

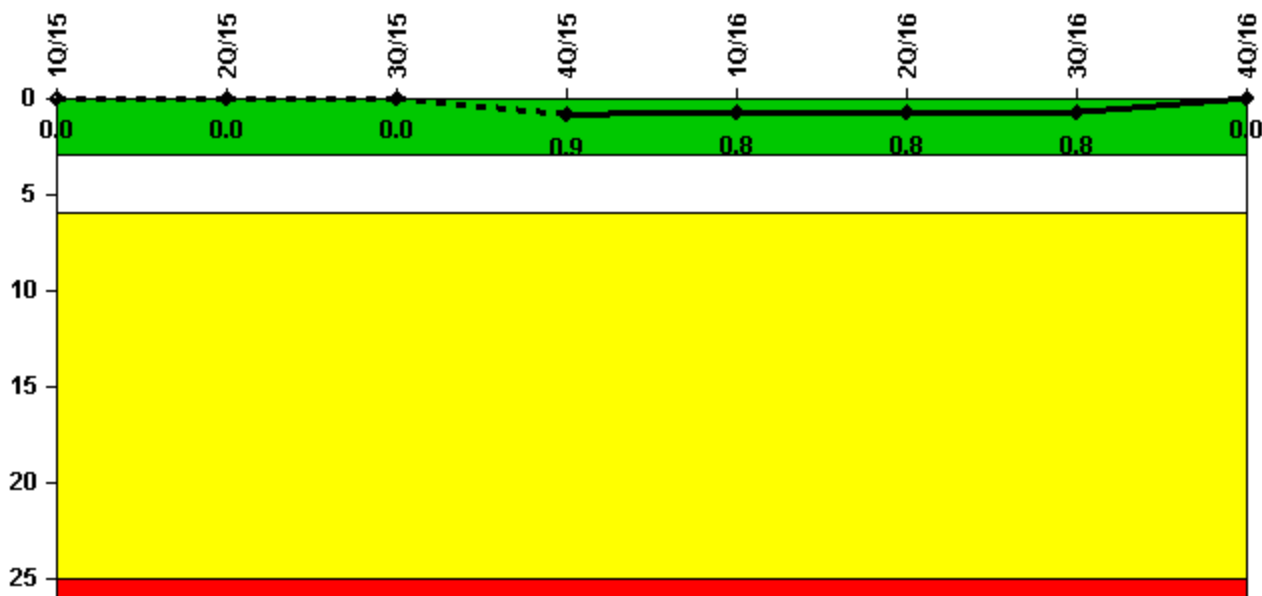
Arkansas Nuclear 1

4Q/2016 Performance Indicators

The solid trend line represents the current reporting period.

Licensee's General Comments: none

Unplanned Scrams per 7000 Critical Hrs



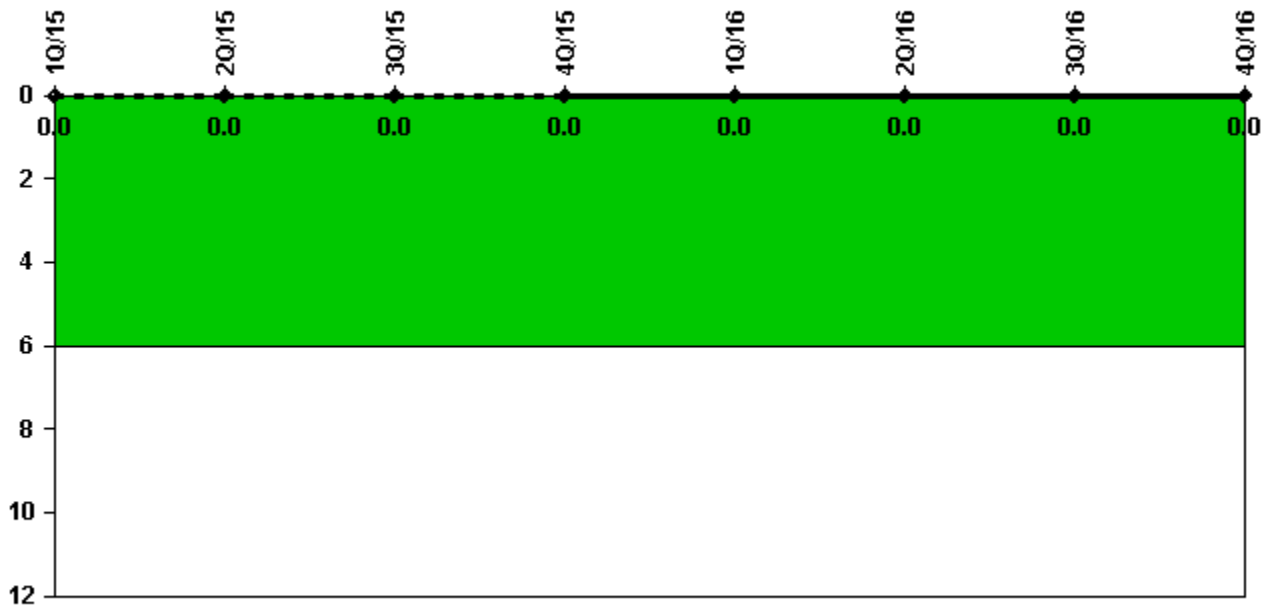
Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

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	0	0	0	1.0	0	0	0	0
Critical hours	1339.4	2184.0	2208.0	2141.3	2183.0	2184.0	2040.1	464.1
Indicator value	0	0	0	0.9	0.8	0.8	0.8	0

Licensee Comments: none

Unplanned Power Changes per 7000 Critical Hrs



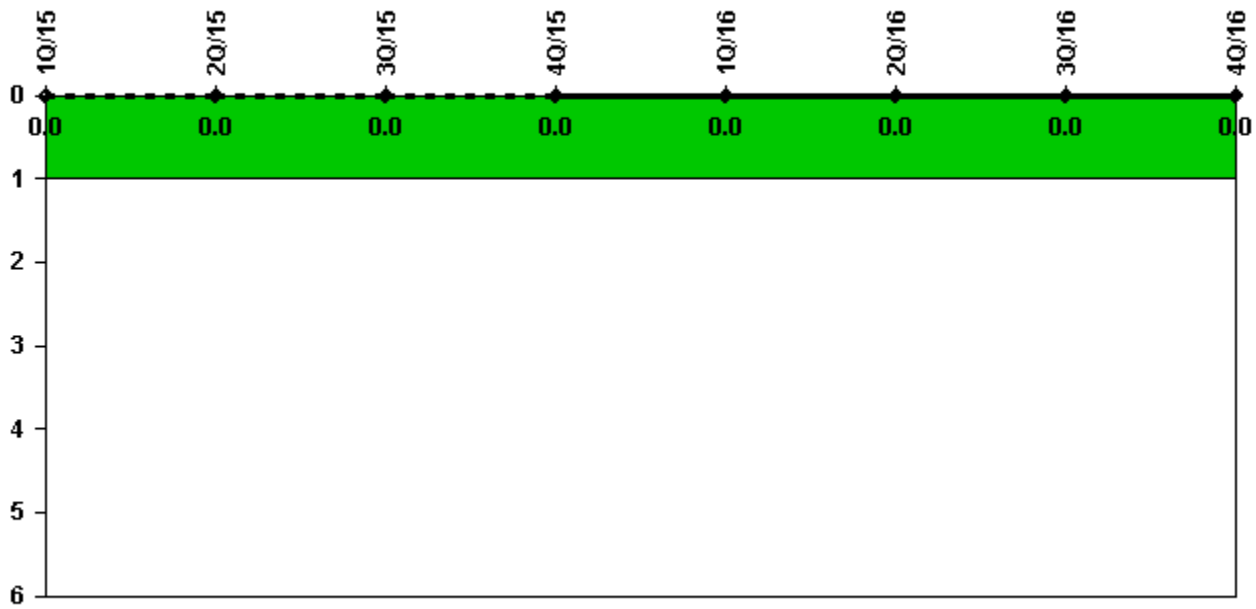
Thresholds: White > 6.0

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	1339.4	2184.0	2208.0	2141.3	2183.0	2184.0	2040.1	464.1
Indicator value	0	0	0	0	0	0	0	0

Licensee Comments: none

Unplanned Scrams with Complications



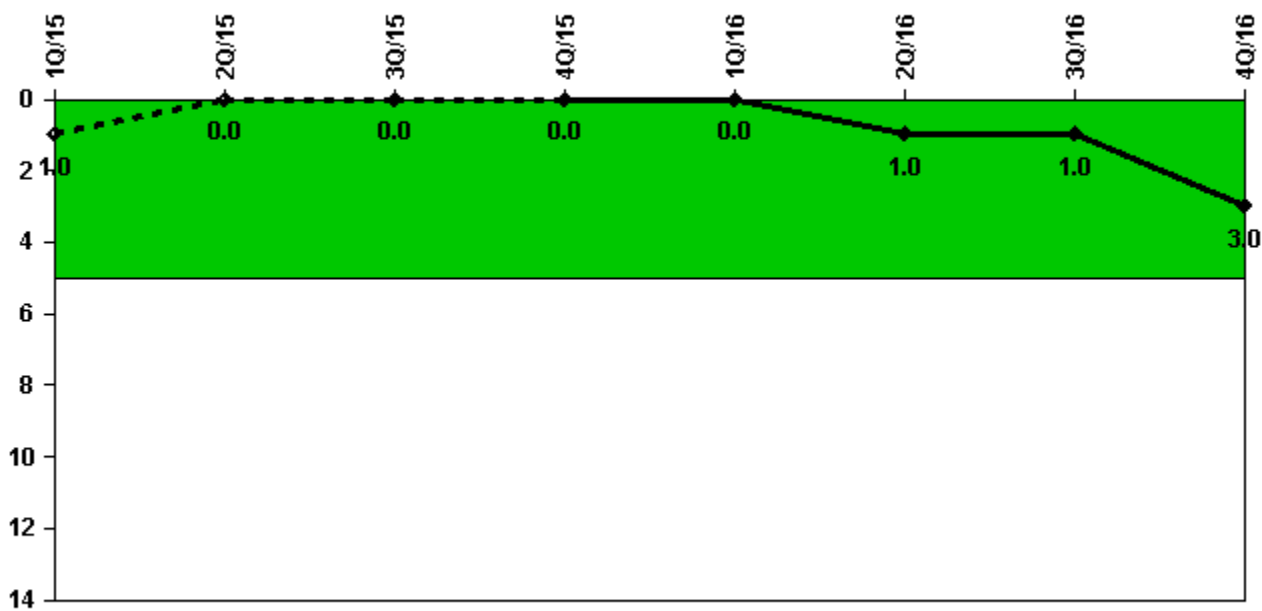
Thresholds: White > 1.0

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 (PWR)



Thresholds: White > 5.0

Notes

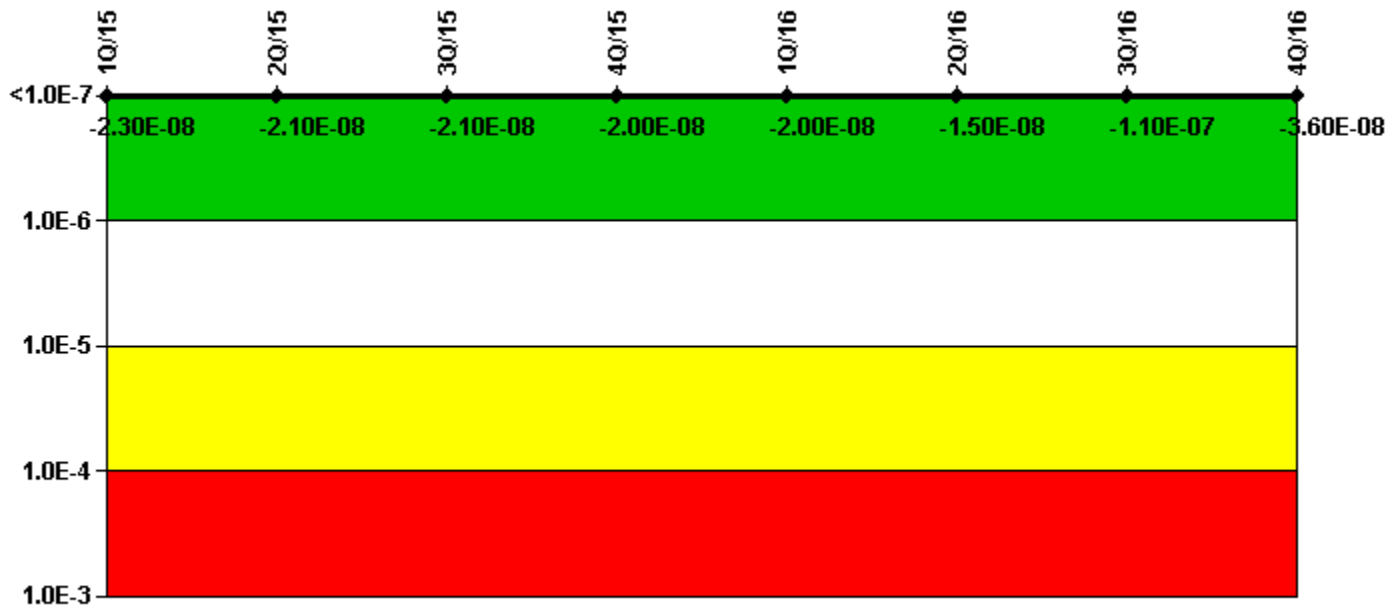
Safety System Functional Failures (PWR)	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16
Safety System Functional Failures	0	0	0	0	0	1	0	2
Indicator value	1	0	0	0	0	1	1	3

Licensee Comments:

4Q/16: October: Licensing Event Report 50-313 2016-003-00, November: Licensing Event Report 50-313 2016-004-00

2Q/16: LER 50-313/2016-001-00

Mitigating Systems Performance Index, Emergency AC Power System



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

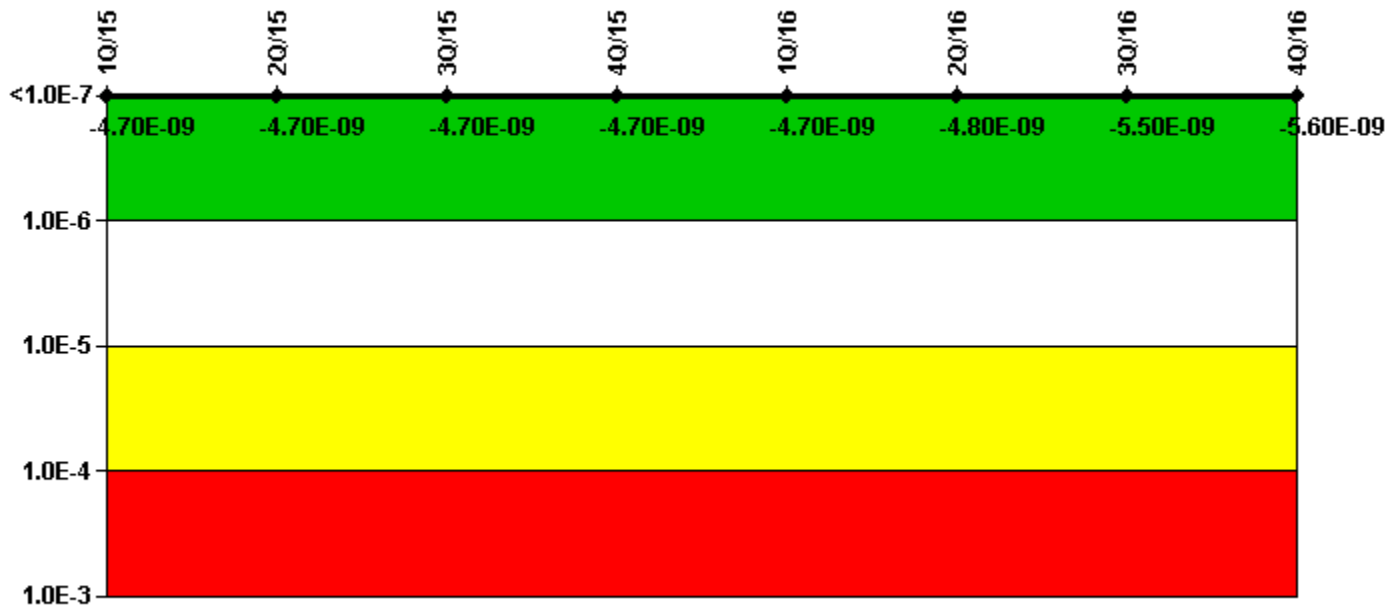
Notes

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)	-2.20E-09	-9.63E-10	-7.00E-10	5.40E-10	5.36E-10	-4.95E-10	-6.70E-09	5.62E-09
URI (Δ CDF)	-2.04E-08	-2.05E-08	-2.04E-08	-2.05E-08	-2.02E-08	-1.46E-08	-1.01E-07	-4.20E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-2.30E-08	-2.10E-08	-2.10E-08	-2.00E-08	-2.00E-08	-1.50E-08	-1.10E-07	-3.60E-08

Licensee Comments:

3Q/16: Changed PRA Parameter(s). Revision to Unit CDF, Unavailability FV/UA values and Unreliability FV/UA values.

Mitigating Systems Performance Index, High Pressure Injection System



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

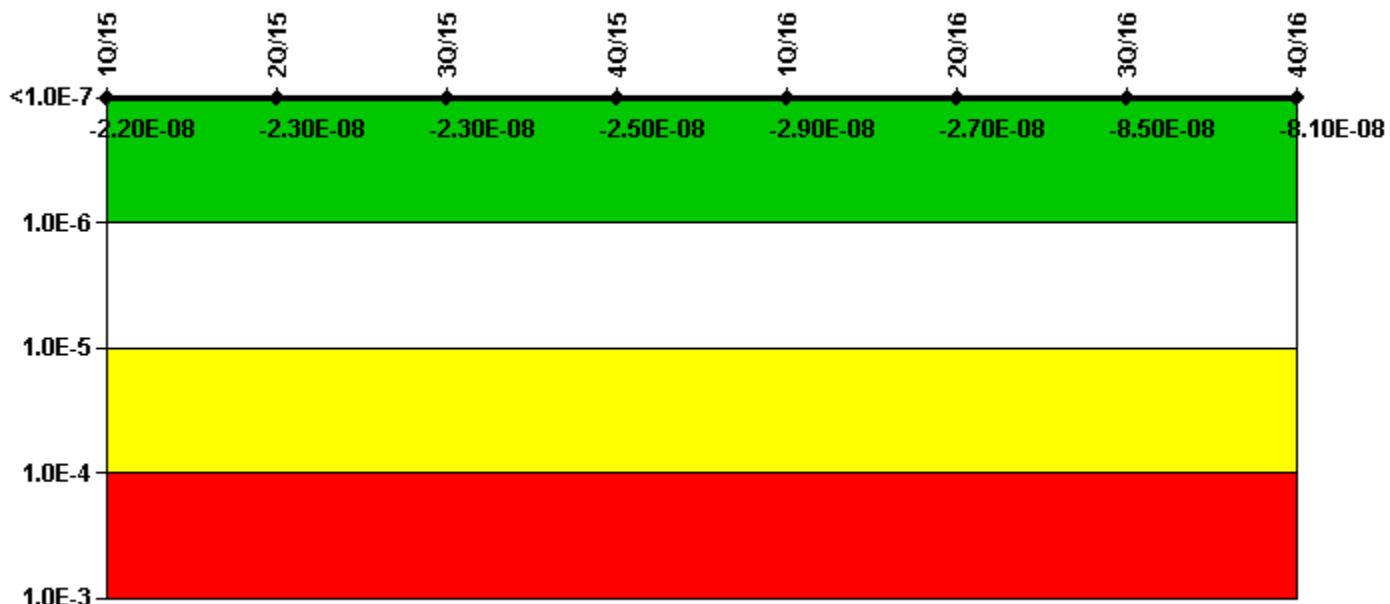
Notes

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)	-8.24E-12	-8.24E-12	-8.24E-12	-8.23E-12	-8.26E-12	-8.49E-12	-3.43E-12	-3.34E-12
URI (Δ CDF)	-4.67E-09	-4.67E-09	-4.65E-09	-4.66E-09	-4.69E-09	-4.76E-09	-5.46E-09	-5.60E-09
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-4.70E-09	-4.70E-09	-4.70E-09	-4.70E-09	-4.70E-09	-4.80E-09	-5.50E-09	-5.60E-09

Licensee Comments:

3Q/16: Changed PRA Parameter(s). Revision to Unit CDF, Unavailability FV/UA values, Unreliability FV/UA values and Estimated Reliability values.

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)	5.76E-10	-1.14E-09	-1.14E-09	-3.57E-09	-6.33E-09	-3.95E-09	-3.64E-08	-2.69E-08
URI (Δ CDF)	-2.22E-08	-2.22E-08	-2.14E-08	-2.19E-08	-2.22E-08	-2.29E-08	-4.88E-08	-5.41E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-2.20E-08	-2.30E-08	-2.30E-08	-2.50E-08	-2.90E-08	-2.70E-08	-8.50E-08	-8.10E-08

Licensee Comments:

3Q/16: Changed PRA Parameter(s). Revision to Unit CDF, Unavailability FV/UA values, Unreliability FV/UA values, and Devices in-scope.

Mitigating Systems Performance Index, Residual Heat Removal System



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

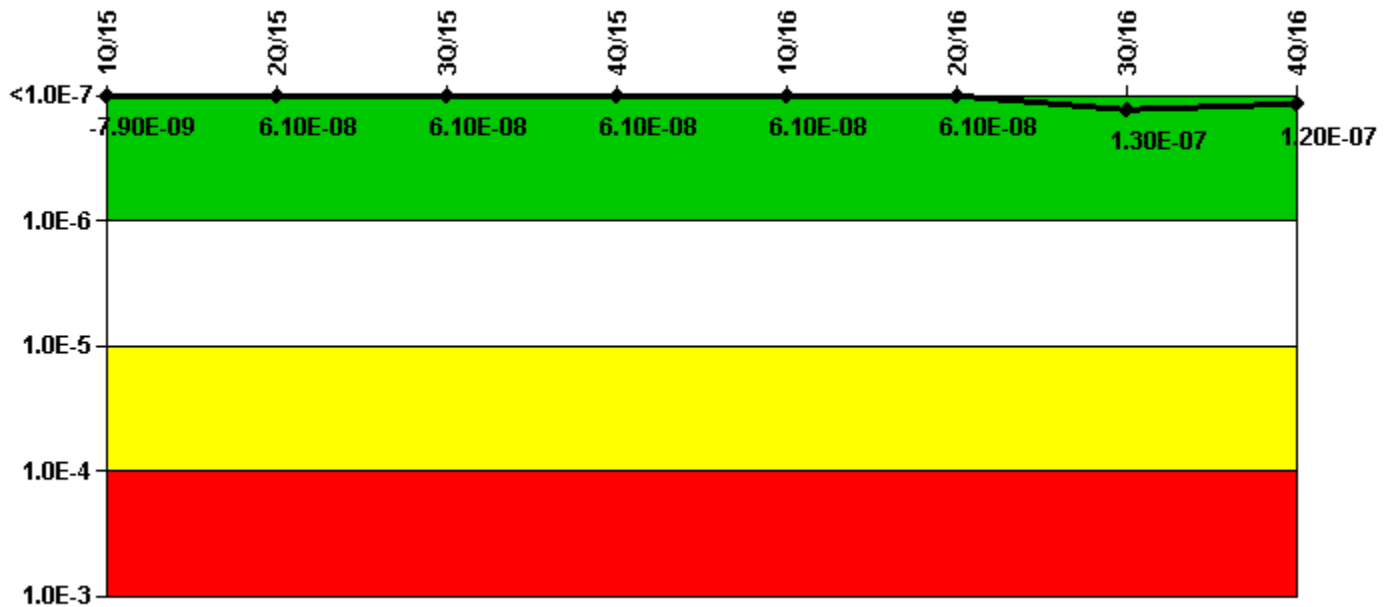
Notes

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)	5.09E-08	5.09E-08	5.06E-08	4.80E-08	5.48E-08	4.88E-08	6.14E-08	6.73E-08
URI (Δ CDF)	3.66E-08	3.66E-08	3.86E-08	4.25E-08	-4.54E-08	-3.77E-08	-3.16E-08	-4.08E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	8.80E-08	8.80E-08	8.90E-08	9.00E-08	9.40E-09	1.10E-08	3.00E-08	2.70E-08

Licensee Comments:

3Q/16: Changed PRA Parameter(s). Revision to Unit CDF, Unavailability FV/UA values, Unreliability FV/UA values, Common Cause Failure values and Devices in-scope.

Mitigating Systems Performance Index, Cooling Water Systems



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

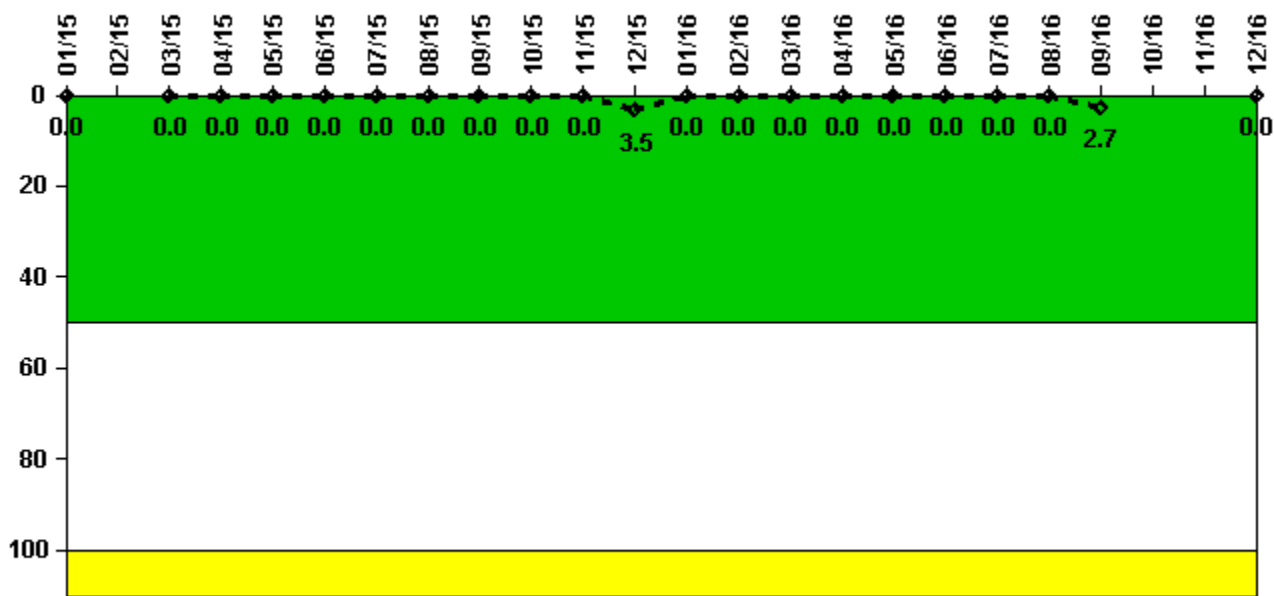
Notes

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)	-3.39E-09	-3.39E-09	-3.39E-09	-3.39E-09	-3.39E-09	-3.40E-09	-1.11E-07	-1.11E-07
URI (Δ CDF)	-4.48E-09	6.47E-08	6.47E-08	6.47E-08	6.47E-08	6.48E-08	2.38E-07	2.34E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-7.90E-09	6.10E-08	6.10E-08	6.10E-08	6.10E-08	6.10E-08	1.30E-07	1.20E-07

Licensee Comments:

3Q/16: Changed PRA Parameter(s). Revision to Unit CDF, Unavailability FV/UA values, Unreliability FV/UA values, Common Cause Failure values, Devices in-scope and Function revised for three segments vs. two trains.

Reactor Coolant System Activity



Thresholds: White > 50.0 Yellow > 100.0

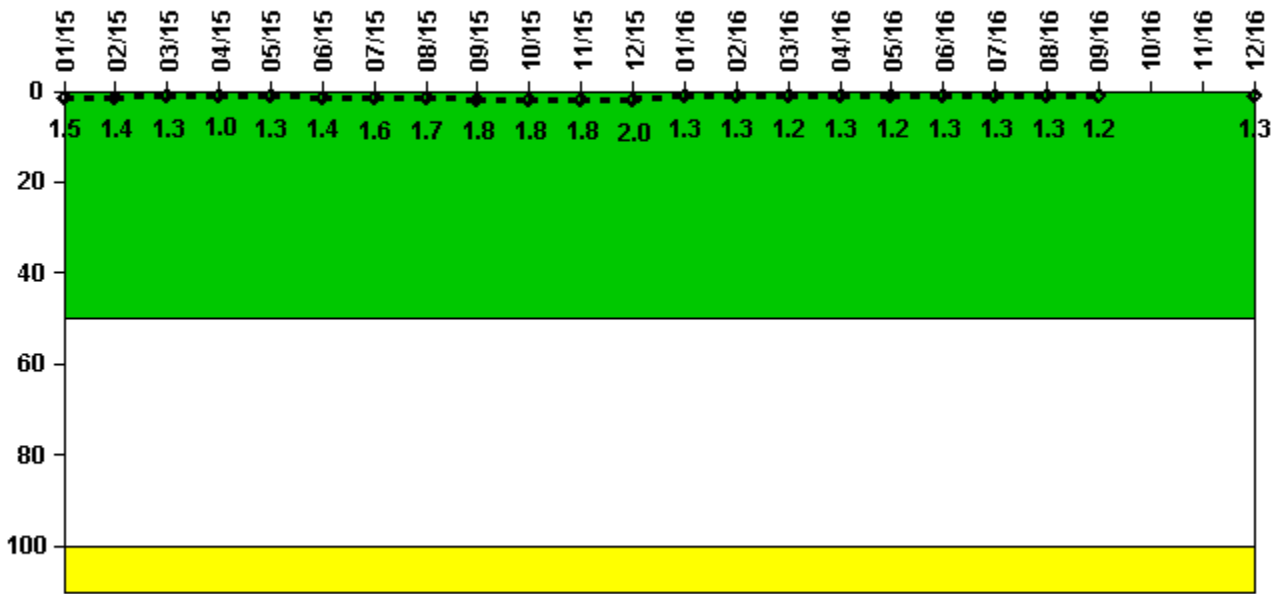
Notes

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	0.000149	N/A	0.000049	0.000053	0.000058	0.000216	0.000220	0.000208	0.000143	0.000140	0.000194	0.034700
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	N/A	0	0	0	0	0	0	0	0	0	3.5

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	0.000122	0.000153	0.000173	0.000166	0.000214	0.000207	0.000222	0.000290	0.026800	N/A	N/A	0.000049
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	2.7	N/A	N/A	0

Licensee Comments: none

Reactor Coolant System Leakage



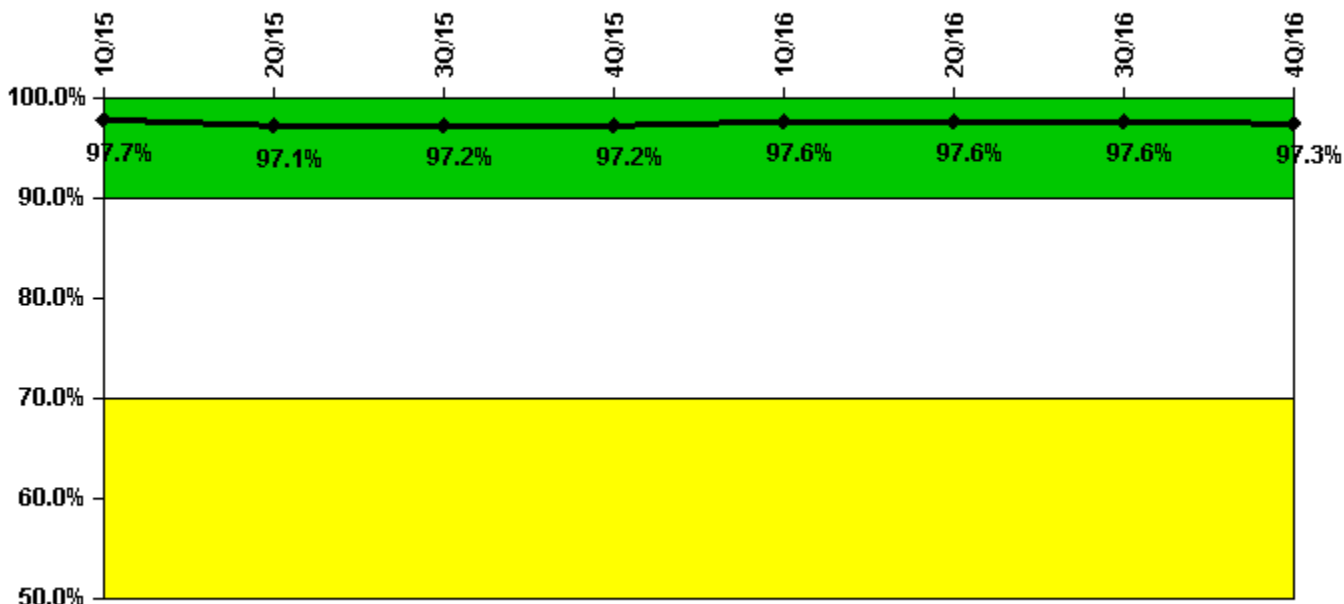
Thresholds: White > 50.0 Yellow > 100.0

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	0.148	0.135	0.127	0.100	0.125	0.137	0.163	0.168	0.177	0.175	0.182	0.198
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	1.4	1.3	1.0	1.3	1.4	1.6	1.7	1.8	1.8	1.8	2.0
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	0.132	0.128	0.116	0.125	0.121	0.125	0.134	0.131	0.117	N/A	N/A	0.132
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	1.3	1.3	1.2	1.3	1.2	1.3	1.3	1.3	1.2	N/A	N/A	1.3

Licensee Comments: none

Drill/Exercise Performance



Thresholds: White < 90.0% Yellow < 70.0%

Notes

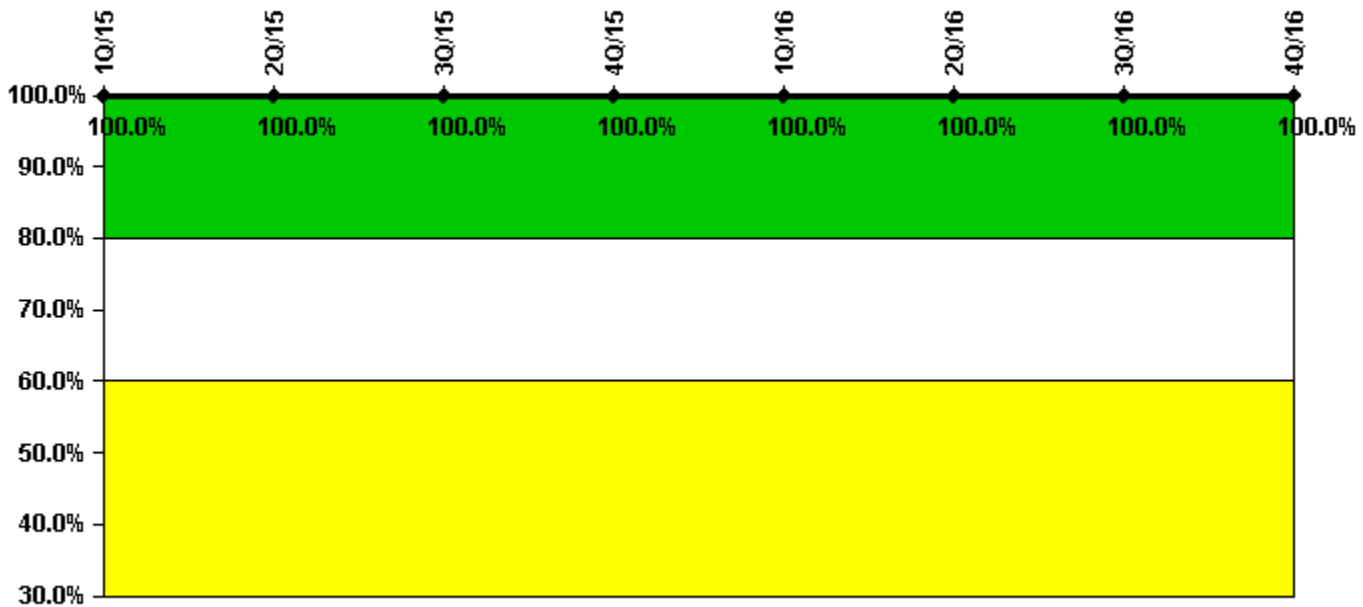
Drill/Exercise Performance	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16
Successful opportunities	16.0	93.0	65.0	19.0	31.0	98.0	63.0	5.0
Total opportunities	16.0	98.0	67.0	19.0	32.0	99.0	65.0	5.0
Indicator value	97.7%	97.1%	97.2%	97.2%	97.6%	97.6%	97.6%	97.3%

Licensee Comments:

2Q/16: The 2nd Quarter 2016 June Drill/Exercise Performance is being revised to include five additional opportunities. This change does not affect the color of the Drill/Exercise Performance indicator.

2Q/15: The June Drill/Exercise Performance is being revised to include two Shift Manager requalification exams. This change does not affect the color of the Drill/Exercise Performance indicator.

ERO Drill Participation



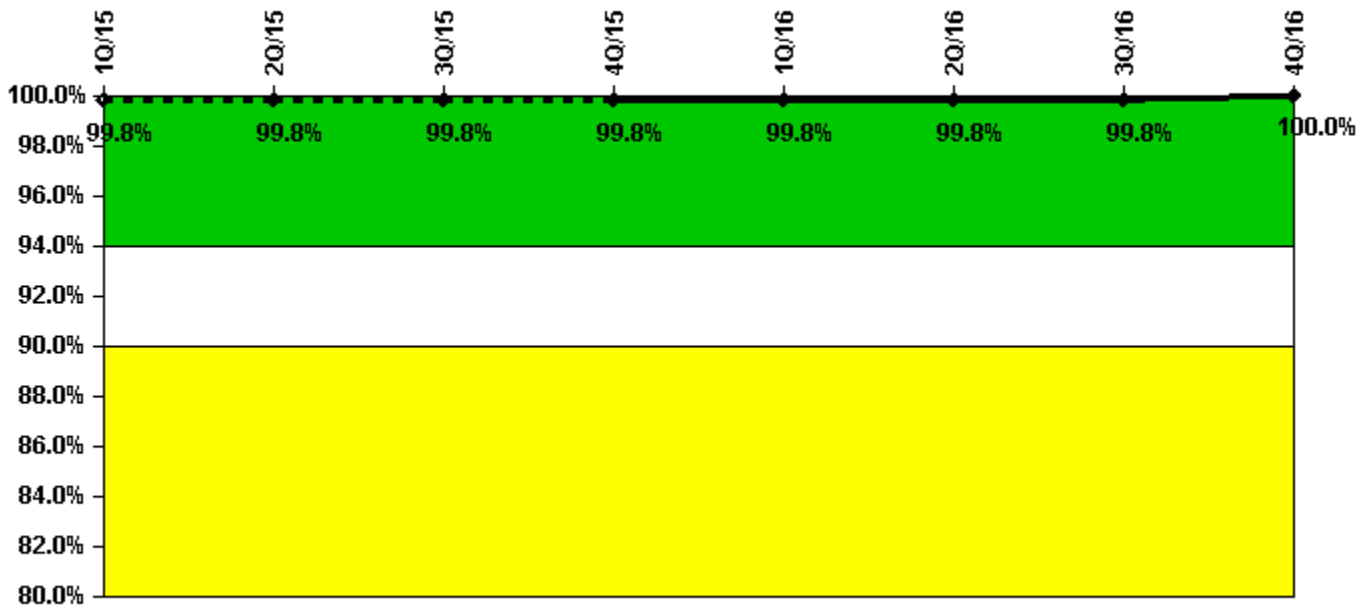
Thresholds: White < 80.0% Yellow < 60.0%

Notes

ERO Drill Participation	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16
Participating Key personnel	113.0	109.0	106.0	103.0	103.0	108.0	107.0	111.0
Total Key personnel	113.0	109.0	106.0	103.0	103.0	108.0	107.0	111.0
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	147	147	147	146	147	147	147	147
Total sirens-tests	147	147	147	147	147	147	147	147
Indicator value	99.8%	99.8%	99.8%	99.8%	99.8%	99.8%	99.8%	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