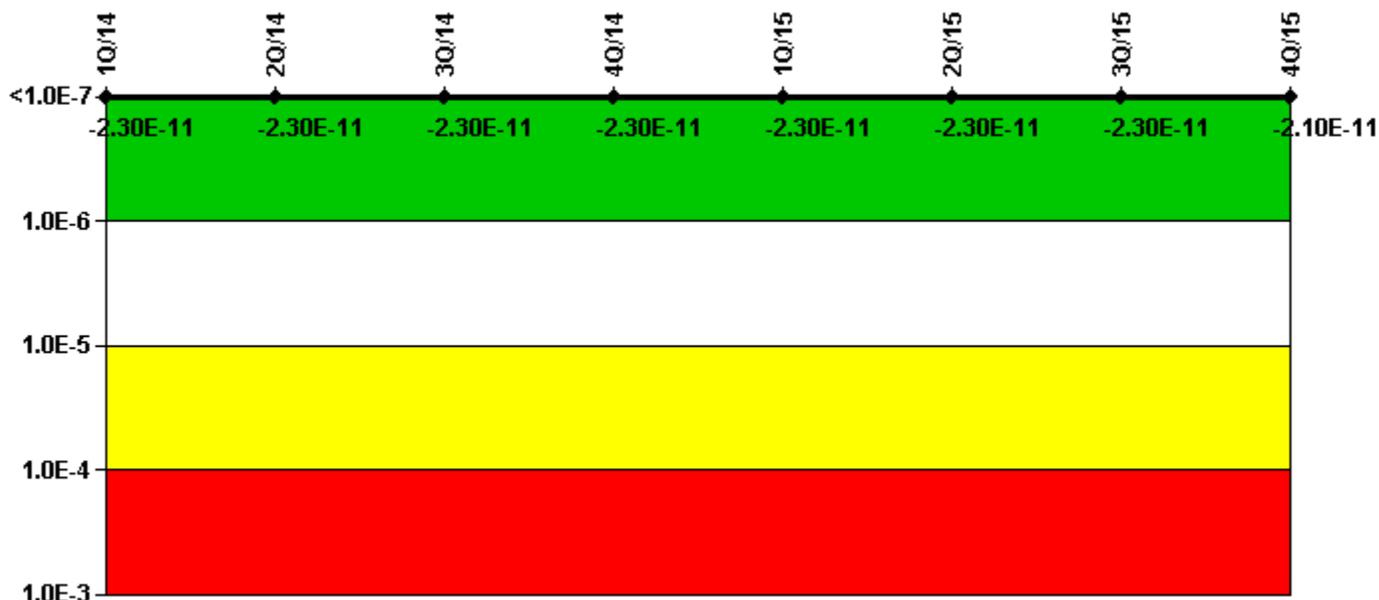
Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

#### Notes

Mitigating Systems Performance Index, Heat Removal System	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15
UAI ( $\Delta$ CDF)	3.37E-08	3.32E-08	3.32E-08	1.84E-08	1.85E-08	1.92E-08	1.86E-08	5.12E-09
URI ( $\Delta$ CDF)	-3.15E-07	-3.21E-07	-3.14E-07	-3.19E-07	-3.19E-07	-3.19E-07	-3.21E-07	-3.26E-07
PLE	NO							
Indicator value	-2.80E-07	-2.90E-07	-2.80E-07	-3.00E-07	-3.00E-07	-3.00E-07	-3.00E-07	-3.20E-07

Licensee Comments: none

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



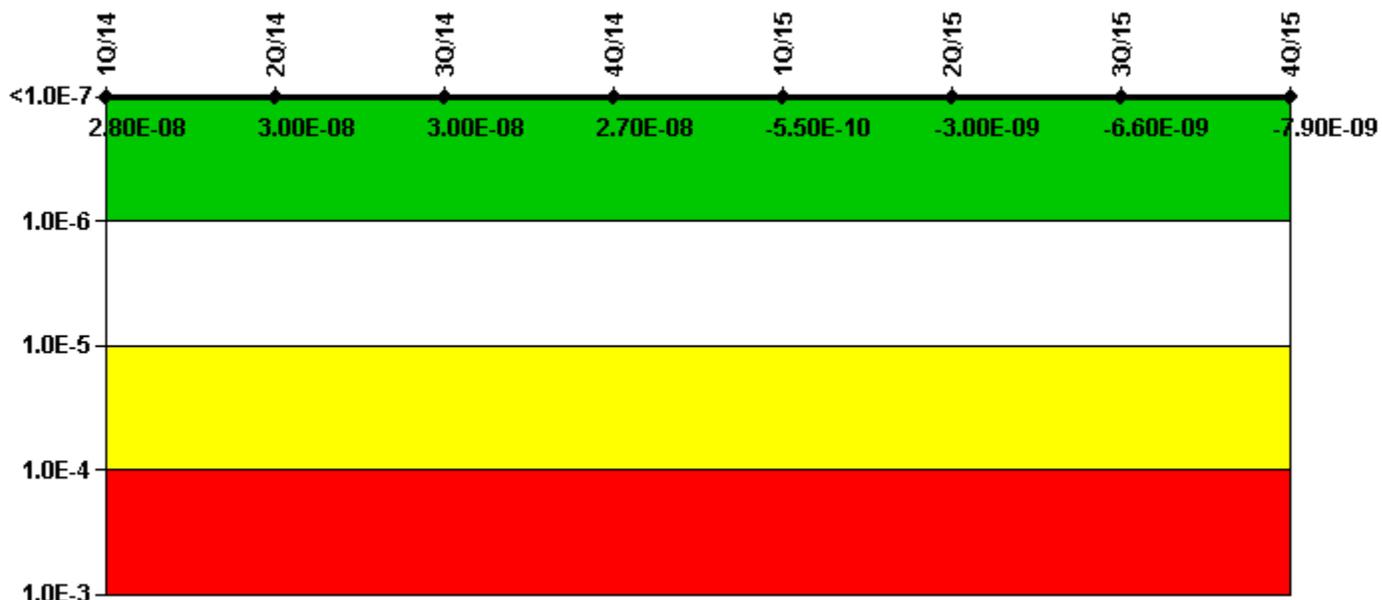
Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

#### Notes

Mitigating Systems Performance Index, Residual Heat Removal System	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15
UAI ( $\Delta$ CDF)	-1.07E-11	-1.07E-11	-1.07E-11	-1.07E-11	-1.06E-11	-1.07E-11	-1.07E-11	-8.56E-12
URI ( $\Delta$ CDF)	-1.23E-11	-1.25E-11	-1.23E-11	-1.24E-11	-1.25E-11	-1.25E-11	-1.22E-11	-1.22E-11
PLE	NO							
Indicator value	-2.30E-11	-2.10E-11						

Licensee Comments: none

### Mitigating Systems Performance Index, Cooling Water Systems



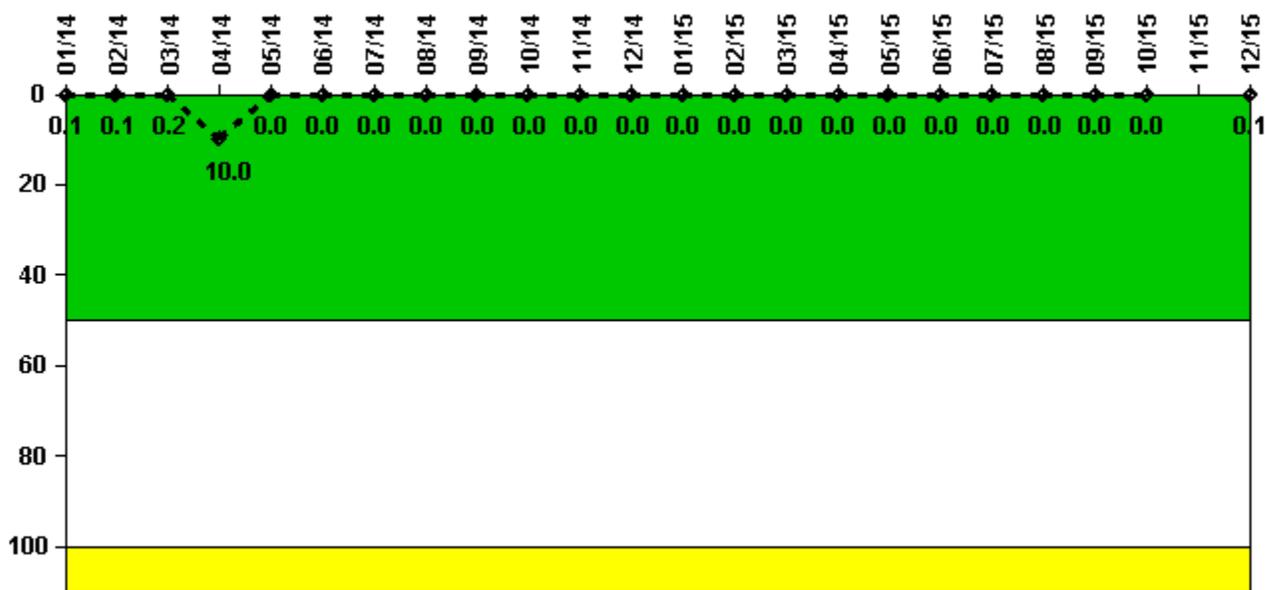
Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

#### Notes

Mitigating Systems Performance Index, Cooling Water Systems	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15
UAI ( $\Delta$ CDF)	7.05E-08	7.28E-08	7.34E-08	7.05E-08	4.28E-08	3.98E-08	3.61E-08	3.47E-08
URI ( $\Delta$ CDF)	-4.26E-08	-4.32E-08	-4.30E-08	-4.31E-08	-4.34E-08	-4.28E-08	-4.27E-08	-4.26E-08
PLE	NO							
Indicator value	2.80E-08	3.00E-08	3.00E-08	2.70E-08	-5.50E-10	-3.00E-09	-6.60E-09	-7.90E-09

Licensee Comments: none

### Reactor Coolant System Activity



Thresholds: White > 50.0 Yellow > 100.0

#### Notes

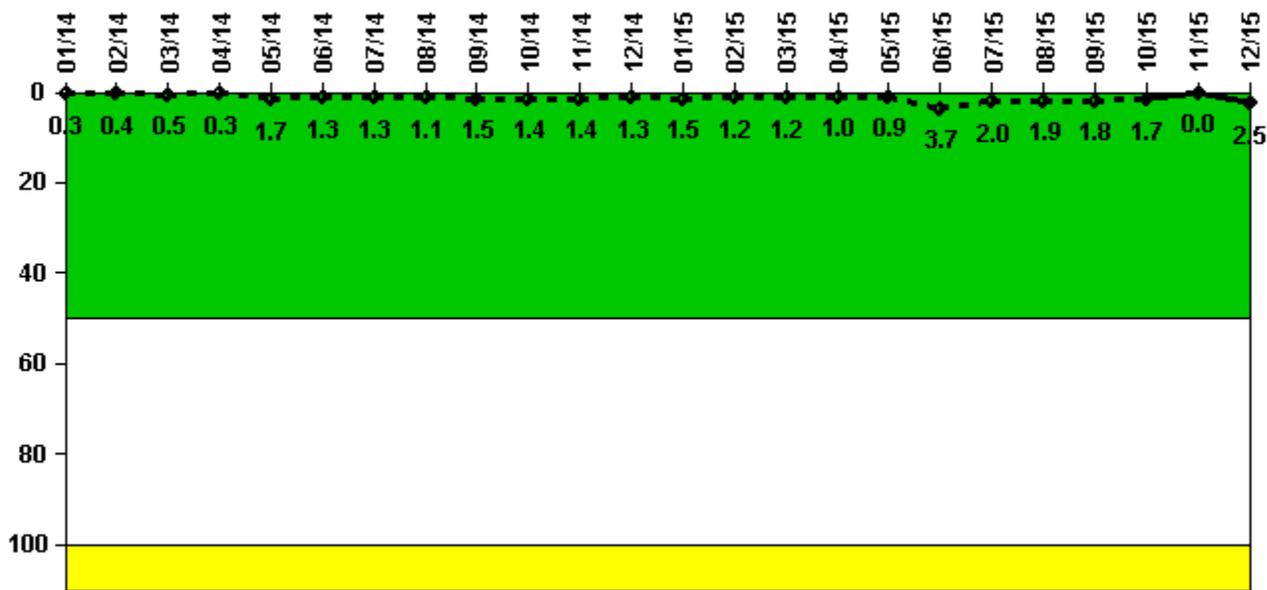
Reactor Coolant System Activity	1/14	2/14	3/14	4/14	5/14	6/14	7/14	8/14	9/14	10/14	11/14	12/14
Maximum activity	0.000656	0.000954	0.002210	0.100000	0.000160	0.000133	0.000195	0.000185	0.000195	0.000136	0.000208	0.000207
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	0.1	0.1	0.2	10.0	0	0	0	0	0	0	0	0

Reactor Coolant System Activity	1/15	2/15	3/15	4/15	5/15	6/15	7/15	8/15	9/15	10/15	11/15	12/15
Maximum activity	0.000151	0.000150	0.000162	0.000164	0.000151	0.000165	0.000178	0.000183	0.000178	0.000182	N/A	0.000984
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	N/A	0.1

Licensee Comments: none

### Reactor Coolant System Leakage



Thresholds: White > 50.0 Yellow > 100.0

#### Notes

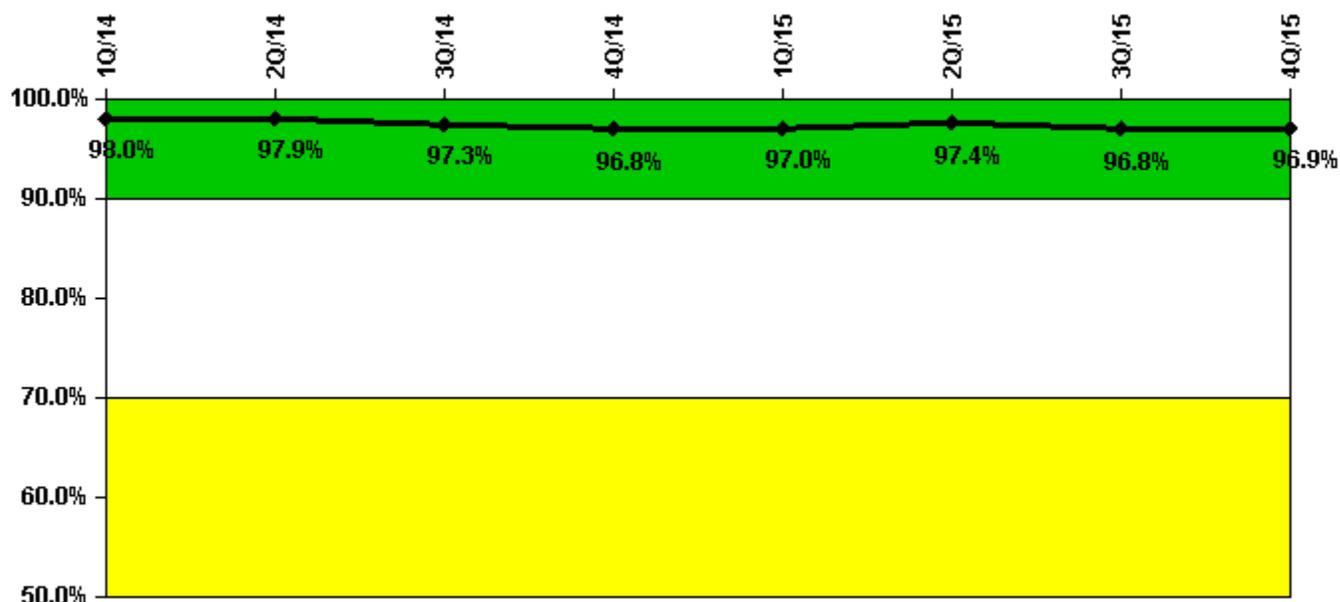
Reactor Coolant System Leakage	1/14	2/14	3/14	4/14	5/14	6/14	7/14	8/14	9/14	10/14	11/14	12/14
Maximum leakage	0.030	0.040	0.050	0.030	0.170	0.130	0.130	0.110	0.150	0.140	0.140	0.130
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
<b>Indicator value</b>	<b>0.3</b>	<b>0.4</b>	<b>0.5</b>	<b>0.3</b>	<b>1.7</b>	<b>1.3</b>	<b>1.3</b>	<b>1.1</b>	<b>1.5</b>	<b>1.4</b>	<b>1.4</b>	<b>1.3</b>

Reactor Coolant System Leakage	1/15	2/15	3/15	4/15	5/15	6/15	7/15	8/15	9/15	10/15	11/15	12/15
Maximum leakage	0.150	0.120	0.120	0.100	0.090	0.370	0.200	0.190	0.180	0.170	0	0.249
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>1.5</b>	<b>1.2</b>	<b>1.2</b>	<b>1.0</b>	<b>0.9</b>	<b>3.7</b>	<b>2.0</b>	<b>1.9</b>	<b>1.8</b>	<b>1.7</b>	<b>0</b>	<b>2.5</b>

Licensee Comments: none

### Drill/Exercise Performance



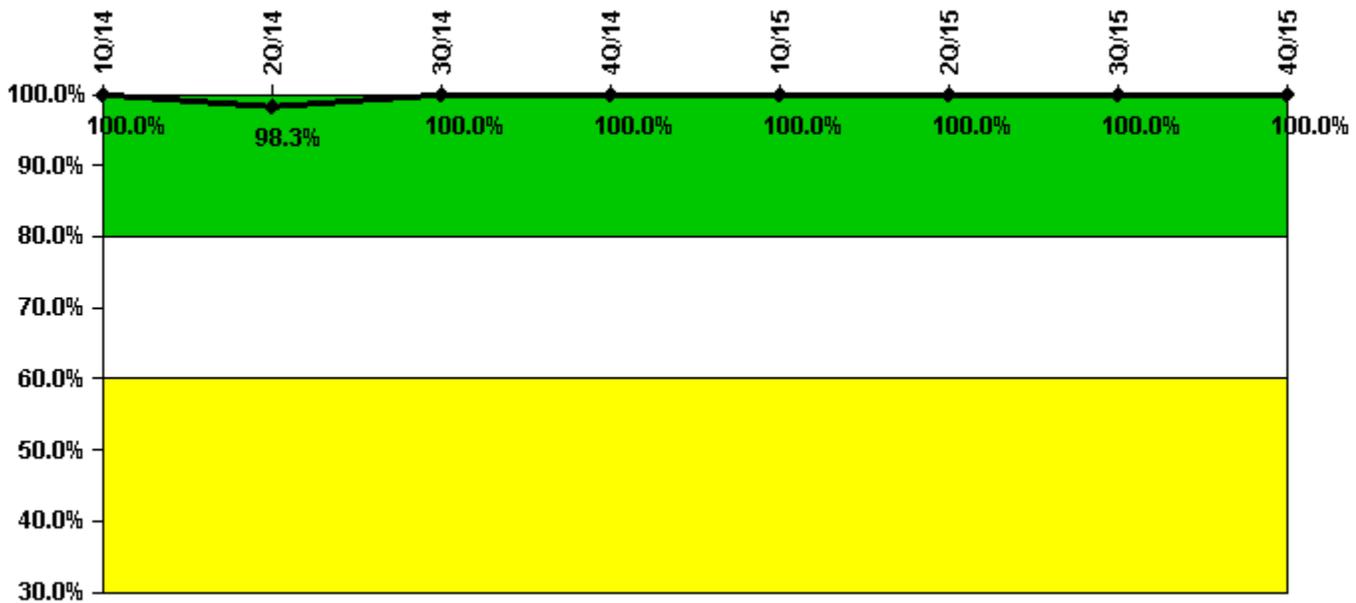
Thresholds: White < 90.0% Yellow < 70.0%

#### Notes

Drill/Exercise Performance	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15
Successful opportunities	36.0	46.0	25.0	68.0	22.0	36.0	49.0	2.0
Total opportunities	36.0	46.0	27.0	72.0	22.0	36.0	52.0	2.0
Indicator value	98.0%	97.9%	97.3%	96.8%	97.0%	97.4%	96.8%	96.9%

Licensee Comments: none

### ERO Drill Participation



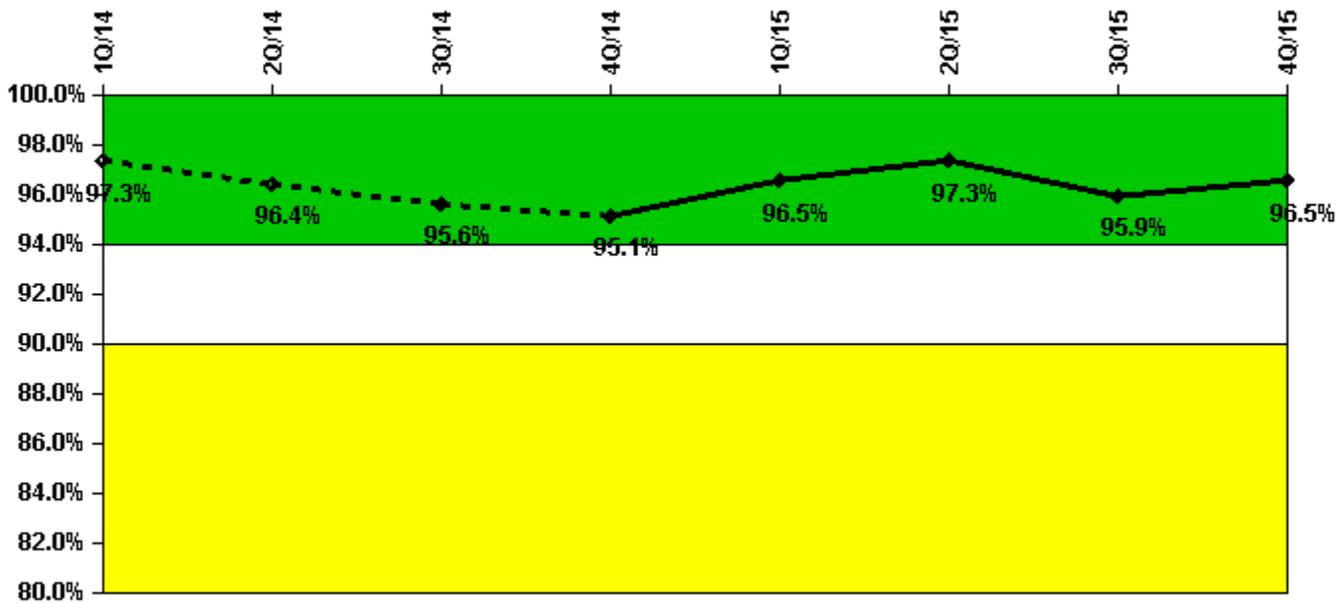
Thresholds: White < 80.0% Yellow < 60.0%

#### Notes

ERO Drill Participation	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15
Participating Key personnel	117.0	113.0	110.0	113.0	115.0	113.0	104.0	100.0
Total Key personnel	117.0	115.0	110.0	113.0	115.0	113.0	104.0	100.0
Indicator value	100.0%	98.3%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Licensee Comments: none

### Alert & Notification System



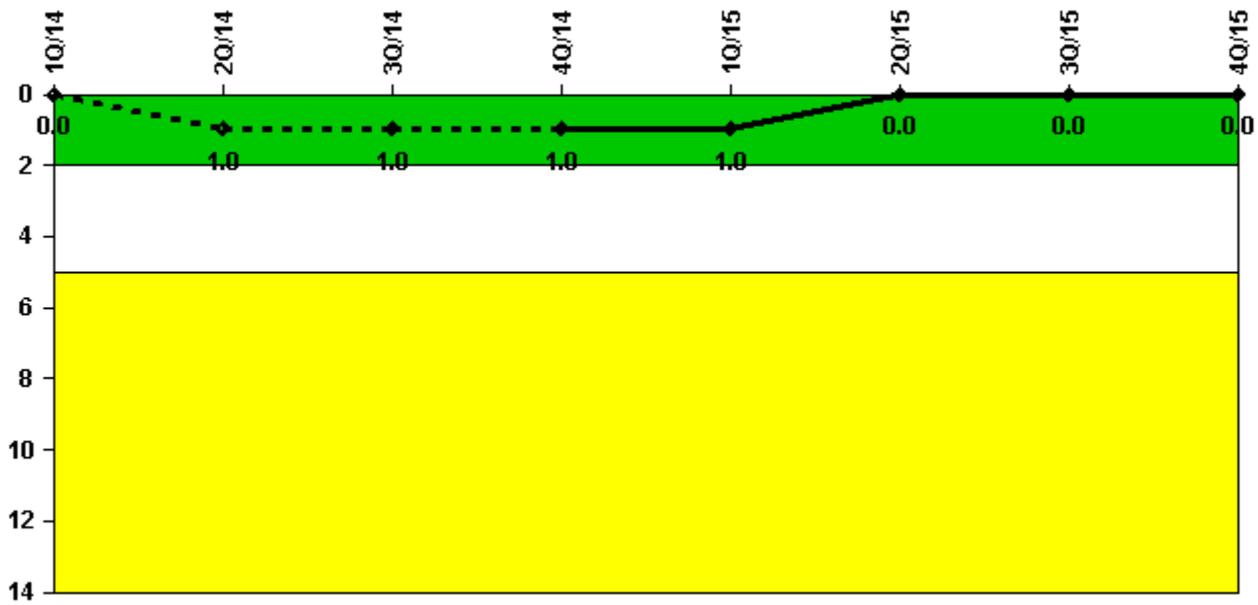
Thresholds: White < 94.0% Yellow < 90.0%

#### Notes

Alert & Notification System	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15
Successful siren-tests	392	422	424	429	416	435	401	438
Total sirens-tests	438	438	438	438	438	438	438	438
Indicator value	97.3%	96.4%	95.6%	95.1%	96.5%	97.3%	95.9%	96.5%

Licensee Comments: none

### Occupational Exposure Control Effectiveness



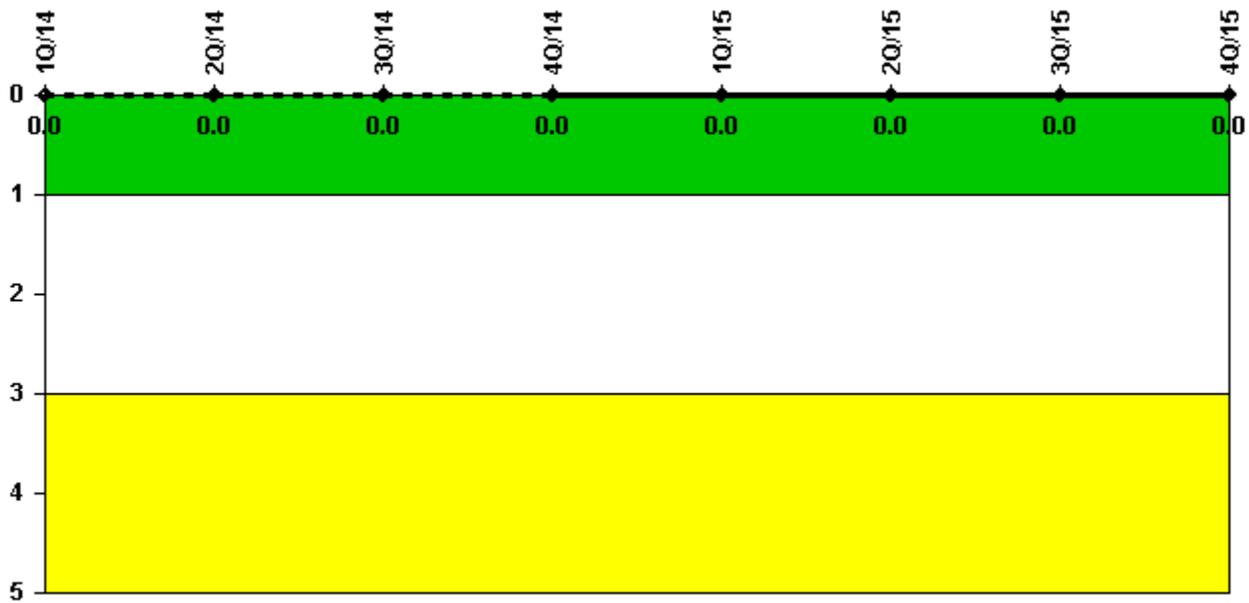
Thresholds: White > 2.0 Yellow > 5.0

#### Notes

Occupational Exposure Control Effectiveness	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15
High radiation area occurrences	0	1	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>1</b>	<b>1</b>	<b>1</b>	<b>1</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	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15
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: March 1, 2016*