

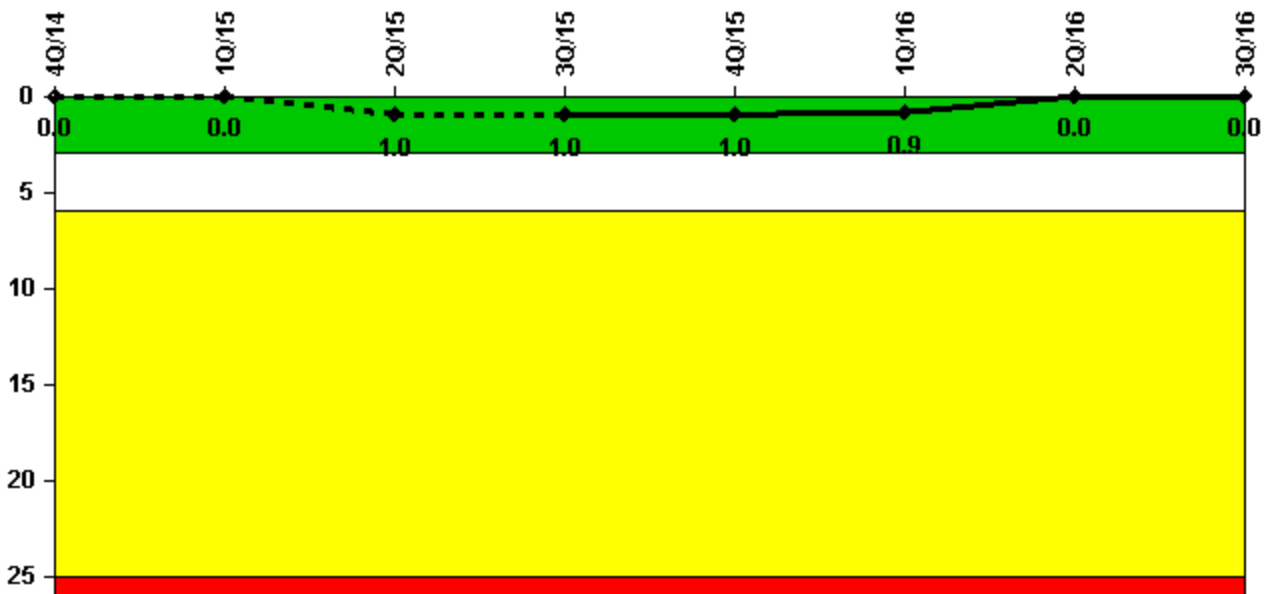
Wolf Creek 1

3Q/2016 Performance Indicators

The solid trend line represents the current reporting period.

Licensee's General Comments: none

Unplanned Scrams per 7000 Critical Hrs



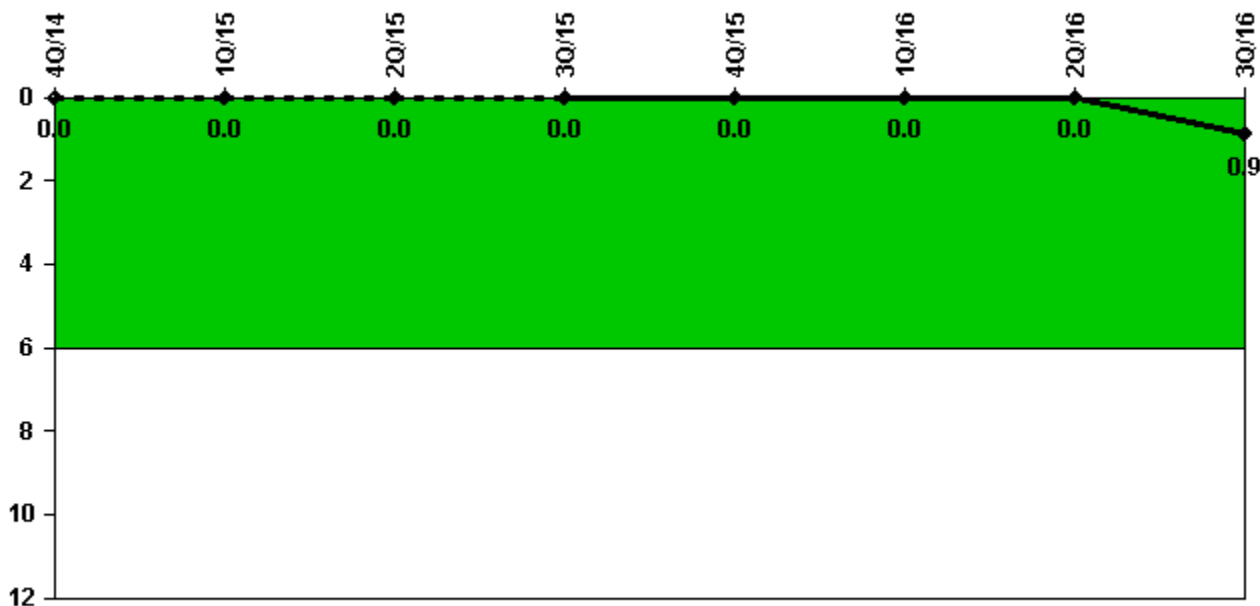
Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

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	1.0	0	0	0	0	0
Critical hours	2209.0	1392.0	1419.7	2208.0	2209.0	2183.0	2184.0	1524.0
Indicator value	0	0	1.0	1.0	1.0	0.9	0	0

Licensee Comments: none

Unplanned Power Changes per 7000 Critical Hrs



Thresholds: White > 6.0

Notes

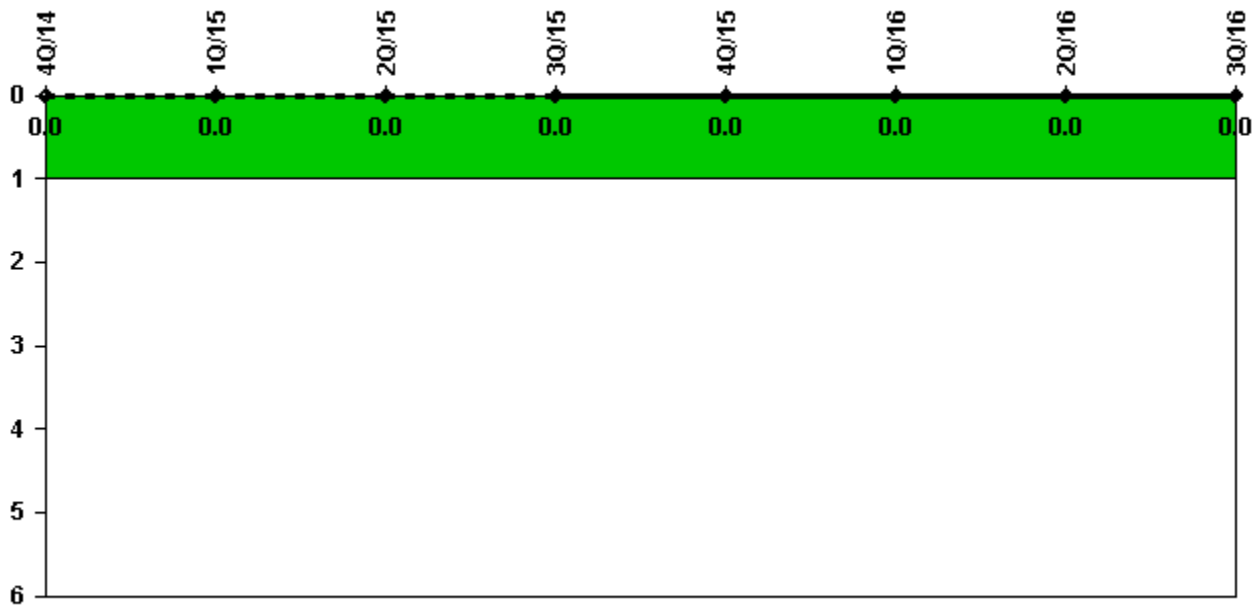
Unplanned Power Changes per 7000 Critical Hrs	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16
Unplanned power changes	0	0	0	0	0	0	0	1.0
Critical hours	2209.0	1392.0	1419.7	2208.0	2209.0	2183.0	2184.0	1524.0
Indicator value	0	0	0	0	0	0	0	0.9

Licensee Comments:

3Q/16: Unit shutdown due to unidentified RCS leakage. The source of the leak was identified on Core Exit Thermocouple Nozzle Assembly (CETNA) penetration #77.

4Q/14: On October 9, 2014, the NRC verbally approved the request for a NOED to not enforce compliance with Required Action B.4.1 of Technical Specification 3.8.1, "AC Source - Operating," which required restoration of the "B" diesel generator (DG) within 72 hours of being declared inoperable. The NOED provided an additional 8 hours to complete the 24-hour endurance and margin test required by TS Surveillance Requirement 3.8.1.14. The "B" DG was restored to operable status at approximately 75 hours such that granting of the NOED potentially avoided an unplanned power change.

Unplanned Scrams with Complications



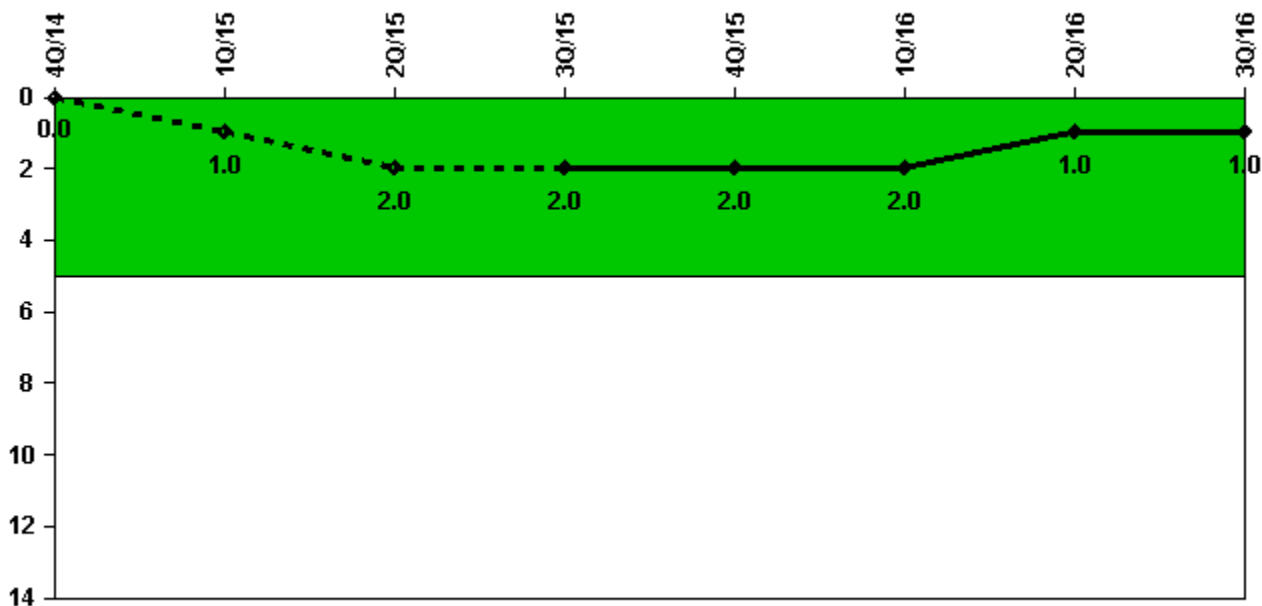
Thresholds: White > 1.0

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

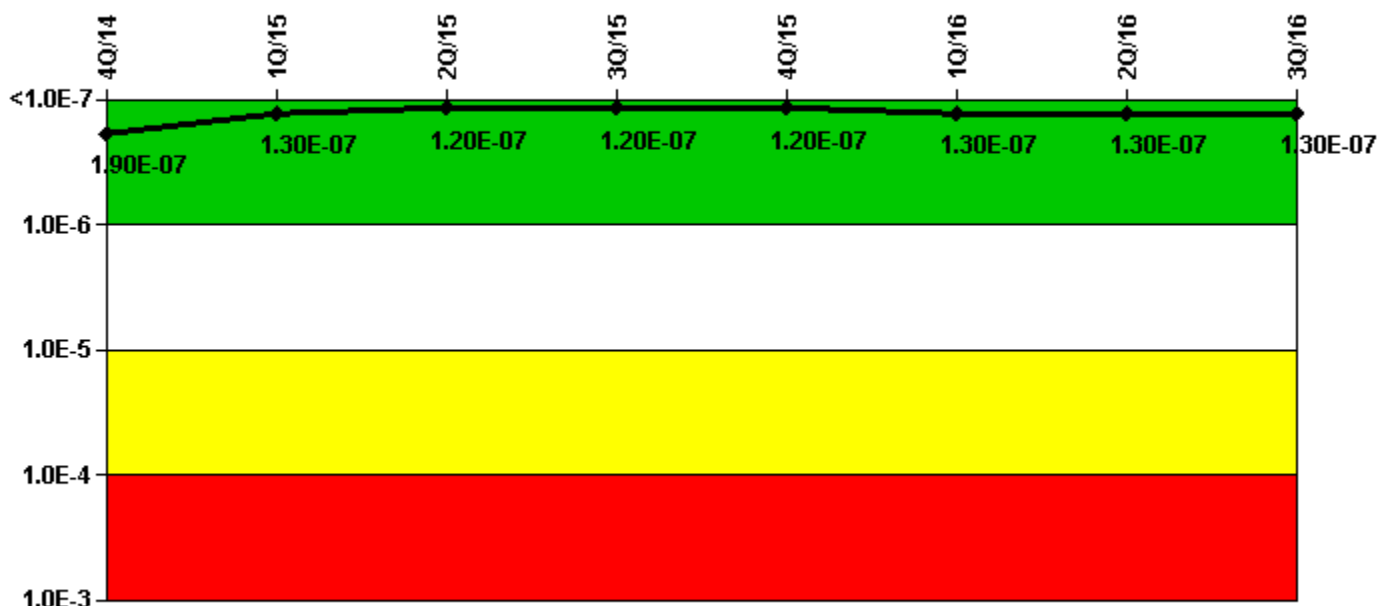
Licensee Comments:

1Q/16: LER 2016-001

2Q/15: LER 2015-002-00

1Q/15: LER 2015-001-00 issued 3/25/15 for loss of 2 RHR trains

Mitigating Systems Performance Index, Emergency AC Power System



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

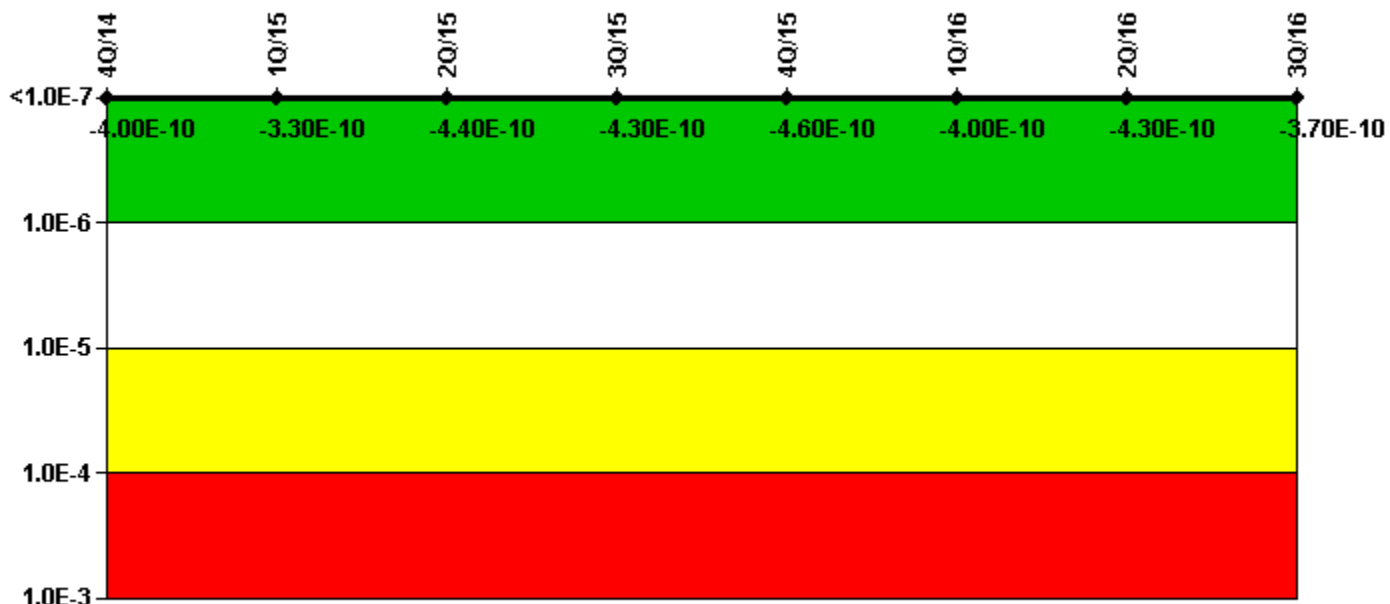
Notes

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 (ΔCDF)	3.64E-09	3.33E-09	3.57E-09	3.57E-09	3.57E-09	3.26E-09	2.76E-09	2.83E-09
URI (ΔCDF)	1.82E-07	1.27E-07	1.16E-07	1.16E-07	1.16E-07	1.28E-07	1.28E-07	1.29E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	1.90E-07	1.30E-07	1.20E-07	1.20E-07	1.20E-07	1.30E-07	1.30E-07	1.30E-07

Licensee Comments:

4Q/14: On October 9, 2014, the NRC verbally approved the request for a NOED to not enforce compliance with Required Action B.4.1 of Technical Specification 3.8.1, "AC Source - Operating," which required restoration of the "B" diesel generator (DG) within 72 hours of being declared inoperable. The NOED provided an additional 8 hours to complete the 24-hour endurance and margin test required by TS Surveillance Requirement 3.8.1.14. The "B" DG was restored to operable status at approximately 75 hours such that granting of the NOED potentially avoided an unplanned power change.

Mitigating Systems Performance Index, High Pressure Injection System



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

Notes

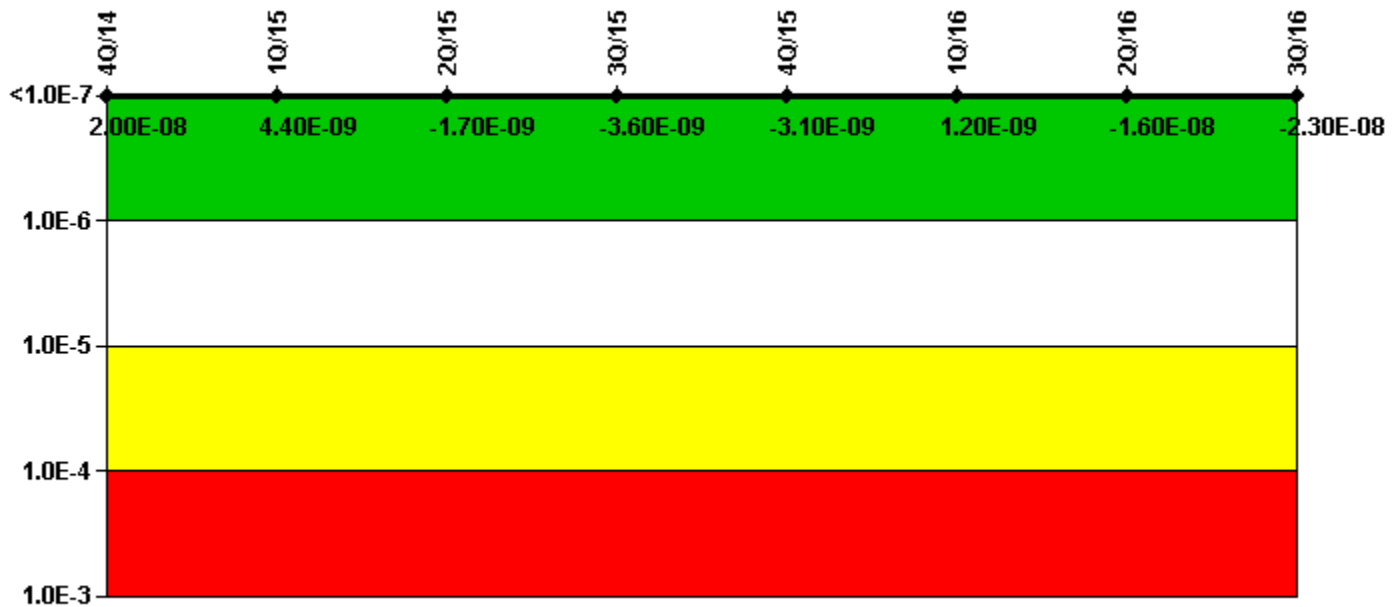
Mitigating Systems Performance Index, High Pressure Injection System	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16
UAI (Δ CDF)	-4.03E-12	7.90E-11	-7.97E-12	-2.04E-11	-3.06E-11	-1.63E-12	-6.82E-11	-2.38E-12
URI (Δ CDF)	-3.96E-10	-4.09E-10	-4.33E-10	-4.13E-10	-4.33E-10	-3.93E-10	-3.60E-10	-3.70E-10
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-4.00E-10	-3.30E-10	-4.40E-10	-4.30E-10	-4.60E-10	-4.00E-10	-4.30E-10	-3.70E-10

Licensee Comments:

4Q/15: Data error identified and corrected for the A train Safety Injection Pump (SIP). 2.63 hrs was corrected to 1.63 hrs.

3Q/15: Responsible engineer missed a surveillance entry in the EM system on valve EMHV8924. This entry has been corrected.

Mitigating Systems Performance Index, Heat Removal System



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

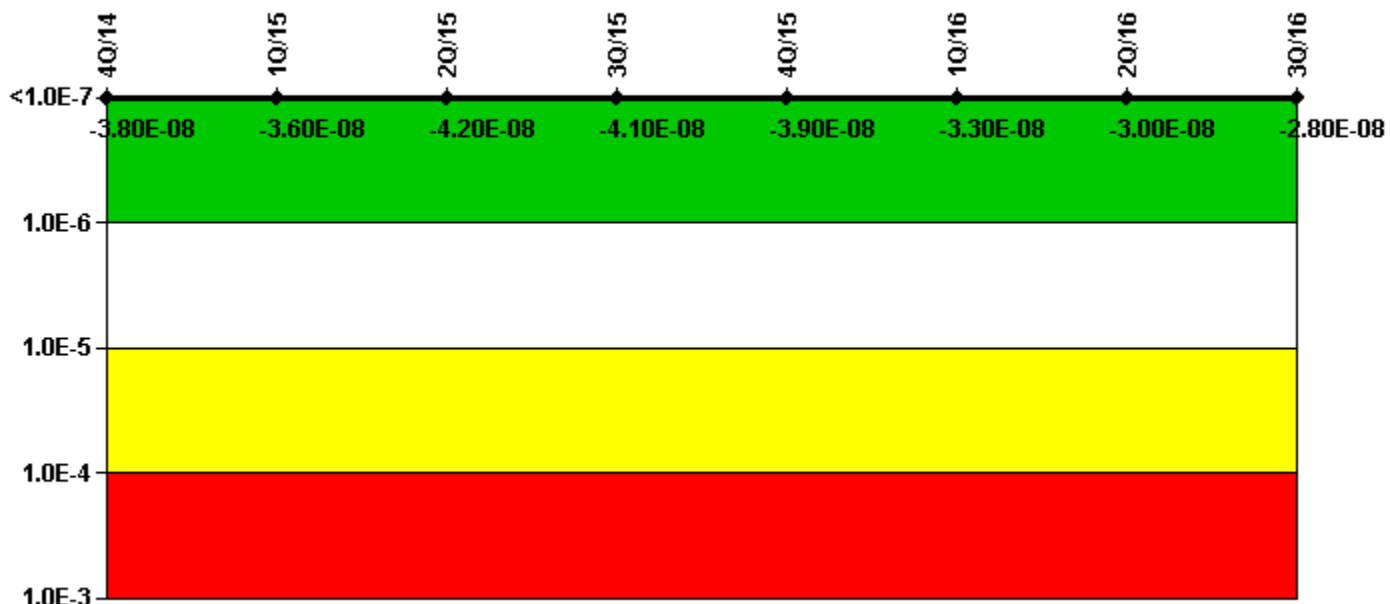
Notes

Mitigating Systems Performance Index, Heat Removal System	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16
UAI (Δ CDF)	7.74E-08	5.95E-08	6.02E-08	5.92E-08	5.99E-08	6.56E-08	4.12E-08	3.25E-08
URI (Δ CDF)	-5.77E-08	-5.51E-08	-6.19E-08	-6.28E-08	-6.30E-08	-6.44E-08	-5.71E-08	-5.58E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	2.00E-08	4.40E-09	-1.70E-09	-3.60E-09	-3.10E-09	1.20E-09	-1.60E-08	-2.30E-08

Licensee Comments:

3Q/15: Responsible engineer miscalculated the 07/15 unavailability. This entry has been corrected.

Mitigating Systems Performance Index, Residual Heat Removal System



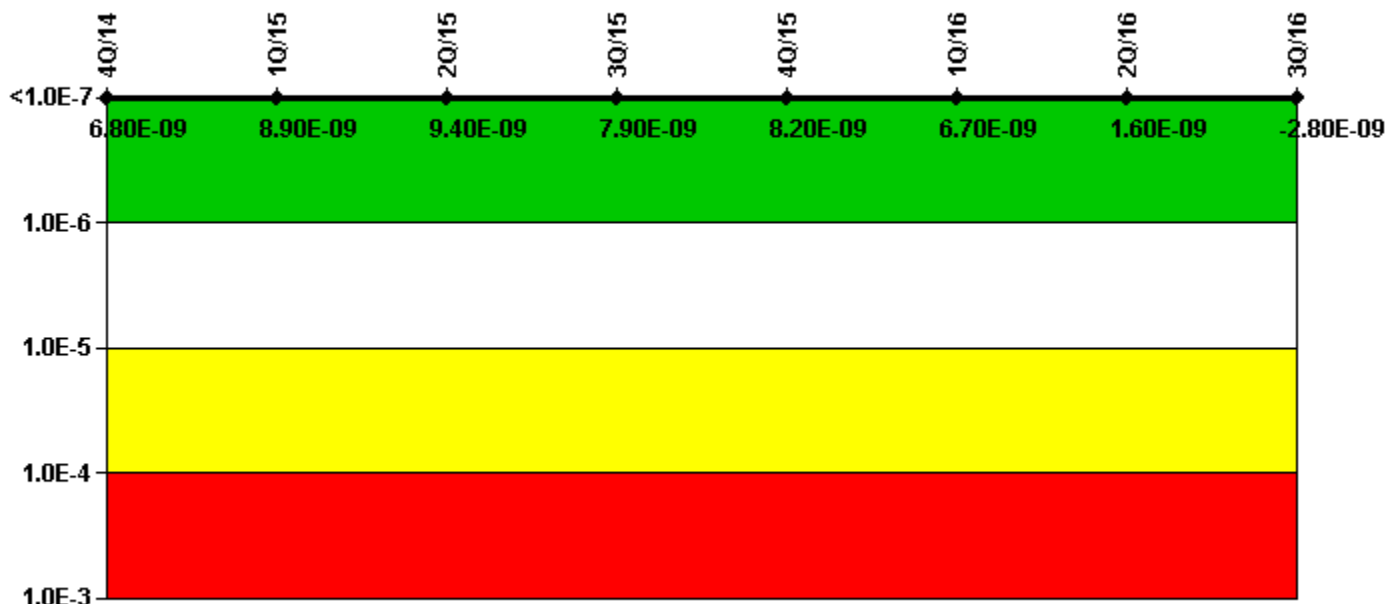
Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

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 (Δ CDF)	2.42E-09	3.23E-09	2.03E-09	3.50E-09	5.59E-09	4.70E-09	5.13E-09	9.25E-09
URI (Δ CDF)	-4.00E-08	-3.91E-08	-4.41E-08	-4.41E-08	-4.45E-08	-3.76E-08	-3.52E-08	-3.75E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-3.80E-08	-3.60E-08	-4.20E-08	-4.10E-08	-3.90E-08	-3.30E-08	-3.00E-08	-2.80E-08

Licensee Comments: none

Mitigating Systems Performance Index, Cooling Water Systems



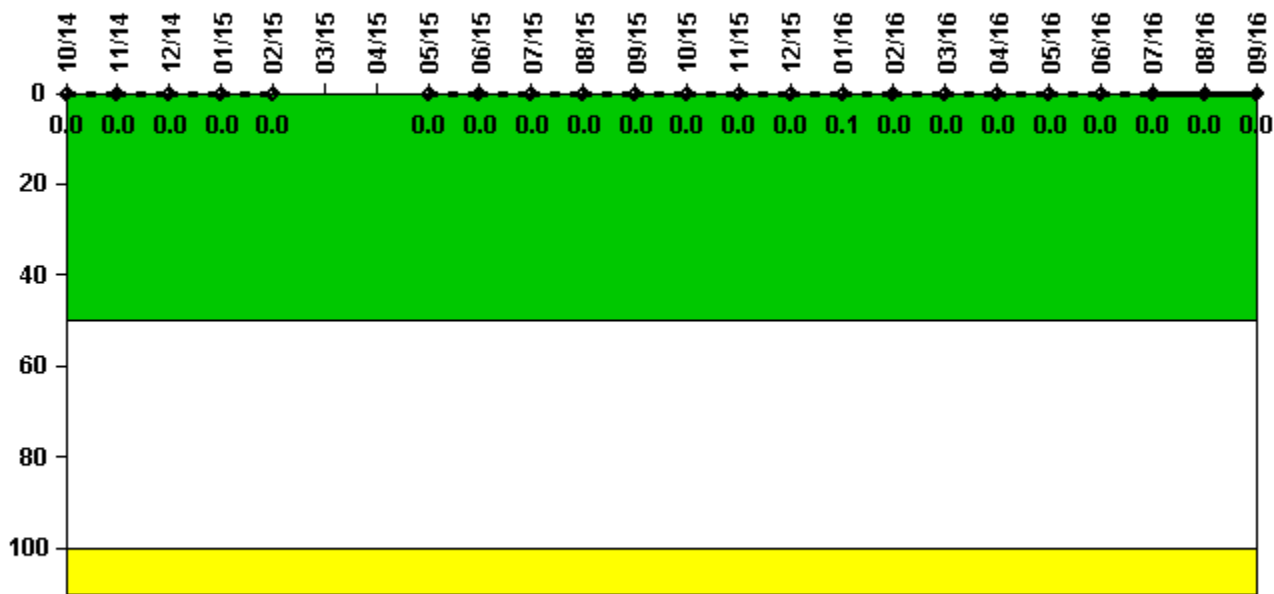
Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

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 (Δ CDF)	2.87E-08	3.03E-08	3.17E-08	2.99E-08	3.05E-08	2.80E-08	2.23E-08	1.92E-08
URI (Δ CDF)	-2.19E-08	-2.14E-08	-2.23E-08	-2.21E-08	-2.23E-08	-2.12E-08	-2.07E-08	-2.19E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	6.80E-09	8.90E-09	9.40E-09	7.90E-09	8.20E-09	6.70E-09	1.60E-09	-2.80E-09

Licensee Comments: none

Reactor Coolant System Activity



Thresholds: White > 50.0 Yellow > 100.0

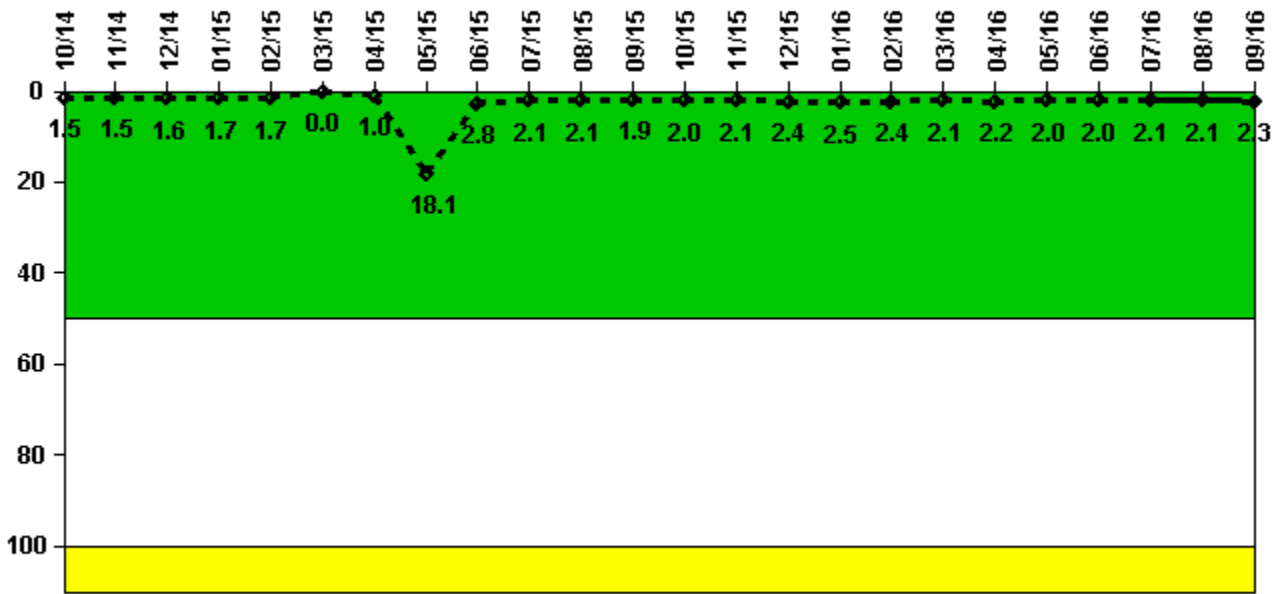
Notes

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	0.000300	0.000300	0.000400	0.000300	0.000400	N/A	N/A	0.000300	0.000200	0.000200	0.000200	0.000200
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	N/A	N/A	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	0.000200	0.000200	0.000200	0.000700	0.000200	0.000300	0.000300	0.000300	0.000300	0.000300	0.000300	0.000300
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	0.1	0	0	0	0	0	0	0	0

Licensee Comments: none

Reactor Coolant System Leakage



Thresholds: White > 50.0 Yellow > 100.0

Notes

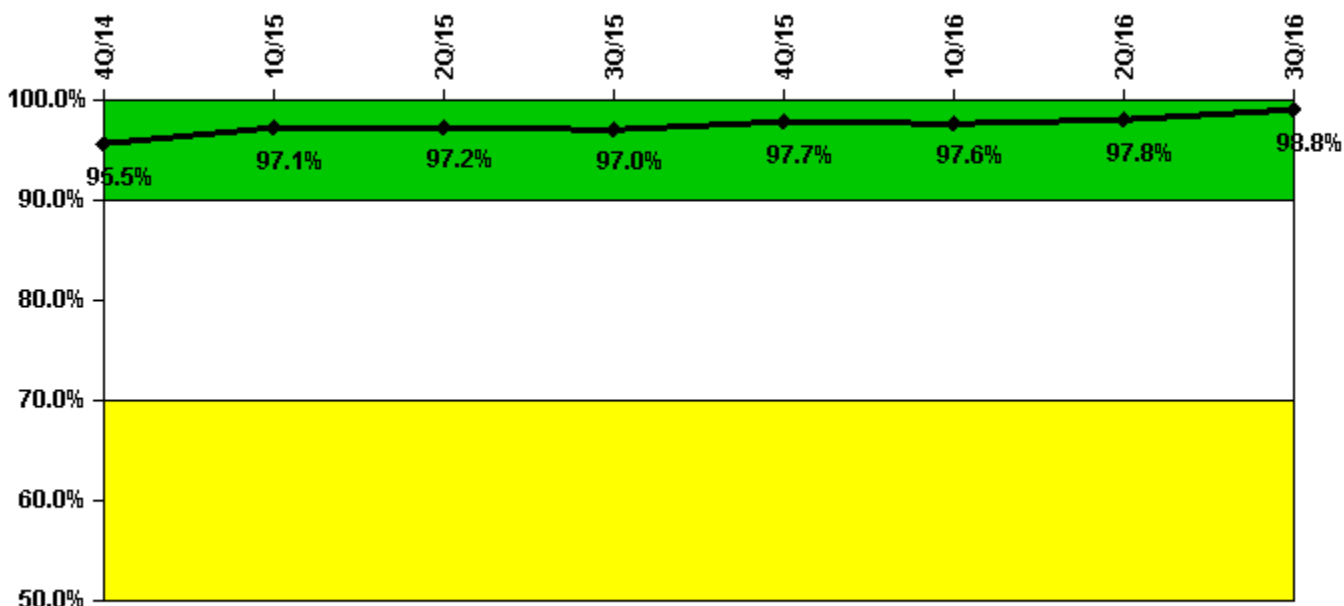
Reactor Coolant System Leakage	10/14	11/14	12/14	1/15	2/15	3/15	4/15	5/15	6/15	7/15	8/15	9/15
Maximum leakage	0.150	0.150	0.160	0.170	0.170	0	0.100	1.810	0.280	0.210	0.210	0.190
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	1.5	1.5	1.6	1.7	1.7	0	1.0	18.1	2.8	2.1	2.1	1.9

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	0.200	0.210	0.240	0.250	0.240	0.210	0.220	0.200	0.200	0.210	0.210	0.230
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	2.0	2.1	2.4	2.5	2.4	2.1	2.2	2.0	2.0	2.1	2.1	2.3

Licensee Comments:

12/15: Data correction for 11-2015 Max RCS Leakage

Drill/Exercise Performance



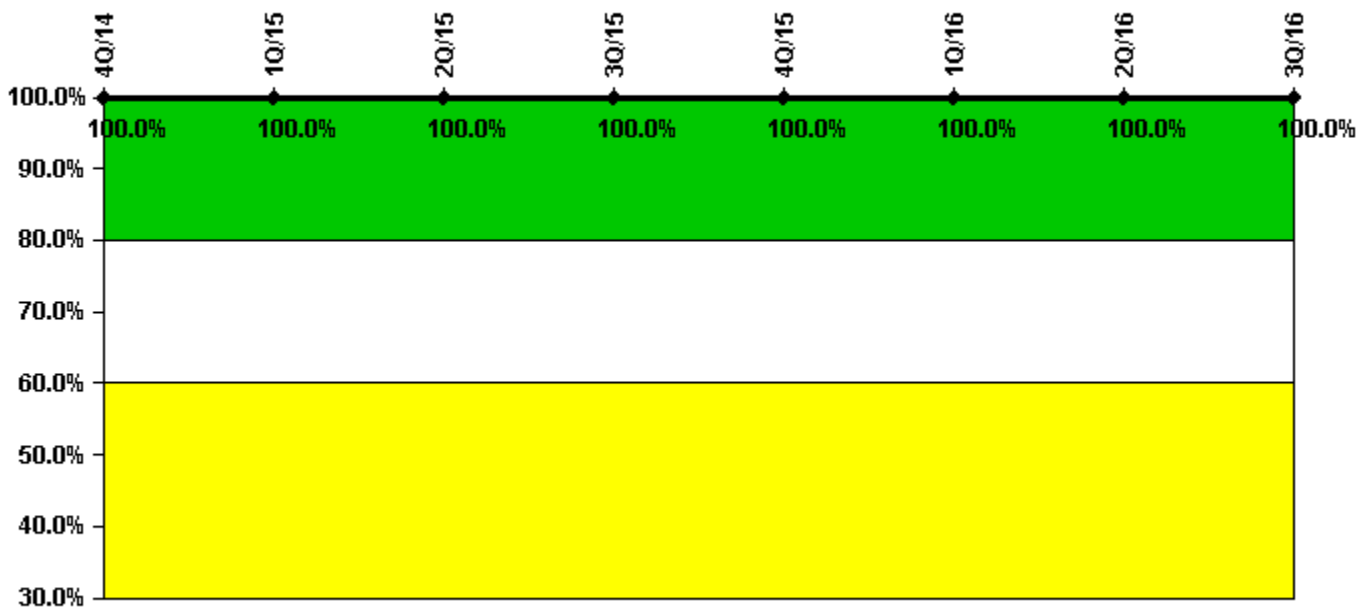
Thresholds: White < 90.0% Yellow < 70.0%

Notes

Drill/Exercise Performance	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16
Successful opportunities	65.0	128.0	21.0	23.0	18.0	36.0	27.0	8.0
Total opportunities	66.0	128.0	22.0	24.0	18.0	37.0	27.0	8.0
Indicator value	95.5%	97.1%	97.2%	97.0%	97.7%	97.6%	97.8%	98.8%

Licensee Comments: none

ERO Drill Participation



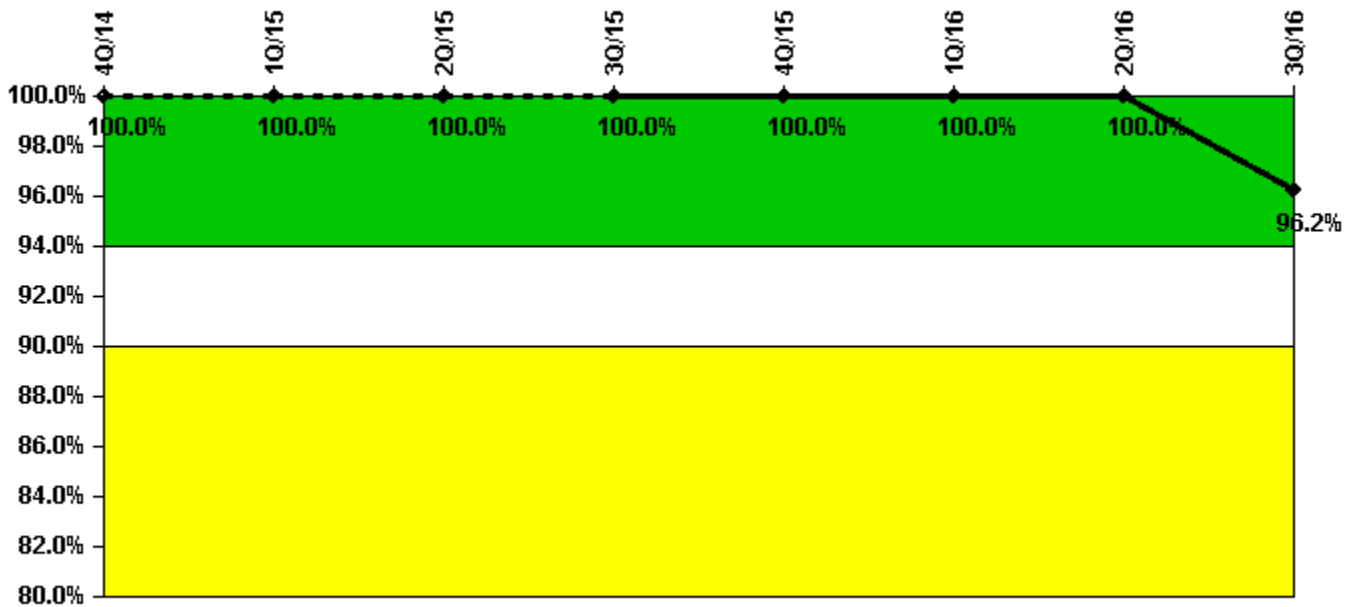
Thresholds: White < 80.0% Yellow < 60.0%

Notes

ERO Drill Participation	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16
Participating Key personnel	66.0	66.0	65.0	65.0	66.0	75.0	76.0	82.0
Total Key personnel	66.0	66.0	65.0	65.0	66.0	75.0	76.0	82.0
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%

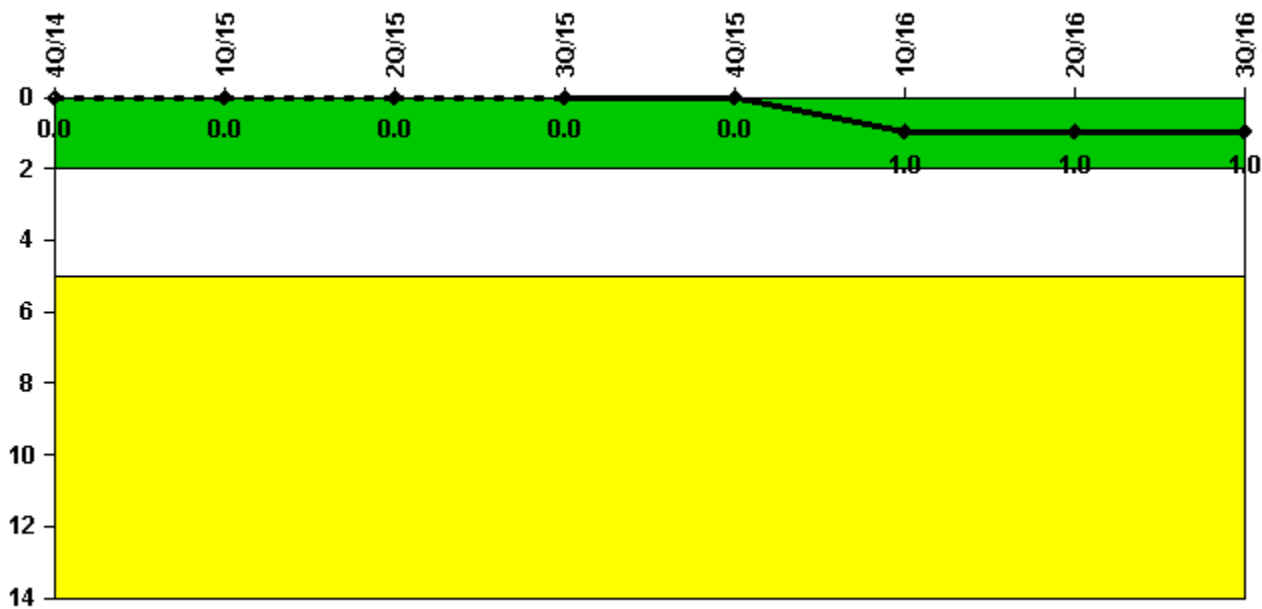
Notes

Alert & Notification System	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16
Successful siren-tests	66	77	66	77	66	77	66	66
Total sirens-tests	66	77	66	77	66	77	66	77
Indicator value	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	96.2%

Licensee Comments:

3Q/16: August 2016 E-Plan siren failure due to county console failure.

Occupational Exposure Control Effectiveness



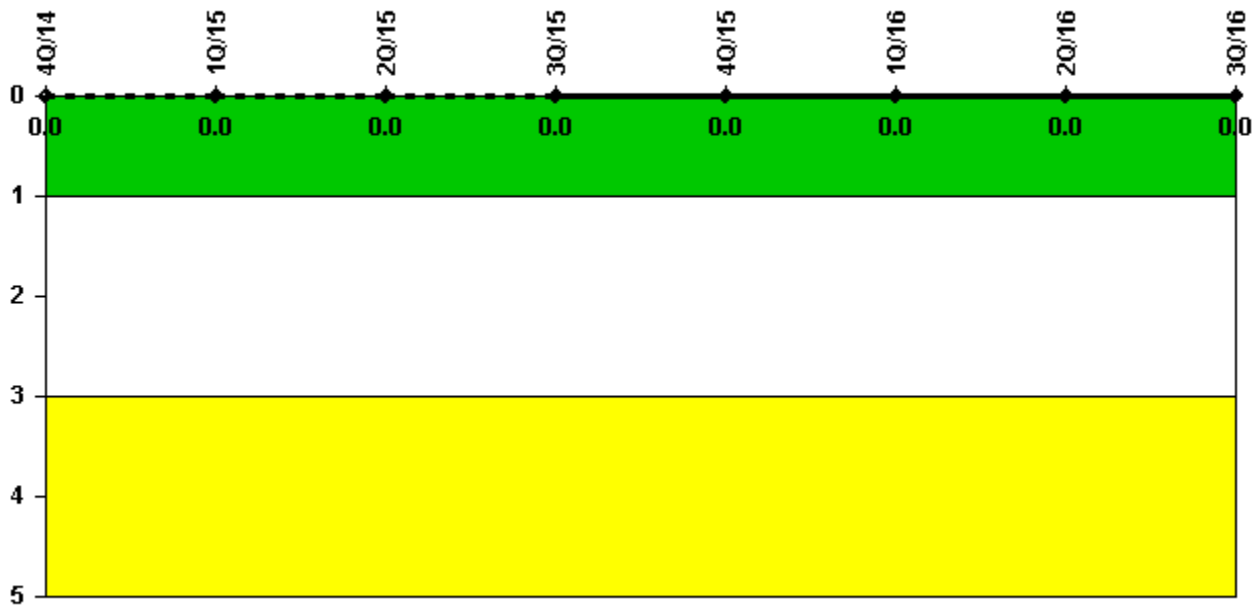
Thresholds: White > 2.0 Yellow > 5.0

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	1	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	1	1	1

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