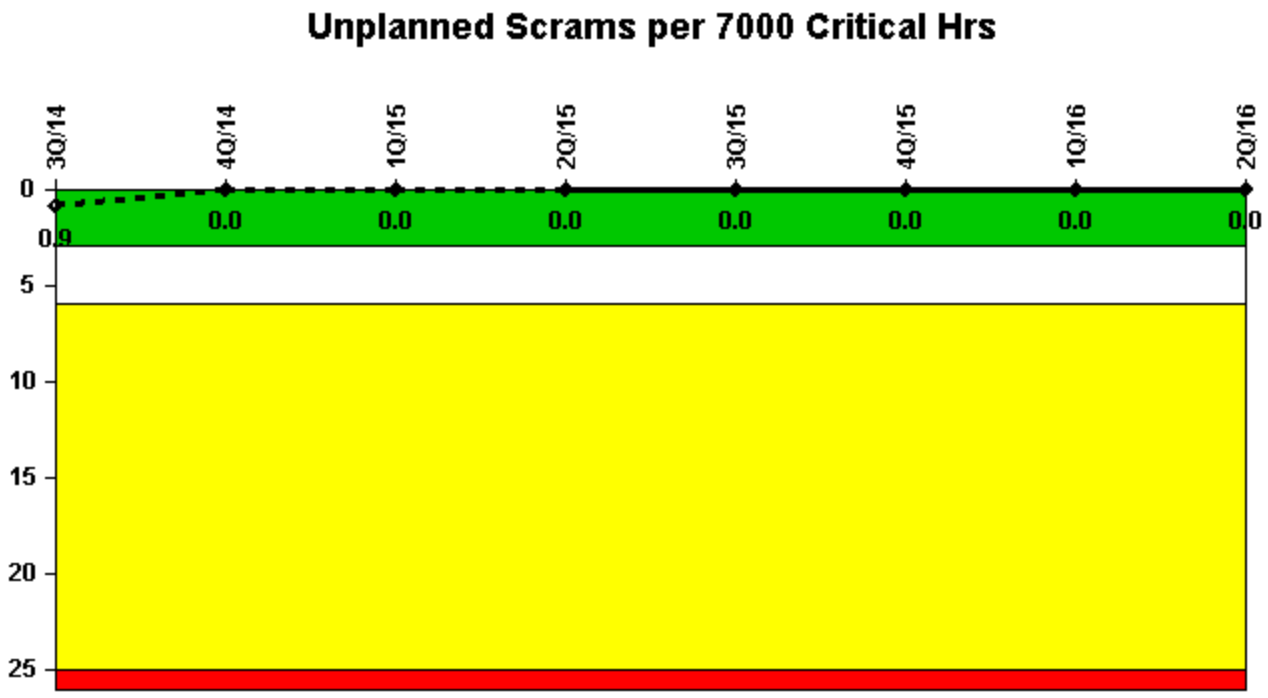
Palo Verde 2

2Q/2016 Performance Indicators

The solid trend line represents the current reporting period.

Licensee's General Comments: none

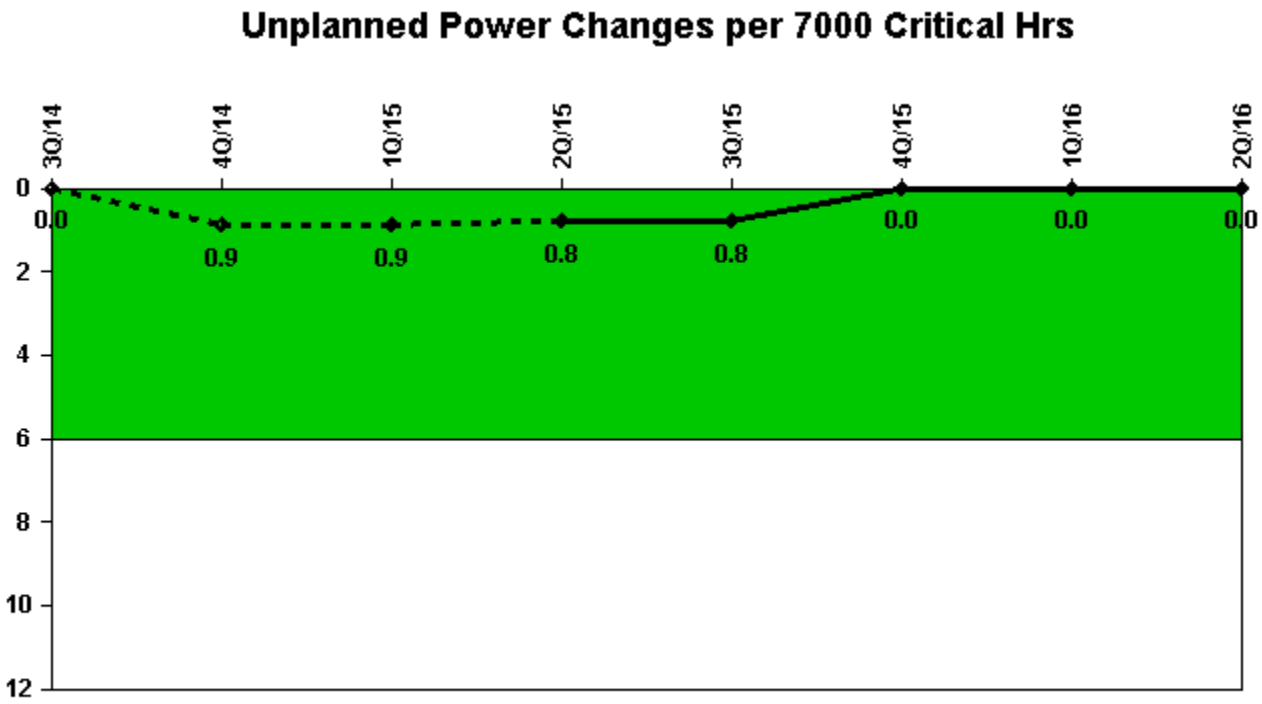


Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

Notes

Unplanned Scrams per 7000 Critical Hrs	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16
Unplanned scrams	0	0	0	0	0	0	0	0
Critical hours	2208.0	2059.2	2160.0	2184.0	2208.0	1363.6	2184.0	2184.0
Indicator value	**0.9**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none



Thresholds: White > 6.0

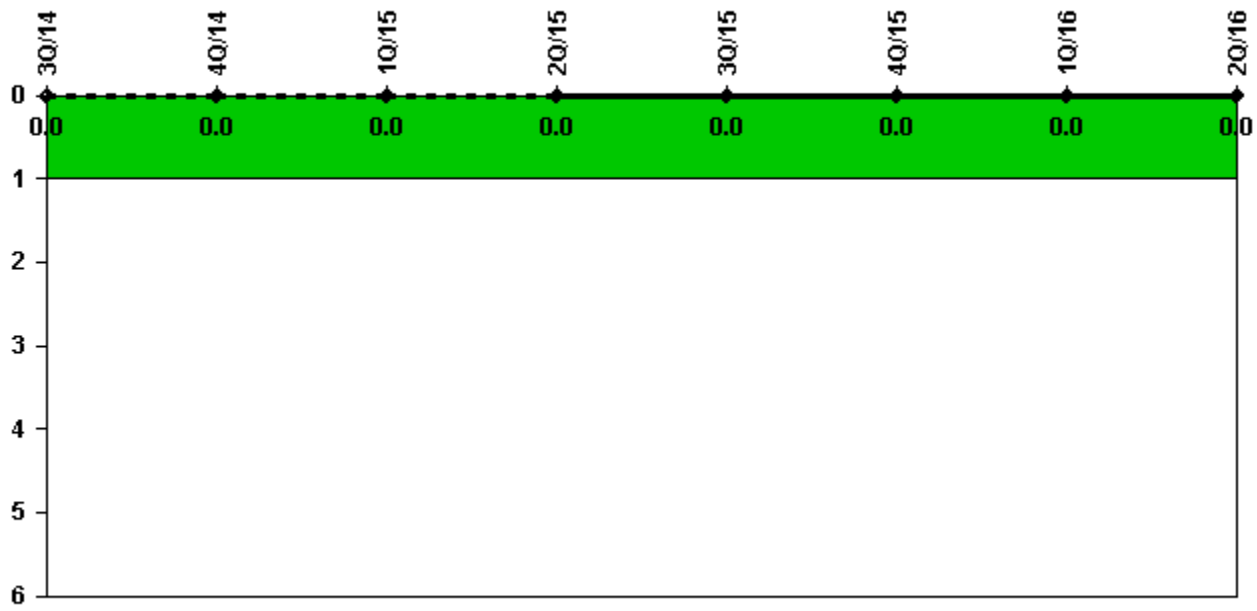
Notes

Unplanned Power Changes per 7000 Critical Hrs	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16
Unplanned power changes	0	1.0	0	0	0	0	0	0
Critical hours	2208.0	2059.2	2160.0	2184.0	2208.0	1363.6	2184.0	2184.0
Indicator value	**0**	**0.9**	**0.9**	**0.8**	**0.8**	**0**	**0**	**0**

Licensee Comments:

3Q/15: On September 25, 2015, Unit 2 was granted an exigent amendment to Technical Specification Surveillance Requirement 3.1.5.3 to eliminate further quarterly performance for control element assemble #88 for the remainder of the 19th Unit 2 operating cycle. Reference ADAMS Accession # ML 15266A005.

Unplanned Scrams with Complications



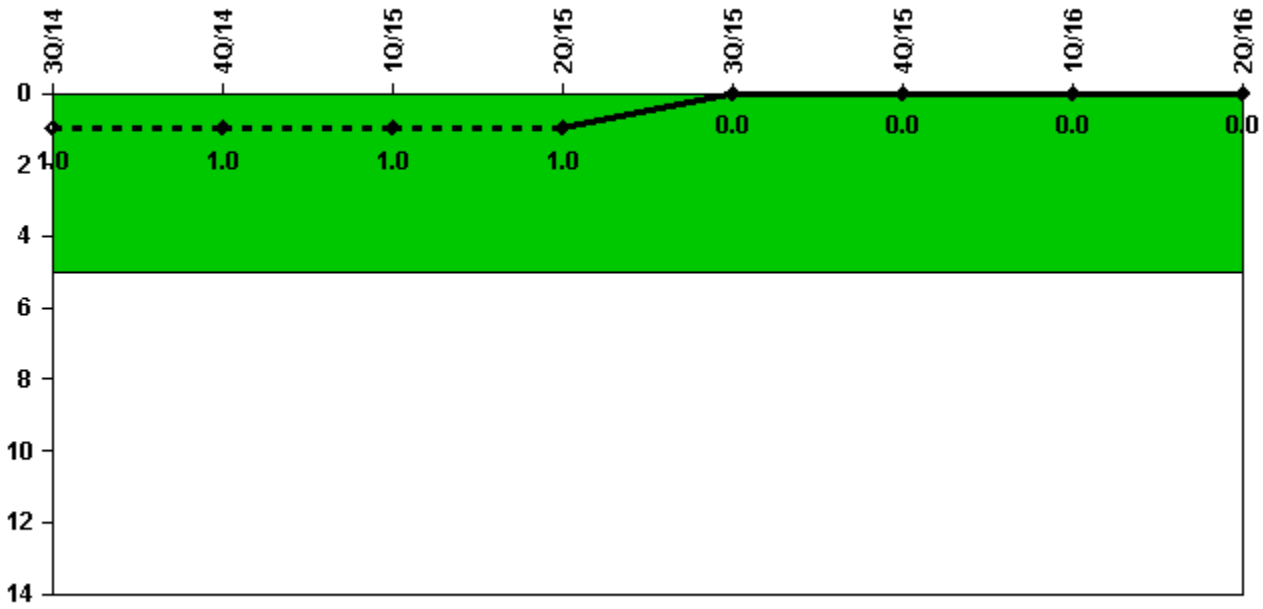
Thresholds: White > 1.0

Notes

Unplanned Scrams with Complications	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16
Scrams with complications	0	0	0	0	0	0	0	0
Indicator value	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

Licensee Comments: none

Safety System Functional Failures (PWR)



Thresholds: White > 5.0

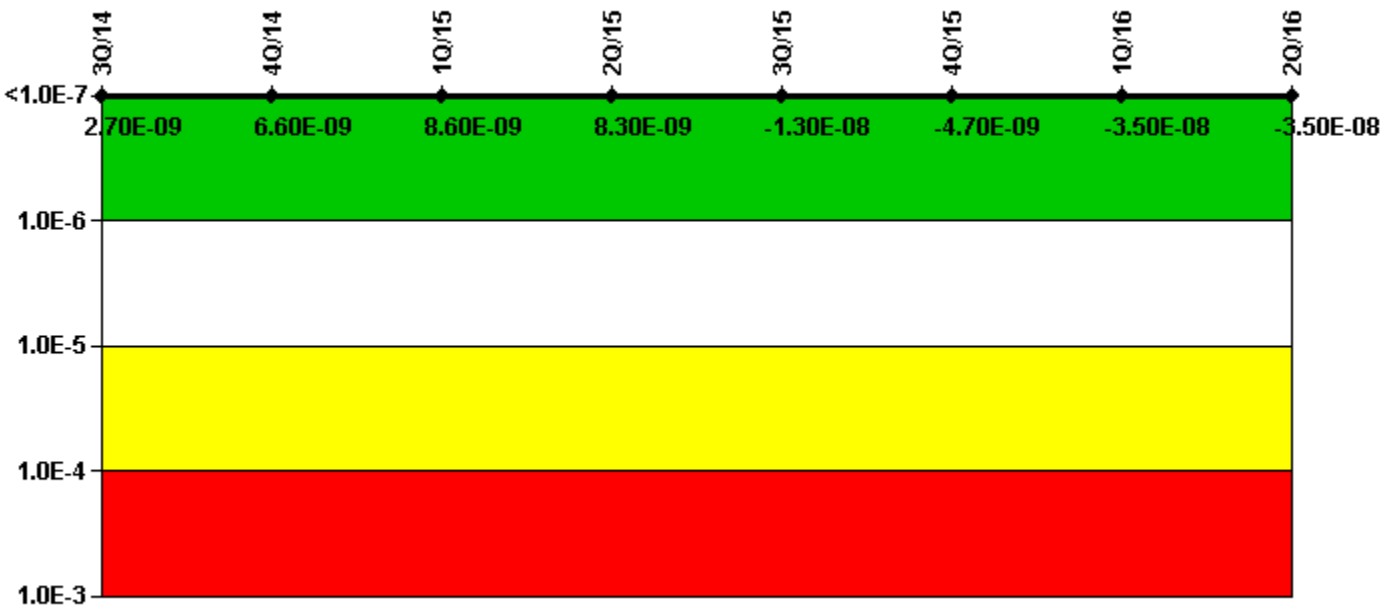
Notes

Safety System Functional Failures (PWR)	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16
Safety System Functional Failures	1	0	0	0	0	0	0	0
Indicator value	**1**	**1**	**1**	**1**	**0**	**0**	**0**	**0**

Licensee Comments:

3Q/14: LER 05000529-2014-001-00 issued in August 2014

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/14	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16
UAI (ΔCDF)	1.94E-08	1.95E-08	2.15E-08	2.12E-08	-1.65E-10	8.25E-09	1.59E-08	1.59E-08
URI (ΔCDF)	-1.67E-08	-1.29E-08	-1.29E-08	-1.29E-08	-1.29E-08	-1.29E-08	-5.09E-08	-5.09E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**2.70E-09**	**6.60E-09**	**8.60E-09**	**8.30E-09**	**-1.30E-08**	**-4.70E-09**	**-3.50E-08**	**-3.50E-08**

Licensee Comments:

1Q/16: In March 2016, fuel oil head tank support bracket bolts (2) on the 2A emergency diesel generator were discovered to be laying beneath the brackets. The preliminary determination is the engine would have provided its key safety function for its PRA mission time and the discovered condition does not constitute a MSPI failure. Further engineering analysis is in progress to make a final determination.

3Q/15: In 3rd Quarter 2015, updated unavailability for EDG 2A for September 2012, net change was ( ) 1.91 hours and EDG 1B for April 2014 and February 2015, net change was (-) 25.72 hours , no color change as a result.

2Q/15: In May 2015, planned unavailability hours from September 2012, July and November 2013, February 2014, and February 2015, were adjusted resulting in a net decrease of 25.81 planned unavailability hours for the 3 year period ending in June 2015. The adjustments were made to account for hours unavailable vs. hours inoperable, previously recorded and not have resulted in a color change.

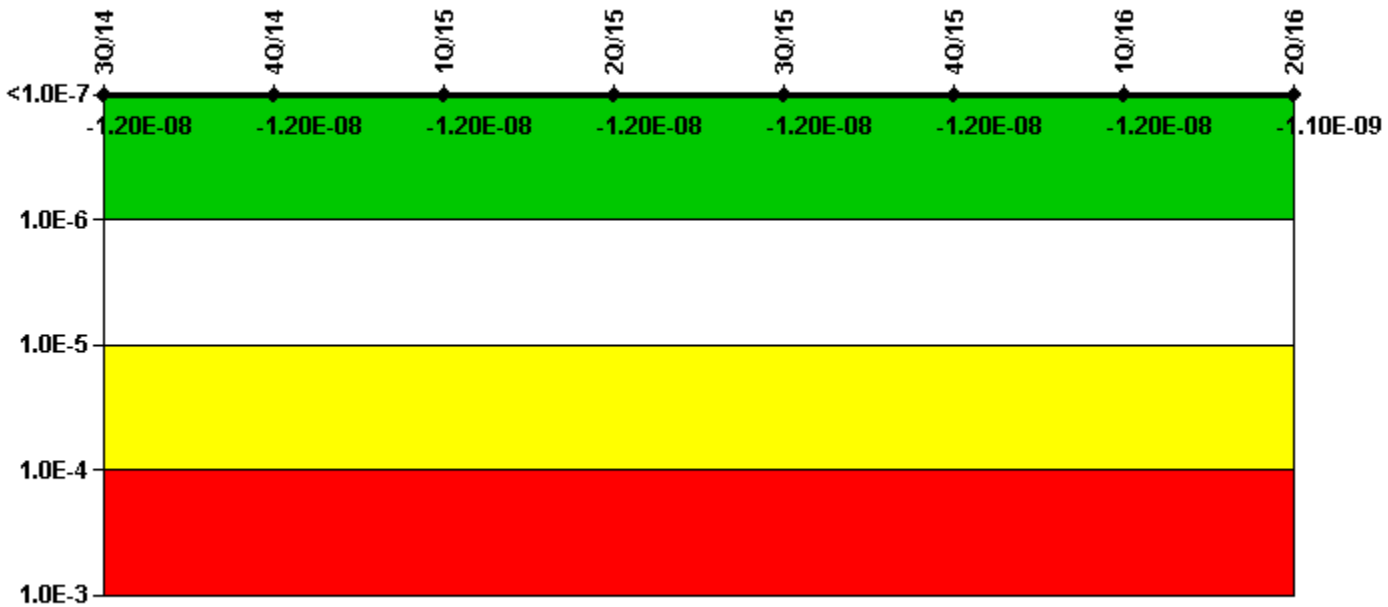
2Q/15: In May 2015, planned unavailability hours from September 2012, July and November 2013, February 2014, and February 2015, were adjusted resulting in a net decrease of 25.81 planned unavailability hours for the 3 year period ending in June 2015. The adjustments were made to account for hours unavailable vs. hours inoperable, previously recorded and not have resulted in a color change.

1Q/15: In 3rd Quarter 2015, updated February 2015 unavailability for EDG 2B, net change was (-) 0.72 hours, no color change as a result.

4Q/14: In May 2015, planned unavailability hours from September 2012, July and November 2013, February 2014, and February 2015, were adjusted resulting in a net decrease of 25.81 planned unavailability hours for the 3 year period ending in June 2015. The adjustments were made to account for hours unavailable vs. hours inoperable, previously recorded and not have resulted in a color change.

4Q/14: In May 2015, planned unavailability hours from September 2012, July and November 2013, February 2014, and February 2015, were adjusted resulting in a net decrease of 25.81 planned unavailability hours for the 3 year period ending in June 2015. The adjustments were made to account for hours unavailable vs. hours inoperable, previously recorded and not have resulted in a color change.

Mitigating Systems Performance Index, High Pressure Injection System



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

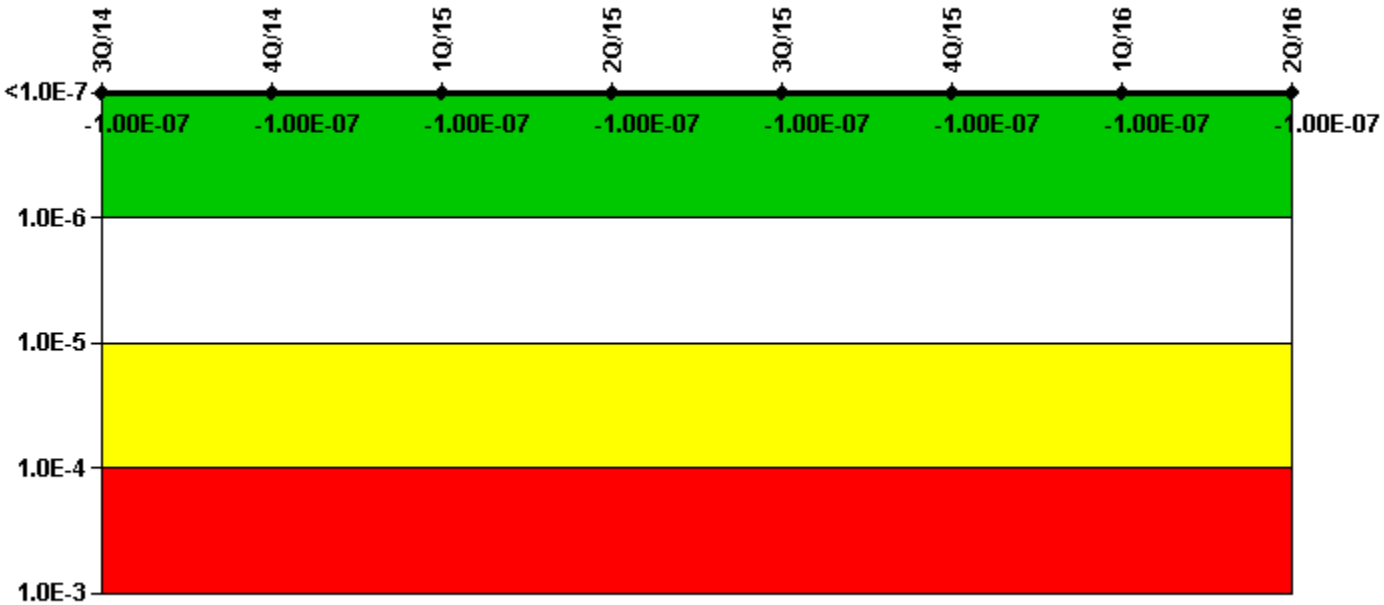
Notes

Mitigating Systems Performance Index, High Pressure Injection System	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16
UAI (ΔCDF)	-1.52E-09	-1.52E-09	-1.52E-09	-1.52E-09	-1.52E-09	-1.52E-09	-1.52E-09	-1.52E-09

URI (ΔCDF)	-1.03E-08	-1.03E-08	-1.03E-08	-1.03E-08	-1.03E-08	-1.03E-08	-1.03E-08	3.87E-10
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-1.20E-08**	**-1.20E-08**	**-1.20E-08**	**-1.20E-08**	**-1.20E-08**	**-1.20E-08**	**-1.20E-08**	**-1.10E-09**

Licensee Comments: none

Mitigating Systems Performance Index, Heat Removal System



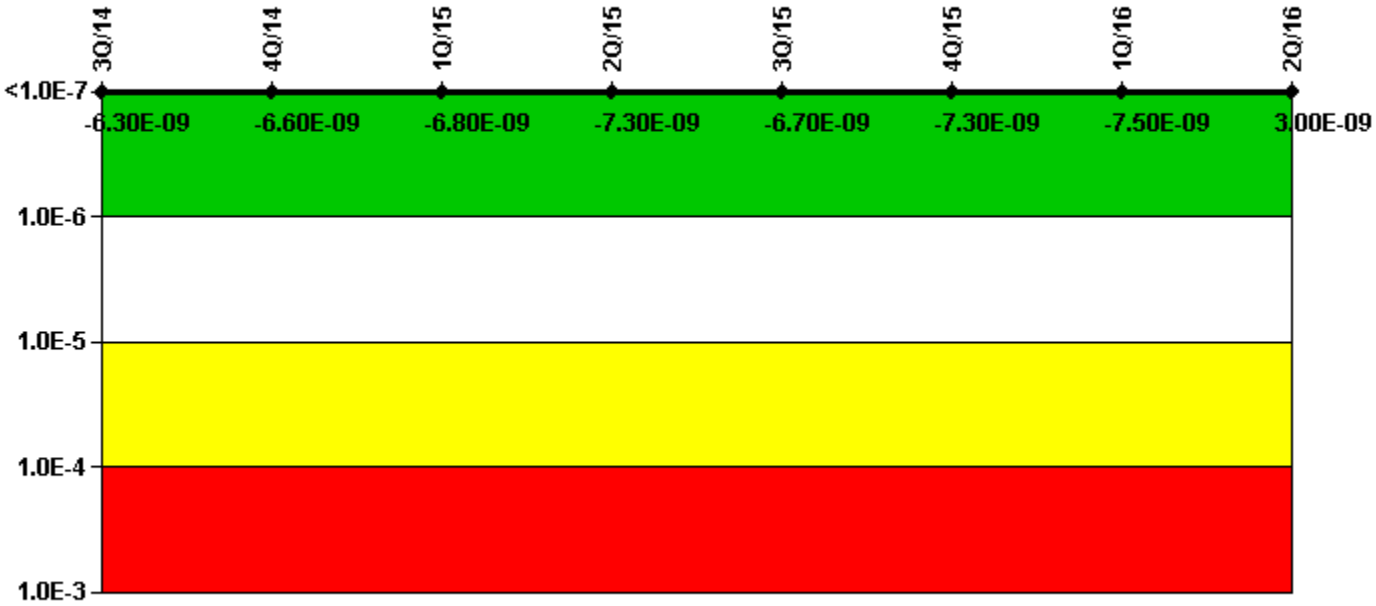
Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Heat Removal System	**3Q/14**	**4Q/14**	**1Q/15**	**2Q/15**	**3Q/15**	**4Q/15**	**1Q/16**	**2Q/16**
UAI (ΔCDF)	-4.84E-08	-4.84E-08	-4.84E-08	-4.84E-08	-4.84E-08	-4.84E-08	-4.84E-08	-4.84E-08
URI (ΔCDF)	-5.31E-08	-5.15E-08	-5.15E-08	-5.15E-08	-5.15E-08	-5.15E-08	-5.15E-08	-5.15E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-1.00E-07**	**-1.00E-07**	**-1.00E-07**	**-1.00E-07**	**-1.00E-07**	**-1.00E-07**	**-1.00E-07**	**-1.00E-07**

Licensee Comments: none

Mitigating Systems Performance Index, Residual Heat Removal System



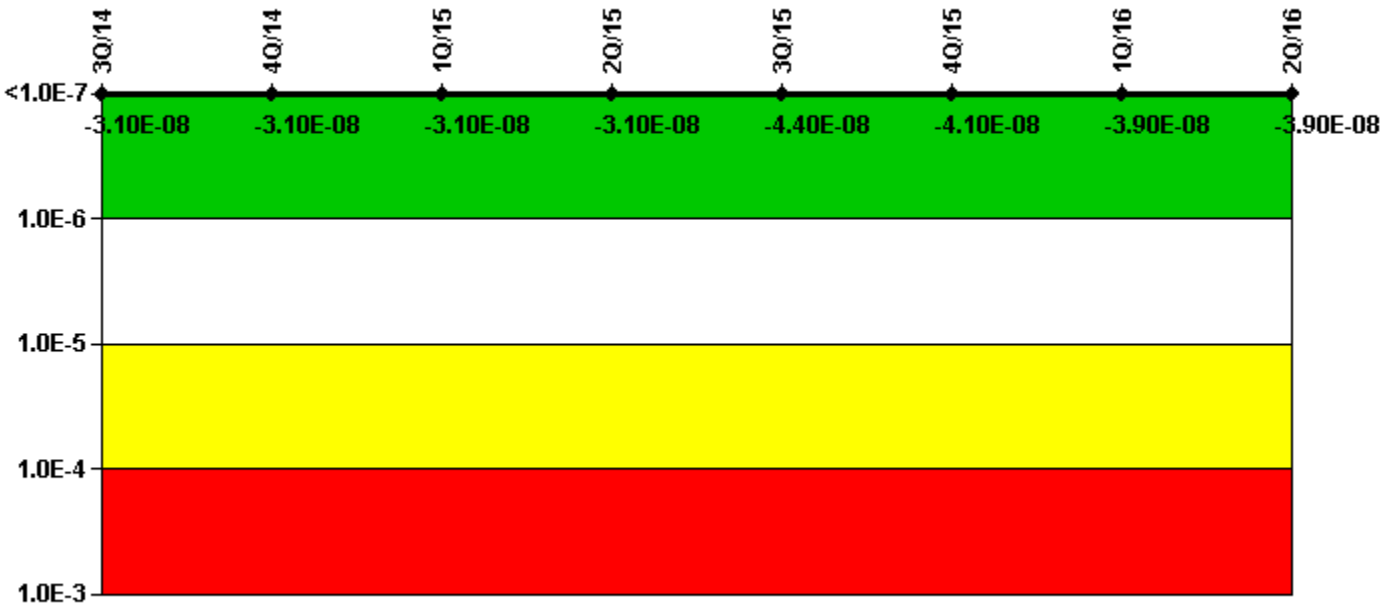
Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Residual Heat Removal System	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16
UAI (ΔCDF)	9.73E-11	-2.46E-10	-3.77E-10	-9.01E-10	-2.94E-10	-9.14E-10	-1.10E-09	-1.26E-09
URI (ΔCDF)	-6.37E-09	-6.37E-09	-6.37E-09	-6.37E-09	-6.37E-09	-6.37E-09	-6.37E-09	4.26E-09
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-6.30E-09**	**-6.60E-09**	**-6.80E-09**	**-7.30E-09**	**-6.70E-09**	**-7.30E-09**	**-7.50E-09**	**3.00E-09**

Licensee Comments: none

Mitigating Systems Performance Index, Cooling Water Systems



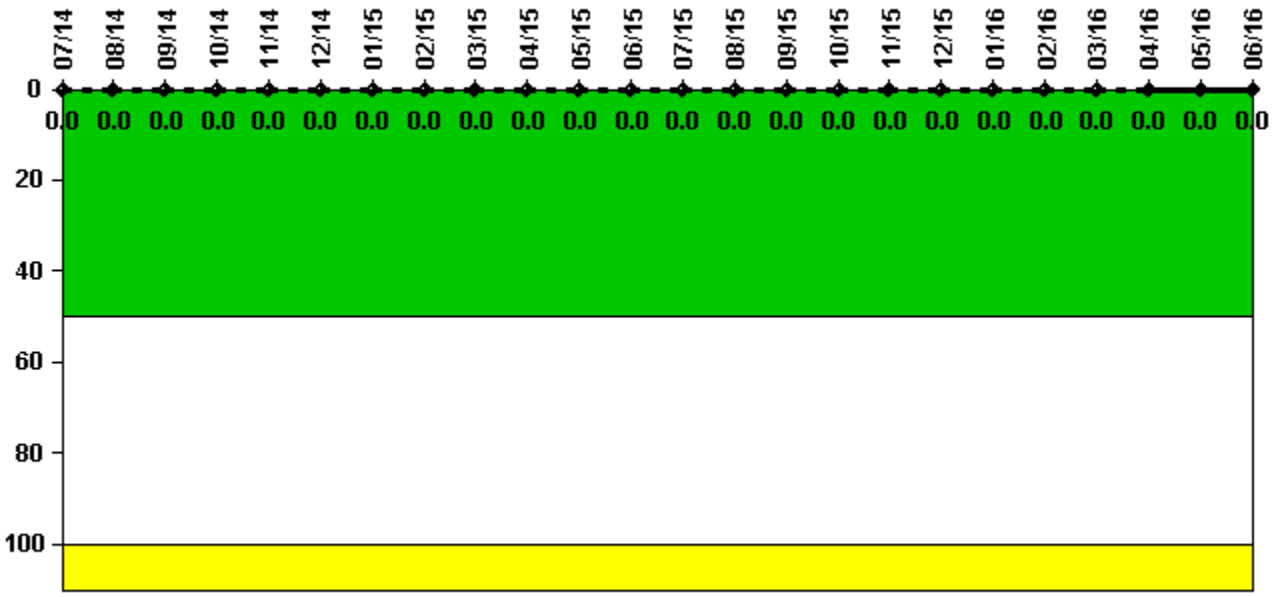
Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Cooling Water Systems	**3Q/14**	**4Q/14**	**1Q/15**	**2Q/15**	**3Q/15**	**4Q/15**	**1Q/16**	**2Q/16**
UAI (ΔCDF)	1.50E-08	1.51E-08	1.50E-08	1.47E-08	1.24E-09	4.62E-09	6.36E-09	6.29E-09
URI (ΔCDF)	-4.57E-08	-4.57E-08	-4.57E-08	-4.57E-08	-4.57E-08	-4.57E-08	-4.57E-08	-4.57E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-3.10E-08**	**-3.10E-08**	**-3.10E-08**	**-3.10E-08**	**-4.40E-08**	**-4.10E-08**	**-3.90E-08**	**-3.90E-08**

Licensee Comments: none

Reactor Coolant System Activity



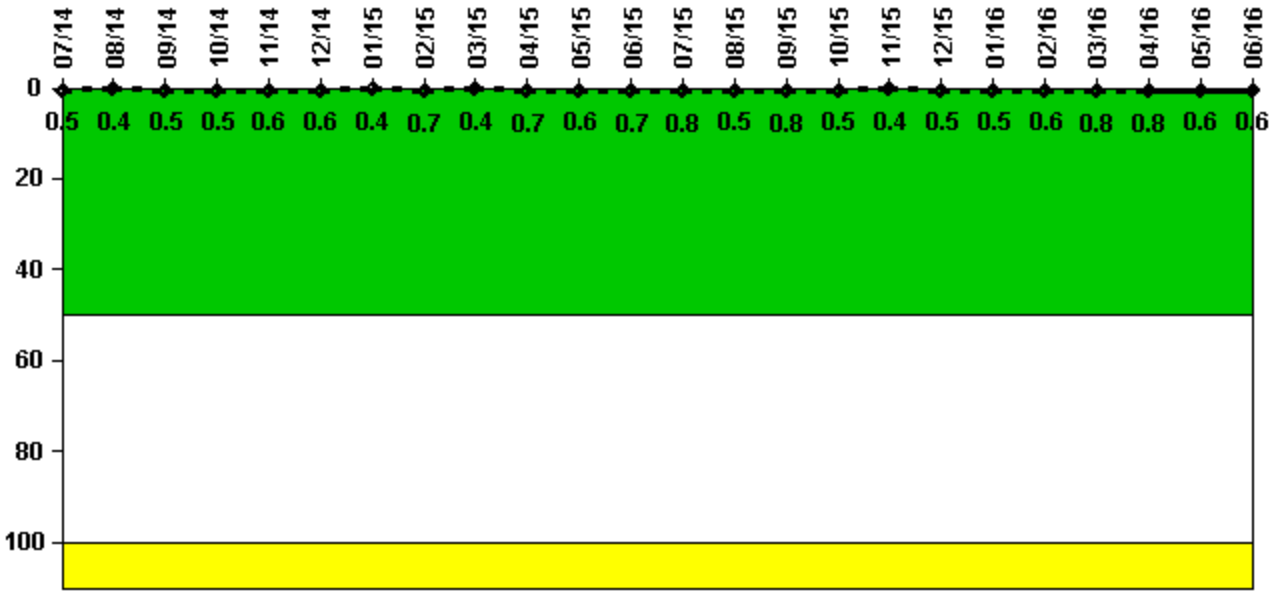
Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Activity	**7/14**	**8/14**	**9/14**	**10/14**	**11/14**	**12/14**	**1/15**	**2/15**	**3/15**	**4/15**	**5/15**	**6/15**
Maximum activity	0.000252	0.000175	0.000176	0.000190	0.000190	0.000183	0.000179	0.000178	0.000183	0.000192	0.000194	0.000195
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**
Reactor Coolant System Activity	**7/15**	**8/15**	**9/15**	**10/15**	**11/15**	**12/15**	**1/16**	**2/16**	**3/16**	**4/16**	**5/16**	**6/16**
Maximum activity	0.000194	0.000190	0.000226	0.000221	0.000198	0.000259	0.000160	0.000162	0.000166	0.000166	0.000172	0.000179
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: none

Reactor Coolant System Leakage



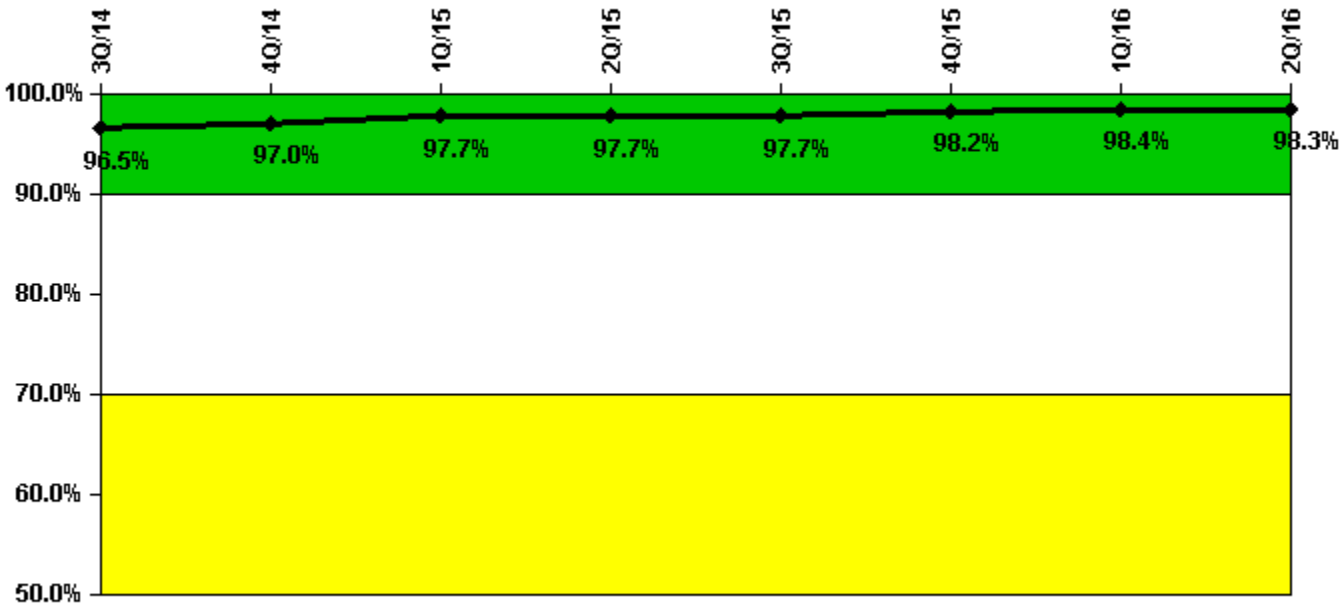
Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Leakage	**7/14**	**8/14**	**9/14**	**10/14**	**11/14**	**12/14**	**1/15**	**2/15**	**3/15**	**4/15**	**5/15**	**6/15**
Maximum leakage	0.053	0.041	0.054	0.045	0.059	0.060	0.037	0.067	0.038	0.074	0.060	0.073
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	**0.5**	**0.4**	**0.5**	**0.5**	**0.6**	**0.6**	**0.4**	**0.7**	**0.4**	**0.7**	**0.6**	**0.7**
Reactor Coolant System Leakage	**7/15**	**8/15**	**9/15**	**10/15**	**11/15**	**12/15**	**1/16**	**2/16**	**3/16**	**4/16**	**5/16**	**6/16**
Maximum leakage	0.077	0.052	0.079	0.047	0.039	0.047	0.054	0.059	0.083	0.080	0.064	0.061
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	**0.8**	**0.5**	**0.8**	**0.5**	**0.4**	**0.5**	**0.5**	**0.6**	**0.8**	**0.8**	**0.6**	**0.6**

Licensee Comments: none

Drill/Exercise Performance



Thresholds: White < 90.0% Yellow < 70.0%

Notes

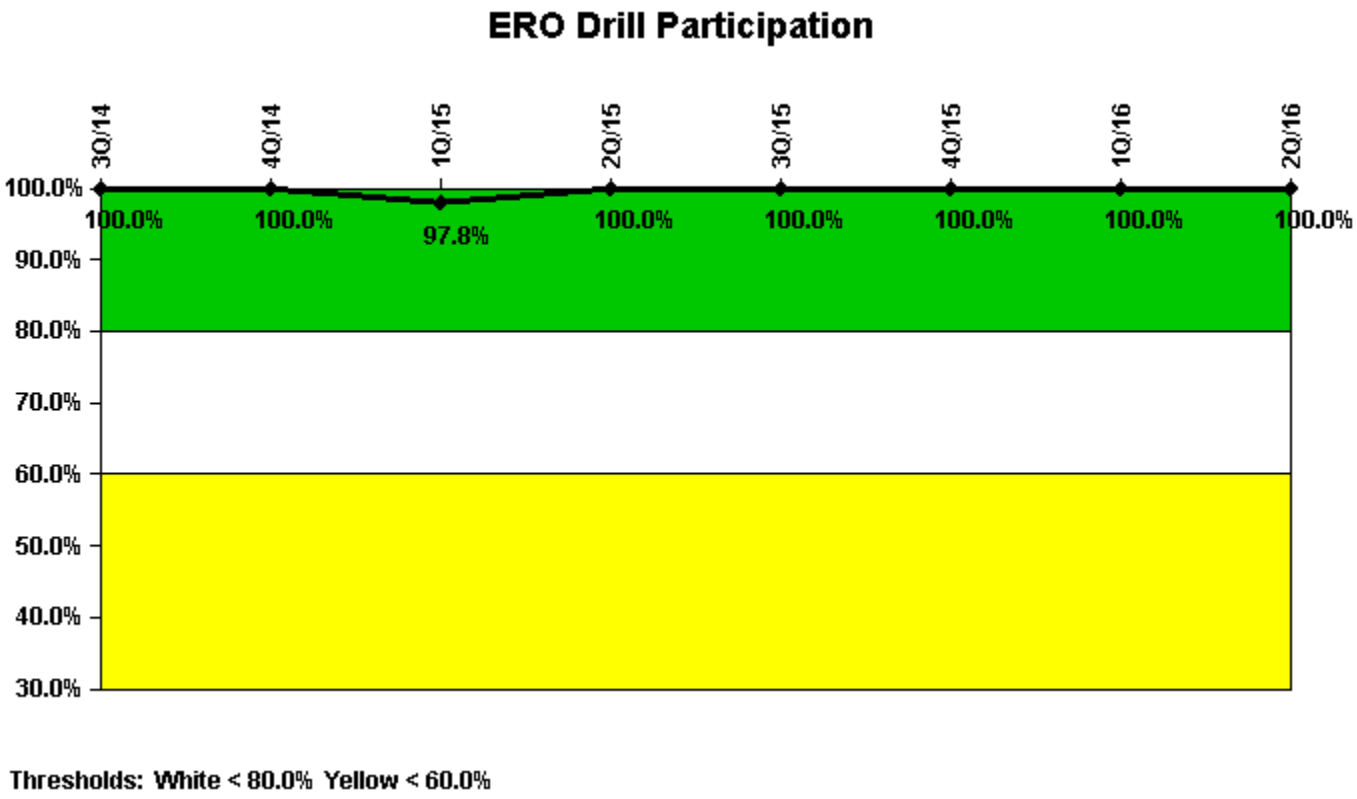
Drill/Exercise Performance	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16
Successful opportunities	74.0	137.0	42.0	38.0	50.0	163.0	203.0	3.0
Total opportunities	80.0	139.0	42.0	38.0	50.0	164.0	206.0	3.0
Indicator value	**96.5%**	**97.0%**	**97.7%**	**97.7%**	**97.7%**	**98.2%**	**98.4%**	**98.3%**

Licensee Comments:

1Q/16: On March 29, 2016, a new shift manager became qualified in two key ERO positions and completed two opportunities and successes which were not included in the previously submitted data. No color change.

4Q/15: The total number of drill / exercise opportunities and successes was revised from 87 to 86 each (no additional failures). No color change resulted.

1Q/15: Corrected March 2014 EP01 drill success and total opportunities that included one item that should not have been counted. Discovered in March 2015. No color change as a result.



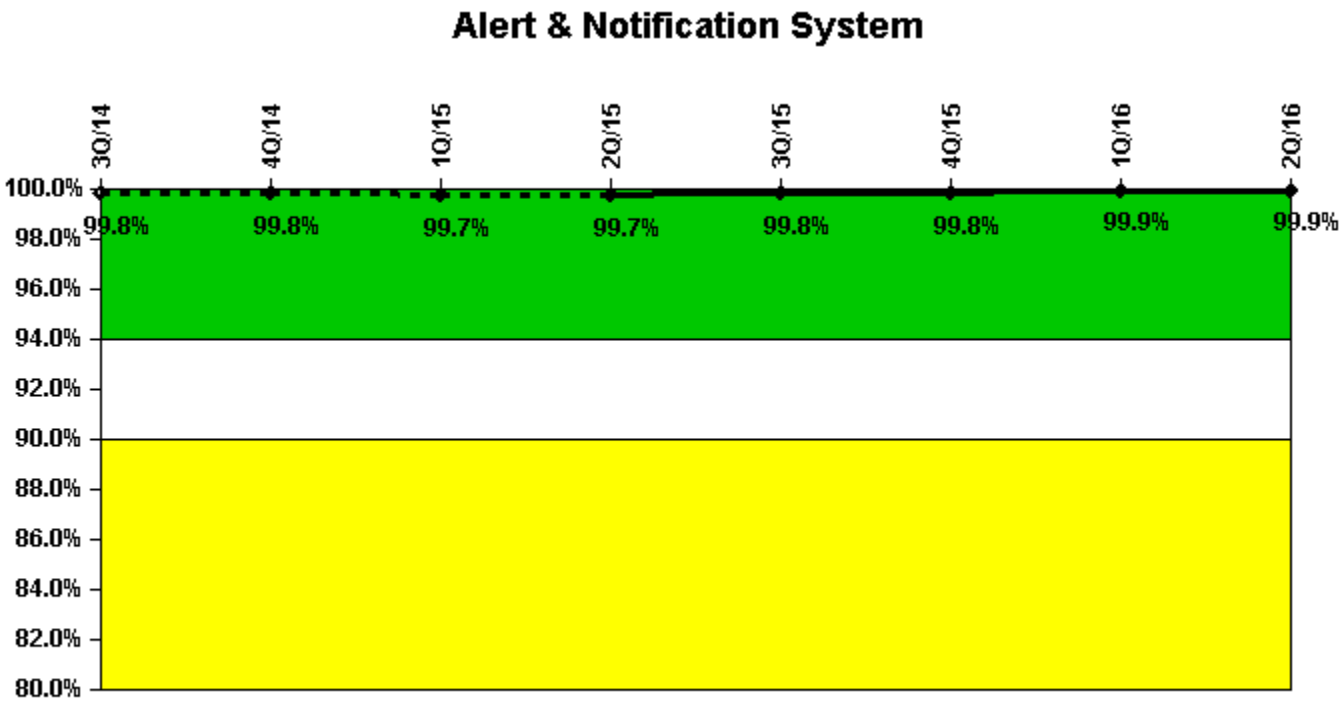
Thresholds: White < 80.0% Yellow < 60.0%

Notes

ERO Drill Participation	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16
Participating Key personnel	89.0	85.0	91.0	91.0	95.0	91.0	91.0	95.0
Total Key personnel	89.0	85.0	93.0	91.0	95.0	91.0	91.0	95.0
Indicator value	**100.0%**	**100.0%**	**97.8%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Licensee Comments:

1Q/16: On March 29, 2016, a new shift manager became qualified in two key ERO positions which were not included in the previously submitted data. No color change.



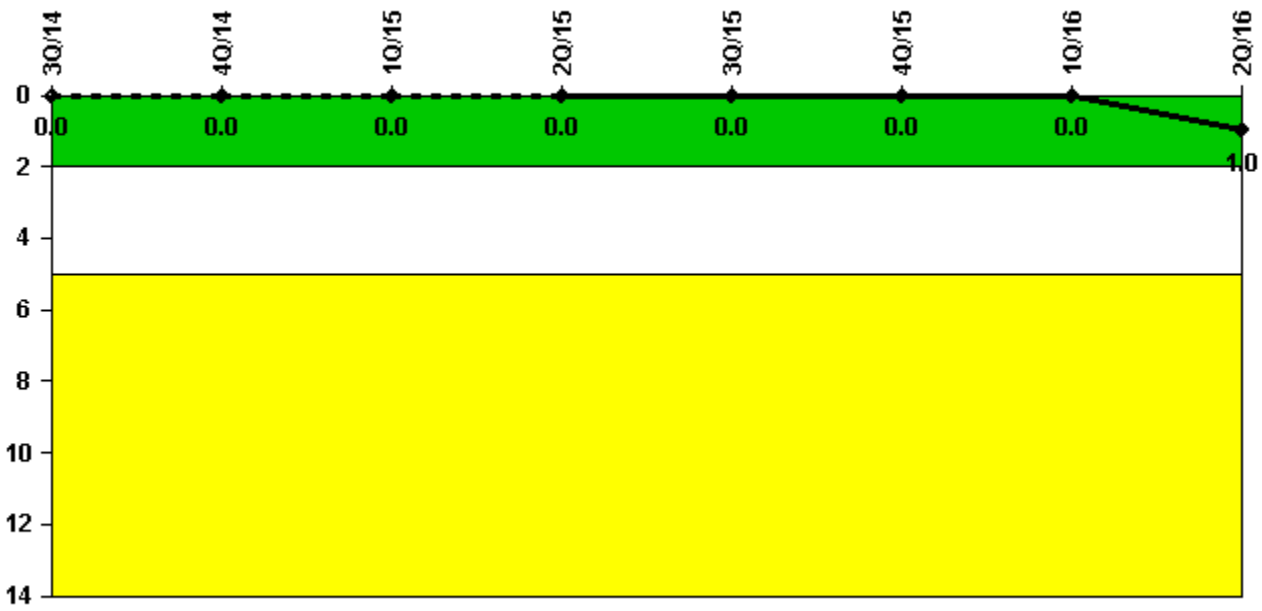
Thresholds: White < 94.0% Yellow < 90.0%

Notes

Alert & Notification System	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16
Successful siren-tests	858	960	908	912	909	1008	1102	1044
Total sirens-tests	864	960	912	912	912	1008	1102	1044
Indicator value	**99.8%**	**99.8%**	**99.7%**	**99.7%**	**99.8%**	**99.8%**	**99.9%**	**99.9%**

Licensee Comments: none

Occupational Exposure Control Effectiveness

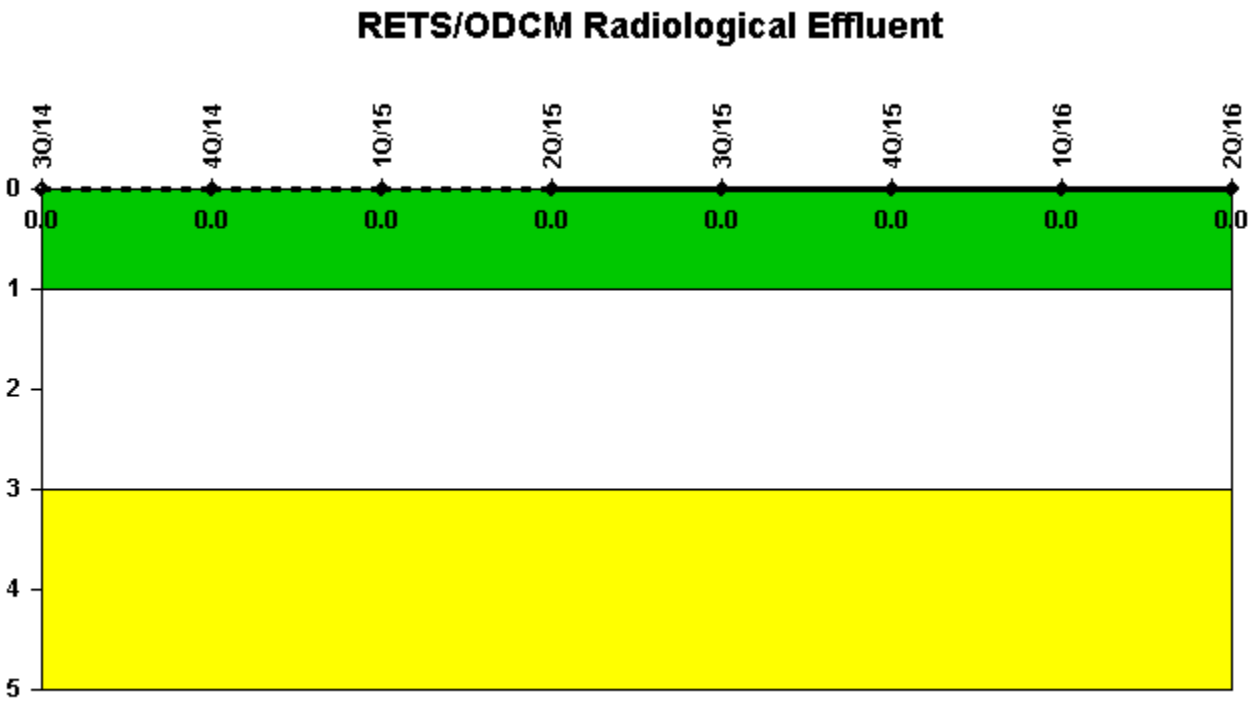


Thresholds: White > 2.0 Yellow > 5.0

Notes

Occupational Exposure Control Effectiveness	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16
High radiation area occurrences	0	0	0	0	0	0	0	1
Very high radiation area occurrences	0	0	0	0	0	0	0	0
Unintended exposure occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**

Licensee Comments: none



Thresholds: White > 1.0 Yellow > 3.0

Notes

RETS/ODCM Radiological Effluent	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/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: July 25, 2016