

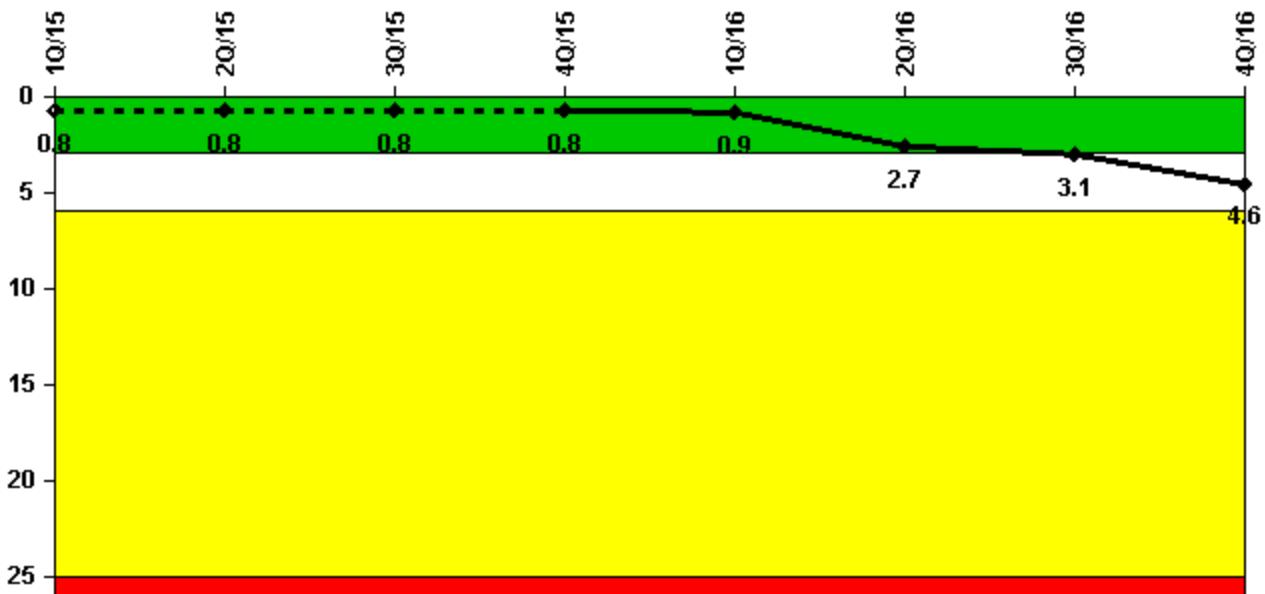
Grand Gulf 1

4Q/2016 Performance Indicators

The solid trend line represents the current reporting period.

Licensee's General Comments: none

Unplanned Scrams per 7000 Critical Hrs



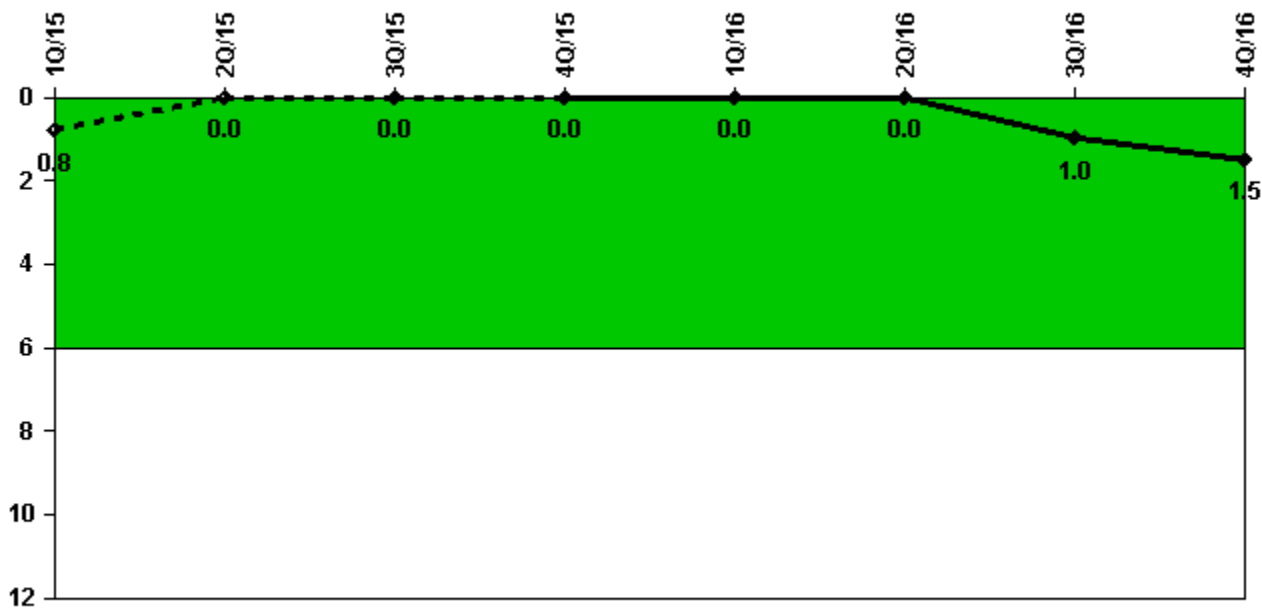
Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

Notes

Unplanned Scrams per 7000 Critical Hrs	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16
Unplanned scrams	1.0	0	0	0	1.0	2.0	0	0
Critical hours	2005.0	2184.0	2208.0	2209.0	1315.9	2010.2	1276.3	0
Indicator value	0.8	0.8	0.8	0.8	0.9	2.7	3.1	4.6

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	1.0	0
Critical hours	2005.0	2184.0	2208.0	2209.0	1315.9	2010.2	1276.3	0
Indicator value	0.8	0	0	0	0	0	1.0	1.5

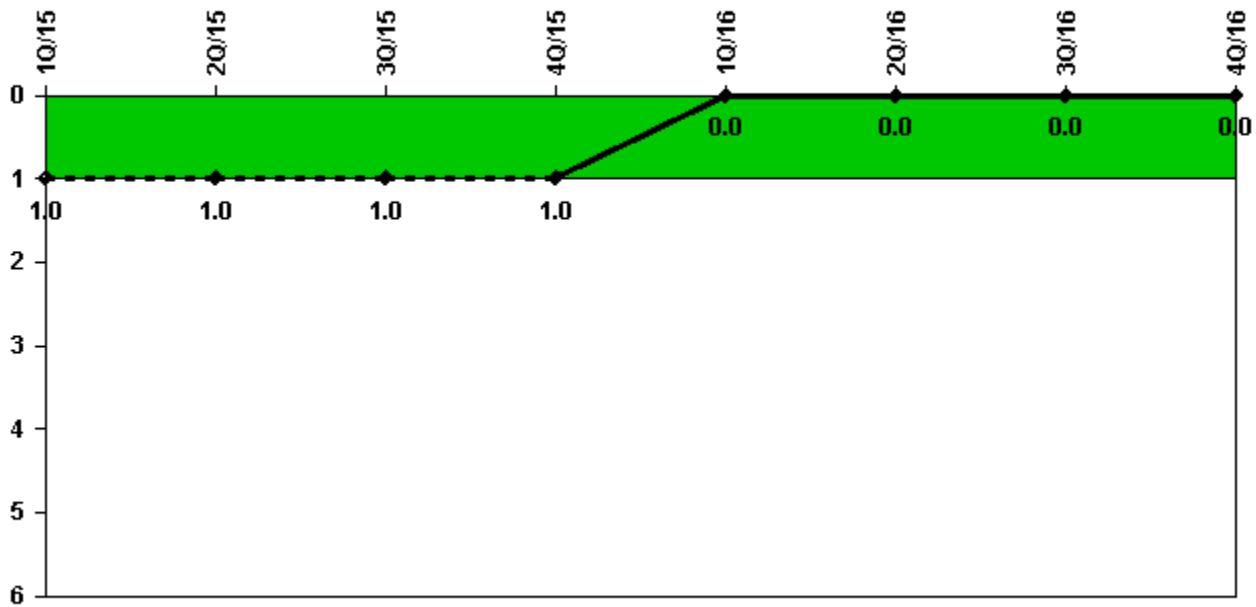
Licensee Comments:

4Q/16: Entergy submitted an FAQ to document it's position on the June 17, 2016 power oscillation and SCRAM.

3Q/16: Entergy will submit a FAQ to document it's position on the June 17, 2016 power oscillation and SCRAM.

1Q/15: Grand Gulf has added one unplanned power change to 2Q2014. This event was incorrectly counted due to human error and has been added to the corrective action program.

Unplanned Scrams with Complications



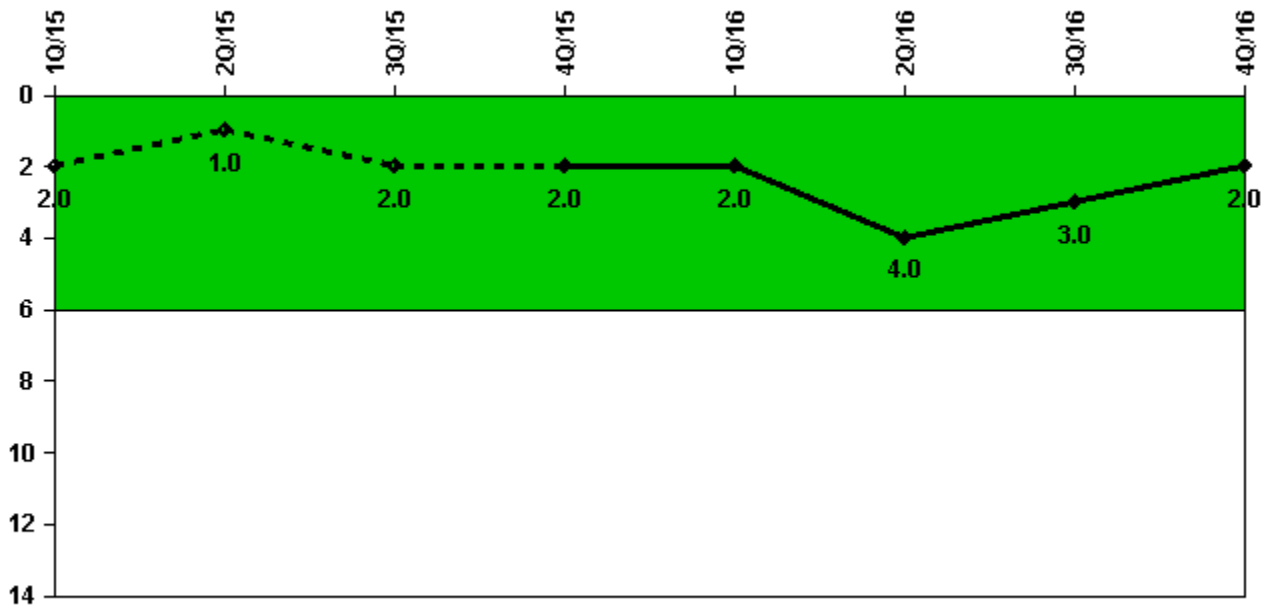
Thresholds: White > 1.0

Notes

Unplanned Scrams with Complications	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16
Scrams with complications	1.0	0	0	0	0	0	0	0
Indicator value	1.0	1.0	1.0	1.0	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	1	1	0	2	0	0
Indicator value	2	1	2	2	2	4	3	2

Licensee Comments:

3Q/16: Changed comments in 4Q15 PI comments to correct typographical error

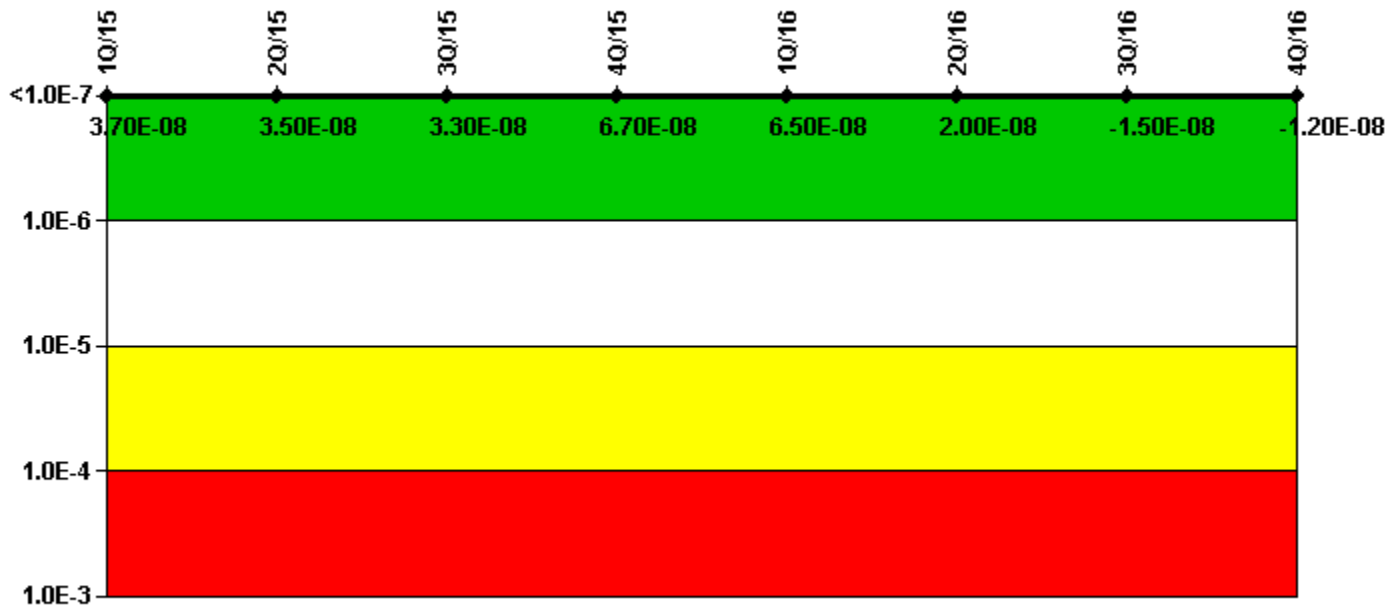
2Q/16: Reference LERs 2016-001-00 & 2016-003-00

4Q/15: LER 2015-002-00 Documents 4 SSFF failures one in 2Q14, one in 4Q14, one in 3Q15 and one in 4Q15. Correction of typographical errors (3Q15 & 4Q15)

4Q/15: LER 2015-002-00 Documents 4 SSFF failures one in 2Q14, one in 4Q14, one in 3Q14 and one in 4Q14

3Q/15: LER 2015-002-00 Documents one safety system functional failure in August 2015.

Mitigating Systems Performance Index, Emergency AC Power System



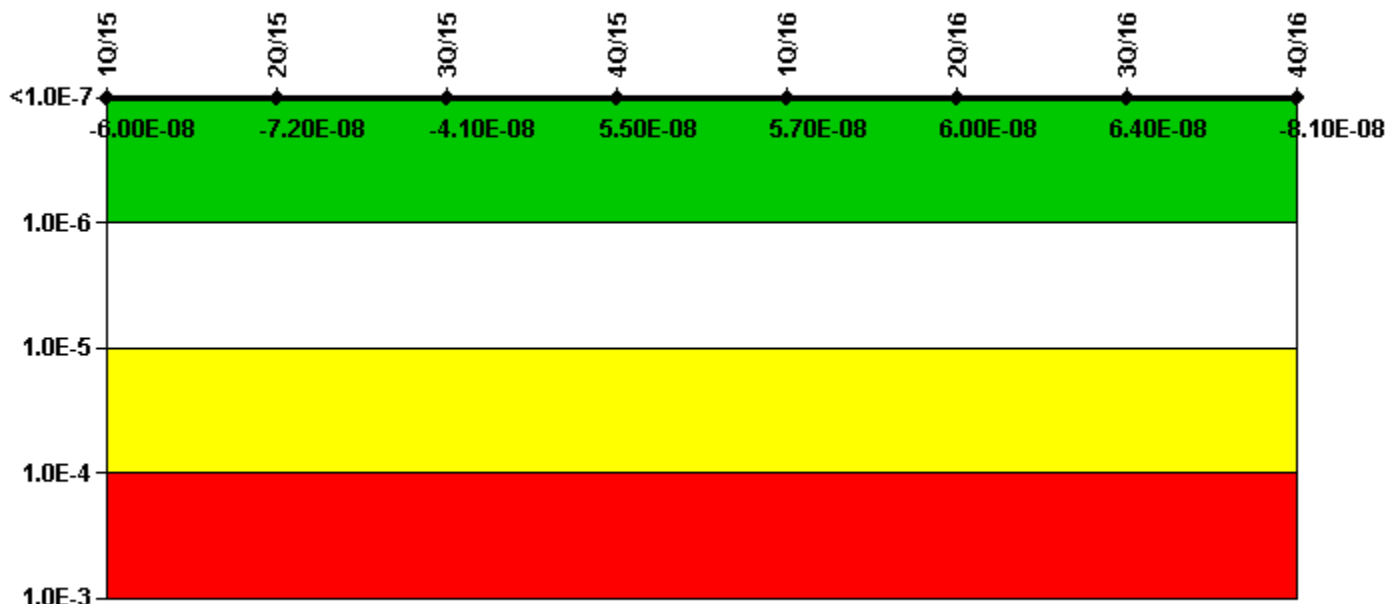
Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

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 (Δ CDF)	1.61E-08	1.41E-08	1.33E-08	1.31E-08	1.44E-08	1.57E-09	-4.28E-10	2.24E-09
URI (Δ CDF)	2.13E-08	2.07E-08	1.94E-08	5.39E-08	5.01E-08	1.87E-08	-1.42E-08	-1.39E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	3.70E-08	3.50E-08	3.30E-08	6.70E-08	6.50E-08	2.00E-08	-1.50E-08	-1.20E-08

Licensee Comments: none

Mitigating Systems Performance Index, High Pressure Injection System



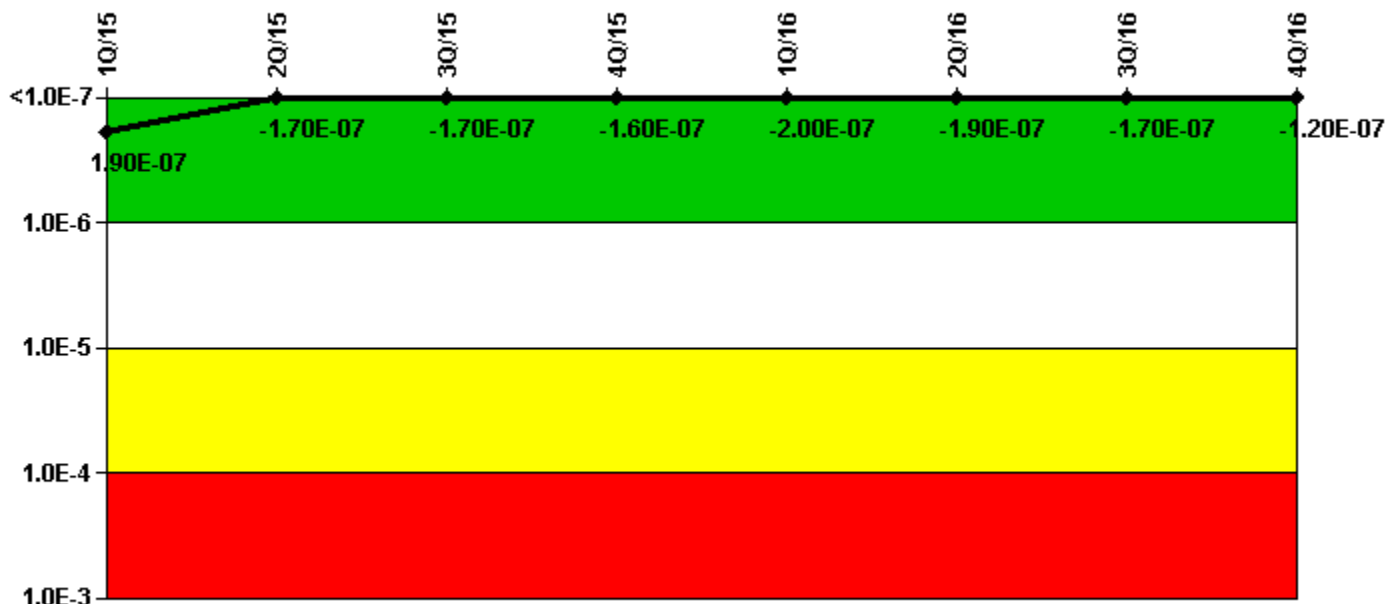
Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

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)	1.80E-08	3.12E-08	3.69E-08	1.36E-07	1.33E-07	1.36E-07	1.35E-07	-1.30E-08
URI (Δ CDF)	-7.75E-08	-1.03E-07	-7.84E-08	-8.09E-08	-7.69E-08	-7.59E-08	-7.04E-08	-6.83E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-6.00E-08	-7.20E-08	-4.10E-08	5.50E-08	5.70E-08	6.00E-08	6.40E-08	-8.10E-08

Licensee Comments: none

Mitigating Systems Performance Index, Heat Removal System



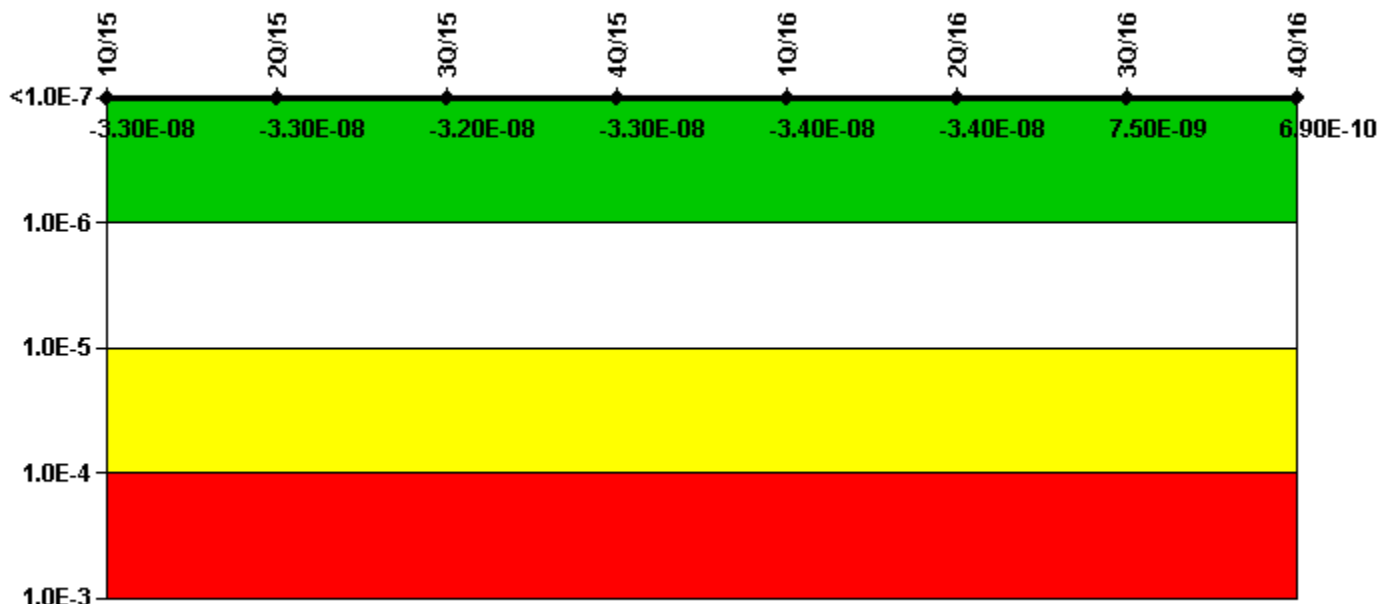
Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

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)	5.30E-08	2.80E-08	2.80E-08	2.73E-08	-1.47E-08	-8.76E-09	5.45E-10	3.07E-08
URI (ΔCDF)	1.35E-07	-1.99E-07	-1.96E-07	-1.90E-07	-1.85E-07	-1.79E-07	-1.69E-07	-1.55E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	1.90E-07	-1.70E-07	-1.70E-07	-1.60E-07	-2.00E-07	-1.90E-07	-1.70E-07	-1.20E-07

Licensee Comments: none

Mitigating Systems Performance Index, Residual Heat Removal System



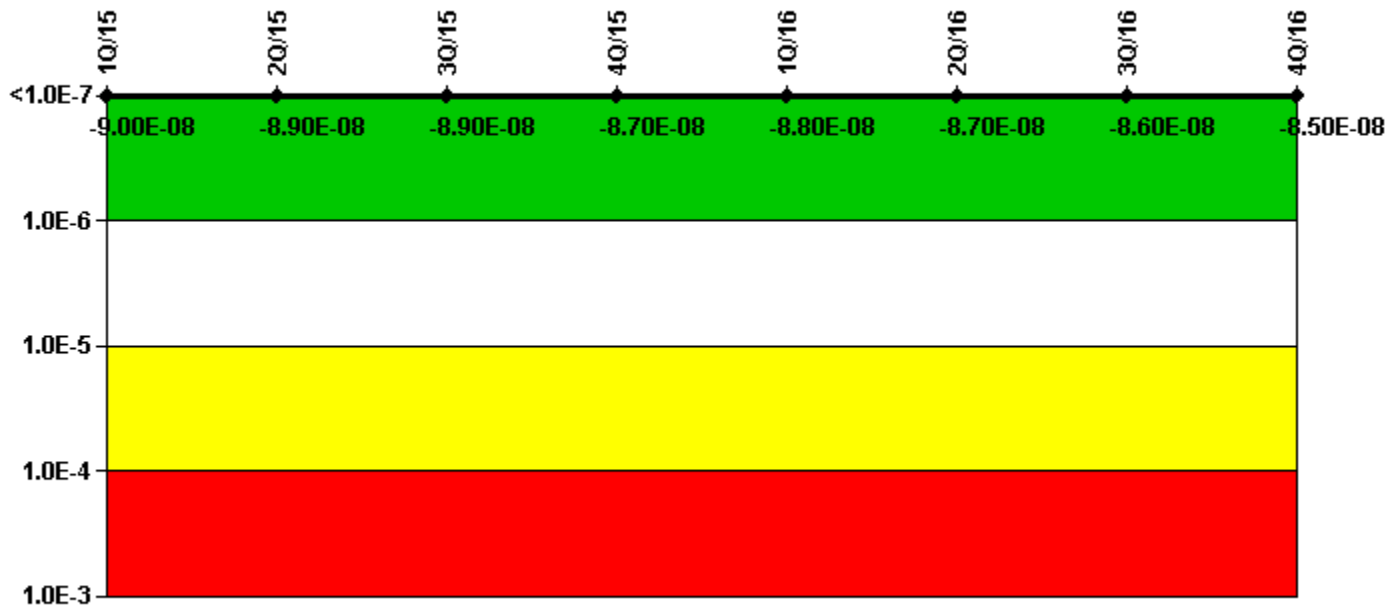
Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Residual Heat Removal System	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16
UAI (Δ CDF)	-7.80E-09	-8.56E-09	-7.32E-09	-8.56E-09	-8.56E-09	-8.56E-09	-8.56E-09	-8.56E-09
URI (Δ CDF)	-2.56E-08	-2.41E-08	-2.44E-08	-2.42E-08	-2.57E-08	-2.55E-08	1.61E-08	9.25E-09
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-3.30E-08	-3.30E-08	-3.20E-08	-3.30E-08	-3.40E-08	-3.40E-08	7.50E-09	6.90E-10

Licensee Comments: none

Mitigating Systems Performance Index, Cooling Water Systems



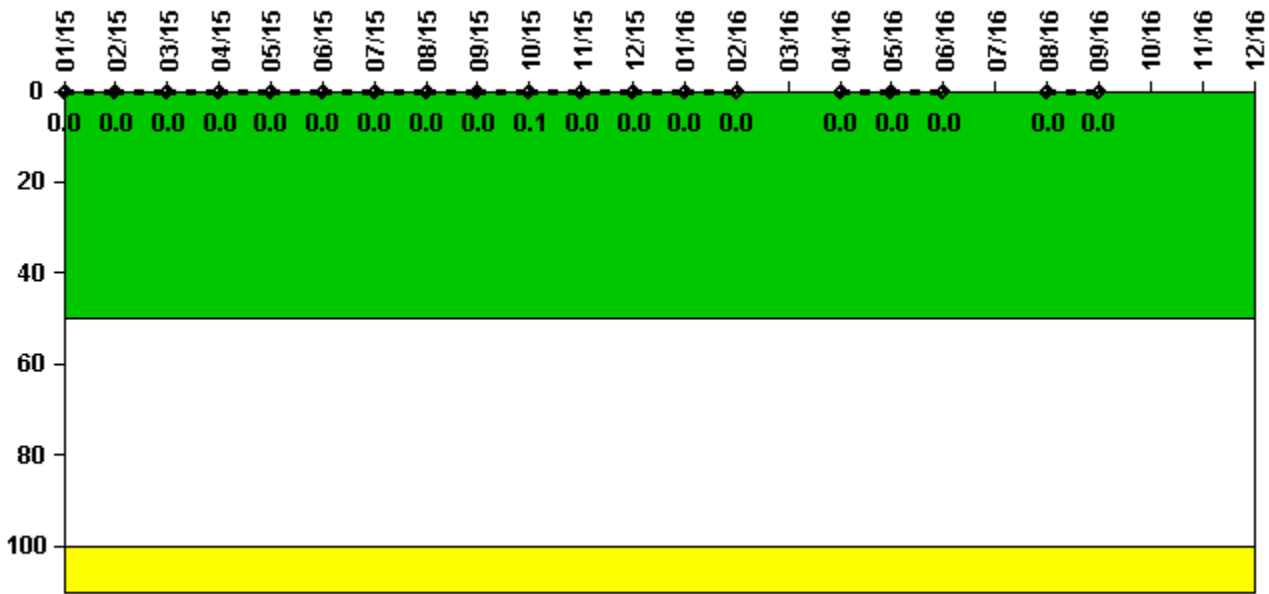
Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Cooling Water Systems	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16
UAI (Δ CDF)	-1.71E-09	-1.71E-09	-1.71E-09	-1.71E-09	-1.71E-09	-1.71E-09	-1.71E-09	-1.71E-09
URI (Δ CDF)	-8.87E-08	-8.77E-08	-8.70E-08	-8.54E-08	-8.68E-08	-8.54E-08	-8.47E-08	-8.36E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-9.00E-08	-8.90E-08	-8.90E-08	-8.70E-08	-8.80E-08	-8.70E-08	-8.60E-08	-8.50E-08

Licensee Comments: none

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	0.000021	0.000008	0.000093	0.000036	0.000037	0.000039	0.000063	0.000079	0.000092	0.000116	0.000033	0.000053
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	0.1	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	0.000069	0.000053	N/A	0.000013	0.000009	0.000005	N/A	0.000048	0.000020	N/A	N/A	N/A
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	N/A	0	0	0	N/A	0	0	N/A	N/A	N/A

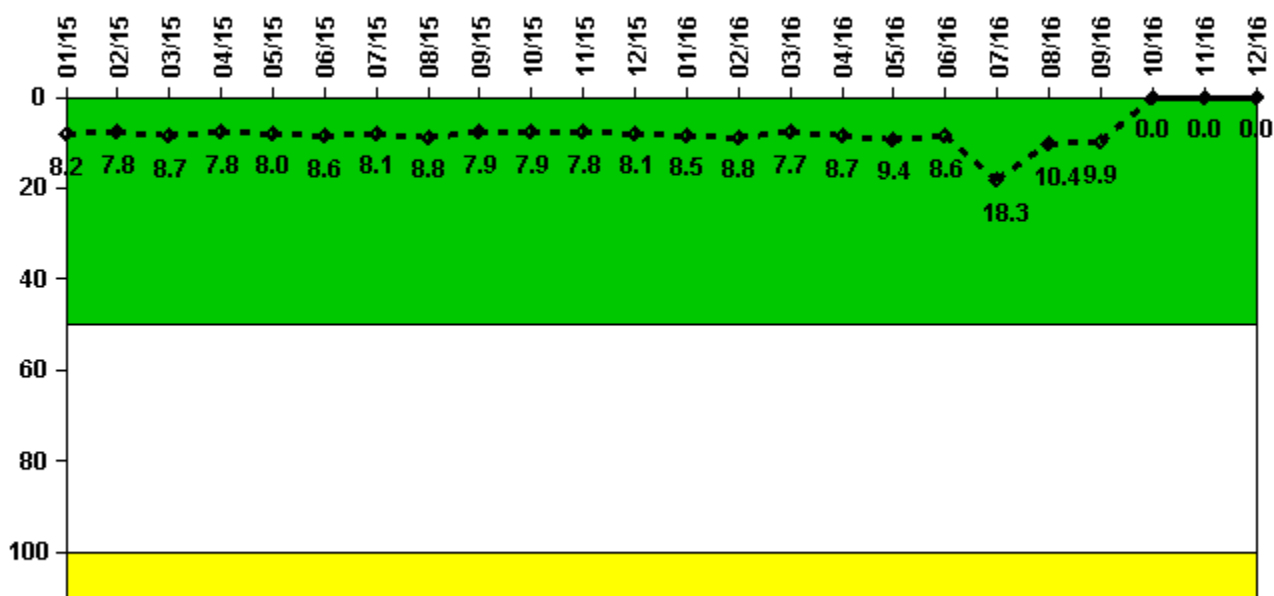
Licensee Comments:

12/16: Corrected typographical error in May Data. Changed Maximum I-131 to 9.35E-6 from 9.35E-5. CR-GGN-2016-09779.

6/16: Corrected typographical error in may data. Changed Maximum I-131 to 9.35E-6 from 9.35E-5. CR-GGN-2016-09779

3/16: For March 2016 the unit did not obtain a stable state power condition

Reactor Coolant System Leakage



Thresholds: White > 50.0 Yellow > 100.0

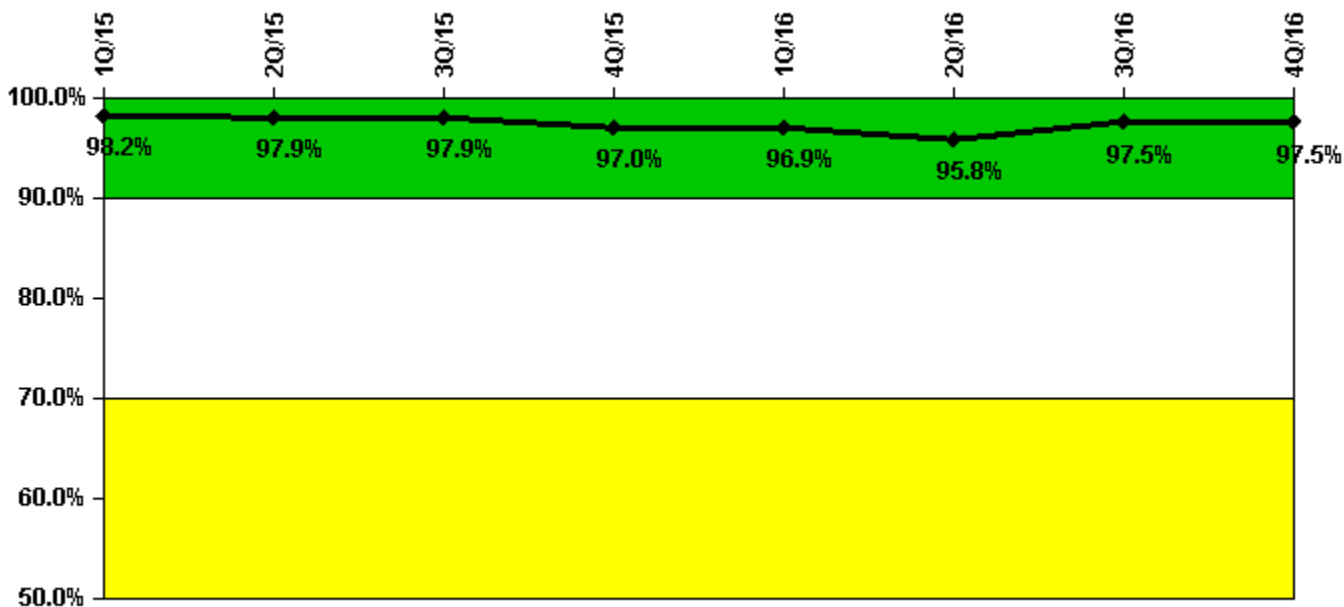
Notes

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	2.460	2.330	2.600	2.350	2.400	2.580	2.440	2.630	2.370	2.370	2.350	2.430
Technical specification limit	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0
Indicator value	8.2	7.8	8.7	7.8	8.0	8.6	8.1	8.8	7.9	7.9	7.8	8.1

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	2.540	2.630	2.300	2.600	2.810	2.580	5.500	3.120	2.980	0	0	0
Technical specification limit	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0
Indicator value	8.5	8.8	7.7	8.7	9.4	8.6	18.3	10.4	9.9	0	0	0

Licensee Comments: none

Drill/Exercise Performance



Thresholds: White < 90.0% Yellow < 70.0%

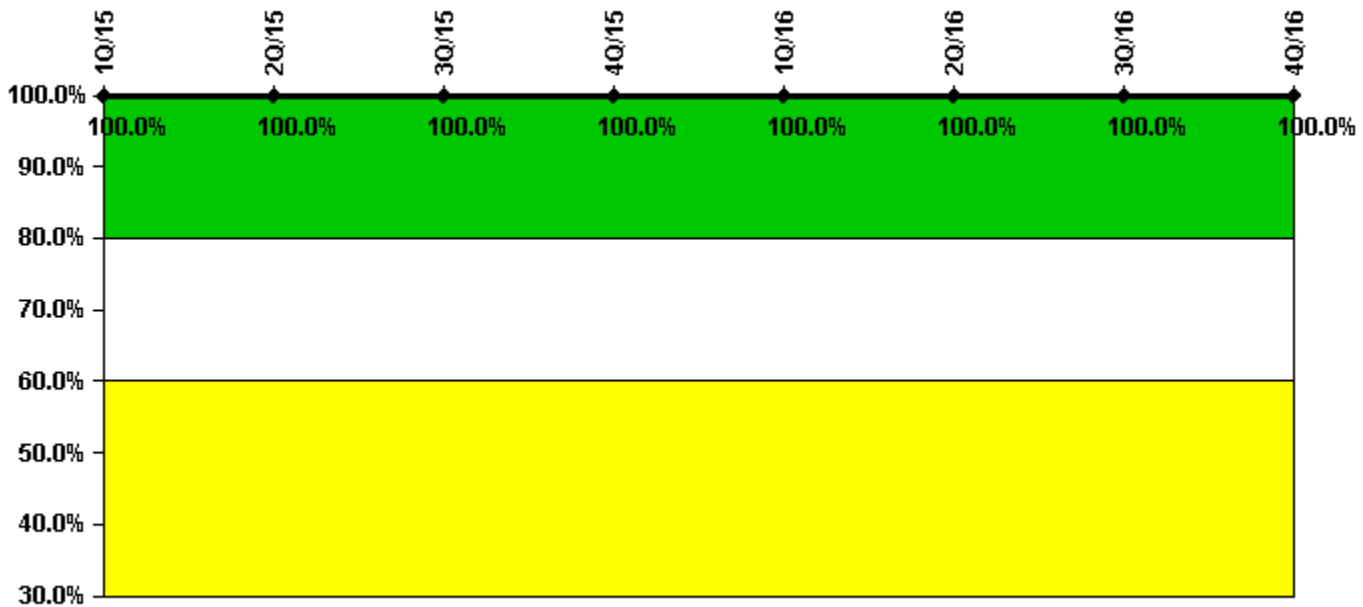
Notes

Drill/Exercise Performance	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16
Successful opportunities	25.0	31.0	17.0	51.0	0	29.0	143.0	62.0
Total opportunities	26.0	33.0	17.0	53.0	0	32.0	144.0	62.0
Indicator value	98.2%	97.9%	97.9%	97.0%	96.9%	95.8%	97.5%	97.5%

Licensee Comments:

1Q/15: Performed data update for the data reported in January 2015 (RAM 7-3-15)

ERO Drill Participation



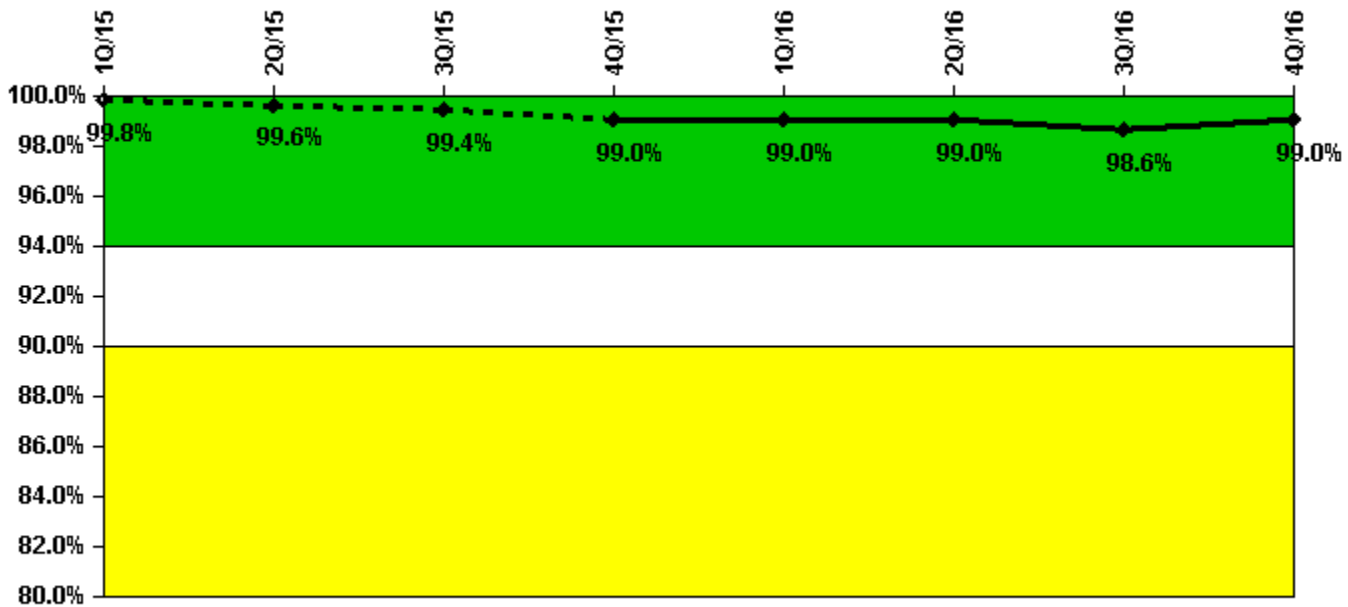
Thresholds: White < 80.0% Yellow < 60.0%

Notes

ERO Drill Participation	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16
Participating Key personnel	62.0	65.0	64.0	68.0	64.0	67.0	44.0	50.0
Total Key personnel	62.0	65.0	64.0	68.0	64.0	67.0	44.0	50.0
Indicator value	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Licensee Comments: none

Alert & Notification System



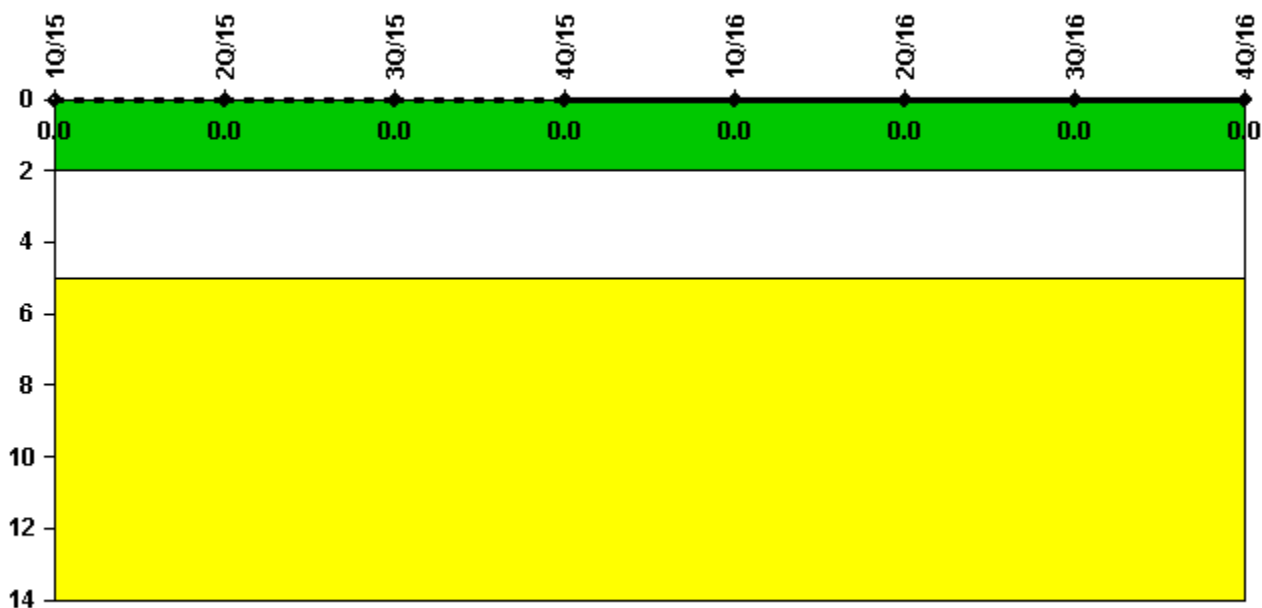
Thresholds: White < 94.0% Yellow < 90.0%

Notes

Alert & Notification System	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16
Successful siren-tests	128	126	126	127	127	128	126	129
Total sirens-tests	129	127	127	129	128	129	129	129
Indicator value	99.8%	99.6%	99.4%	99.0%	99.0%	99.0%	98.6%	99.0%

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