

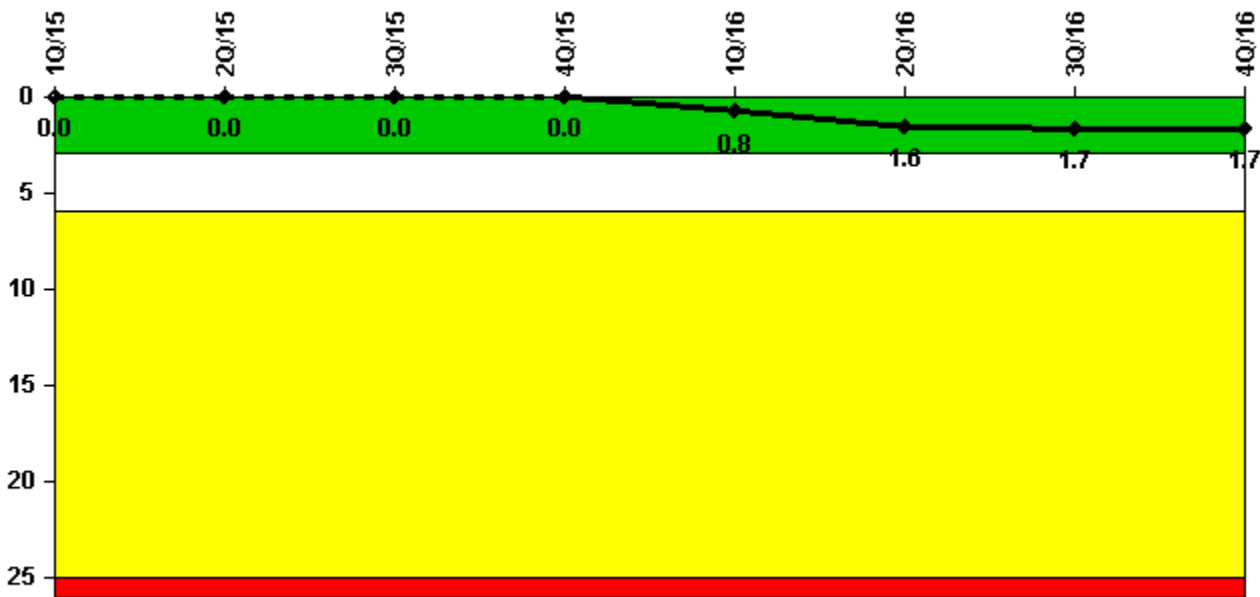
FitzPatrick

4Q/2016 Performance Indicators

The solid trend line represents the current reporting period.

Licensee's General Comments: Data in May 2016 was changed to correct for unavailability hours attributed to the Emergency Diesel Generators (EDG) rather than the Emergency Service Water (ESW) System. This correction is in accordance with NEI 99-02 "No Cascading of Unavailability" rule. The change does not affect the indicator significance "color" of Green.

Unplanned Scrams per 7000 Critical Hrs



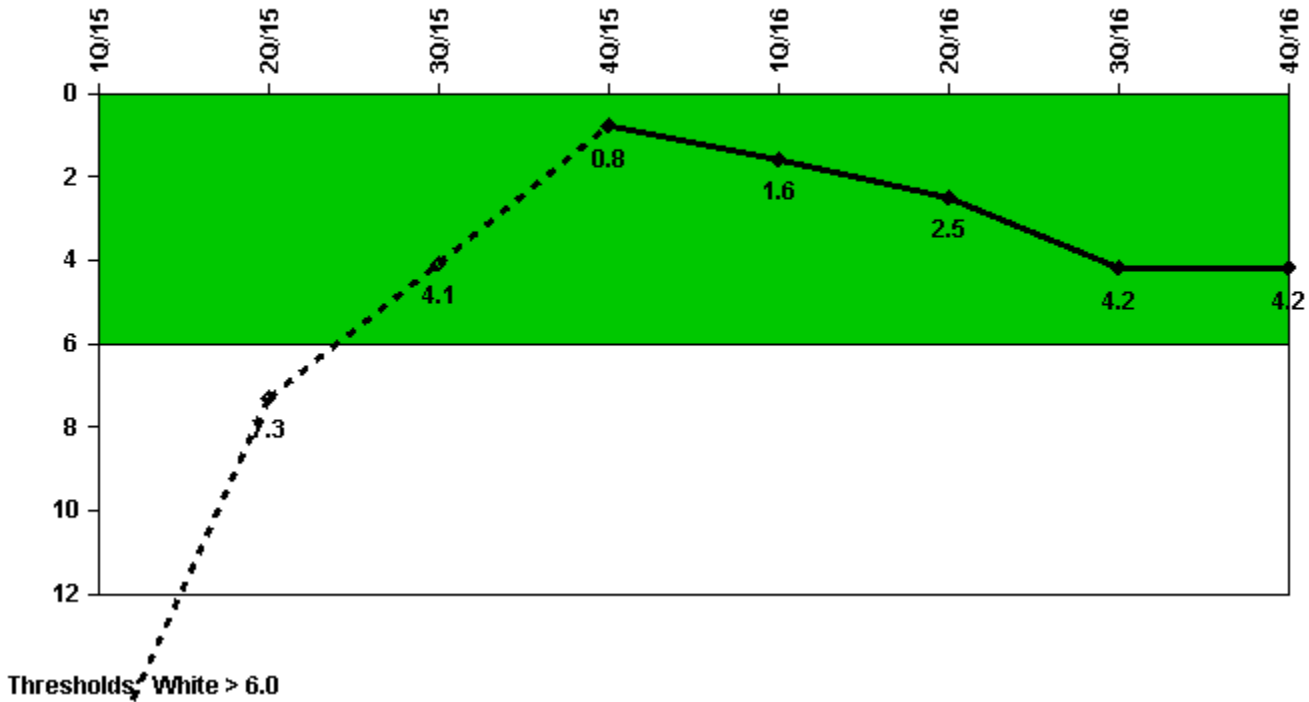
Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

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	1.0	1.0	0	0
Critical hours	2159.0	2184.0	2208.0	2209.0	2058.8	2028.6	2080.5	2209.0
Indicator value	0	0	0	0	0.8	1.6	1.7	1.7

Licensee Comments: none

Unplanned Power Changes per 7000 Critical Hrs



Notes

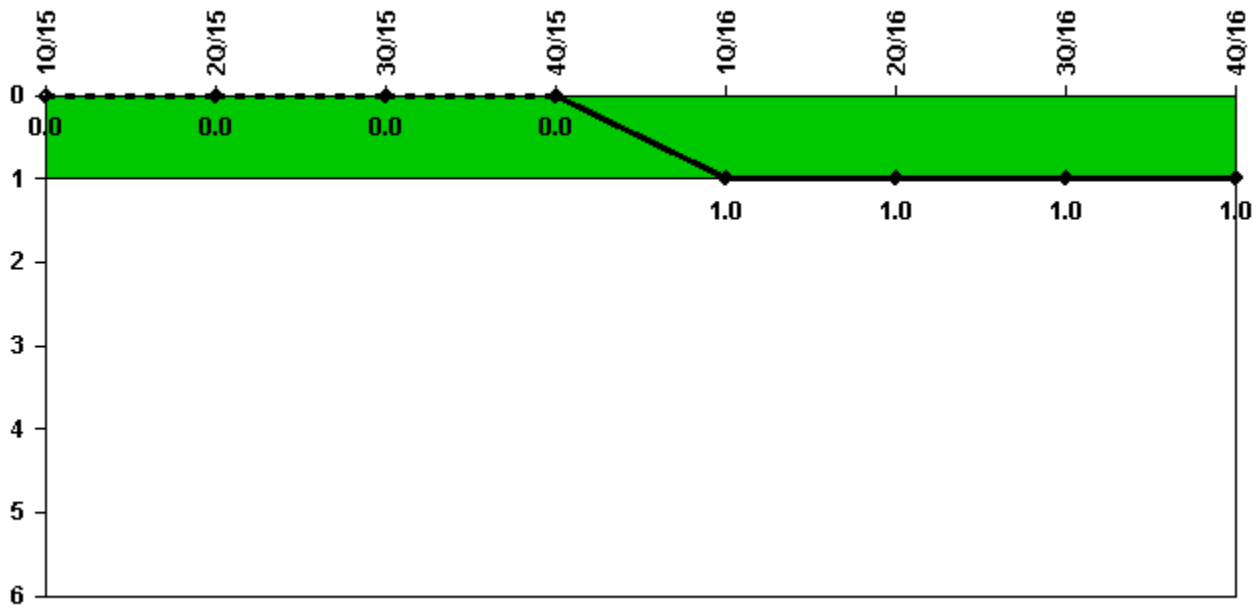
Unplanned Power Changes per 7000 Critical Hrs	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16
Unplanned power changes	0	0	1.0	0	1.0	1.0	3.0	0
Critical hours	2159.0	2184.0	2208.0	2209.0	2058.8	2028.6	2080.5	2209.0
Indicator value	16.4	7.3	4.1	0.8	1.6	2.5	4.2	4.2

Licensee Comments:

2Q/15: Multiple downpowers were due to Main Condenser tube leakage. Retubing project completed during Refuel Outage 21. Main Condenser degrading performance has been corrected and this PI is improving. There is no effect on public or nuclear safety.

1Q/15: Multiple downpowers were due to Main Condenser tube leakage. Retubing project completed during Refuel Outage 21. Main Condenser degrading performance has been corrected and this PI is improving. There is no effect on public or nuclear safety.

Unplanned Scrams with Complications



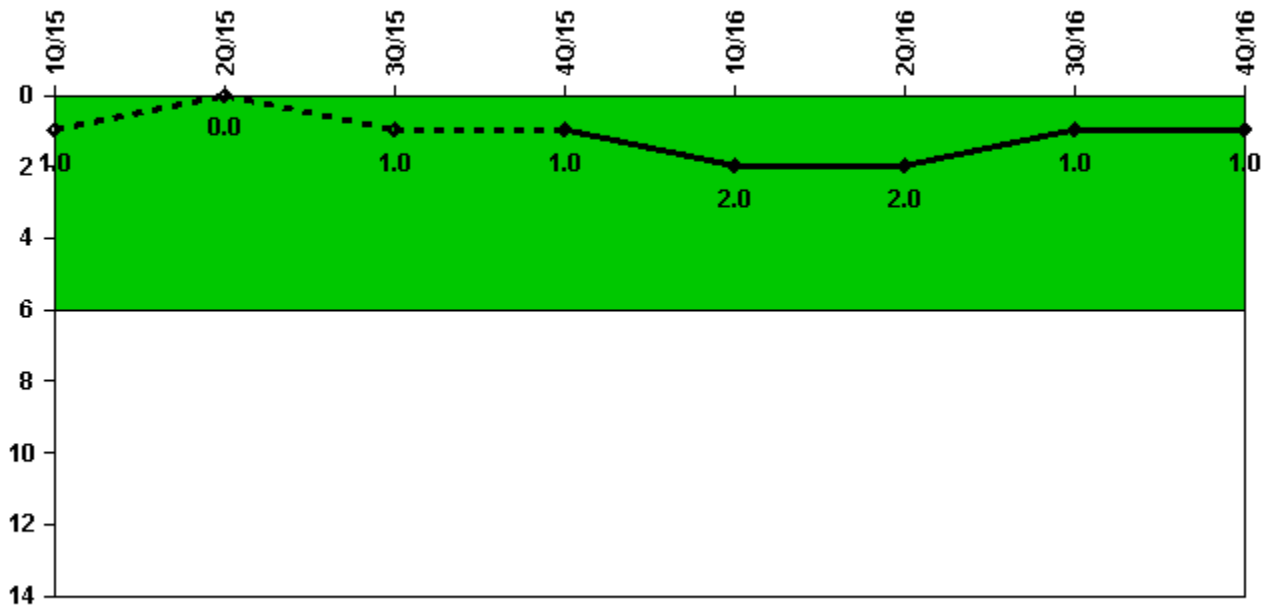
Thresholds: White > 1.0

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	1.0	0	0	0
Indicator value	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0

Licensee Comments: none

Safety System Functional Failures (BWR)



Thresholds: White > 6.0

Notes

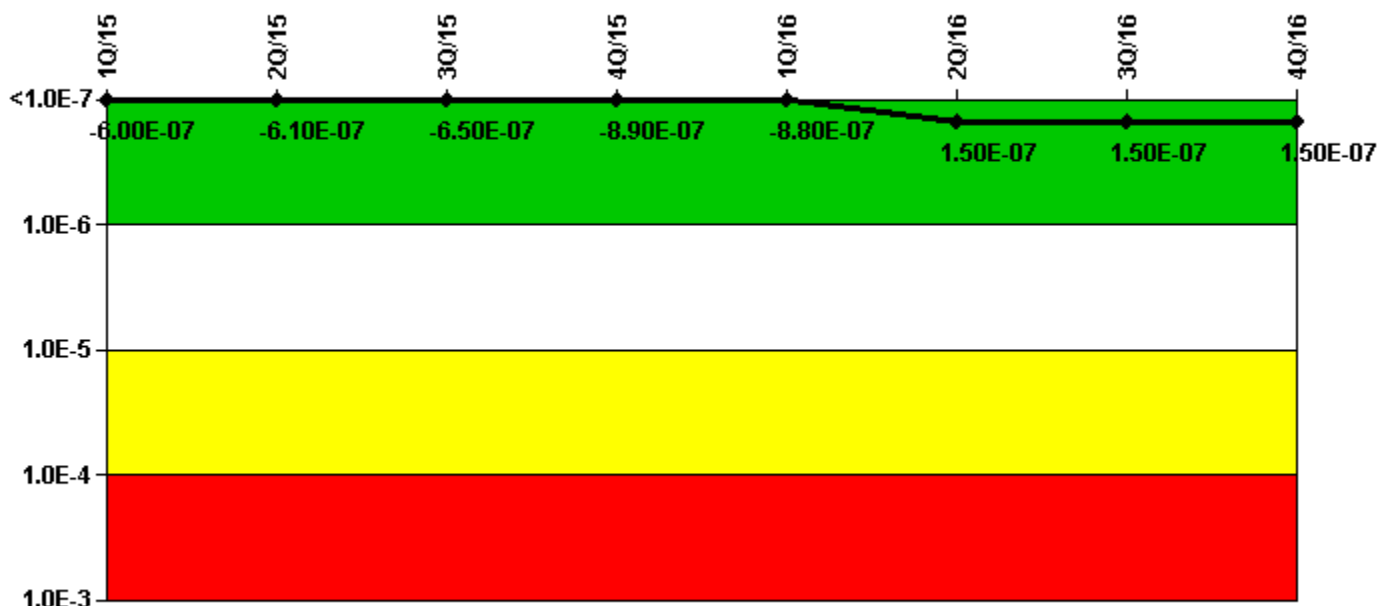
Safety System Functional Failures (BWR)	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16
Safety System Functional Failures	0	0	1	0	1	0	0	0
Indicator value	1	0	1	1	2	2	1	1

Licensee Comments:

1Q/16: LER-15-008, Containment Atmosphere Dilution System Reliability Degraded due to Manufacturer Defect in Temperature Transmitters

3Q/15: LER-2015-003, Roof Maintenance Results in Secondary Containment Vacuum Below Technical Specification Limit

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)	2.79E-09	5.78E-09	4.70E-09	6.10E-09	5.41E-09	1.25E-09	-3.67E-10	-5.06E-10
URI (Δ CDF)	-5.99E-07	-6.19E-07	-6.57E-07	-8.93E-07	-8.84E-07	1.49E-07	1.49E-07	1.48E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-6.00E-07	-6.10E-07	-6.50E-07	-8.90E-07	-8.80E-07	1.50E-07	1.50E-07	1.50E-07

Licensee Comments:

3Q/16: Data in May 2016 was changed to correct for unavailability hours attributed to the Emergency Diesel Generators (EDG) rather than the Emergency Service Water (ESW) System. This correction is in accordance with NEI 99-02 "No Cascading of Unavailability" rule. The change does not affect the indicator significance "color" of Green.

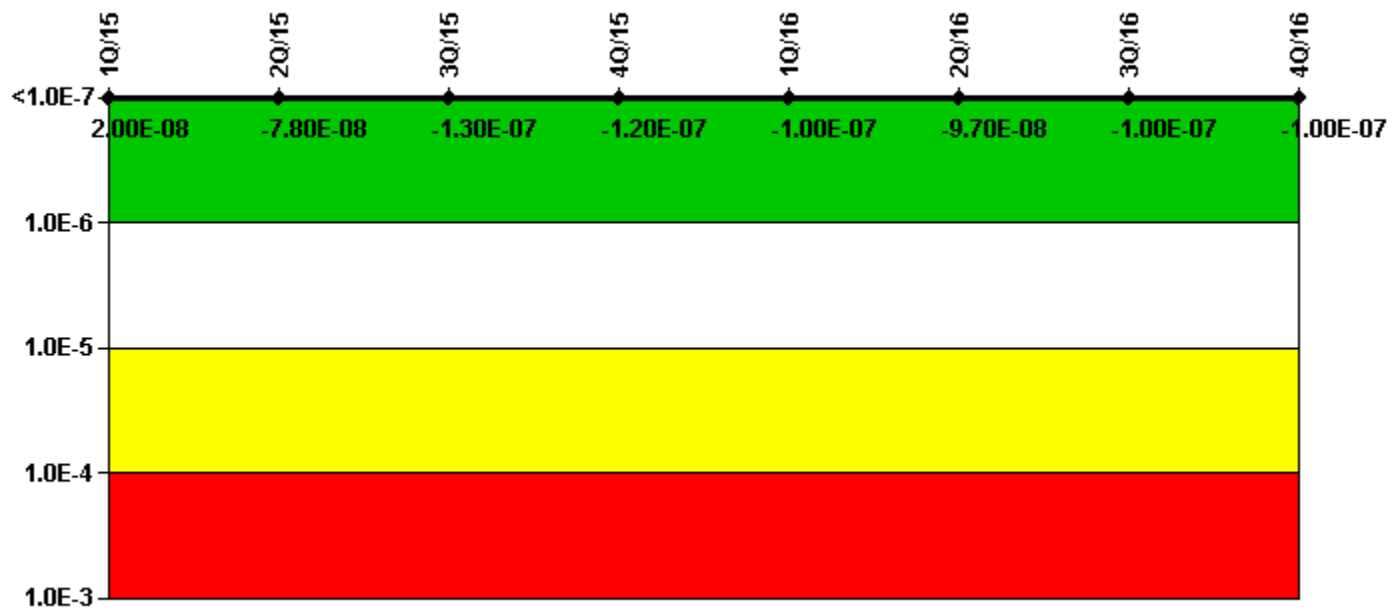
2Q/16: Data in May 2016 was changed to correct for unavailability hours attributed to the Emergency Diesel Generators (EDG) rather than the Emergency Service Water (ESW) System. This correction is in accordance with NEI 99-02 "No Cascading of Unavailability" rule. The change does not affect the indicator significance "color" of Green.

2Q/16: Starting in April 2016, MSPI value is affected by a change to EDG risk, in accordance with NEI 99-02. Previously the Risk utilized affected both trains of EDG per NEI 99.02 Section F1.1.1.

1Q/16: Revised the EDG risk in accordance with NEI 99-02. Previously the Risk utilized affected both trains of

EDG per NEI 99.02 Section F1.1.1.

Mitigating Systems Performance Index, High Pressure Injection System



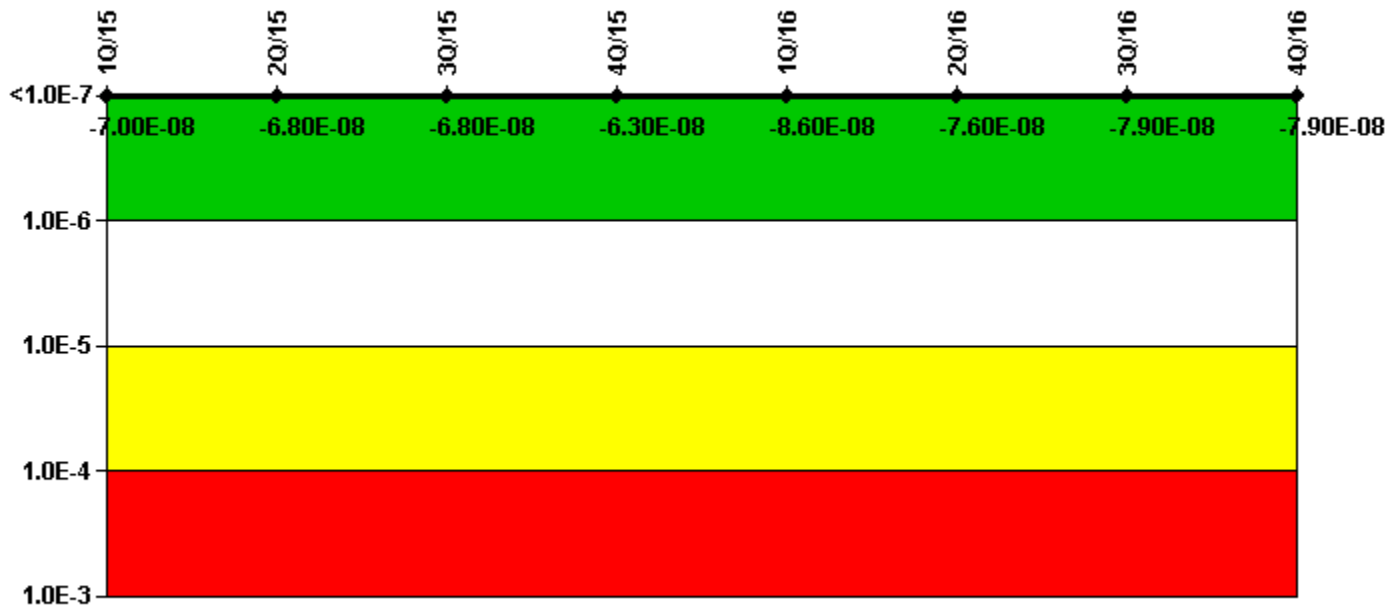
Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

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)	1.03E-07	9.35E-09	-4.43E-08	-4.43E-08	-8.16E-09	-4.58E-09	-8.65E-09	-4.68E-09
URI (Δ CDF)	-8.32E-08	-8.70E-08	-8.28E-08	-7.61E-08	-9.22E-08	-9.25E-08	-9.43E-08	-9.61E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	2.00E-08	-7.80E-08	-1.30E-07	-1.20E-07	-1.00E-07	-9.70E-08	-1.00E-07	-1.00E-07

Licensee Comments: none

Mitigating Systems Performance Index, Heat Removal System



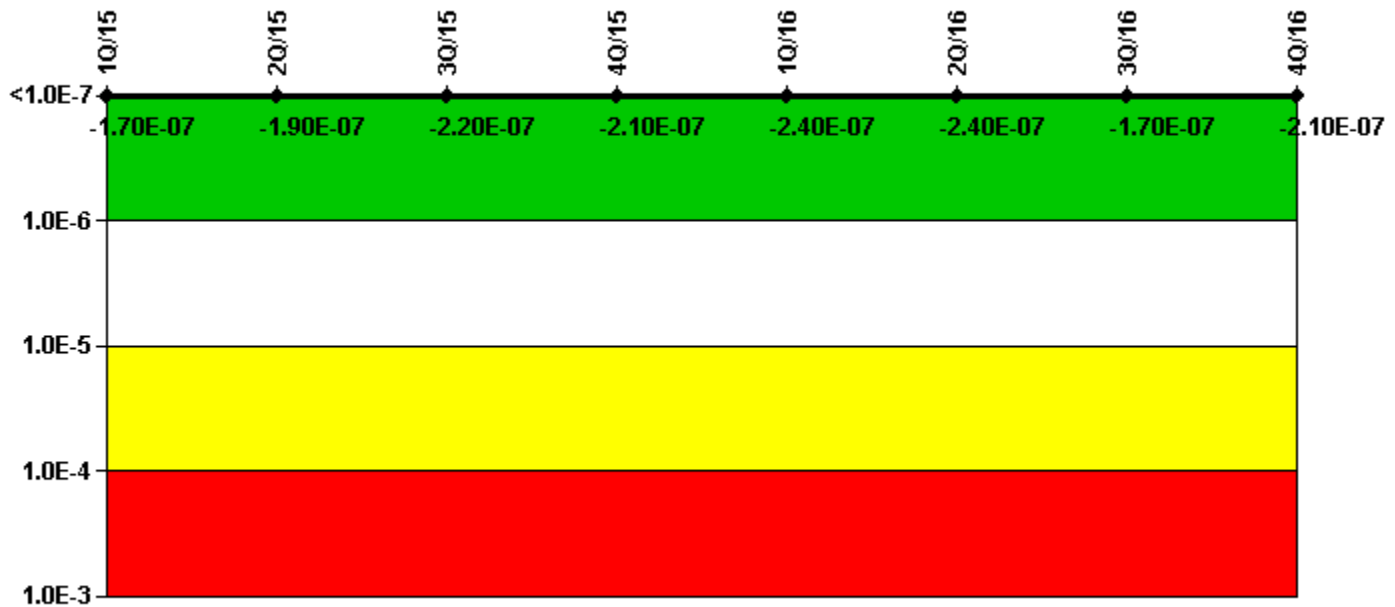
Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

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 (Δ CDF)	-1.27E-08	-1.14E-08	-1.32E-08	-1.53E-08	-2.89E-09	9.48E-09	8.92E-09	8.92E-09
URI (Δ CDF)	-5.70E-08	-5.70E-08	-5.45E-08	-4.74E-08	-8.34E-08	-8.59E-08	-8.83E-08	-8.83E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-7.00E-08	-6.80E-08	-6.80E-08	-6.30E-08	-8.60E-08	-7.60E-08	-7.90E-08	-7.90E-08

Licensee Comments: none

Mitigating Systems Performance Index, Residual Heat Removal System



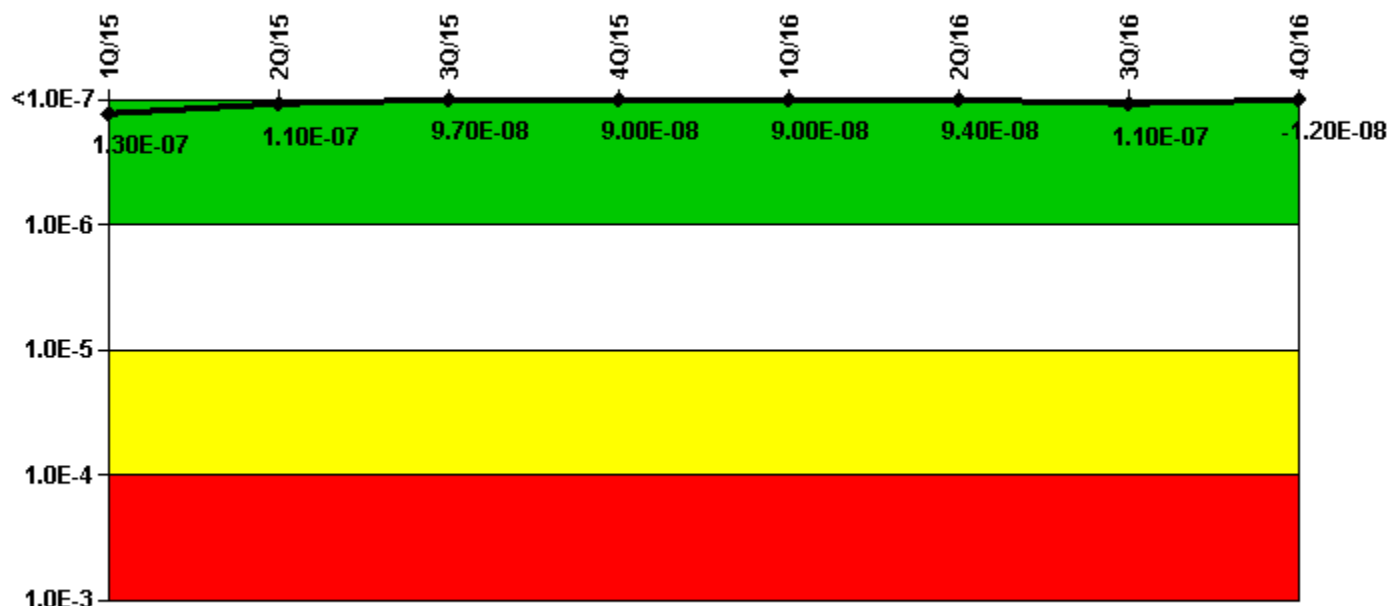
Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

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 (Δ CDF)	8.97E-08	7.15E-08	2.83E-08	1.81E-08	-6.26E-09	-5.89E-09	7.18E-08	2.92E-08
URI (Δ CDF)	-2.63E-07	-2.63E-07	-2.50E-07	-2.31E-07	-2.37E-07	-2.38E-07	-2.43E-07	-2.43E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-1.70E-07	-1.90E-07	-2.20E-07	-2.10E-07	-2.40E-07	-2.40E-07	-1.70E-07	-2.10E-07

Licensee Comments: none

Mitigating Systems Performance Index, Cooling Water Systems



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

Notes

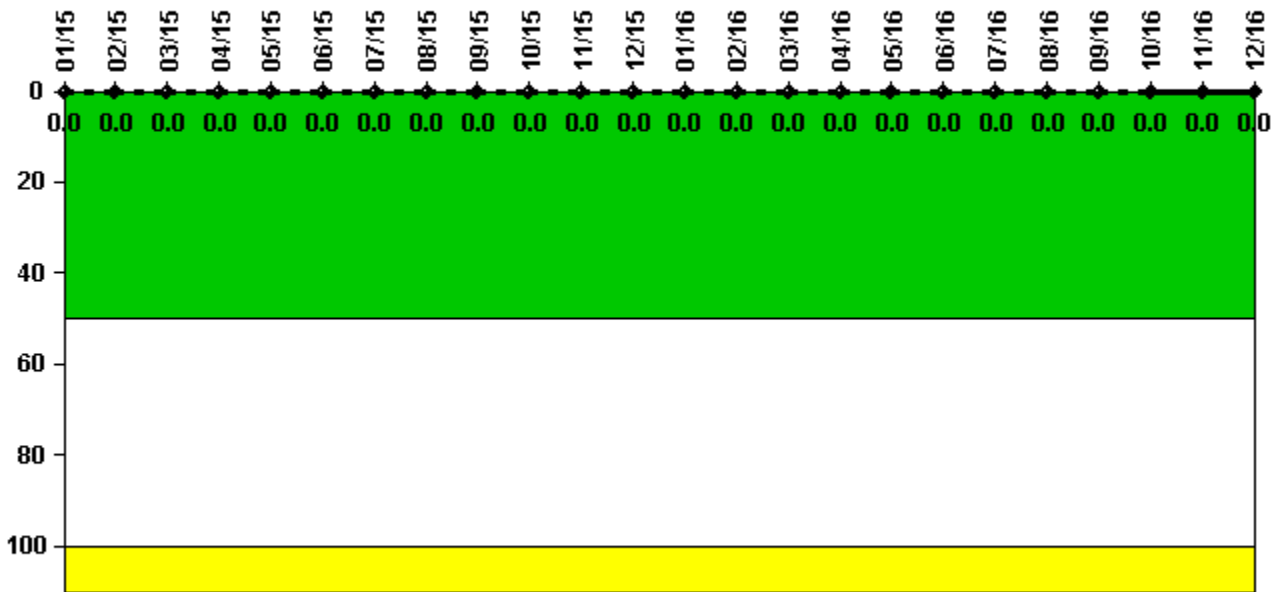
Mitigating Systems Performance Index, Cooling Water Systems	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16
UAI (Δ CDF)	1.39E-07	1.20E-07	1.10E-07	1.03E-07	1.02E-07	1.07E-07	1.21E-07	8.51E-10
URI (Δ CDF)	-1.23E-08	-1.26E-08	-1.26E-08	-1.26E-08	-1.27E-08	-1.30E-08	-1.24E-08	-1.24E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	1.30E-07	1.10E-07	9.70E-08	9.00E-08	9.00E-08	9.40E-08	1.10E-07	1.20E-08

Licensee Comments:

3Q/16: Data in May 2016 was changed to correct for unavailability hours attributed to the Emergency Diesel Generators (EDG) rather than the Emergency Service Water (ESW) System. This correction is in accordance with NEI 99-02 "No Cascading of Unavailability" rule. The change does not affect the indicator significance "color" of Green.

2Q/16: Data in May 2016 was changed to correct for unavailability hours attributed to the Emergency Diesel Generators (EDG) rather than the Emergency Service Water (ESW) System. This correction is in accordance with NEI 99-02 "No Cascading of Unavailability" rule. The change does not affect the indicator significance "color" of Green.

Reactor Coolant System Activity



Thresholds: White > 50.0 Yellow > 100.0

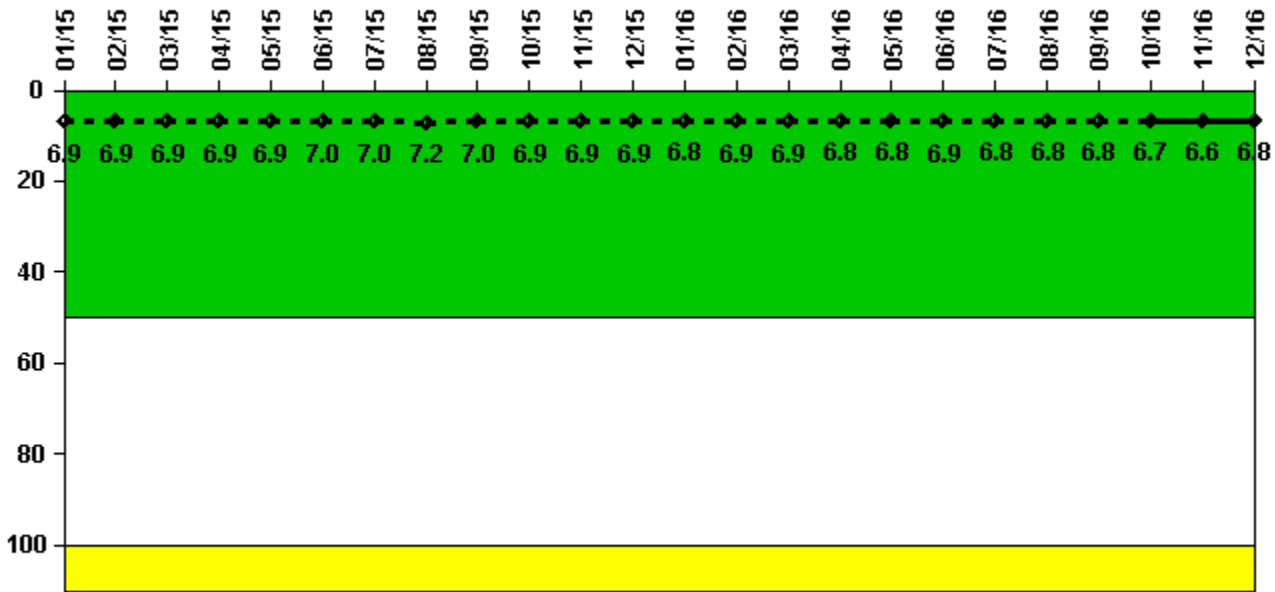
Notes

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	0.000012	0.000009	0.000011	0.000010	0.000008	0.000008	0.000007	0.000008	0.000006	0.000006	0.000007	0.000007
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	0.000006	0.000019	0.000008	0.000005	0.000008	0.000007	0.000012	0.000009	0.000009	0.000011	0.000020	0.000023
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

Licensee Comments: none

Reactor Coolant System Leakage



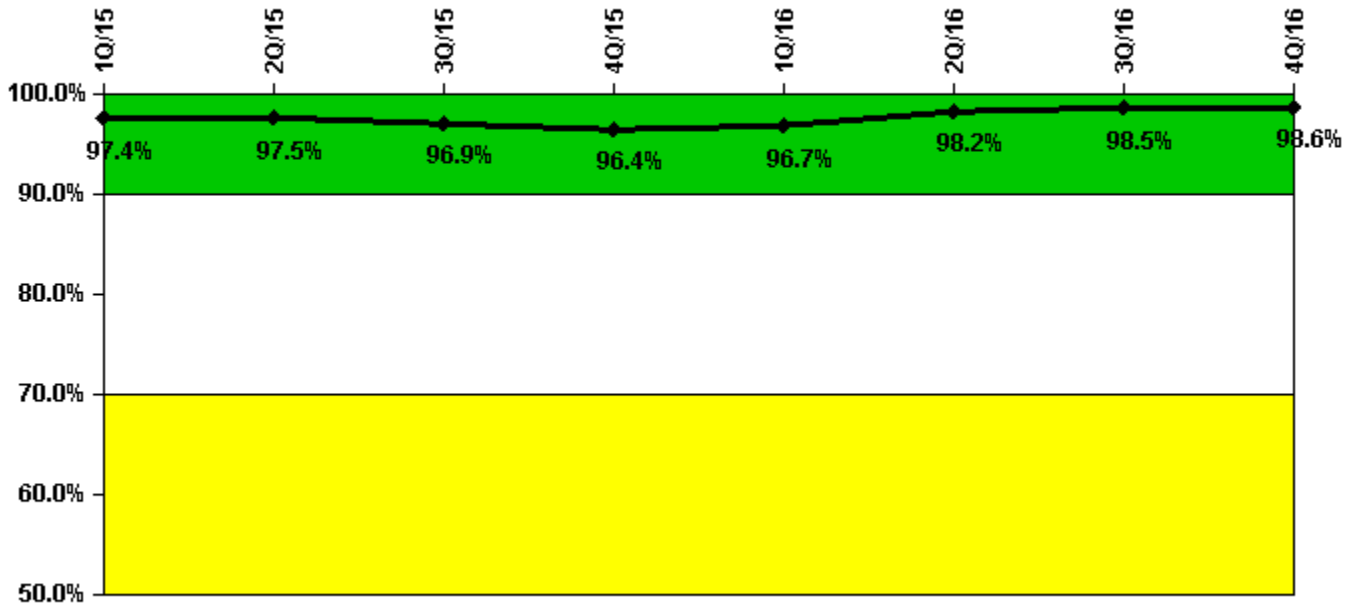
Thresholds: White > 50.0 Yellow > 100.0

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	1.730	1.730	1.730	1.730	1.730	1.740	1.740	1.790	1.760	1.720	1.720	1.720
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	6.9	6.9	6.9	6.9	6.9	7.0	7.0	7.2	7.0	6.9	6.9	6.9
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	1.710	1.730	1.720	1.710	1.700	1.720	1.690	1.690	1.690	1.680	1.660	1.700
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	6.8	6.9	6.9	6.8	6.8	6.9	6.8	6.8	6.8	6.7	6.6	6.8

Licensee Comments: none

Drill/Exercise Performance



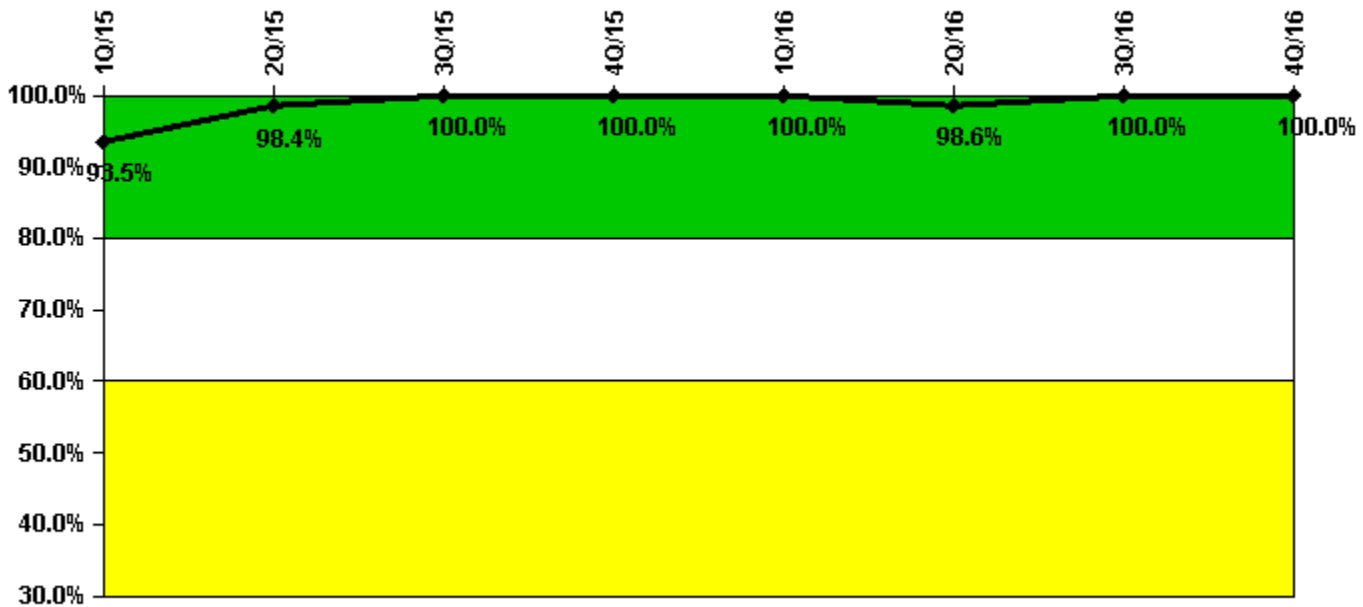
Thresholds: White < 90.0% Yellow < 70.0%

Notes

Drill/Exercise Performance	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16
Successful opportunities	24.0	69.0	16.0	6.0	67.0	41.0	36.0	14.0
Total opportunities	24.0	70.0	17.0	6.0	68.0	42.0	36.0	14.0
Indicator value	97.4%	97.5%	96.9%	96.4%	96.7%	98.2%	98.5%	98.6%

Licensee Comments: none

ERO Drill Participation



Thresholds: White < 80.0% Yellow < 60.0%

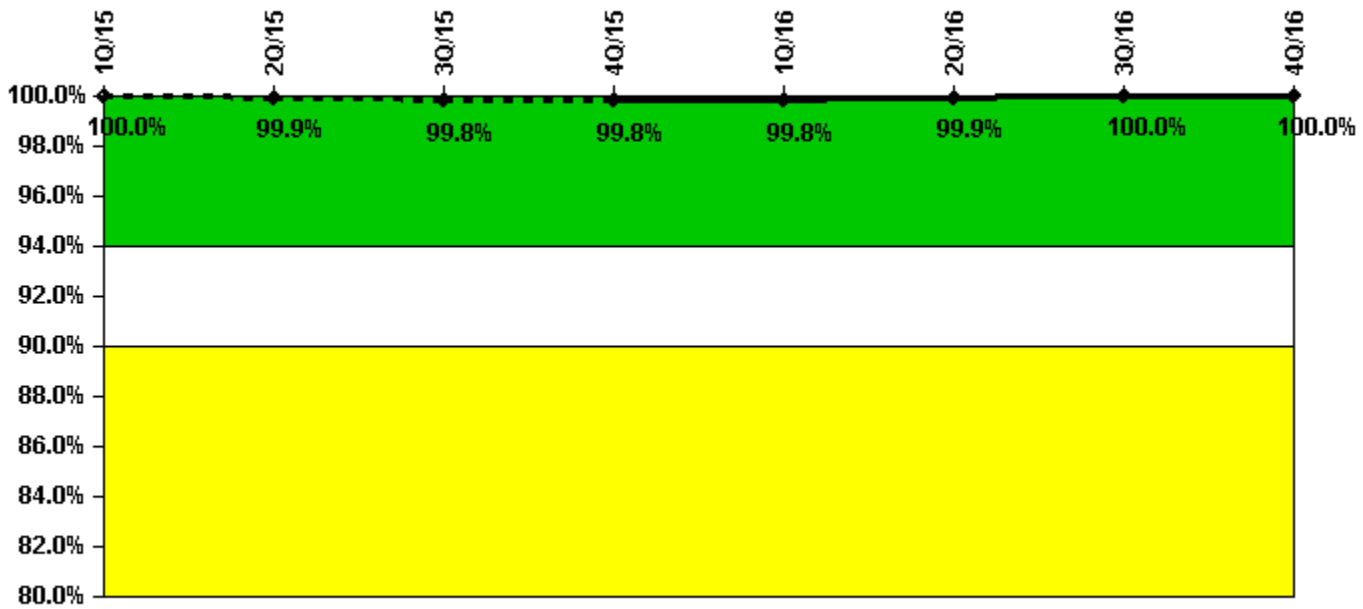
Notes

ERO Drill Participation	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16
Participating Key personnel	58.0	62.0	61.0	65.0	71.0	73.0	69.0	70.0
Total Key personnel	62.0	63.0	61.0	65.0	71.0	74.0	69.0	70.0
Indicator value	93.5%	98.4%	100.0%	100.0%	100.0%	98.6%	100.0%	100.0%

Licensee Comments:

2Q/15: December 2014 data is updated to correct a discrepancy in which an individual should have been counted for 2 separate positions. The change has a minor effect on the indicator value and it does not change the indicator color.

Alert & Notification System



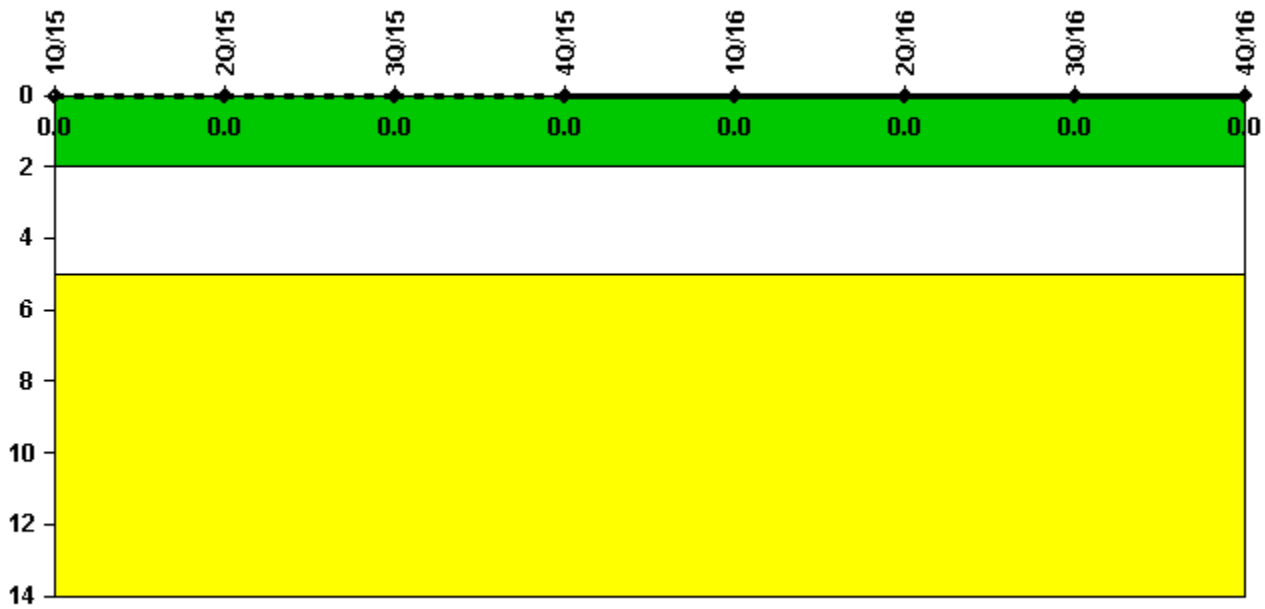
Thresholds: White < 94.0% Yellow < 90.0%

Notes

Alert & Notification System	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16
Successful siren-tests	259	258	258	296	348	520	520	520
Total sirens-tests	259	259	259	296	348	520	520	520
Indicator value	100.0%	99.9%	99.8%	99.8%	99.8%	99.9%	100.0%	100.0%

Licensee Comments: none

Occupational Exposure Control Effectiveness



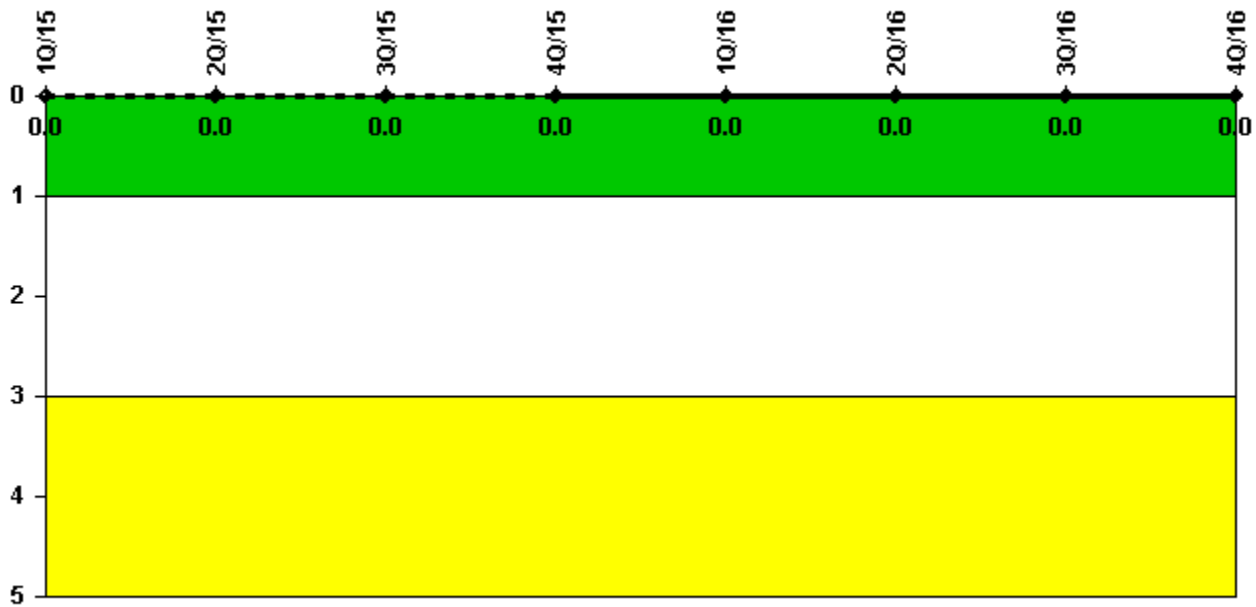
Thresholds: White > 2.0 Yellow > 5.0

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