

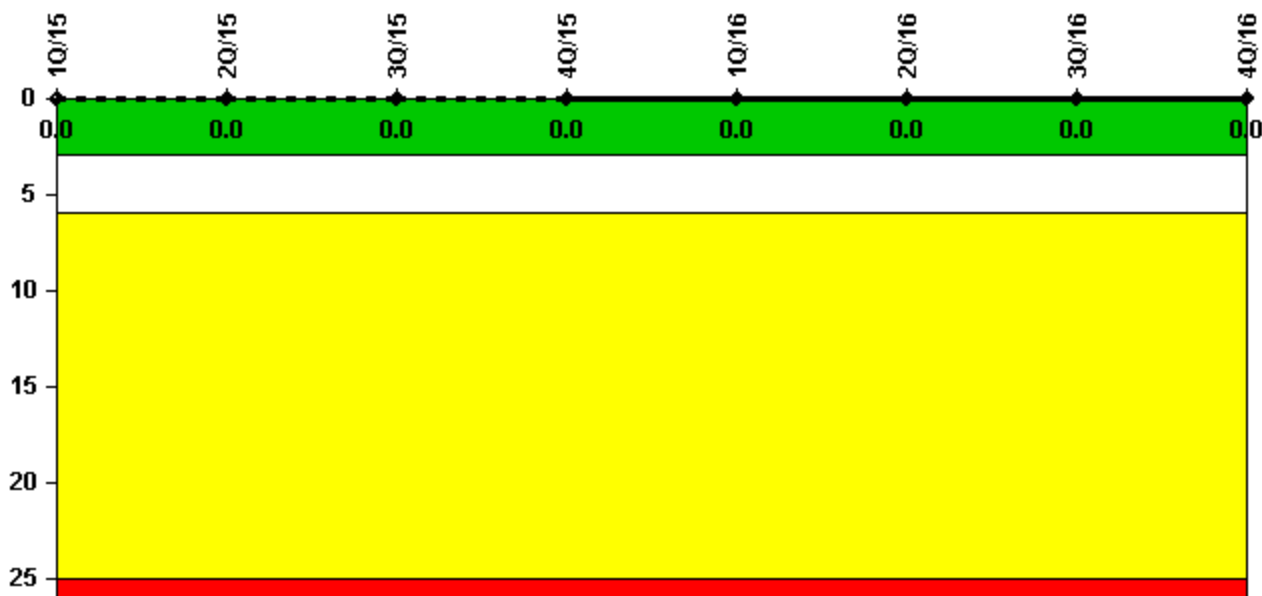
Duane Arnold

4Q/2016 Performance Indicators

The solid trend line represents the current reporting period.

Licensee's General Comments: Review of data resulted in change, this did not result in a color change.

Unplanned Scrams per 7000 Critical Hrs



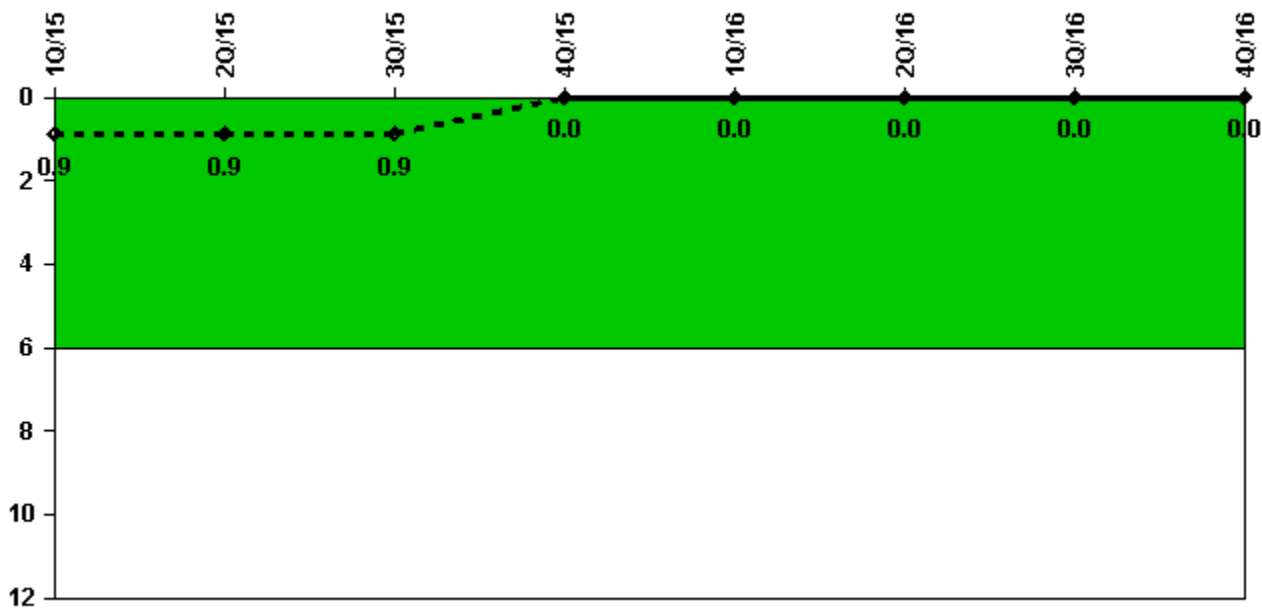
Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

Notes

Unplanned Scrams per 7000 Critical Hrs	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16
Unplanned scrams	0	0	0	0	0	0	0	0
Critical hours	2159.0	2184.0	2208.0	2209.0	2183.0	2184.0	2208.0	1551.5
Indicator value	0	0	0	0	0	0	0	0

Licensee Comments: none

Unplanned Power Changes per 7000 Critical Hrs



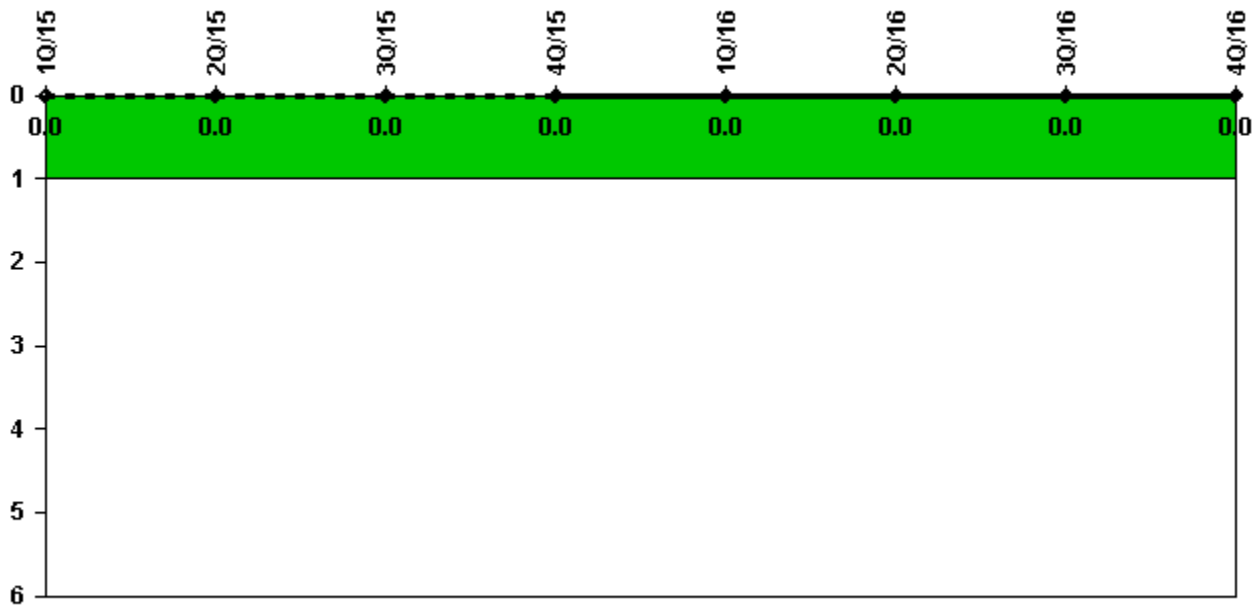
Thresholds: White > 6.0

Notes

Unplanned Power Changes per 7000 Critical Hrs	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16
Unplanned power changes	0	0	0	0	0	0	0	0
Critical hours	2159.0	2184.0	2208.0	2209.0	2183.0	2184.0	2208.0	1551.5
Indicator value	0.9	0.9	0.9	0	0	0	0	0

Licensee Comments: none

Unplanned Scrams with Complications



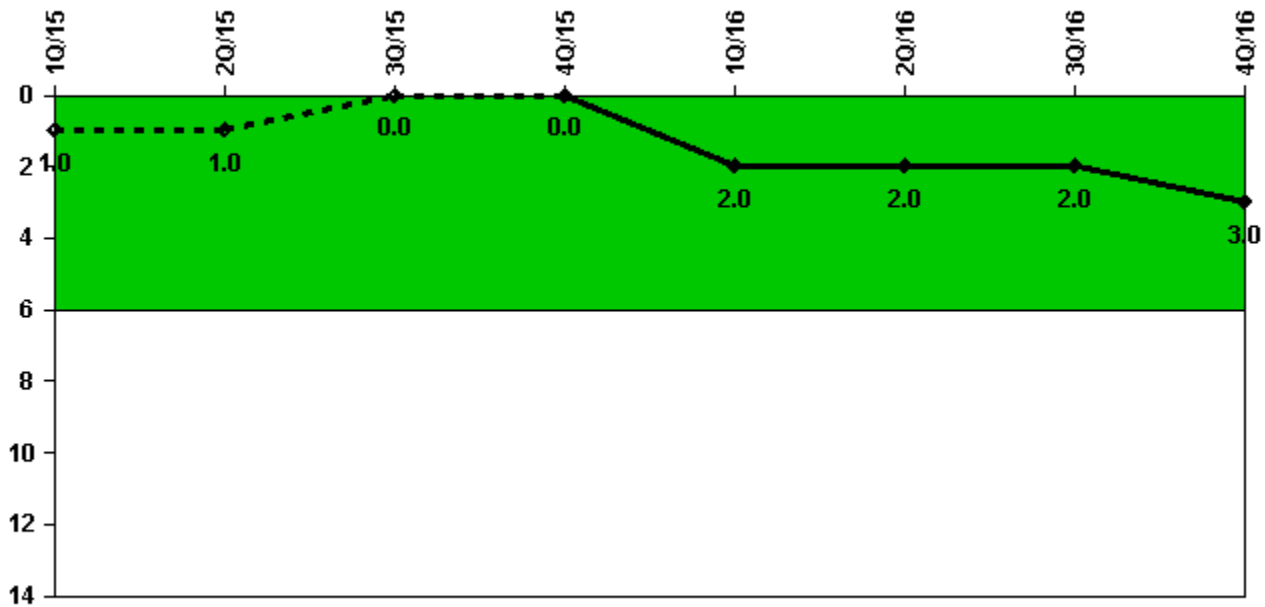
Thresholds: White > 1.0

Notes

Unplanned Scrams with Complications	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/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 (BWR)



Thresholds: White > 6.0

Notes

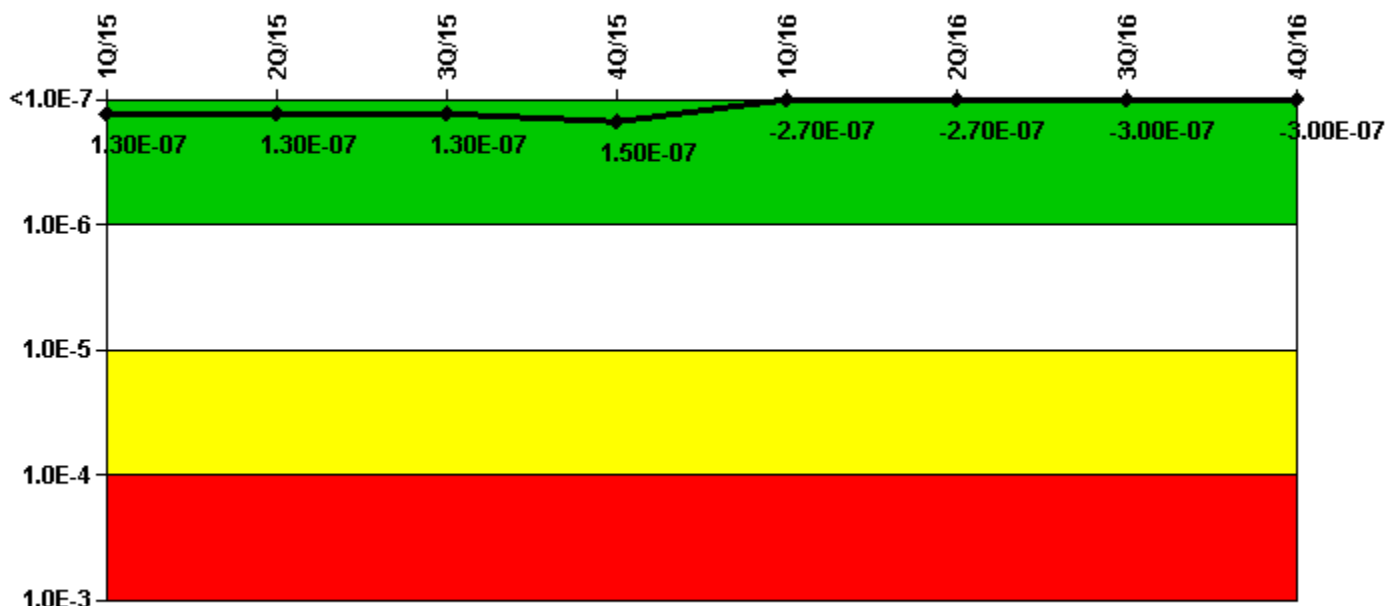
Safety System Functional Failures (BWR)	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16
Safety System Functional Failures	0	0	0	0	2	0	0	1
Indicator value	1	1	0	0	2	2	2	3

Licensee Comments:

4Q/16: LER 2016-002 RCIC SSFF

1Q/16: Revised LER 2015-005 was submitted 1/28/16 for the affect on ECCS from the torus coating event. LER 2015-006, HPCI and RCIC CST Suction Transfer Inoperable.

Mitigating Systems Performance Index, Emergency AC Power System



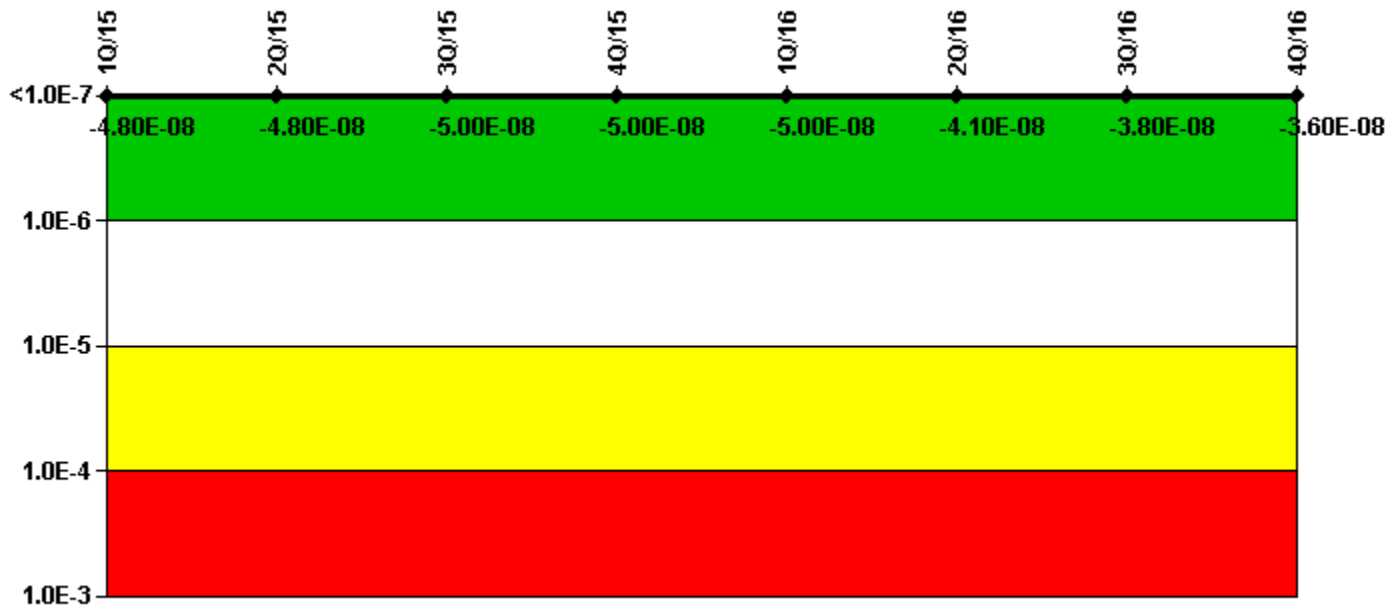
Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Emergency AC Power System	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16
UAI (ΔCDF)	2.41E-07	2.41E-07	2.41E-07	2.61E-07	-2.11E-09	3.11E-09	-2.81E-08	-2.64E-08
URI (ΔCDF)	-1.10E-07	-1.10E-07	-1.10E-07	-1.10E-07	-2.70E-07	-2.70E-07	-2.70E-07	-2.70E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	1.30E-07	1.30E-07	1.30E-07	1.50E-07	-2.70E-07	-2.70E-07	-3.00E-07	-3.00E-07

Licensee Comments: none

Mitigating Systems Performance Index, High Pressure Injection System



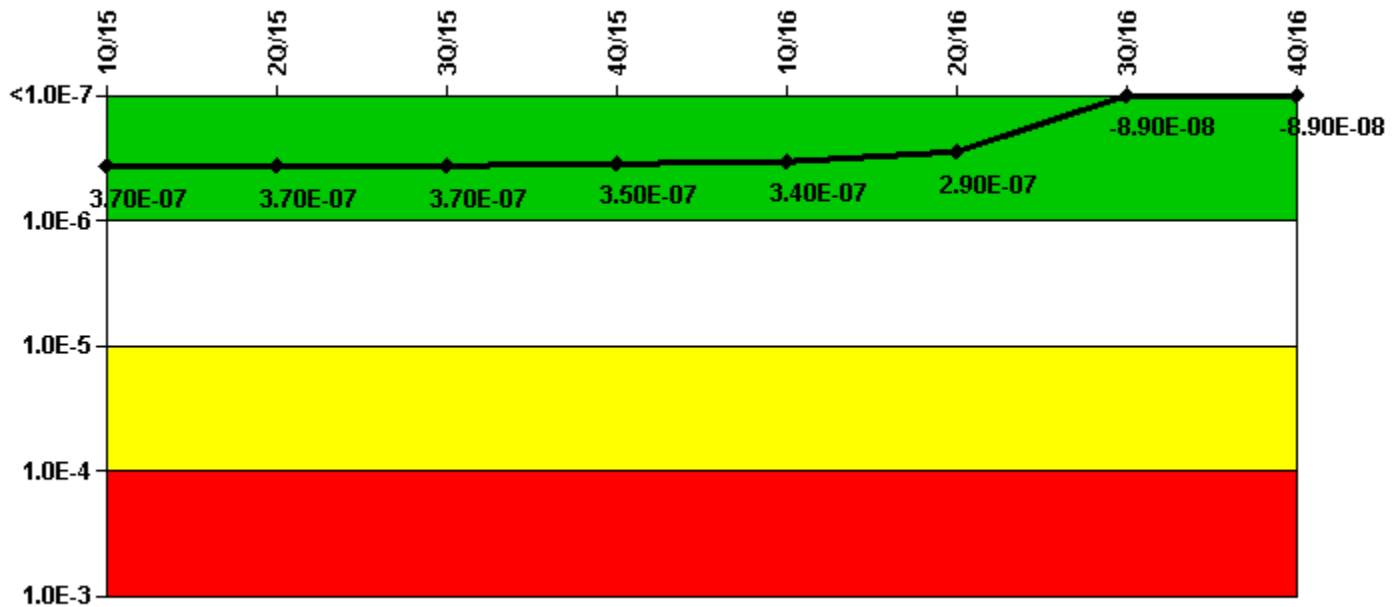
Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, High Pressure Injection System	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16
UAI (Δ CDF)	-1.46E-08	-1.46E-08	-1.65E-08	-1.65E-08	-1.65E-08	-7.31E-09	-4.34E-09	-2.31E-09
URI (Δ CDF)	-3.33E-08	-3.33E-08	-3.33E-08	-3.33E-08	-3.33E-08	-3.33E-08	-3.33E-08	-3.33E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-4.80E-08	-4.80E-08	-5.00E-08	-5.00E-08	-5.00E-08	-4.10E-08	-3.80E-08	-3.60E-08

Licensee Comments: none

Mitigating Systems Performance Index, Heat Removal System



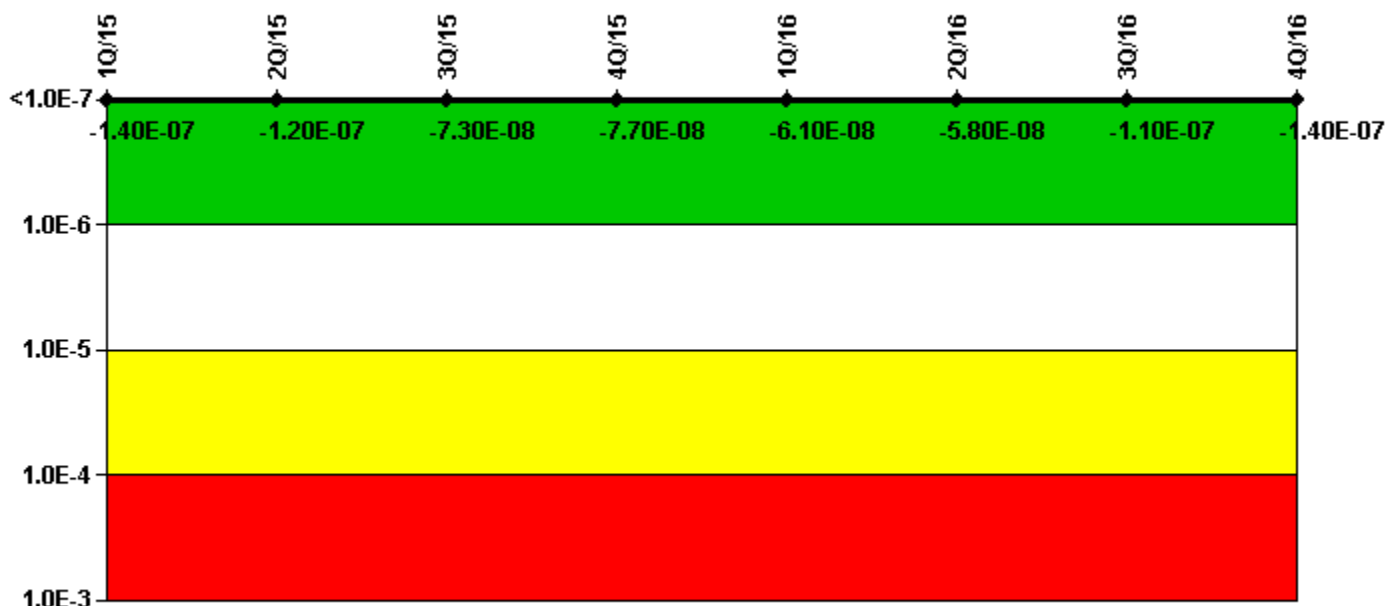
Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Heat Removal System	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16
UAI (ΔCDF)	3.59E-07	3.57E-07	3.57E-07	3.34E-07	3.30E-07	2.80E-07	-1.25E-08	-1.19E-08
URI (ΔCDF)	1.35E-08	1.35E-08	1.35E-08	1.35E-08	1.35E-08	1.35E-08	-7.69E-08	-7.69E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	3.70E-07	3.70E-07	3.70E-07	3.50E-07	3.40E-07	2.90E-07	-8.90E-08	-8.90E-08

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

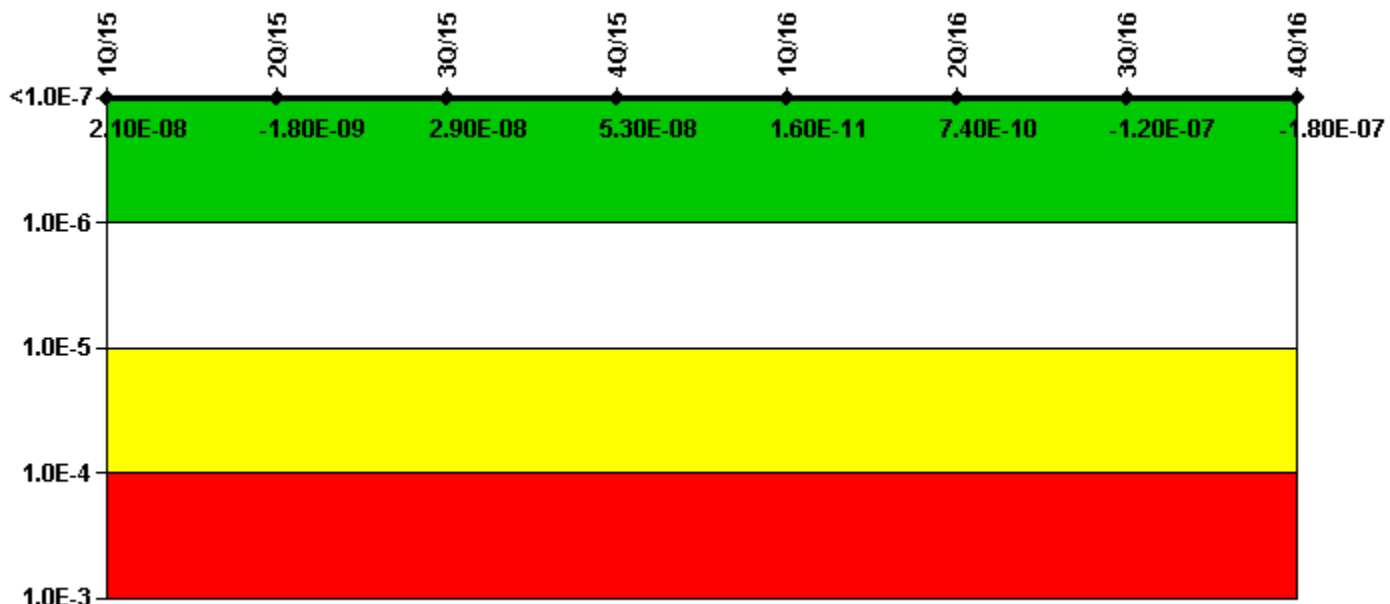
Mitigating Systems Performance Index, Residual Heat Removal System	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16
UAI (ΔCDF)	1.00E-07	1.20E-07	1.64E-07	1.59E-07	1.75E-07	1.78E-07	1.23E-07	1.01E-07
URI (ΔCDF)	-2.36E-07	-2.36E-07	-2.36E-07	-2.36E-07	-2.36E-07	-2.36E-07	-2.36E-07	-2.36E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-1.40E-07	-1.20E-07	-7.30E-08	-7.70E-08	-6.10E-08	-5.80E-08	-1.10E-07	-1.40E-07

Licensee Comments:

2Q/15: The A RHRSW changed from 10.75 to 0.00 hours. The hours were adjusted based on MSPI DBD 46/102 Rev 3 which includes the RHRSW A/B RHR heat exchanger discharge valves MO2046/MO1947 in the RHR System.

1Q/15: A RHR in February 2015 changed from 0.00 hours to 11.00 hours. The hours were adjusted based on the MSPI DBD 46/102 Rev 3 which includes the RHRSW A/B RHR heat exchanger discharge valves MO2046/MO1947 in the RHR System.

Mitigating Systems Performance Index, Cooling Water Systems



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

Notes

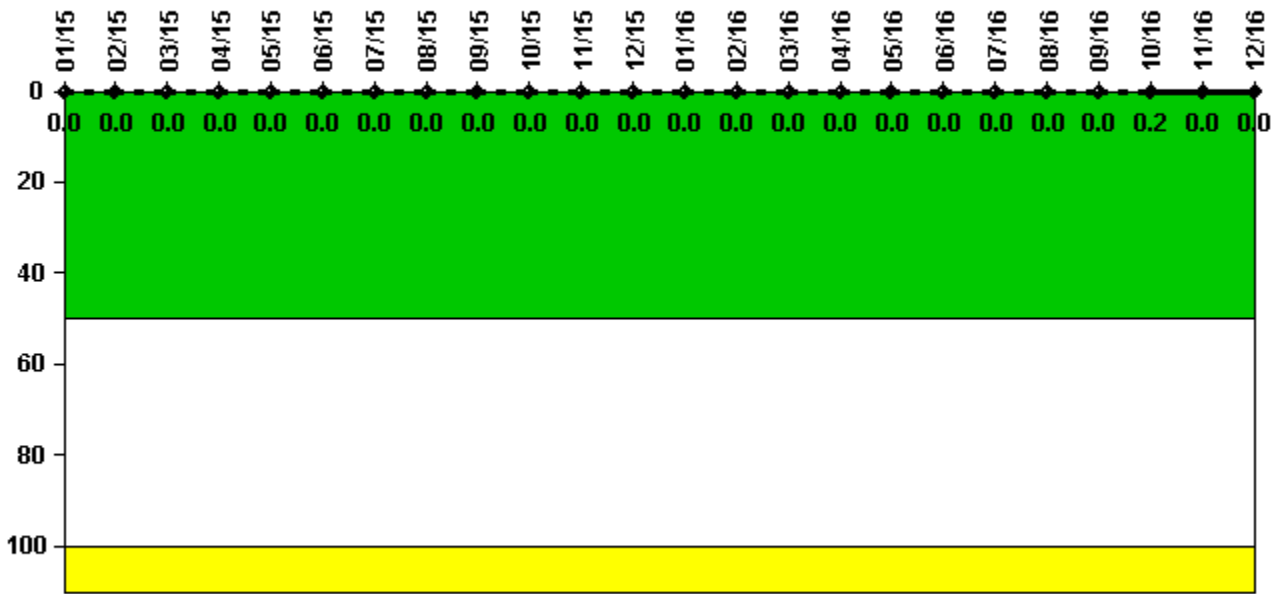
Mitigating Systems Performance Index, Cooling Water Systems	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16
UAI (ΔCDF)	3.02E-07	2.79E-07	3.10E-07	3.34E-07	2.81E-07	2.82E-07	1.63E-07	1.02E-07
URI (ΔCDF)	-2.81E-07	-2.81E-07	-2.81E-07	-2.81E-07	-2.81E-07	-2.81E-07	-2.81E-07	-2.81E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	2.10E-08	-1.80E-09	2.90E-08	5.30E-08	1.60E-11	7.40E-10	-1.20E-07	-1.80E-07

Licensee Comments:

2Q/15: The B RHRSW changed from 16.5 hours to 5.7 hours. The hours were adjusted based on MSPI DBD 46/102 Rev 3 which includes the RHRSW A/B RHR heat exchanger discharge valves MO2046/MO1947 in the RHR System.

1Q/15: B RHR in February 2015 changed from 22.00 hours to 44.00 hours. The hours were adjusted based on MSPI DBD 46/102 Rev 3 which includes the RHRSW A/B RHR heat exchanger discharge valves MO2046/MO1947 in the RHR System.

Reactor Coolant System Activity



Thresholds: White > 50.0 Yellow > 100.0

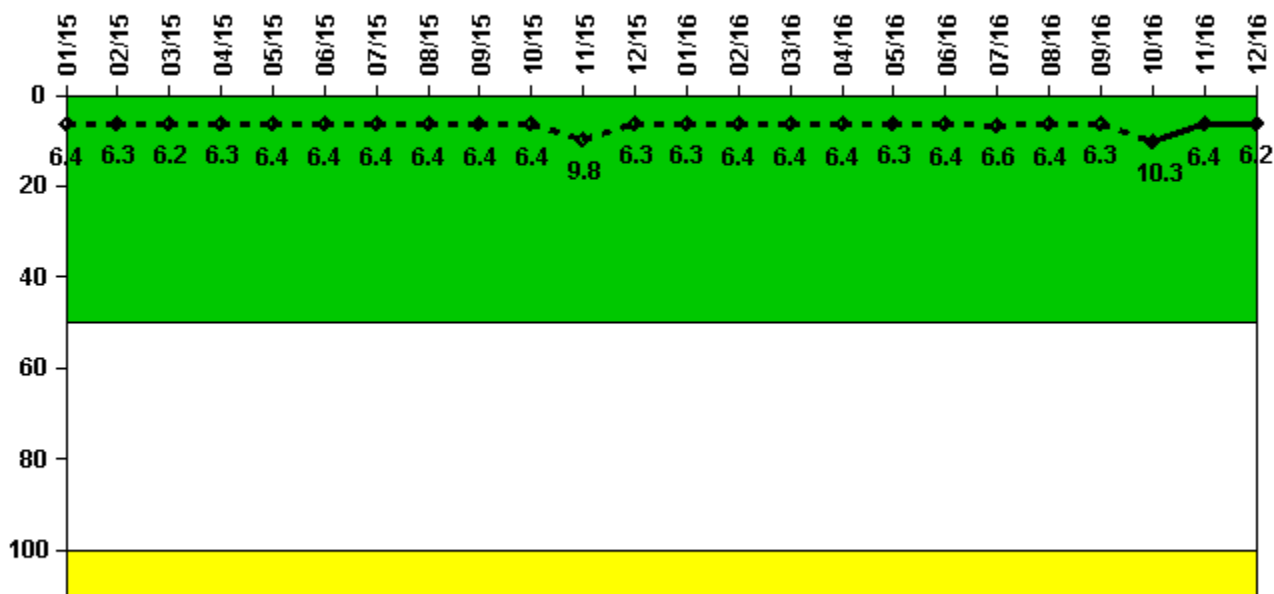
Notes

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	0.000002	0	0	0	0	0	0	0	0	0	0
Technical specification limit	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Indicator value	0	0	0	0	0	0	0	0	0	0	0	0

Reactor Coolant System Activity	1/16	2/16	3/16	4/16	5/16	6/16	7/16	8/16	9/16	10/16	11/16	12/16
Maximum activity	0	0	0	0	0	0	0	0	0	0.000380	0	0
Technical specification limit	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Indicator value	0	0	0	0	0	0	0	0	0	0.2	0	0

Licensee Comments: none

Reactor Coolant System Leakage



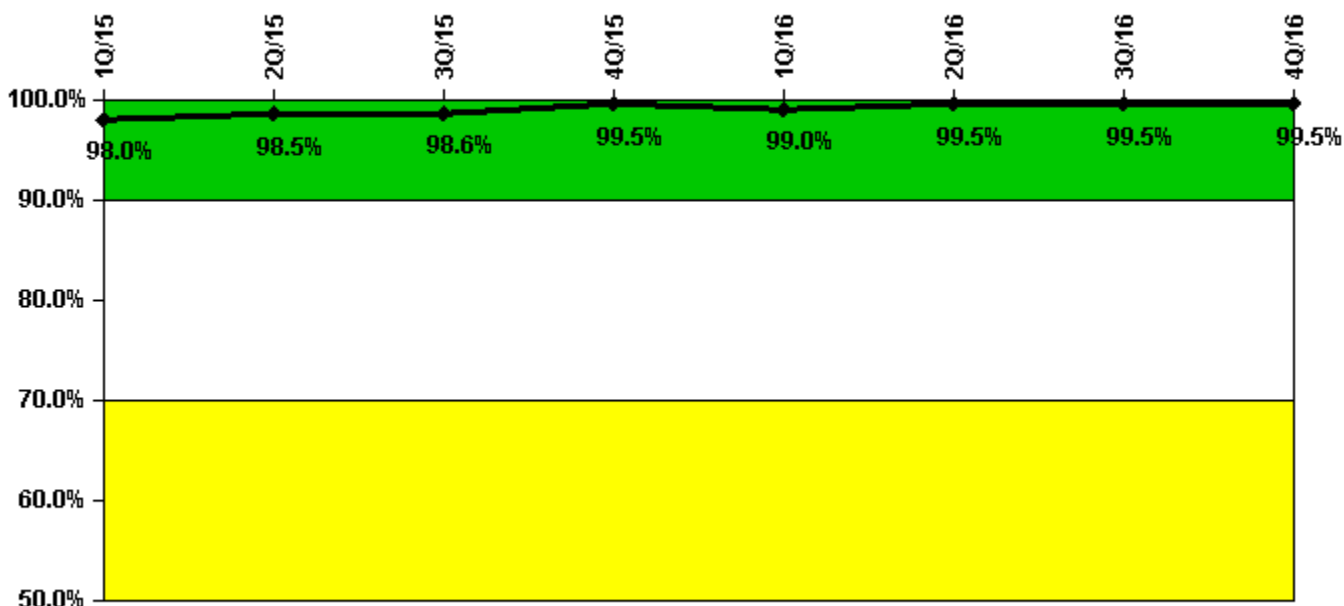
Thresholds: White > 50.0 Yellow > 100.0

Notes

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	1.600	1.570	1.560	1.570	1.600	1.600	1.600	1.610	1.610	1.600	2.460	1.580
Technical specification limit	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
Indicator value	6.4	6.3	6.2	6.3	6.4	6.4	6.4	6.4	6.4	6.4	9.8	6.3
Reactor Coolant System Leakage	1/16	2/16	3/16	4/16	5/16	6/16	7/16	8/16	9/16	10/16	11/16	12/16
Maximum leakage	1.580	1.590	1.590	1.590	1.580	1.590	1.640	1.590	1.580	2.570	1.600	1.540
Technical specification limit	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
Indicator value	6.3	6.4	6.4	6.4	6.3	6.4	6.6	6.4	6.3	10.3	6.4	6.2

Licensee Comments: none

Drill/Exercise Performance



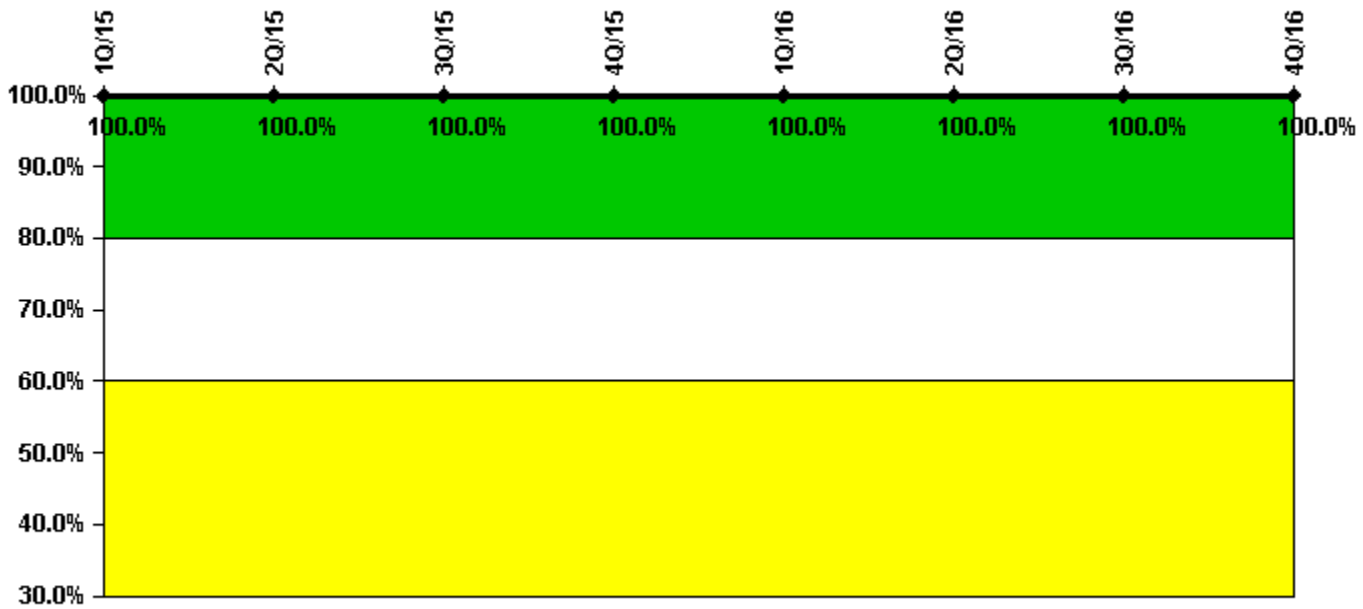
Thresholds: White < 90.0% Yellow < 70.0%

Notes

Drill/Exercise Performance	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16
Successful opportunities	24.0	35.0	26.0	18.0	39.0	39.0	11.0	20.0
Total opportunities	24.0	35.0	26.0	18.0	40.0	39.0	11.0	20.0
Indicator value	98.0%	98.5%	98.6%	99.5%	99.0%	99.5%	99.5%	99.5%

Licensee Comments: none

ERO Drill Participation



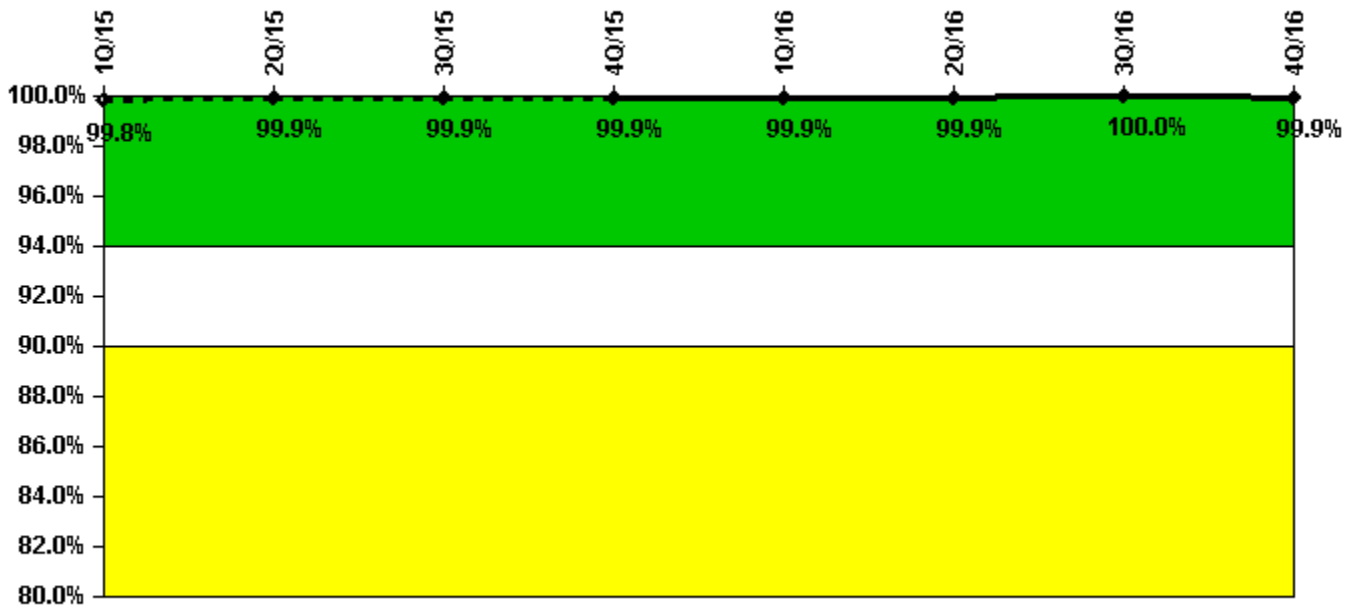
Thresholds: White < 80.0% Yellow < 60.0%

Notes

ERO Drill Participation	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16
Participating Key personnel	82.0	90.0	90.0	89.0	90.0	90.0	86.0	86.0
Total Key personnel	82.0	90.0	90.0	89.0	90.0	90.0	86.0	86.0
Indicator value	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Licensee Comments: none

Alert & Notification System



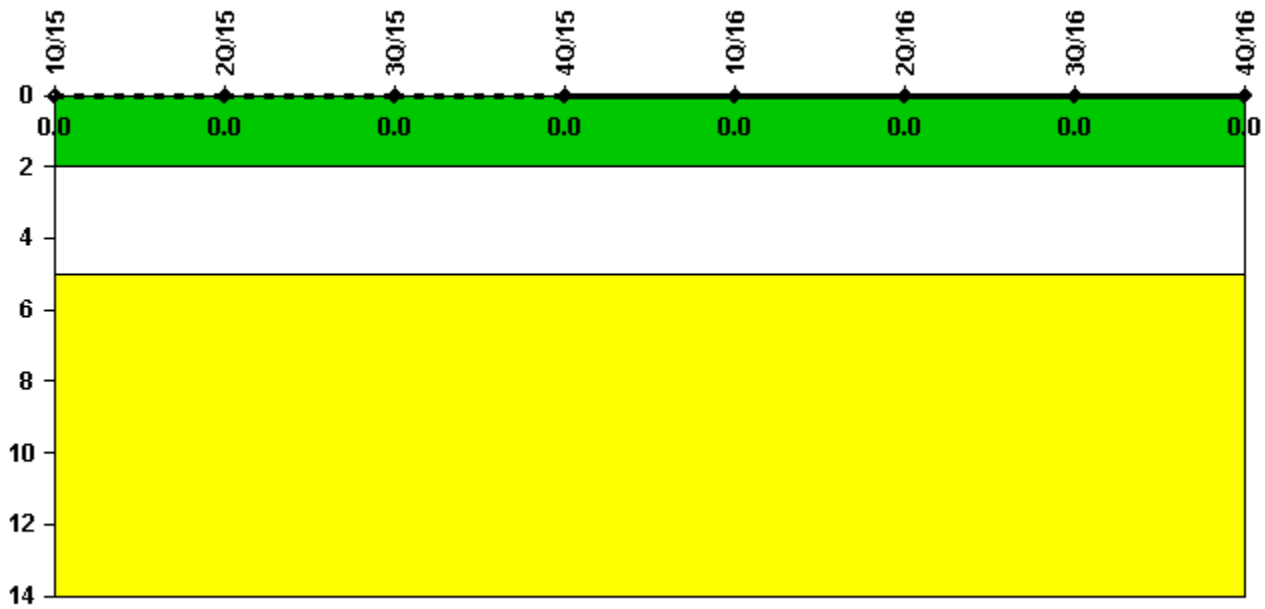
Thresholds: White < 94.0% Yellow < 90.0%

Notes

Alert & Notification System	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16
Successful siren-tests	431	432	431	430	432	432	432	431
Total sirens-tests	432	432	432	430	432	432	432	432
Indicator value	99.8%	99.9%	99.9%	99.9%	99.9%	99.9%	100.0%	99.9%

Licensee Comments: none

Occupational Exposure Control Effectiveness



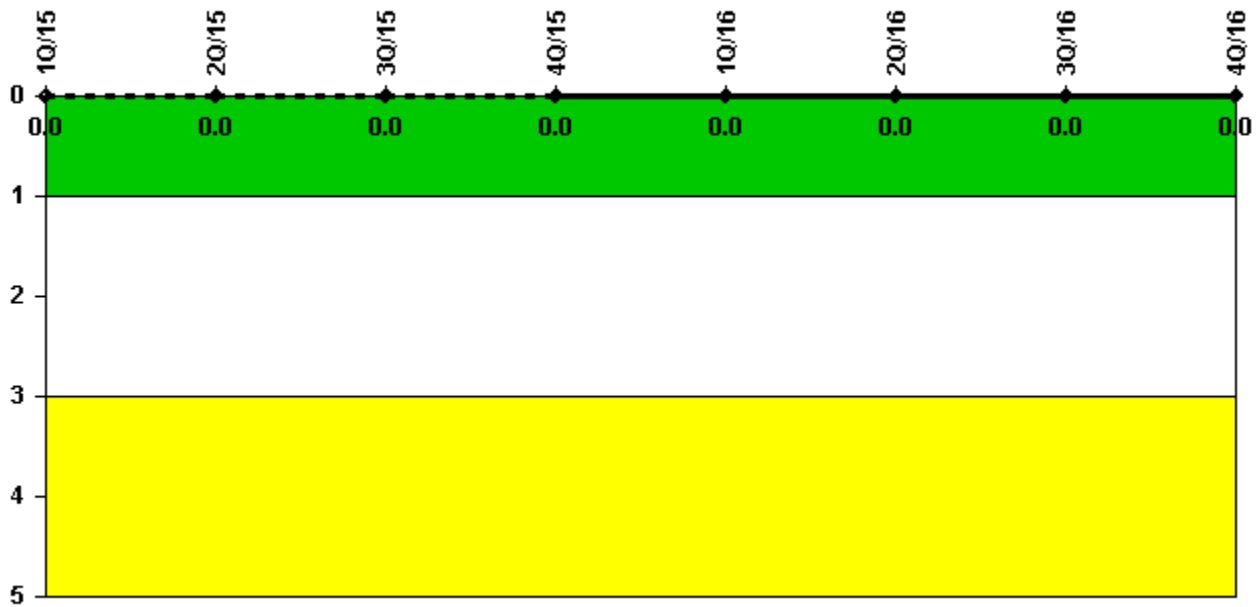
Thresholds: White > 2.0 Yellow > 5.0

Notes

Occupational Exposure Control Effectiveness	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/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
Indicator value	0	0	0	0	0	0	0	0

Licensee Comments: none

RETS/ODCM Radiological Effluent



Thresholds: White > 1.0 Yellow > 3.0

Notes

RETS/ODCM Radiological Effluent	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/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: January 24, 2017