

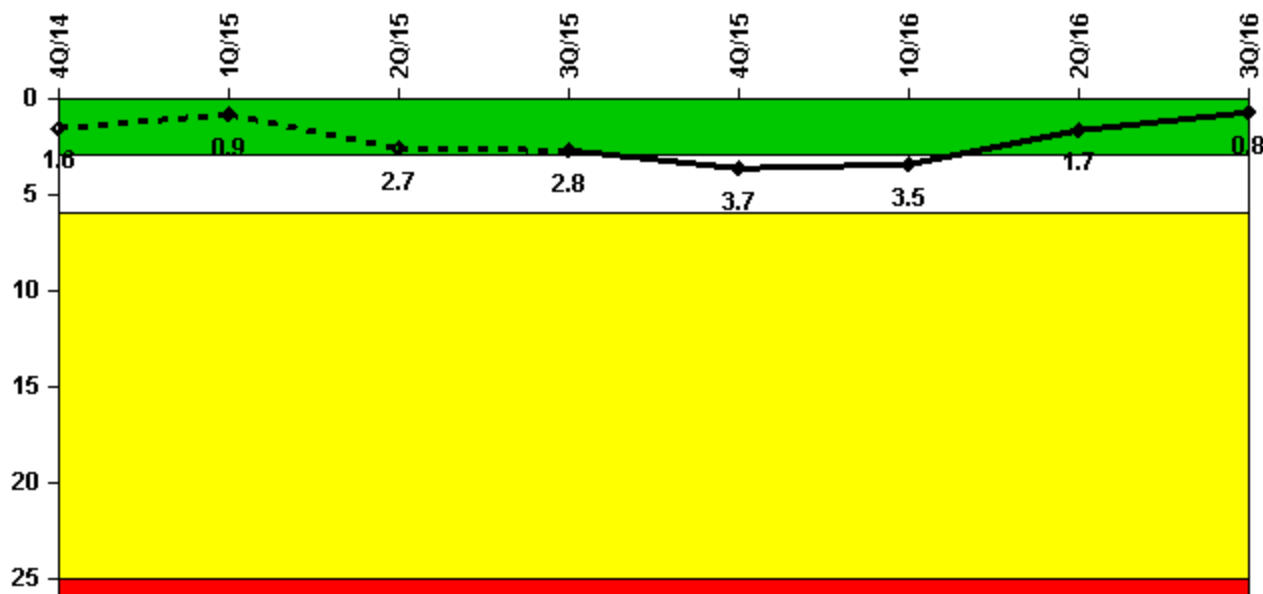
Indian Point 3

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	2.0	1.0	1.0	0	0	0
Critical hours	2209.0	1626.7	1788.8	1947.1	2157.5	2183.0	2184.0	2208.0
Indicator value	1.6	0.9	2.7	2.8	3.7	3.5	1.7	0.8

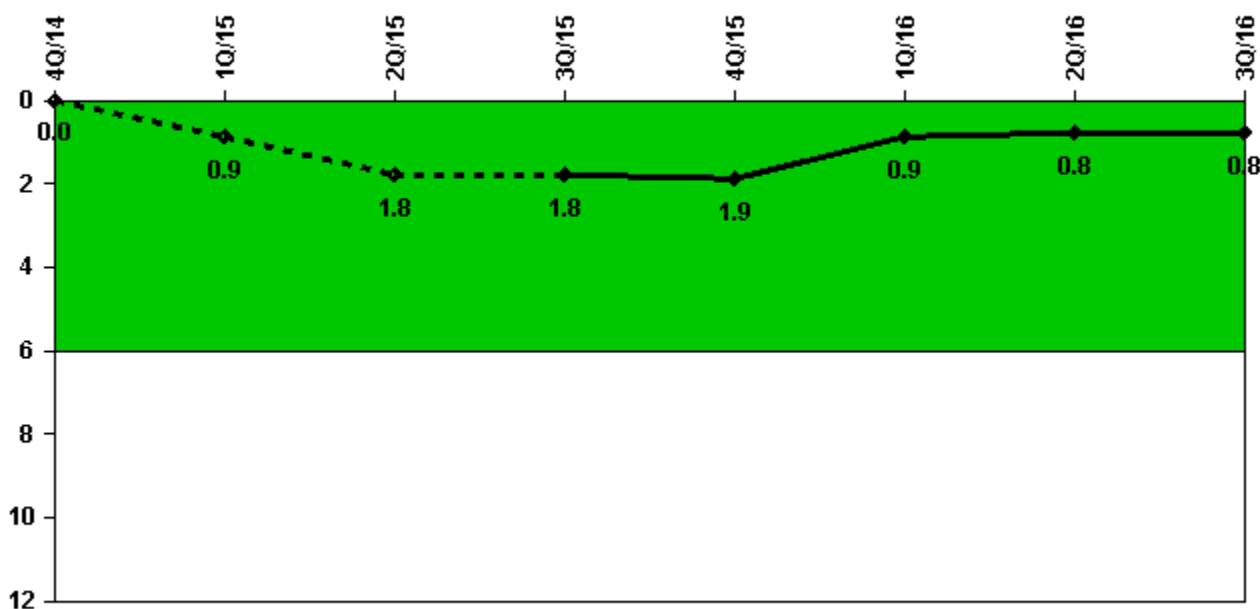
Licensee Comments:

4Q/15: PI exceeded Green threshold due to a reactor trip on December 14, 2015, as a result of a Main Generator protective trip (Primary Lockout Relay 86P) due to a 345 kV grid disturbance. This trip is the fourth reactor trip (RT) in 4 quarters. Prior RTs include RT May 9, due to failure of the 31 Main Transformer, RT June 15, due to a 345 kV switchyard breaker failure, manual RT July 8, due to decreasing SG levels caused by main feedwater (FW) pump low suction pressure as a result of a mis-wired circuit board for the FW pump speed control system.

3Q/15: On July 8, 2015, the reactor was manually tripped due to decreasing steam generator levels caused by 31 main feedwater pump speed control locked-in at minimum speed. Direct cause was the 31 main feedwater pump entered a hold condition due to a mis-wired Track and Hold circuit board in the speed control system. LER-2015-007 reported the event.

2Q/15: On May 9, 2015 an automatic reactor trip occurred due to a turbine-generator trip as a result of the failure of the 31 main transformer. Direct cause was an internal fault of the A phase high voltage winding in the upper portion of the transformer. LER-2015-004 reported the event. On June 15, 2015, an automatic reactor trip occurred as a result of a turbine-generator trip. Prior to the trip, Con Edison District Operator requested that 345 kV breaker number 1 in the Buchanan Switchyard south ring bus be opened to aid in Con Edison isolation of 345 kV feeder W97 in support of removing a mylar balloon caught in the high voltage wires at Millwood. 345 kV breaker 5 faulted after opening breaker 1 causing breaker 3 to open which initiated a direct generator trip.

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	1.0	1.0	0	0	0	1.0	0
Critical hours	2209.0	1626.7	1788.8	1947.1	2157.5	2183.0	2184.0	2208.0
Indicator value	0	0.9	1.8	1.8	1.9	0.9	0.8	0.8

Licensee Comments:

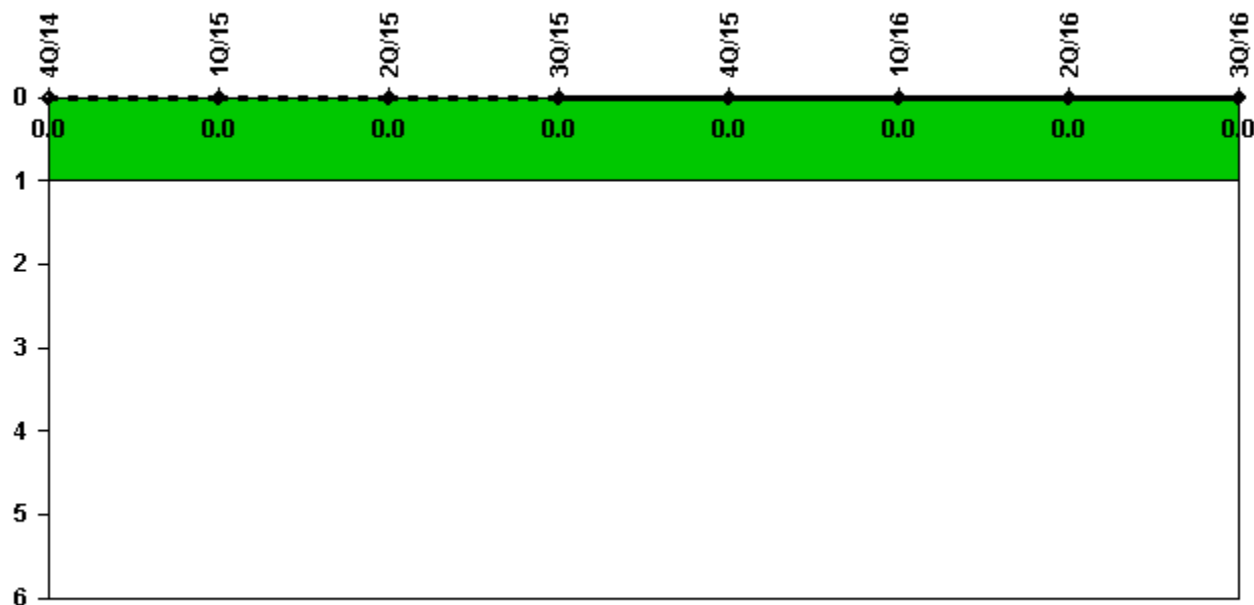
2Q/16: On April 26, 2016, the unit reduced power to 48% reactor power to mitigate the failing of the Heater Drain Tank level controllers.

3Q/15: On September 15, 2015, a planned shutdown for maintenance was initiated to replace the reactor vessel O-rings due to leakage.

2Q/15: On May 7, 2015, the unit initiated a coast down to a planned trip to repair a weld crack on valve BFD-64-10. Valve BFD-64-10 is a low side isolation valve for feedwater flow transmitter FT-438B.

1Q/15: On January 8, 2015, at 04000 hours, entered TS 3.5.4 (RWST) due to both RWST level sensing lines frozen resulting in inoperable low-low level alarms in the control room. At 0700 hours began unit shutdown per TS for two inoperable RWST level alarms. At 1000 hours, repaired level alarms and halted unit shutdown at 43.3% reactor power.

Unplanned Scrams with Complications



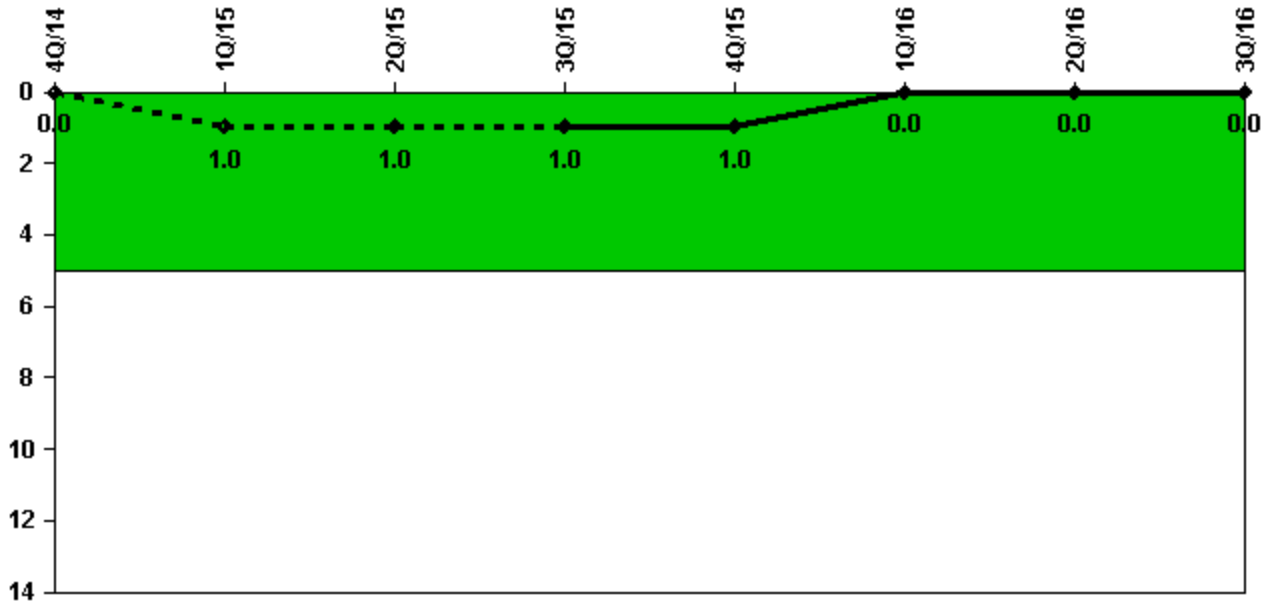
Thresholds: White > 1.0

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

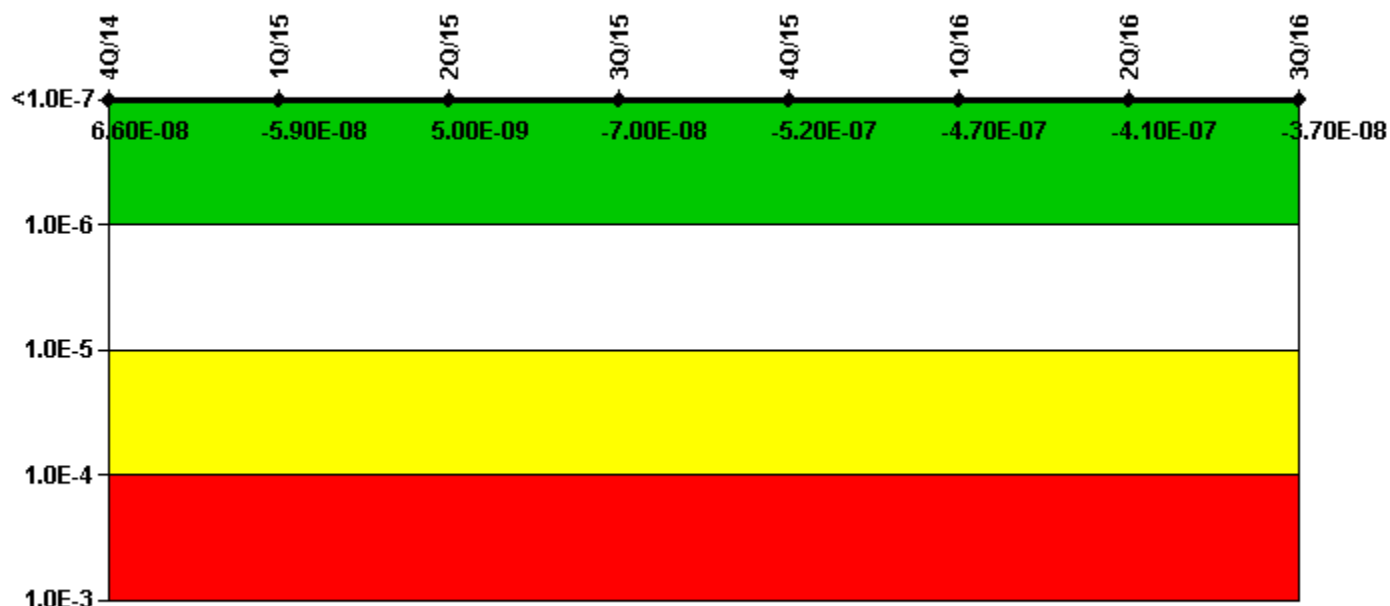
Notes

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	0	0	0	0	0	0
Indicator value	0	1	1	1	1	0	0	0

Licensee Comments:

1Q/15: LER-2015-001 submitted on March 3, 2015 for a SSFF and common cause inoperability of independent trains or channels due to discovery on January 8, 2015 of both RWST level instruments sensing lines frozen. Safety function is to alert operators to switch over from the RWST to containment sump during a LOCA.

Mitigating Systems Performance Index, Emergency AC Power System



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

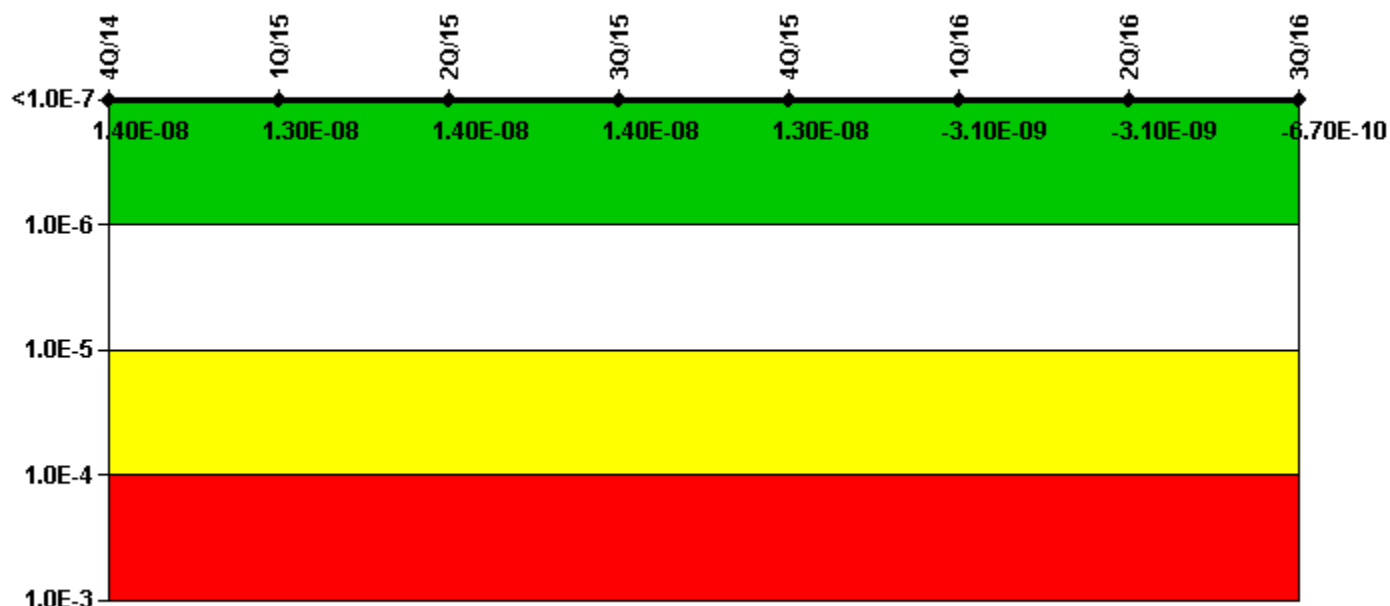
Notes

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 (Δ CDF)	4.07E-07	3.91E-07	4.53E-07	3.79E-07	3.87E-07	3.33E-07	3.86E-07	5.59E-08
URI (Δ CDF)	-3.41E-07	-4.51E-07	-4.48E-07	-4.49E-07	-9.02E-07	-8.00E-07	-8.00E-07	-9.34E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	6.60E-08	-5.90E-08	5.00E-09	-7.00E-08	-5.20E-07	-4.70E-07	-4.10E-07	-3.70E-08

Licensee Comments:

3Q/16: An interim update of the Unit 3 Probabilistic Safety Assessment (PSA) model was prepared and issued as an Engineering Report to incorporate a recent procedural enhancement which allows the Unit 3 SBO/Appendix R diesel Generator (ARDG) to be credited for scenarios other than Appendix R fires and Station Blackout. Specifically, the plant procedures and operator training now provide instructions (including the required entry condition and cues) for aligning the ARDG to a 480 Volt AC Safeguards Bus in the event of a loss of offsite power (LOOP) with failure of one or more Emergency Diesel Generators (EDGs).

Mitigating Systems Performance Index, High Pressure Injection System



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

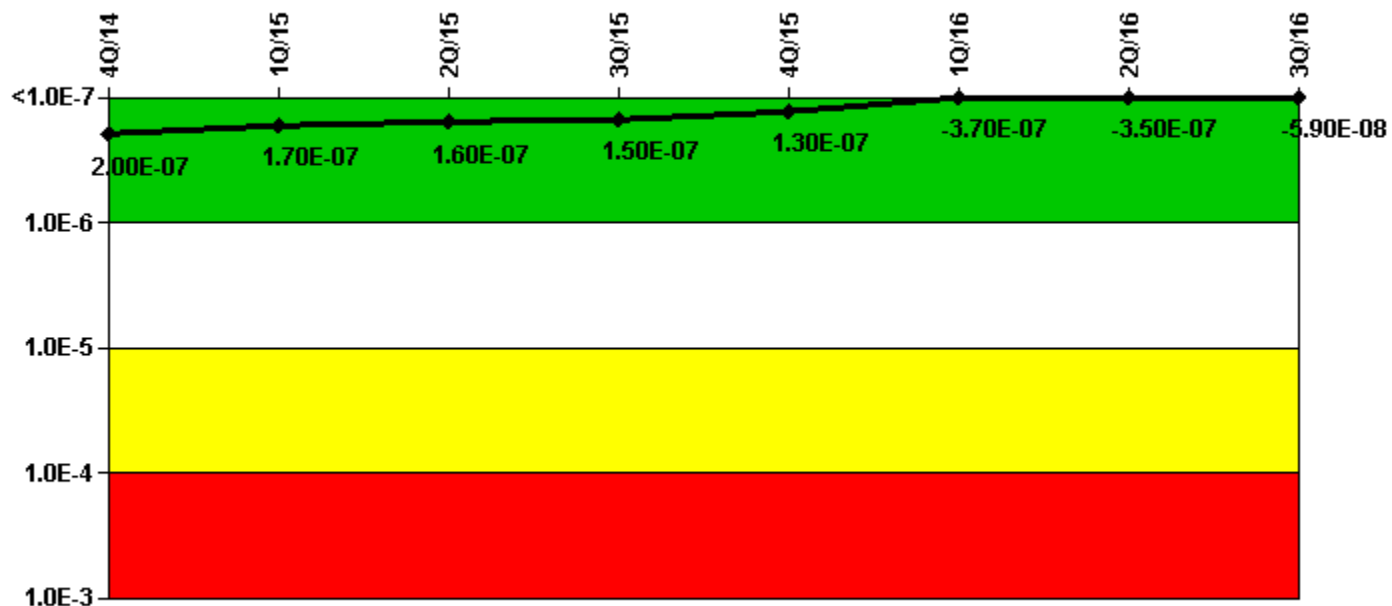
Notes

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 (ΔCDF)	2.19E-10	2.41E-10	8.60E-10	1.03E-09	3.55E-10	-1.11E-09	-1.08E-09	-2.19E-10
URI (ΔCDF)	1.41E-08	1.29E-08	1.30E-08	1.32E-08	1.31E-08	-1.95E-09	-2.00E-09	-4.51E-10
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	1.40E-08	1.30E-08	1.40E-08	1.40E-08	1.30E-08	-3.10E-09	-3.10E-09	-6.70E-10

Licensee Comments:

3Q/16: An interim update of the Unit 3 Probabilistic Safety Assessment (PSA) model was prepared and issued as an Engineering Report to incorporate a recent procedural enhancement which allows the Unit 3 SBO/Appendix R diesel Generator (ARDG) to be credited for scenarios other than Appendix R fires and Station Blackout. Specifically, the plant procedures and operator training now provide instructions (including the required entry conditions and cues) for aligning the ARDG to a 480 Volt AC safeguards Bus in the event of a loss of offsite power (LOOP) with failure of one or more Emergency Diesel Generators (EDGs).

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 (ΔCDF)	-1.12E-08	-7.14E-09	-2.73E-09	-2.56E-09	-2.17E-09	-3.83E-08	-3.16E-08	2.43E-09
URI (ΔCDF)	2.11E-07	1.79E-07	1.63E-07	1.52E-07	1.27E-07	-3.35E-07	-3.16E-07	-6.18E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	2.00E-07	1.70E-07	1.60E-07	1.50E-07	1.30E-07	-3.70E-07	-3.50E-07	-5.90E-08

Licensee Comments:

3Q/16: An interim update of the Unit 3 Probabilistic Safety Assessment (PSA) model was prepared and issued as an Engineering Report to incorporate a recent procedural enhancement which allows the Unit 3 SBO/Appendix R Diesel Generator (ARDG) to be credited for scenarios other than Appendix R fires and Station Blackout. Specifically, the plant procedures and operator training now provide instructions (including the required entry conditions and cues) for aligning the ARDG to a 480 volt AC Safeguards Bus in the event of a loss of offsite power (LOOP) with failure of one or more Emergency Diesel Generators (EDGs).

4Q/15: Risk Cap Invoked.

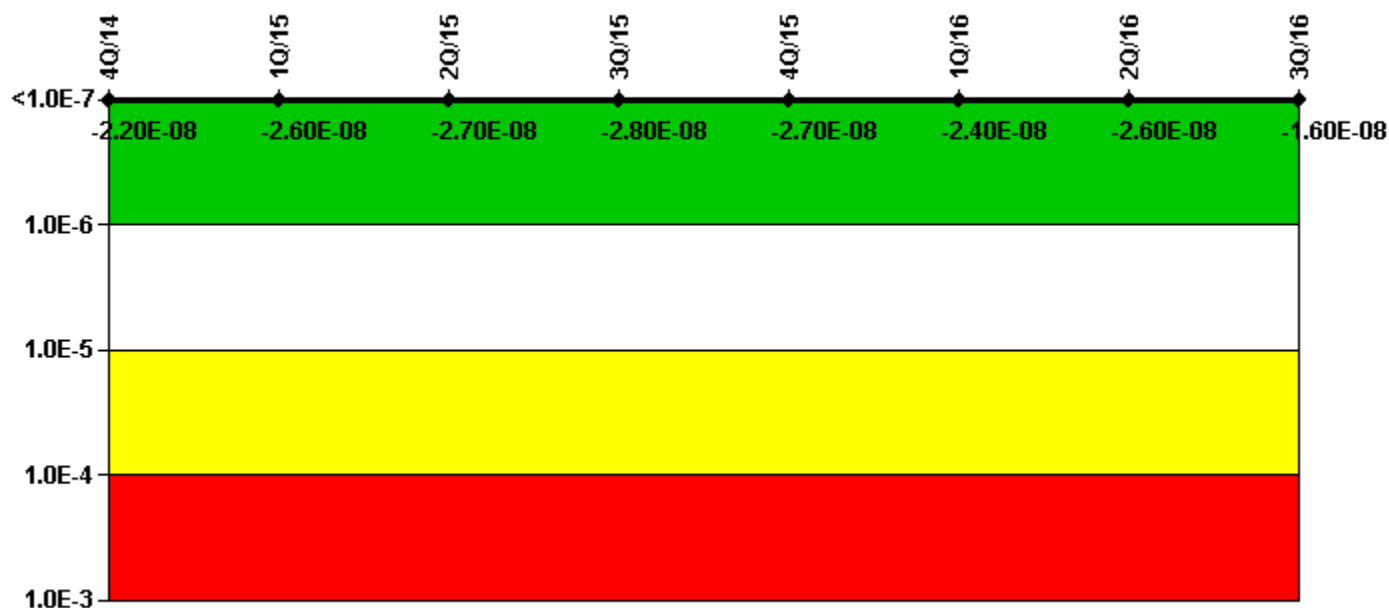
3Q/15: Risk Cap Invoked.

2Q/15: Risk Cap Invoked.

1Q/15: Risk Cap Invoked.

4Q/14: Risk Cap Invoked.

Mitigating Systems Performance Index, Residual Heat Removal System



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

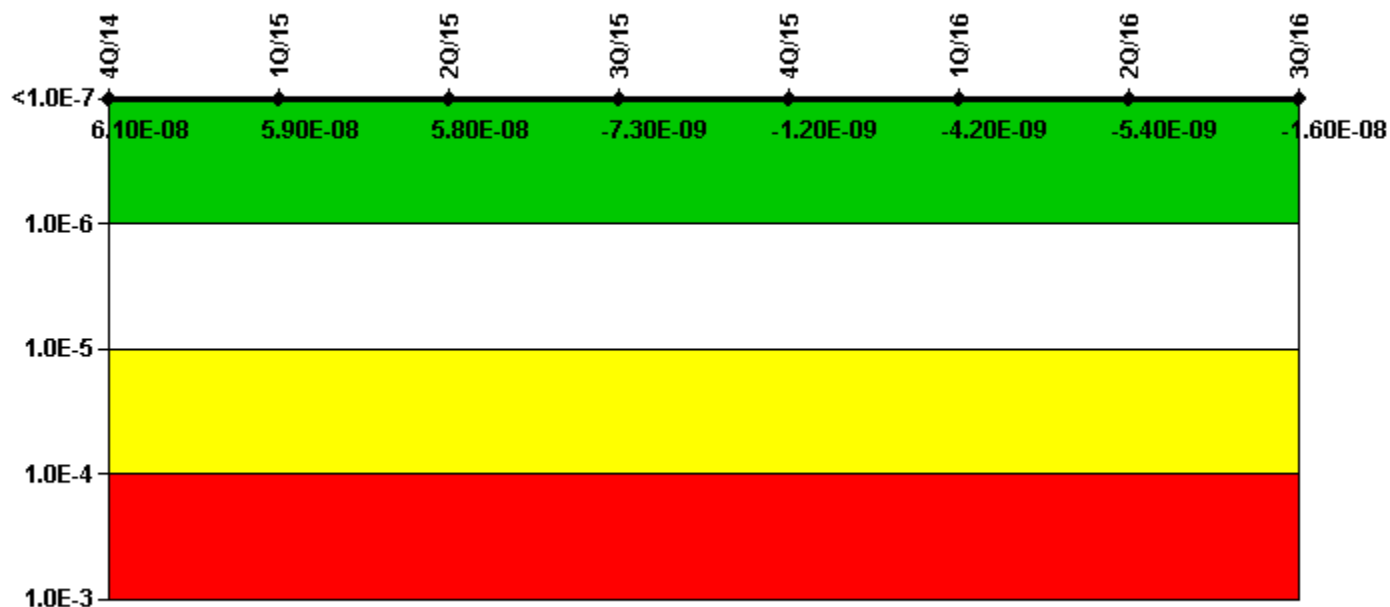
Notes

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)	-1.23E-08	-1.20E-08	-1.18E-08	-1.14E-08	-1.14E-08	-1.21E-08	-1.44E-08	-8.78E-09
URI (Δ CDF)	-9.84E-09	-1.38E-08	-1.49E-08	-1.62E-08	-1.61E-08	-1.22E-08	-1.19E-08	-7.19E-09
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-2.20E-08	-2.60E-08	-2.70E-08	-2.80E-08	-2.70E-08	-2.40E-08	-2.60E-08	-1.60E-08

Licensee Comments:

3Q/16: Changed PRA Parameter(s). An interim update of the Probabilistic Safety Assessment (PSA) model was prepared and issued as an Engineering Report to incorporate a recent procedural enhancement which allows the Unit 3 SBO/Appendix R Diesel Generator (ARDG) to be credited for scenarios other than Appendix R fires and Station Blackout. Specifically, the plant procedures and operator training now provide instructions (including the required entry conditions and cues) for aligning the ARDG to a 480 Volt AC Safeguards Bus in the event of a loss of offsite power (LOOP) with failure of one or more Emergency Diesel Generators (EDGs).

Mitigating Systems Performance Index, Cooling Water Systems



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

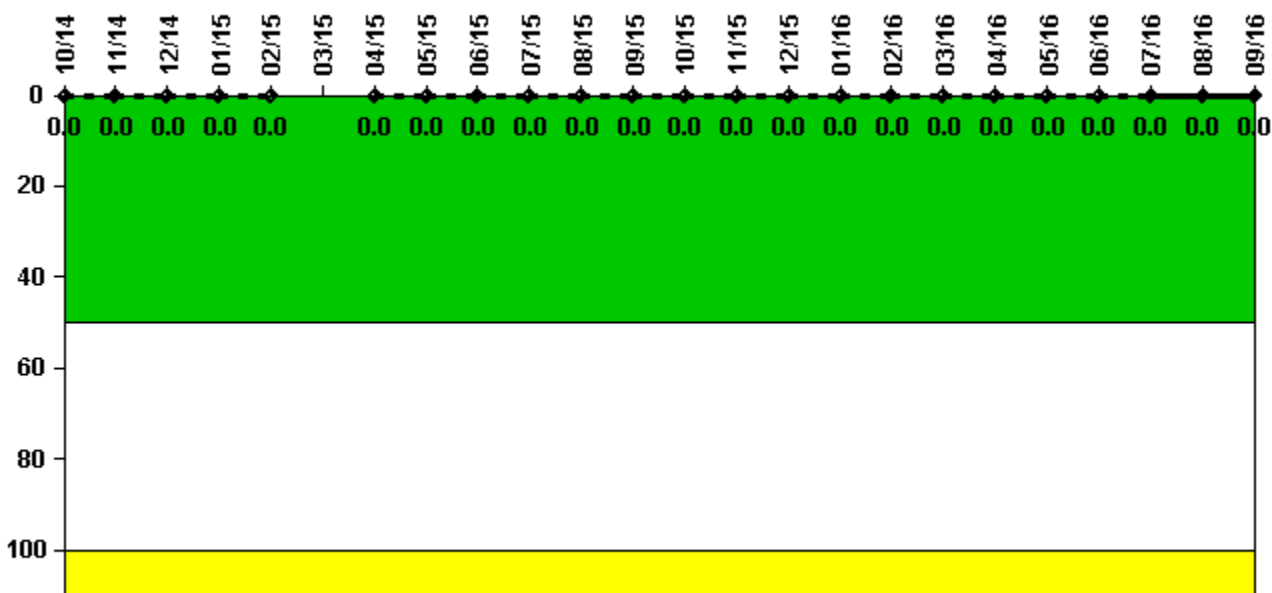
Notes

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)	2.70E-08	2.64E-08	2.41E-08	2.12E-08	2.74E-08	2.19E-08	2.01E-08	7.60E-09
URI (Δ CDF)	3.36E-08	3.30E-08	3.41E-08	-2.85E-08	-2.86E-08	-2.61E-08	-2.55E-08	-2.36E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	6.10E-08	5.90E-08	5.80E-08	-7.30E-09	-1.20E-09	-4.20E-09	-5.40E-09	-1.60E-08

Licensee Comments:

3Q/16: Changed PRA Parameter(s). An interim update of the Unit 3 Probabilistic Assessment (PSA) was prepared and issued as an Engineering Report to incorporate a recent procedural enhancement which allows the Unit 3 SBO/Appendix R Diesel Generator (ARDG) to be credited for scenarios other than Appendix R fires and Station Blackout. Specifically, the plant procedures and operator training now provide instructions (including the required entry conditions and cues) for aligning the ARDG to a 480 Volt AC Safeguards Bus in the event of a loss of offsite power (LOOP) with failure of one or more Emergency Diesel Generators (EDGs).

Reactor Coolant System Activity



Thresholds: White > 50.0 Yellow > 100.0

Notes

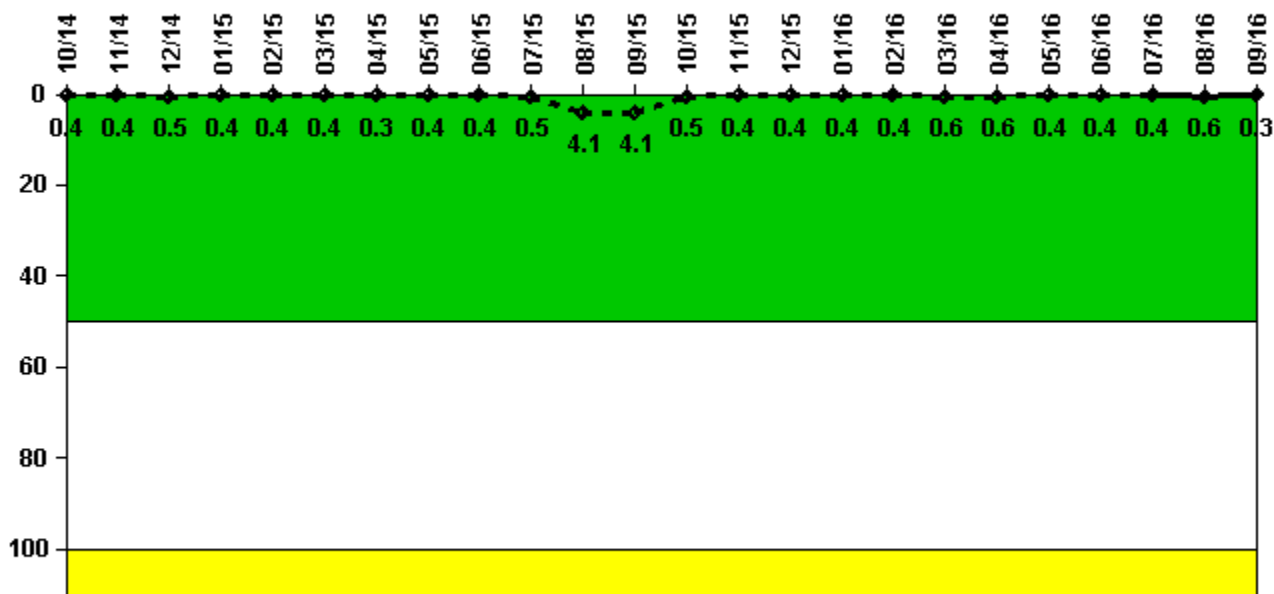
Reactor Coolant System Activity	10/14	11/14	12/14	1/15	2/15	3/15	4/15	5/15	6/15	7/15	8/15	9/15
Maximum activity	0.000183	0.000181	0.000183	0.000191	0.000203	N/A	0.000099	0.000090	0.000108	0.000109	0.000117	0.000121
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	0	0	0	0	0	N/A	0	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	0.000127	0.000132	0.000130	0.000158	0.000142	0.000156	0.000144	0.000161	0.000158	0.000162	0.000170	0.000172
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	0	0	0	0

Licensee Comments:

3/15: (NA) No data for March 2015 due to unit in refueling outage (unstable RCS activity concentrations). Unit coastdown March 1, 2015 to initial criticality March 24, 2015, with startup for the remainder of the month.

Reactor Coolant System Leakage



Thresholds: White > 50.0 Yellow > 100.0

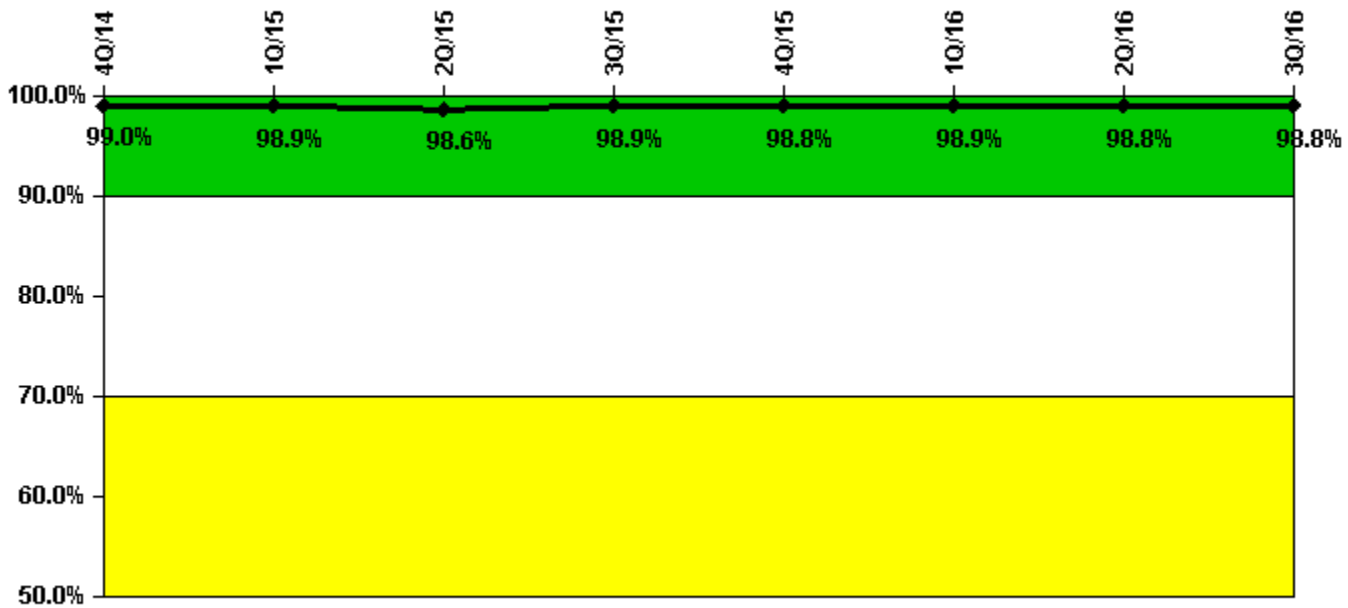
Notes

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	0.040	0.040	0.050	0.040	0.040	0.040	0.030	0.040	0.040	0.050	0.410	0.410
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	0.4	0.4	0.5	0.4	0.4	0.4	0.3	0.4	0.4	0.5	4.1	4.1
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	0.050	0.040	0.040	0.040	0.040	0.060	0.060	0.040	0.040	0.040	0.060	0.030
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	0.5	0.4	0.4	0.4	0.4	0.6	0.6	0.4	0.4	0.4	0.6	0.3

Licensee Comments:

9/15: August and September RCS leak rate elevated due to reactor vessel O-ring leakage which was repaired in a planned maintenance outage in September.

Drill/Exercise Performance



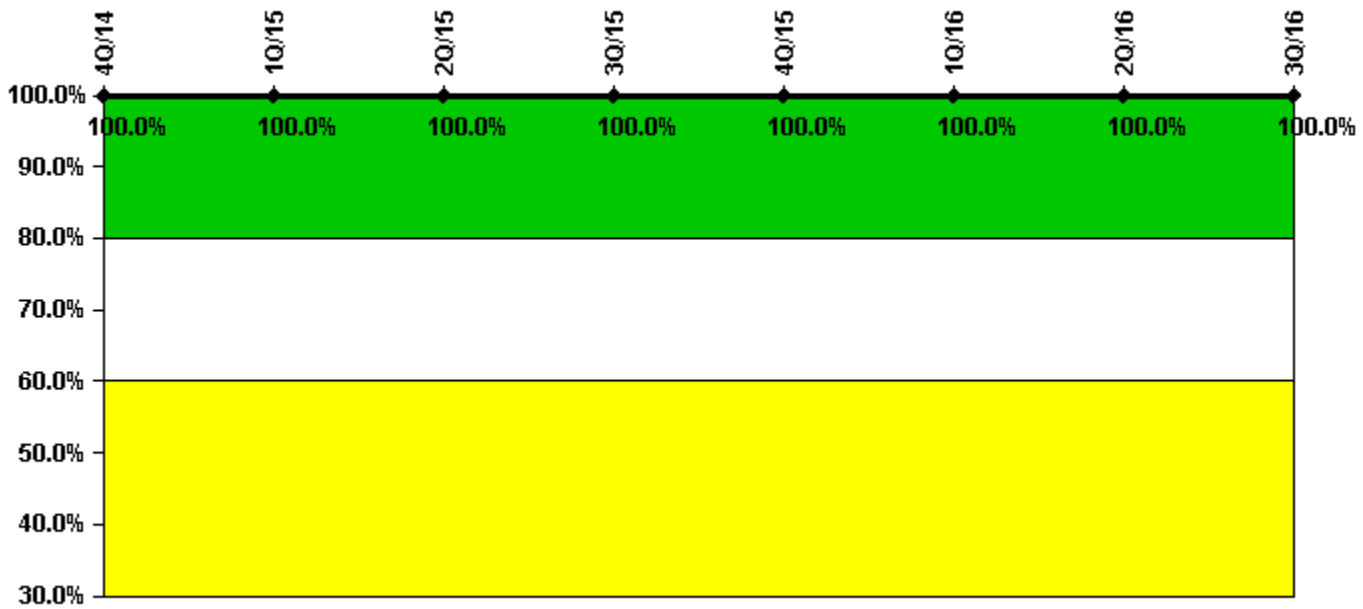
Thresholds: White < 90.0% Yellow < 70.0%

Notes

Drill/Exercise Performance	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16
Successful opportunities	109.0	20.0	71.0	146.0	28.0	26.0	62.0	103.0
Total opportunities	109.0	21.0	72.0	147.0	28.0	26.0	64.0	105.0
Indicator value	99.0%	98.9%	98.6%	98.9%	98.8%	98.9%	98.8%	98.8%

Licensee Comments: none

ERO Drill Participation



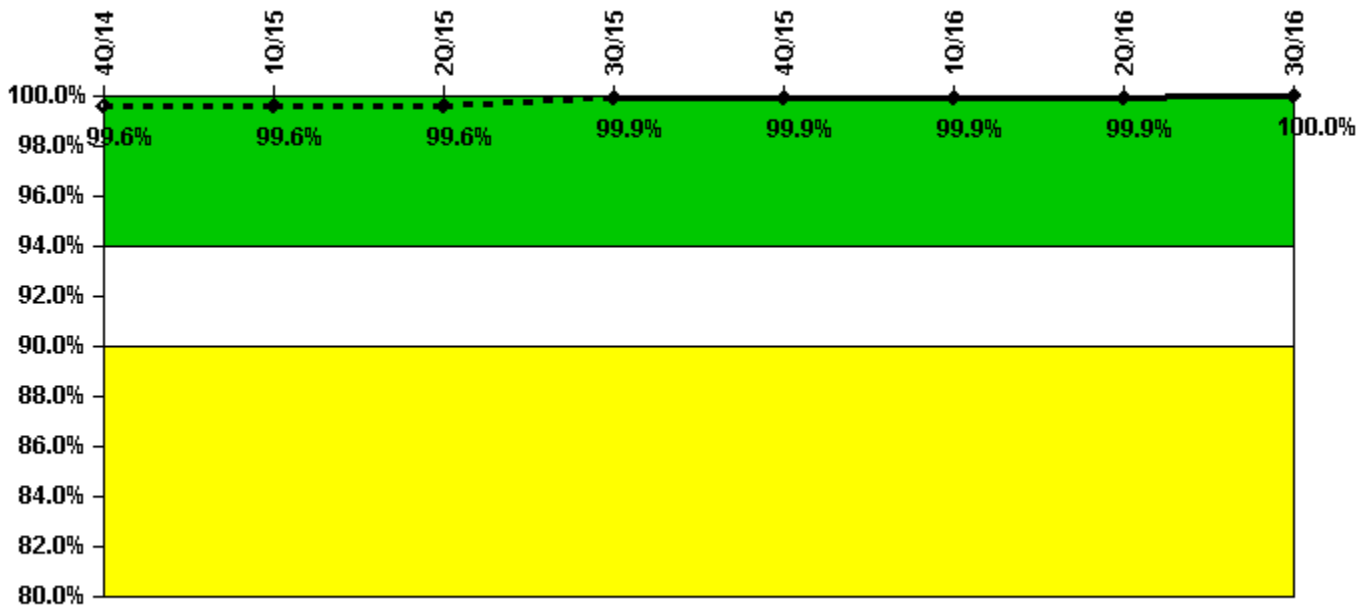
Thresholds: White < 80.0% Yellow < 60.0%

Notes

ERO Drill Participation	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16
Participating Key personnel	106.0	104.0	104.0	105.0	103.0	103.0	101.0	100.0
Total Key personnel	106.0	104.0	104.0	105.0	103.0	103.0	101.0	100.0
Indicator value	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Licensee Comments: none

Alert & Notification System



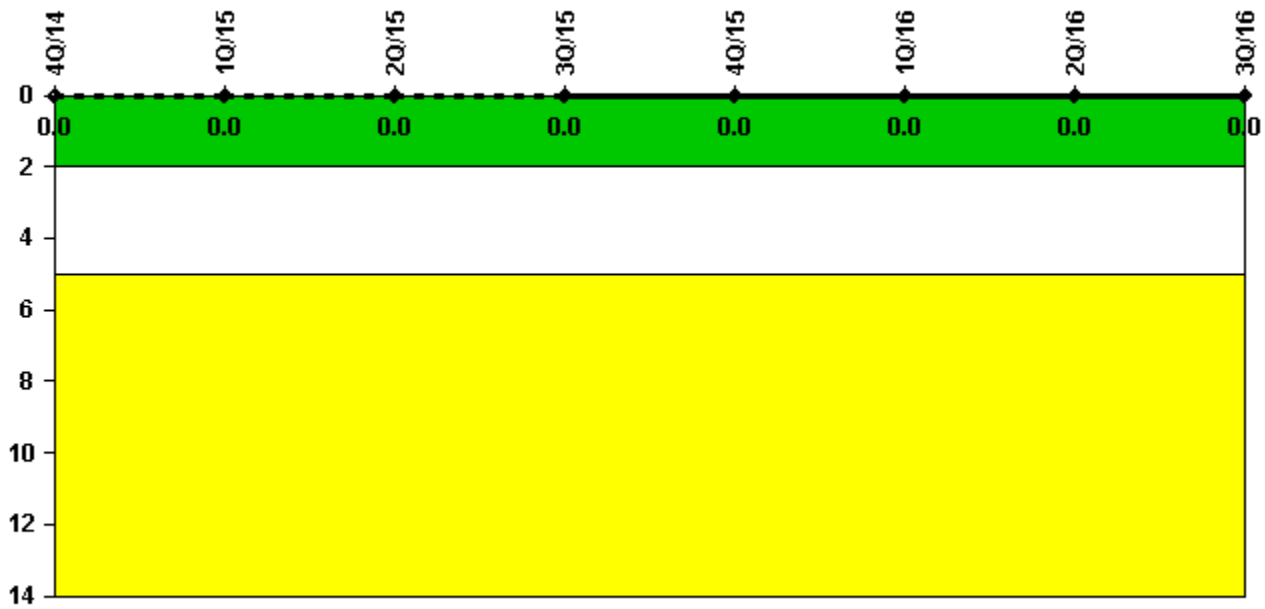
Thresholds: White < 94.0% Yellow < 90.0%

Notes

Alert & Notification System	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16
Successful siren-tests	1104	1135	917	1105	1046	1188	1050	1081
Total sirens-tests	1104	1135	917	1109	1046	1188	1050	1081
Indicator value	99.6%	99.6%	99.6%	99.9%	99.9%	99.9%	99.9%	100.0%

Licensee Comments: none

Occupational Exposure Control Effectiveness



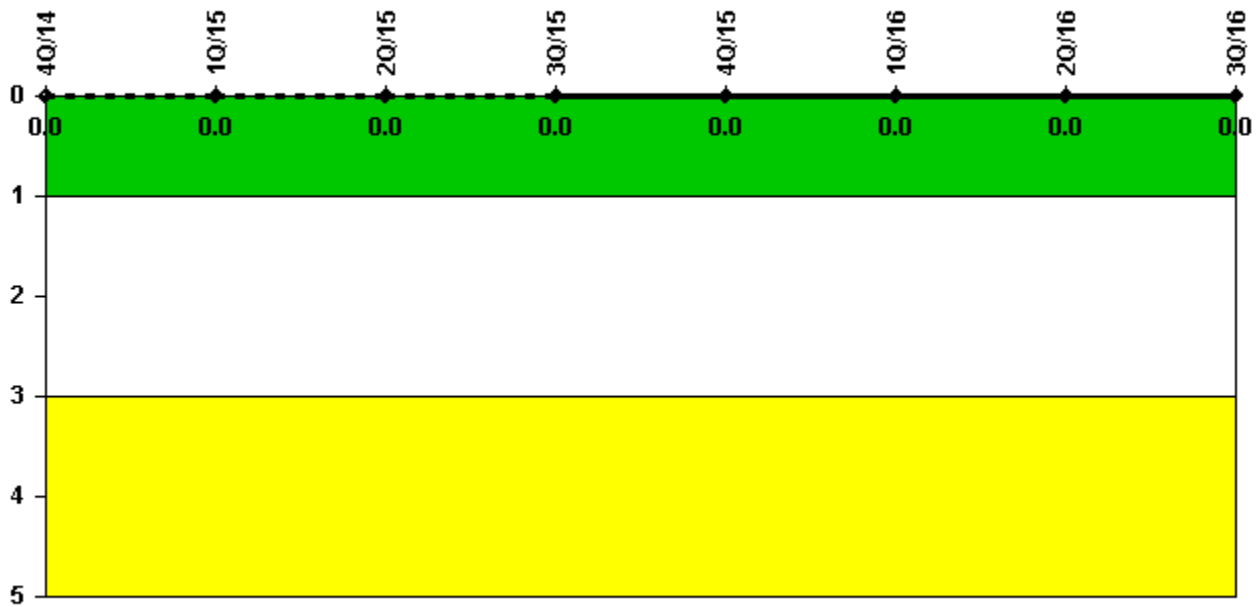
Thresholds: White > 2.0 Yellow > 5.0

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	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	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