

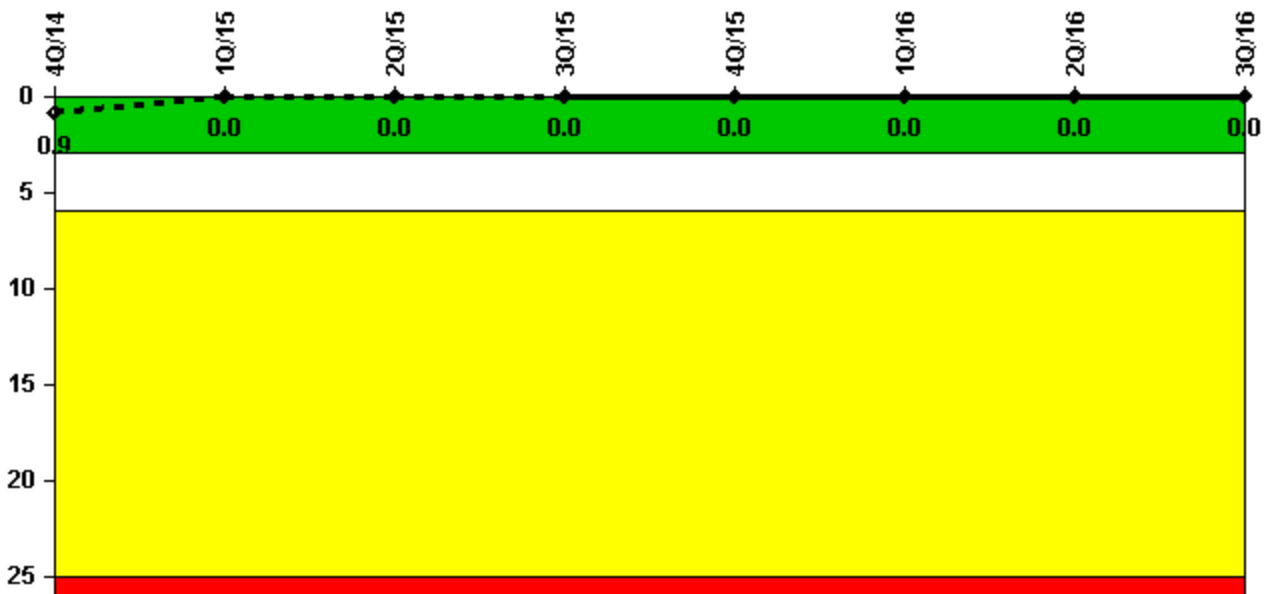
# Comanche Peak 1

## 3Q/2016 Performance Indicators

The solid trend line represents the current reporting period.

Licensee's General Comments: none

### Unplanned Scrams per 7000 Critical Hrs



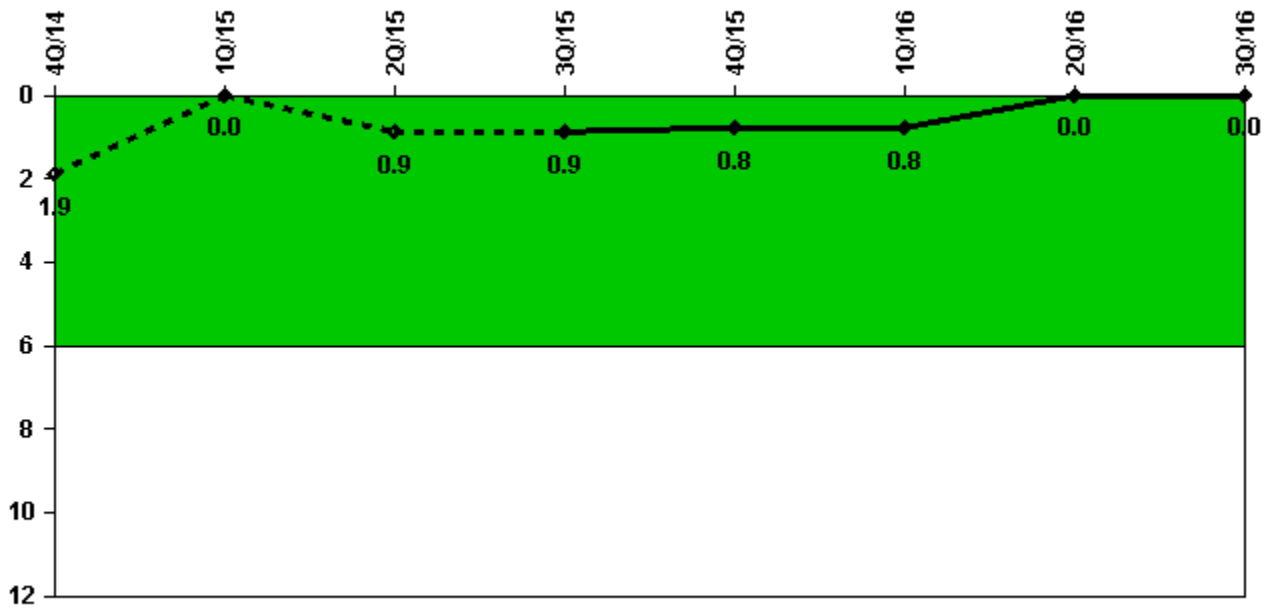
Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

### Notes

Unplanned Scrams per 7000 Critical Hrs	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16
Unplanned scrams	0	0	0	0	0	0	0	0
Critical hours	952.3	2159.0	2184.0	2208.0	2209.0	2183.0	1480.0	2208.0
Indicator value	0.9	0	0	0	0	0	0	0

Licensee Comments: none

### Unplanned Power Changes per 7000 Critical Hrs



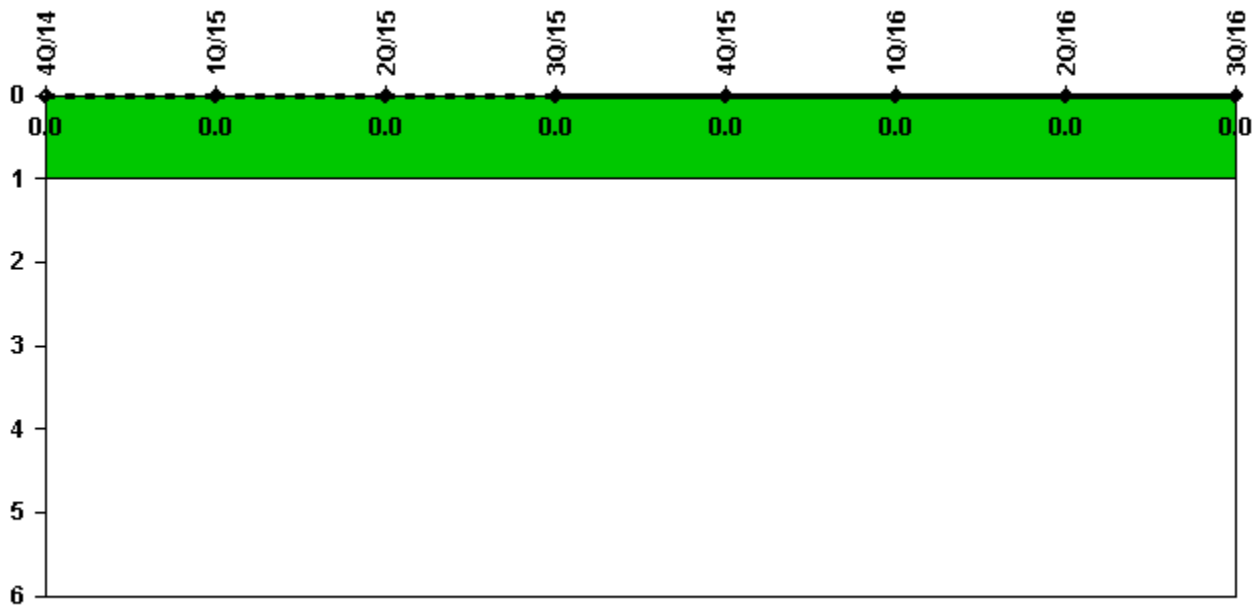
Thresholds: White > 6.0

#### Notes

Unplanned Power Changes per 7000 Critical Hrs	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16
Unplanned power changes	0	0	1.0	0	0	0	0	0
Critical hours	952.3	2159.0	2184.0	2208.0	2209.0	2183.0	1480.0	2208.0
<b>Indicator value</b>	<b>1.9</b>	<b>0</b>	<b>0.9</b>	<b>0.9</b>	<b>0.8</b>	<b>0.8</b>	<b>0</b>	<b>0</b>

Licensee Comments: none

### Unplanned Scrams with Complications



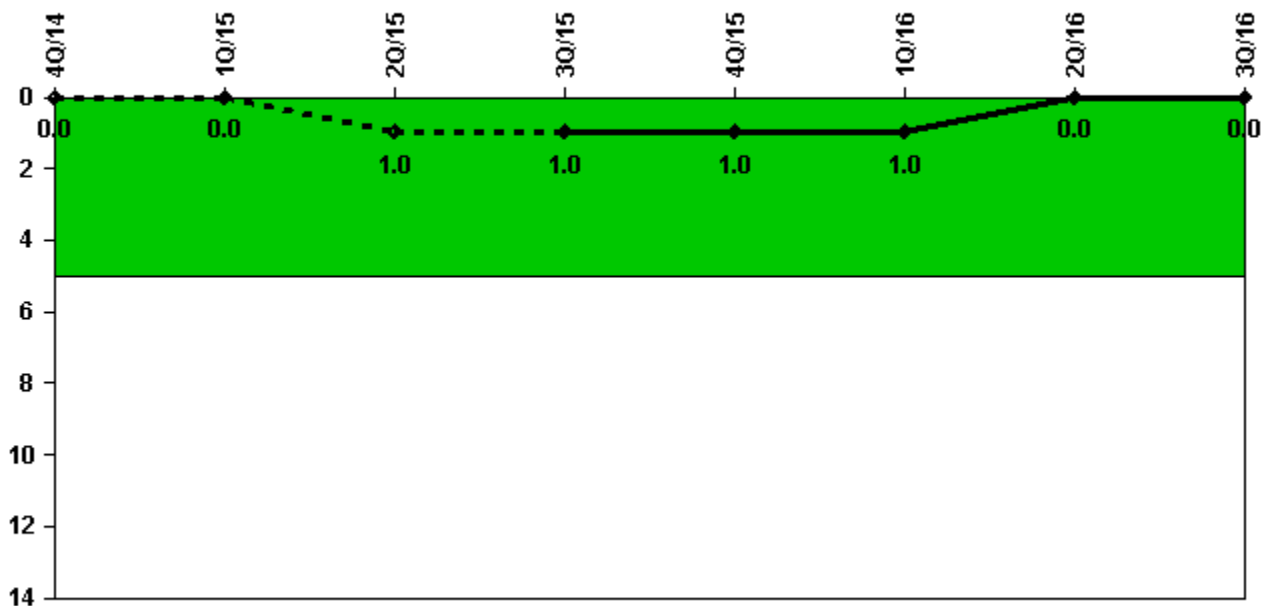
Thresholds: White > 1.0

#### Notes

Unplanned Scrams with Complications	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16
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/14	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16
Safety System Functional Failures	0	0	1	0	0	0	0	0
<b>Indicator value</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>0</b>

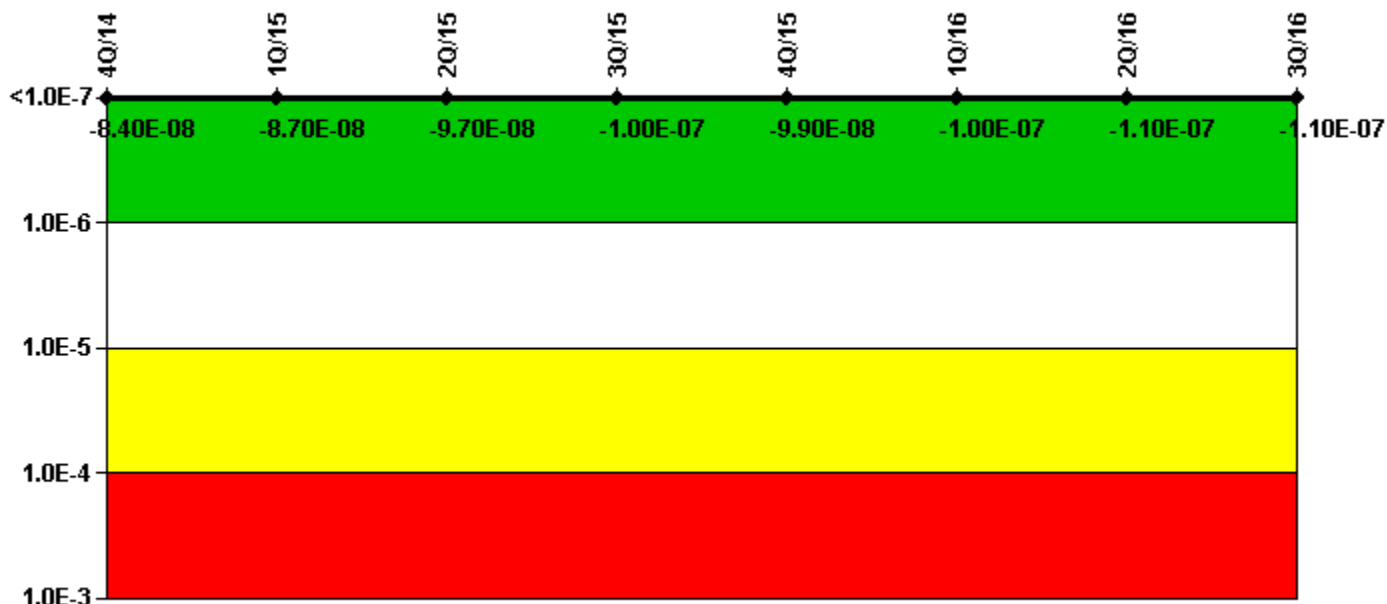
Licensee Comments:

2Q/15: LER 1-15-001.

1Q/15: For the previously reported SSFF from LER 1-14-003, an engineering analysis determined that the system was capable of performing its safety function. This change did not affect the ???color??? of the indicator.

1Q/15: LER 1-14-003.

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



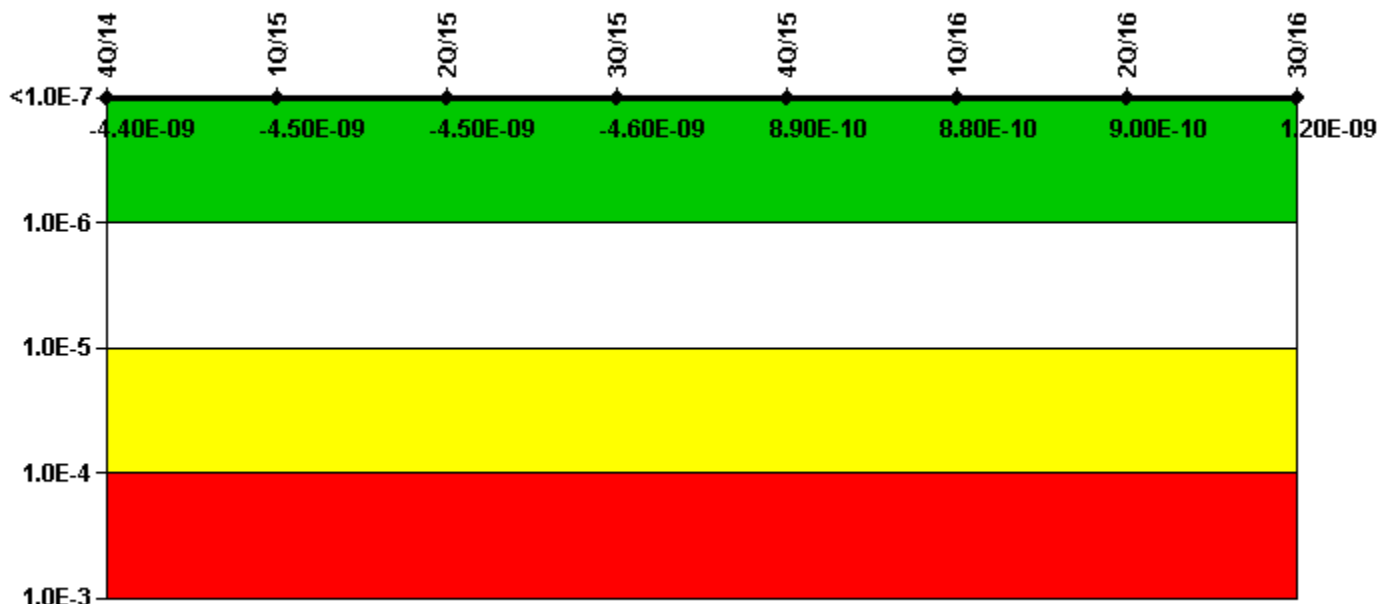
Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

#### Notes

Mitigating Systems Performance Index, Emergency AC Power System	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16
UAI ( $\Delta$ CDF)	2.24E-09	7.35E-10	-8.93E-09	-1.04E-08	-8.10E-09	-1.14E-08	-1.76E-08	-1.76E-08
URI ( $\Delta$ CDF)	-8.60E-08	-8.77E-08	-8.84E-08	-9.01E-08	-9.08E-08	-9.24E-08	-9.24E-08	-9.24E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-8.40E-08	-8.70E-08	-9.70E-08	-1.00E-07	-9.90E-08	-1.00E-07	-1.10E-07	-1.10E-07

Licensee Comments: none

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



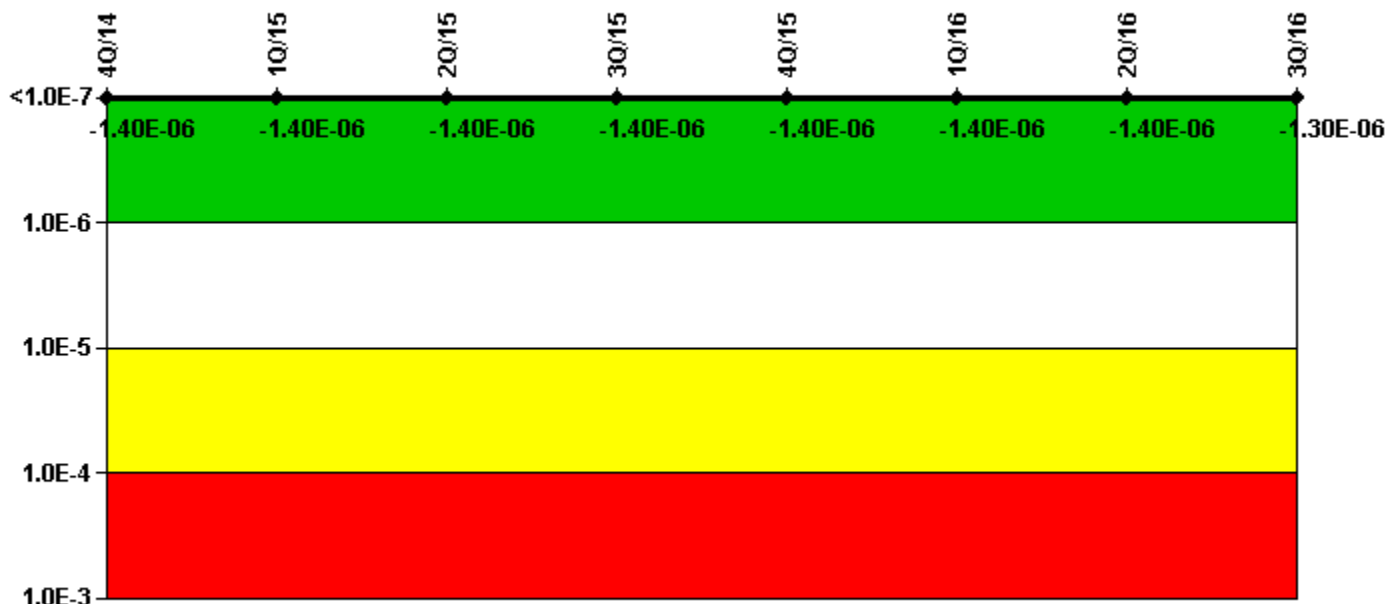
Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

#### Notes

Mitigating Systems Performance Index, High Pressure Injection System	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16
UAI ( $\Delta$ CDF)	-2.34E-09	-2.34E-09	-2.34E-09	-2.34E-09	-1.53E-09	-1.51E-09	-1.49E-09	-1.22E-09
URI ( $\Delta$ CDF)	-2.08E-09	-2.13E-09	-2.17E-09	-2.22E-09	2.43E-09	2.39E-09	2.39E-09	2.39E-09
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-4.40E-09	-4.50E-09	-4.50E-09	-4.60E-09	8.90E-10	8.80E-10	9.00E-10	1.20E-09

Licensee Comments: none

### Mitigating Systems Performance Index, Heat Removal System



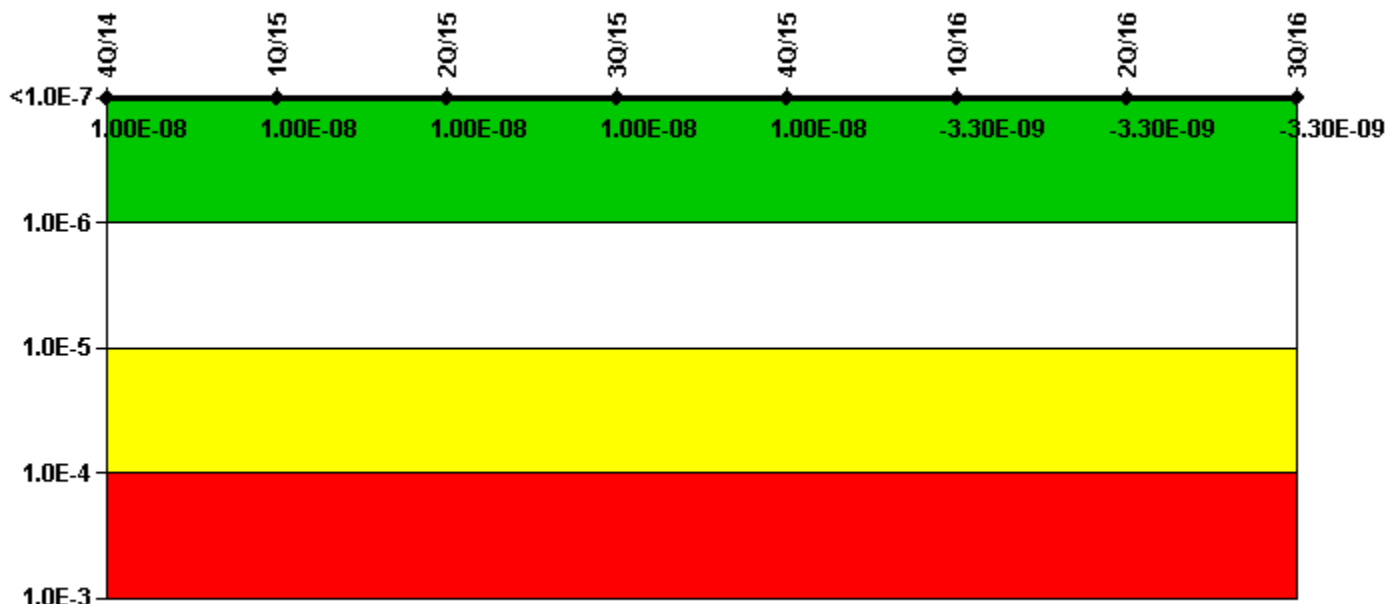
Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

#### Notes

Mitigating Systems Performance Index, Heat Removal System	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16
UAI ( $\Delta$ CDF)	-1.08E-06	-1.08E-06	-1.08E-06	-1.08E-06	-1.08E-06	-1.08E-06	-1.08E-06	-1.05E-06
URI ( $\Delta$ CDF)	-2.89E-07	-2.88E-07	-2.95E-07	-2.94E-07	-2.97E-07	-2.96E-07	-2.96E-07	-2.96E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-1.40E-06	-1.40E-06	-1.40E-06	-1.40E-06	-1.40E-06	-1.40E-06	-1.40E-06	-1.30E-06

Licensee Comments: none

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



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

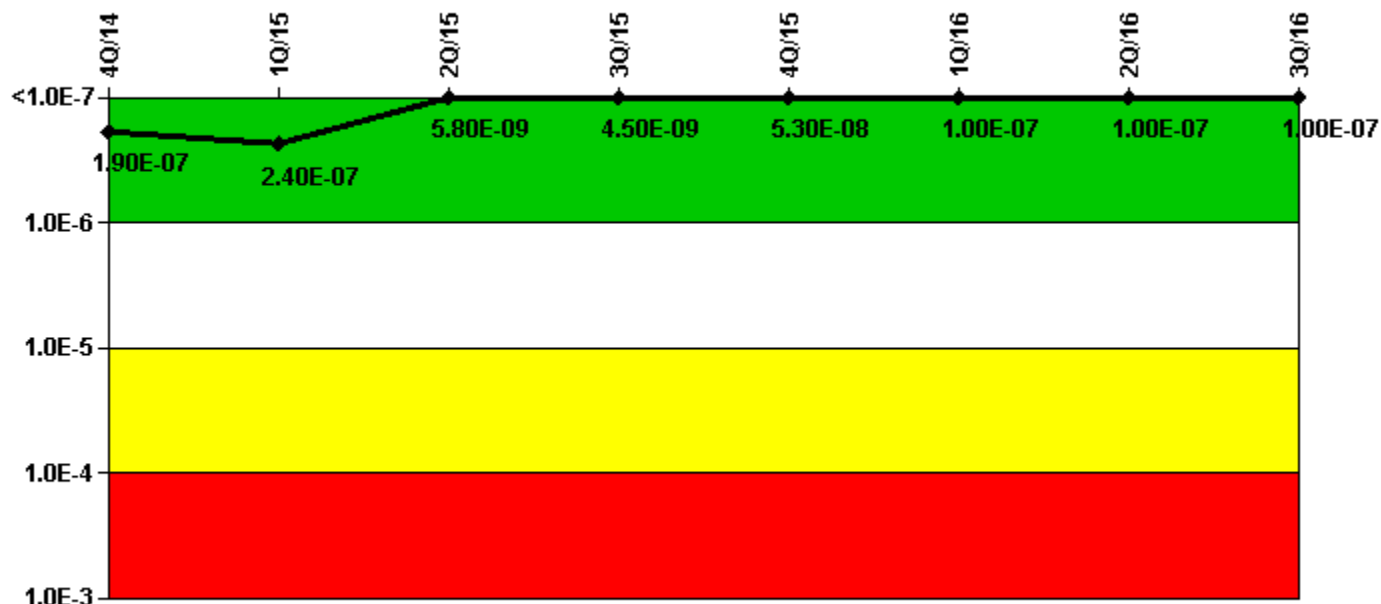
#### Notes

Mitigating Systems Performance Index, Residual Heat Removal System	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16
UAI ( $\Delta$ CDF)	-8.59E-10	-8.59E-10	-8.59E-10	-8.59E-10	-8.59E-10	-8.59E-10	-8.59E-10	-8.59E-10
URI ( $\Delta$ CDF)	1.09E-08	1.09E-08	1.09E-08	1.09E-08	1.09E-08	-2.39E-09	-2.39E-09	-2.39E-09
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	1.00E-08	1.00E-08	1.00E-08	1.00E-08	1.00E-08	-3.30E-09	-3.30E-09	-3.30E-09

Licensee Comments: none



### Mitigating Systems Performance Index, Cooling Water Systems



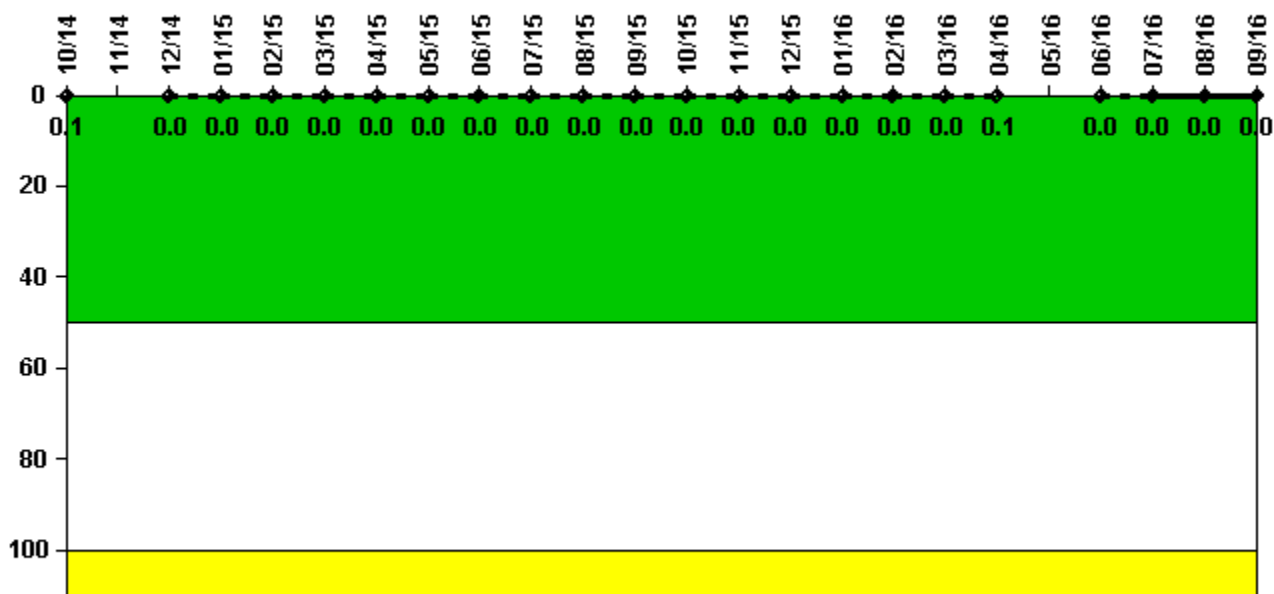
Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

#### Notes

Mitigating Systems Performance Index, Cooling Water Systems	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16
UAI (ΔCDF)	4.79E-08	9.65E-08	8.76E-08	8.65E-08	1.35E-07	1.87E-07	1.88E-07	1.87E-07
URI (ΔCDF)	1.44E-07	1.42E-07	-8.18E-08	-8.19E-08	-8.19E-08	-8.27E-08	-8.27E-08	-8.27E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	1.90E-07	2.40E-07	5.80E-09	4.50E-09	5.30E-08	1.00E-07	1.00E-07	1.00E-07

Licensee Comments: none

### Reactor Coolant System Activity



Thresholds: White > 50.0 Yellow > 100.0

#### Notes

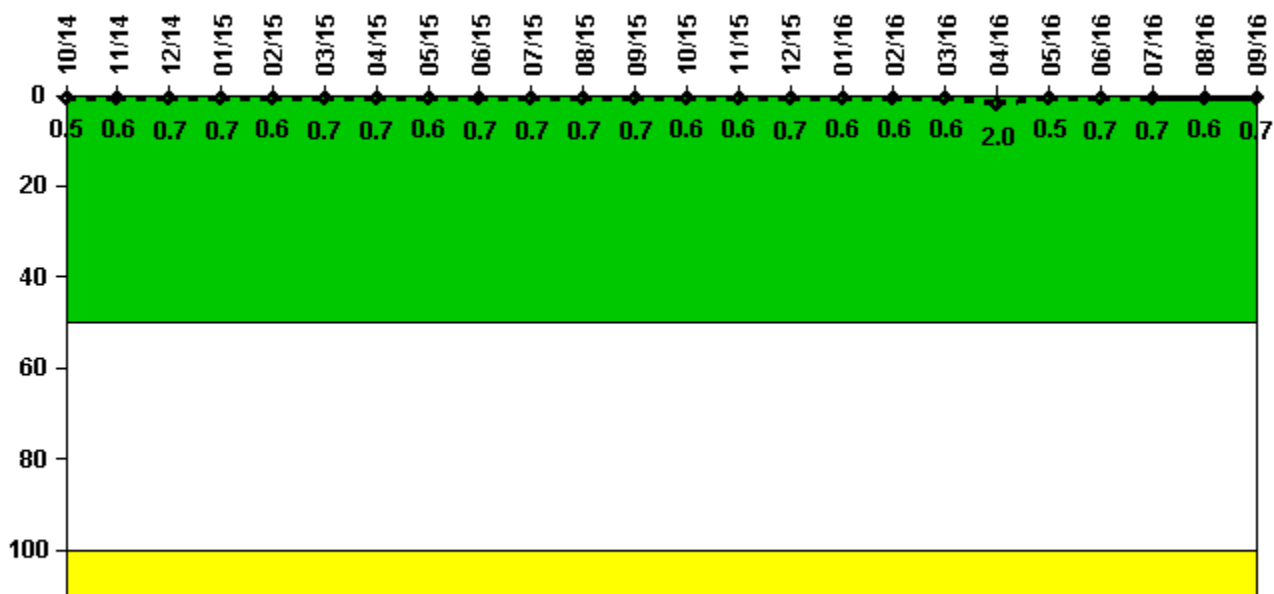
Reactor Coolant System Activity	10/14	11/14	12/14	1/15	2/15	3/15	4/15	5/15	6/15	7/15	8/15	9/15
Maximum activity	0.000312	N/A	0.000091	0.000166	0.000132	0.000135	0.000130	0.000149	0.000180	0.000105	0.000116	0.000123
Technical specification limit	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Indicator value	0.1	N/A	0	0	0	0	0	0	0	0	0	0

Reactor Coolant System Activity	10/15	11/15	12/15	1/16	2/16	3/16	4/16	5/16	6/16	7/16	8/16	9/16
Maximum activity	0.000120	0.000151	0.000134	0.000149	0.000160	0.000122	0.000255	N/A	0.000063	0.000093	0.000083	0.000107
Technical specification limit	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Indicator value	0	0	0	0	0	0	0.1	N/A	0	0	0	0

Licensee Comments: none

### Reactor Coolant System Leakage



Thresholds: White > 50.0 Yellow > 100.0

#### Notes

Reactor Coolant System Leakage	10/14	11/14	12/14	1/15	2/15	3/15	4/15	5/15	6/15	7/15	8/15	9/15
Maximum leakage	0.046	0.059	0.070	0.072	0.057	0.066	0.069	0.063	0.069	0.066	0.067	0.067
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>0.5</b>	<b>0.6</b>	<b>0.7</b>	<b>0.7</b>	<b>0.6</b>	<b>0.7</b>	<b>0.7</b>	<b>0.6</b>	<b>0.7</b>	<b>0.7</b>	<b>0.7</b>	<b>0.7</b>
Reactor Coolant System Leakage	10/15	11/15	12/15	1/16	2/16	3/16	4/16	5/16	6/16	7/16	8/16	9/16
Maximum leakage	0.064	0.057	0.066	0.063	0.062	0.064	0.199	0.049	0.069	0.067	0.064	0.066
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>0.6</b>	<b>0.6</b>	<b>0.7</b>	<b>0.6</b>	<b>0.6</b>	<b>0.6</b>	<b>2.0</b>	<b>0.5</b>	<b>0.7</b>	<b>0.7</b>	<b>0.6</b>	<b>0.7</b>

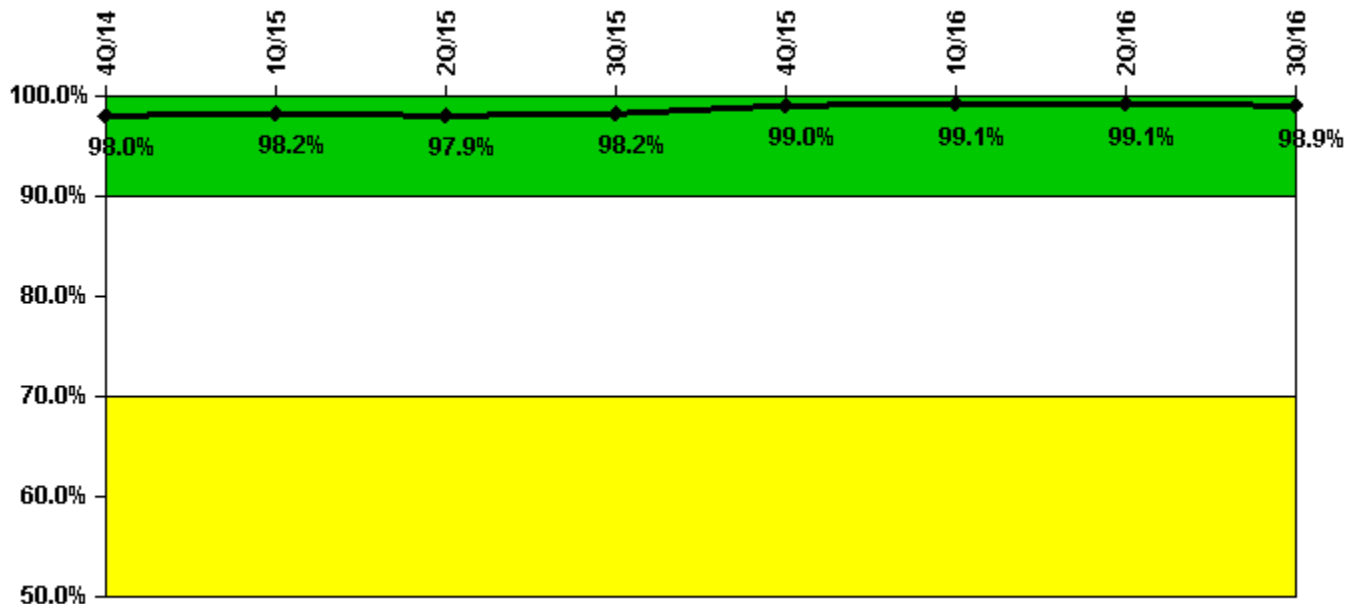
#### Licensee Comments:

- 9/16: RCS total leakage is being reported as identified leakage.
- 6/16: RCS total leakage is being reported as identified leakage.
- 3/16: RCS total leakage is being reported as identified leakage.
- 12/15: RCS total leakage is being reported as identified leakage.
- 9/15: RCS total leakage is being reported as identified leakage.
- 6/15: RCS total leakage is being reported as identified leakage.

3/15: RCS total leakage is being reported as identified leakage.

12/14: RCS total leakage is being reported as identified leakage.

### Drill/Exercise Performance



Thresholds: White < 90.0% Yellow < 70.0%

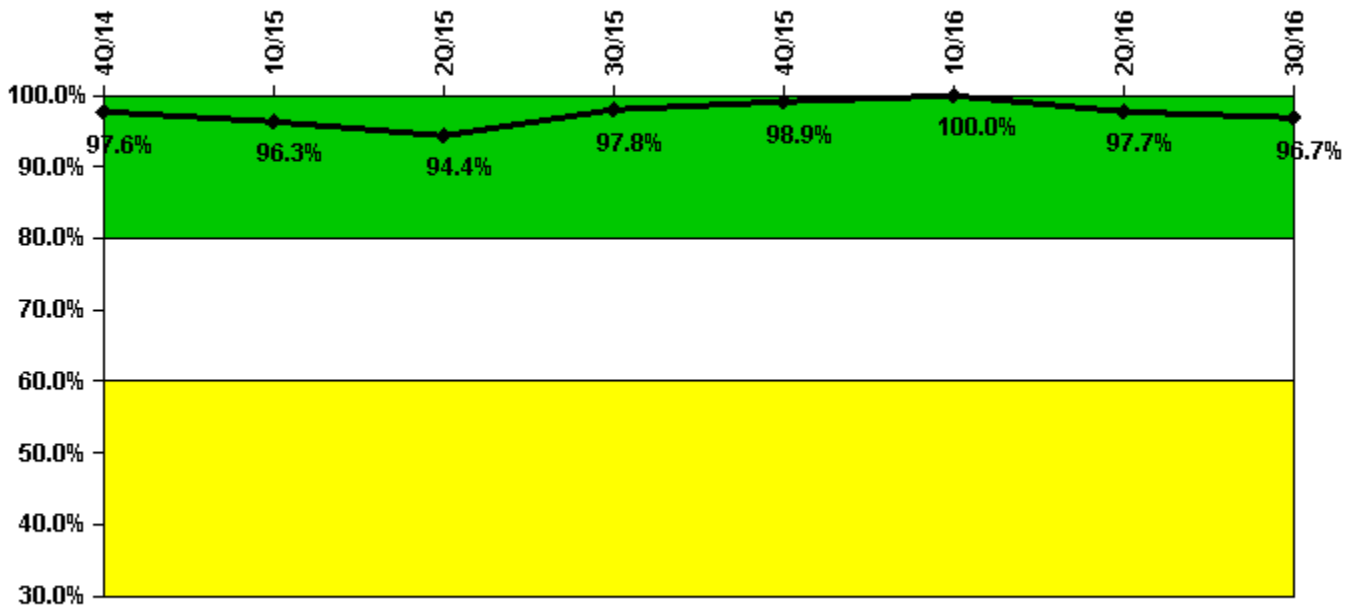
### Notes

Drill/Exercise Performance	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16
Successful opportunities	13.0	63.0	76.0	73.0	34.0	72.0	41.0	82.0
Total opportunities	13.0	63.0	79.0	74.0	34.0	72.0	41.0	83.0
Indicator value	98.0%	98.2%	97.9%	98.2%	99.0%	99.1%	99.1%	98.9%

Licensee Comments:

3Q/15: Determined that a GE declaration from the 15Q3 exercise should not have counted as an opportunity. This change does not affect the "color" of the indicator.

### ERO Drill Participation



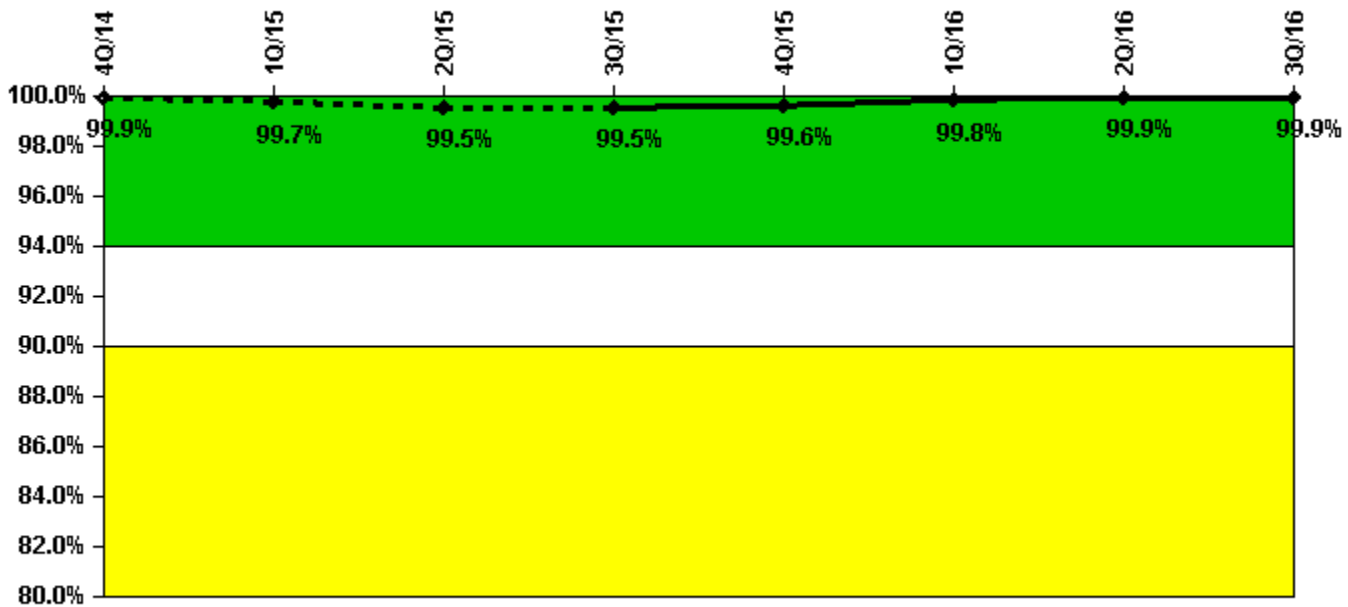
Thresholds: White < 80.0% Yellow < 60.0%

#### Notes

ERO Drill Participation	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16
Participating Key personnel	83.0	77.0	84.0	90.0	94.0	92.0	86.0	89.0
Total Key personnel	85.0	80.0	89.0	92.0	95.0	92.0	88.0	92.0
Indicator value	97.6%	96.3%	94.4%	97.8%	98.9%	100.0%	97.7%	96.7%

Licensee Comments: none

### Alert & Notification System



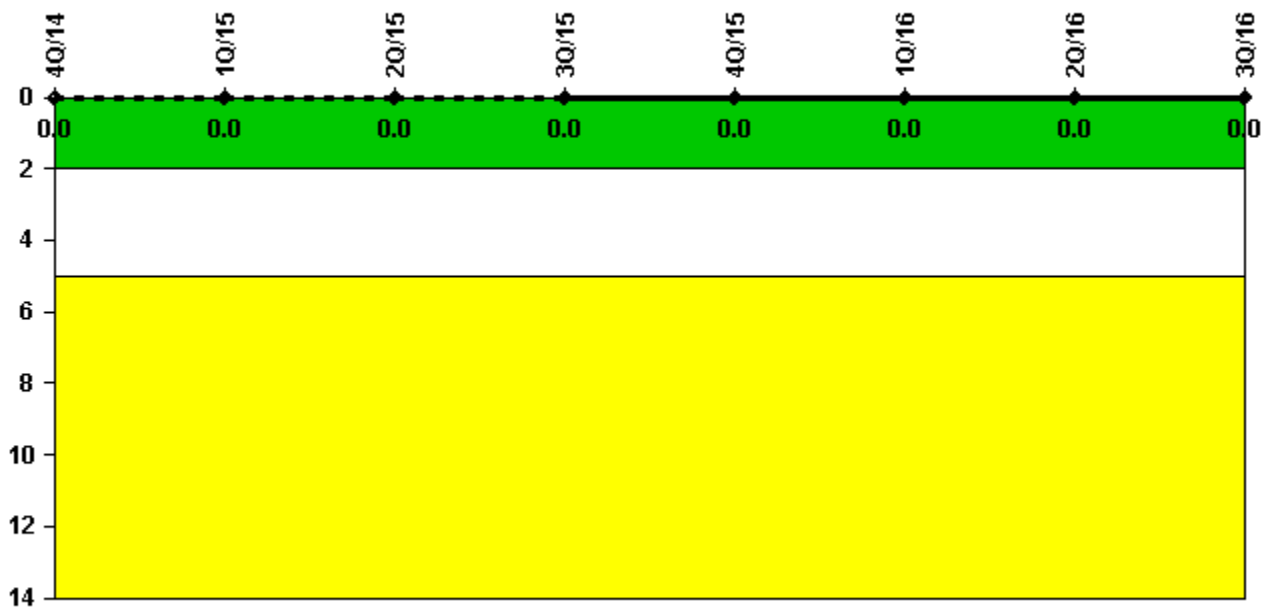
Thresholds: White < 94.0% Yellow < 90.0%

#### Notes

Alert & Notification System	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16
Successful siren-tests	431	428	429	432	432	432	430	432
Total sirens-tests	432	432	432	432	432	432	432	432
Indicator value	99.9%	99.7%	99.5%	99.5%	99.6%	99.8%	99.9%	99.9%

Licensee Comments: none

### Occupational Exposure Control Effectiveness



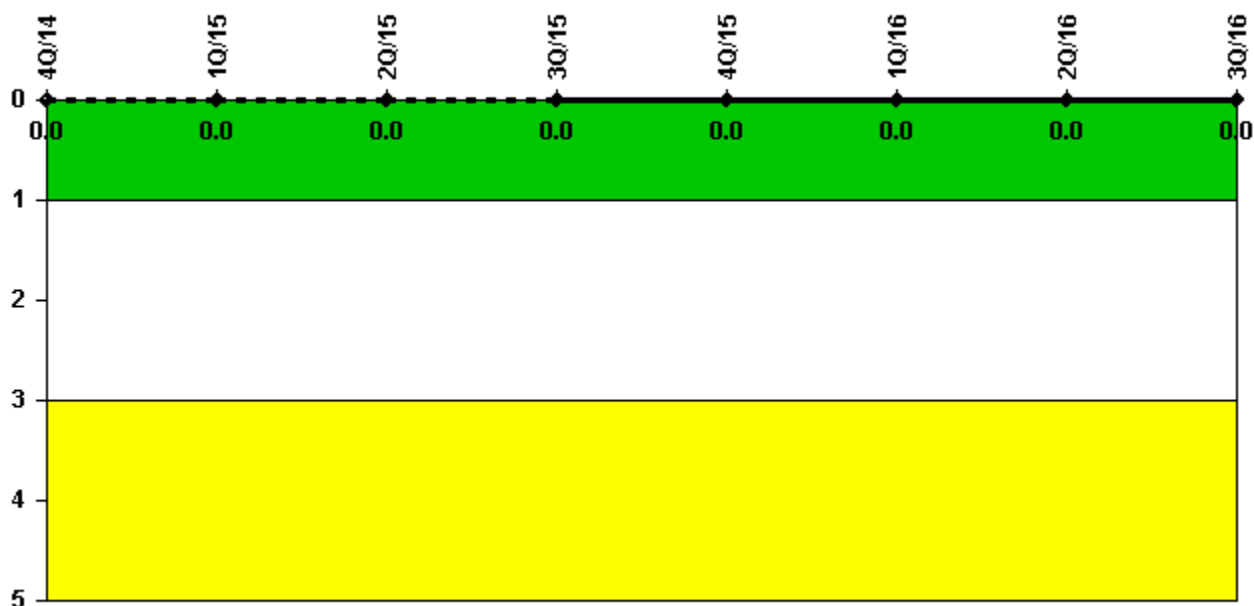
Thresholds: White > 2.0 Yellow > 5.0

#### Notes

Occupational Exposure Control Effectiveness	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16
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/14	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16
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: October 23, 2016*