

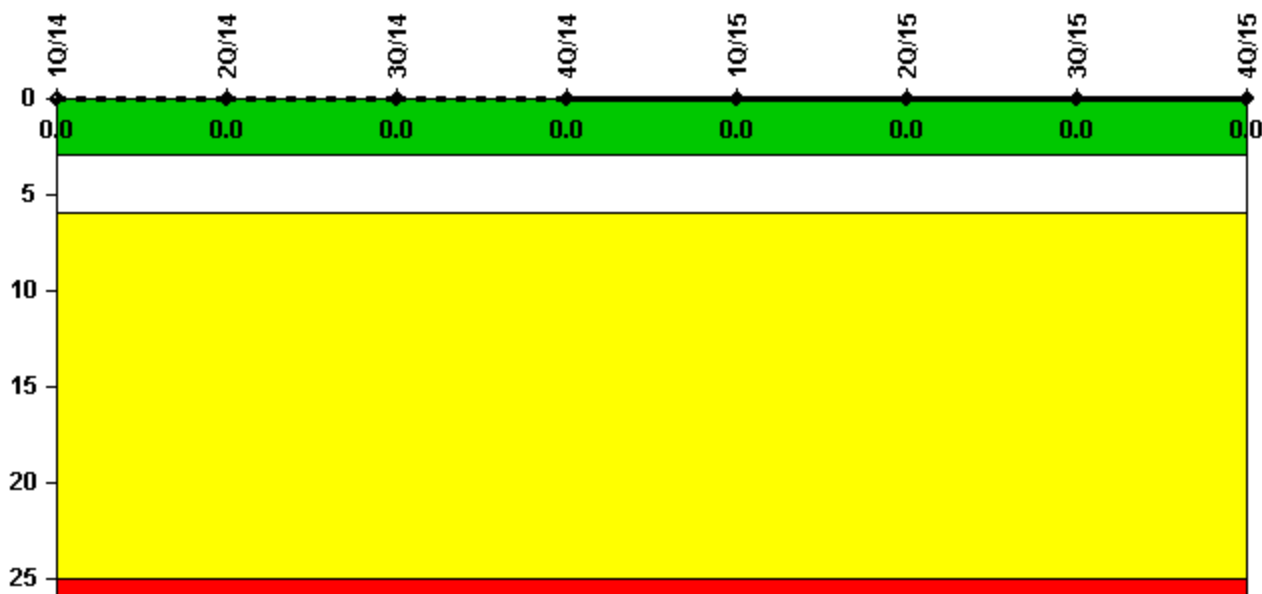
Duane Arnold

4Q/2015 Performance Indicators

The solid trend line represents the current reporting period.

Licensee's General Comments: none

Unplanned Scrams per 7000 Critical Hrs



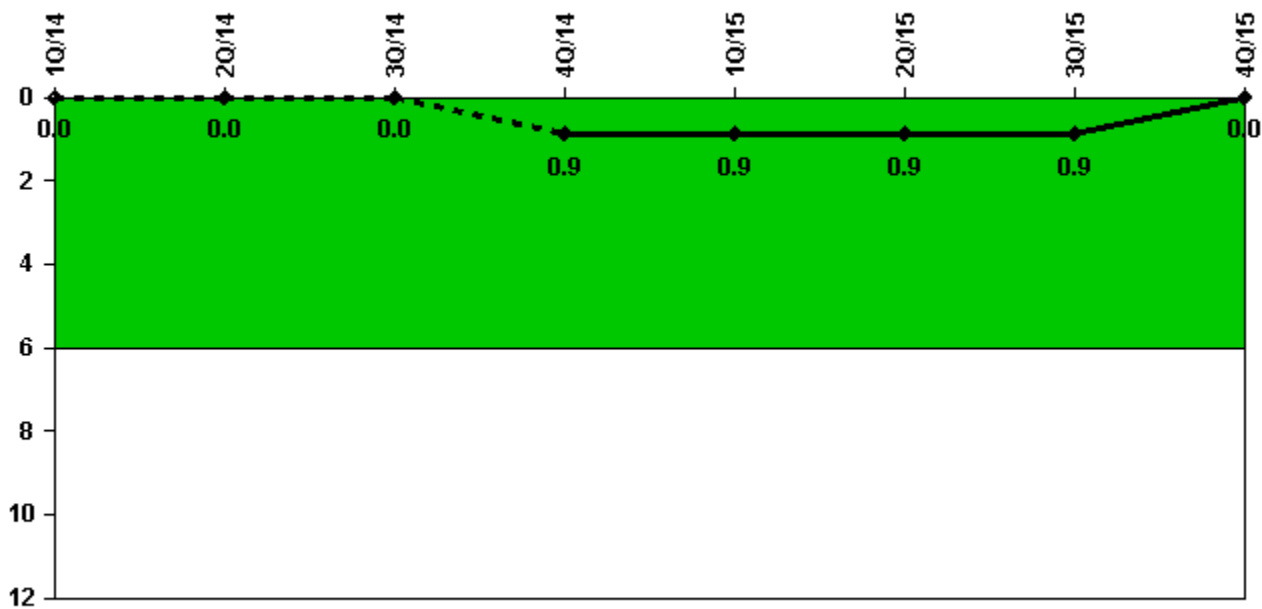
Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

Notes

Unplanned Scrams per 7000 Critical Hrs	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15
Unplanned scrams	0	0	0	0	0	0	0	0
Critical hours	2159.0	2184.0	2208.0	984.7	2159.0	2184.0	2208.0	2209.0
Indicator value	0	0	0	0	0	0	0	0

Licensee Comments: none

Unplanned Power Changes per 7000 Critical Hrs



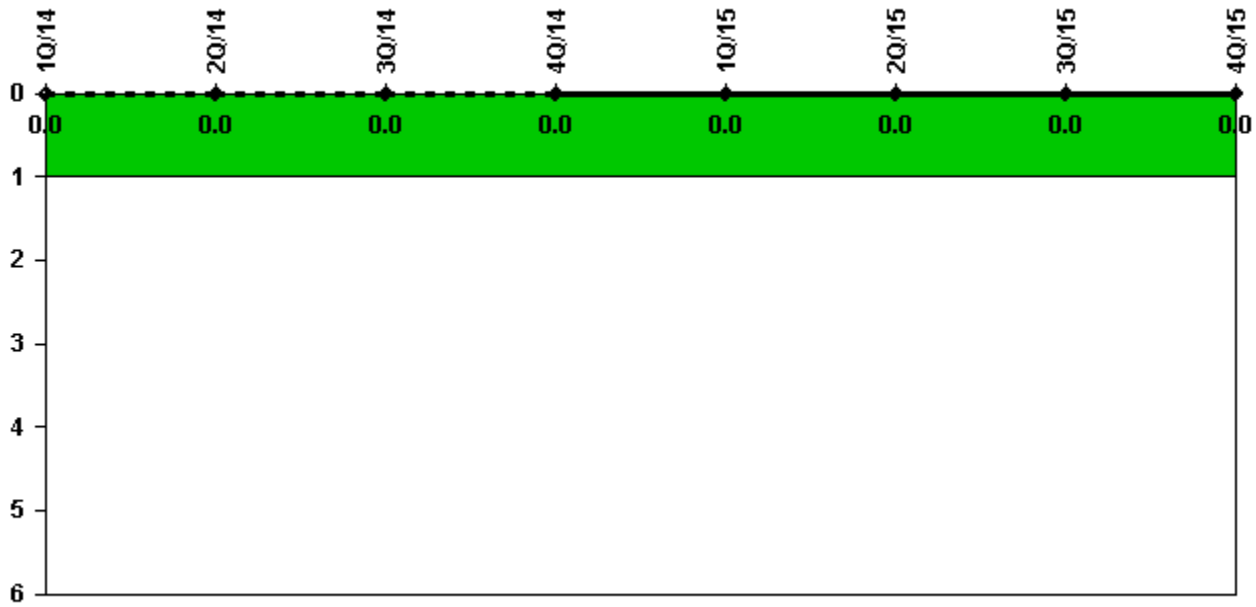
Thresholds: White > 6.0

Notes

Unplanned Power Changes per 7000 Critical Hrs	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15
Unplanned power changes	0	0	0	1.0	0	0	0	0
Critical hours	2159.0	2184.0	2208.0	984.7	2159.0	2184.0	2208.0	2209.0
Indicator value	0	0	0	0.9	0.9	0.9	0.9	0

Licensee Comments: none

Unplanned Scrams with Complications



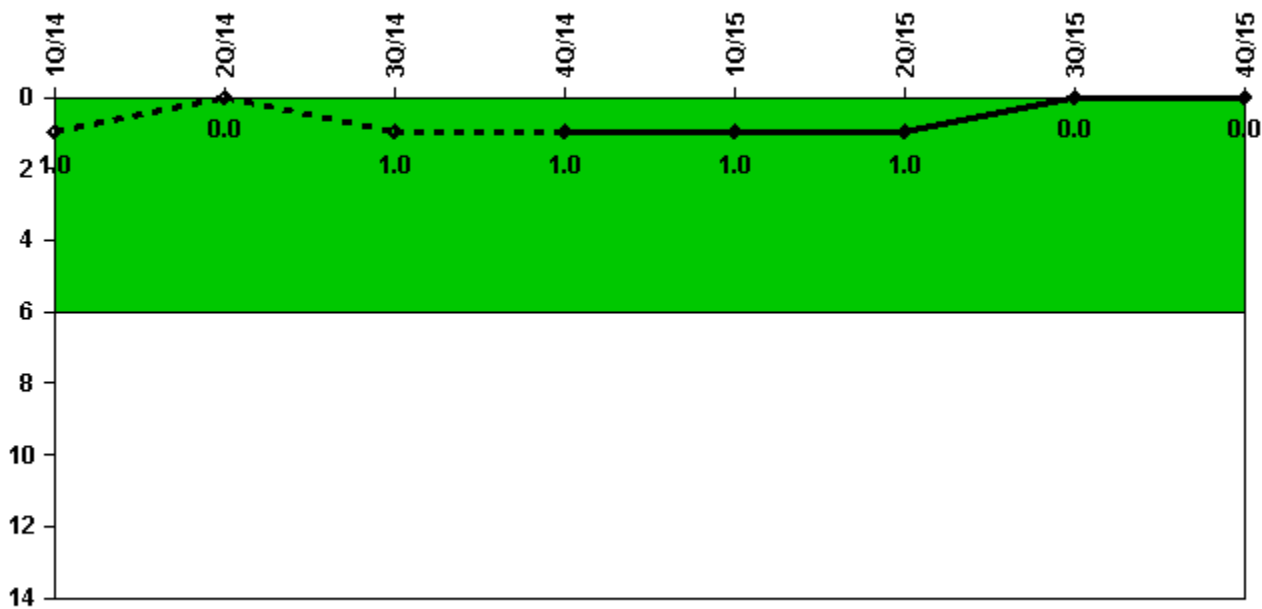
Thresholds: White > 1.0

Notes

Unplanned Scrams with Complications	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15
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 (BWR)



Thresholds: White > 6.0

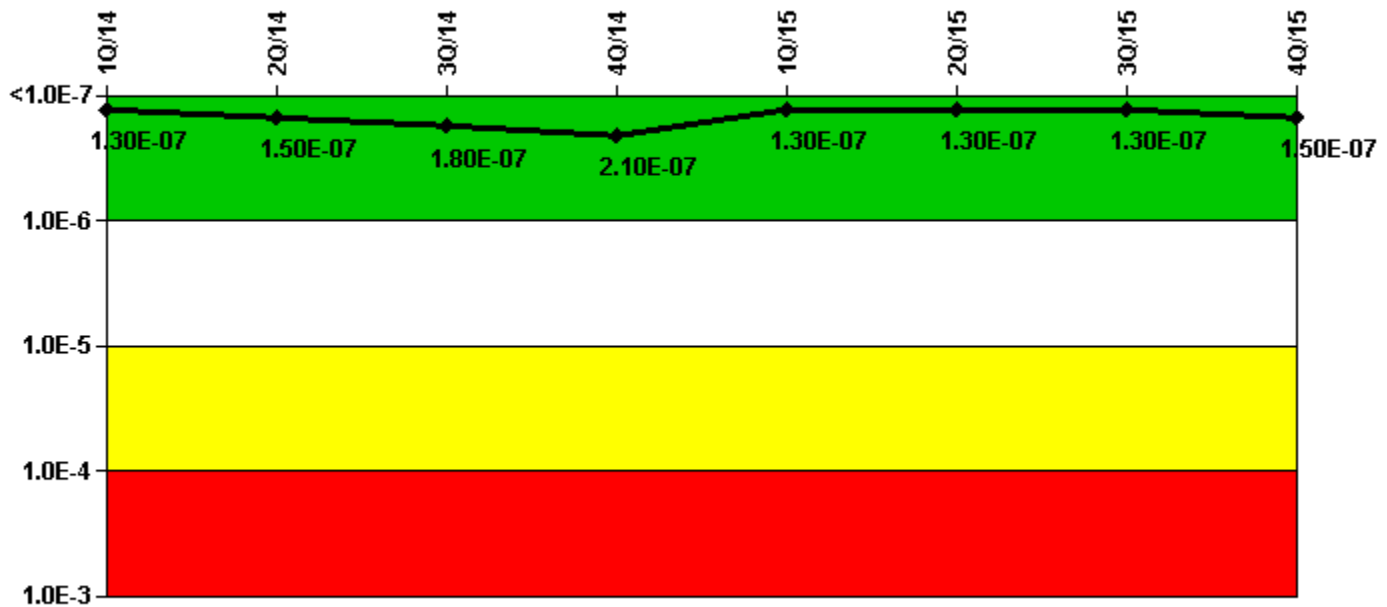
Notes

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

Licensee Comments:

3Q/14: One LER was submitted in July that was a SSFF. Reference LER 2014-004, Unplanned Inoperability HPCI.

Mitigating Systems Performance Index, Emergency AC Power System



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

Notes

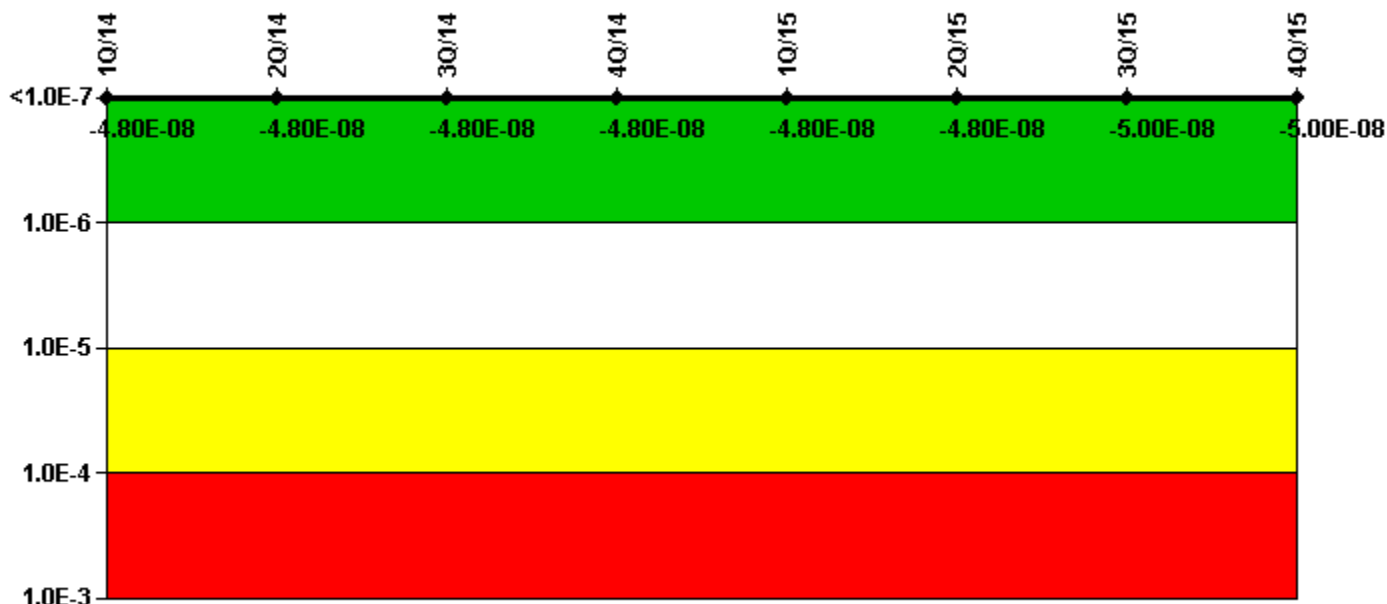
Mitigating Systems Performance Index, Emergency AC Power System	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15
UAI (ΔCDF)	2.44E-07	2.65E-07	2.90E-07	3.16E-07	2.41E-07	2.41E-07	2.41E-07	2.61E-07
URI (ΔCDF)	-1.10E-07	-1.10E-07	-1.10E-07	-1.10E-07	-1.10E-07	-1.10E-07	-1.10E-07	-1.10E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	1.30E-07	1.50E-07	1.80E-07	2.10E-07	1.30E-07	1.30E-07	1.30E-07	1.50E-07

Licensee Comments:

2Q/14: Preplanned Maintenance Inspection Heat Exchangers STP A B Core Spray STP

1Q/14: Megger Fuel Oil Transfer Pumps. Replaced the A EDG Sync Check relay with a calibrated spare. The EDG is considered inoperable but available since the logic to automatically start and load the buss is still available. B two year annual inspection

Mitigating Systems Performance Index, High Pressure Injection System



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

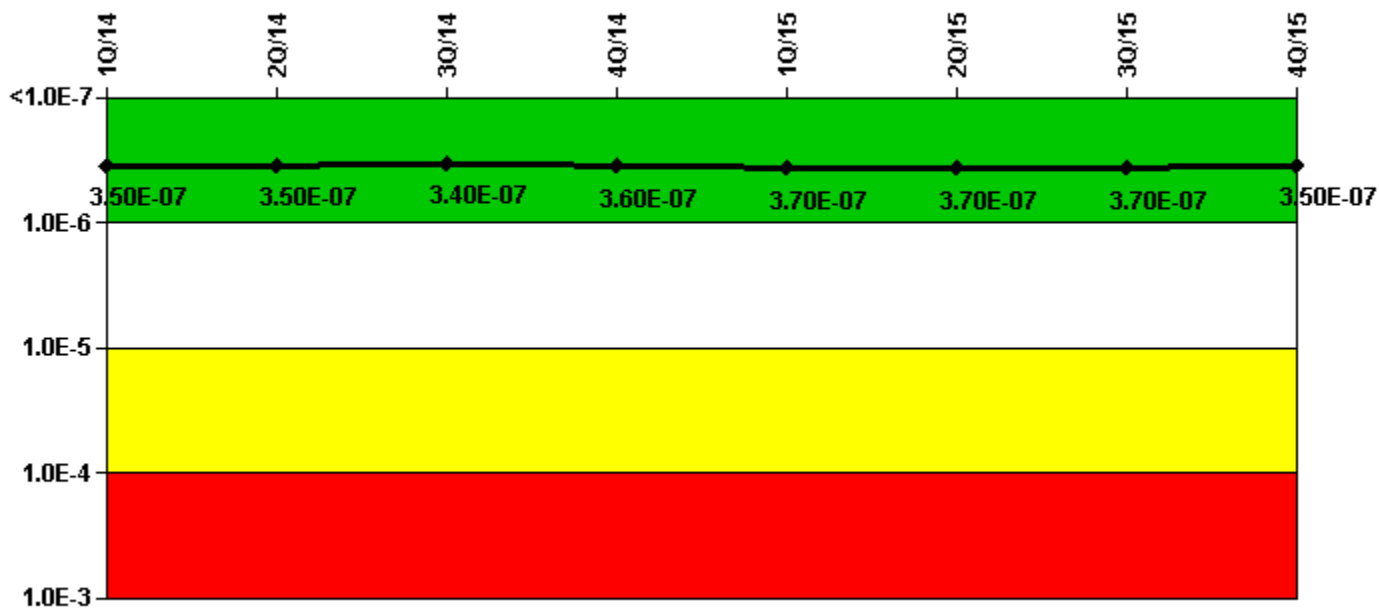
Notes

Mitigating Systems Performance Index, High Pressure Injection System	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15
UAI (Δ CDF)	-1.48E-08	-1.47E-08	-1.47E-08	-1.46E-08	-1.46E-08	-1.46E-08	-1.65E-08	-1.65E-08
URI (Δ CDF)	-3.33E-08	-3.33E-08	-3.33E-08	-3.33E-08	-3.33E-08	-3.33E-08	-3.33E-08	-3.33E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-4.80E-08	-4.80E-08	-4.80E-08	-4.80E-08	-4.80E-08	-4.80E-08	-5.00E-08	-5.00E-08

Licensee Comments:

2Q/14: HPCI Maintenance LCO HPCI steam supply isolation valves closed due to a relay being bumped during the performance of STP

Mitigating Systems Performance Index, Heat Removal System



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

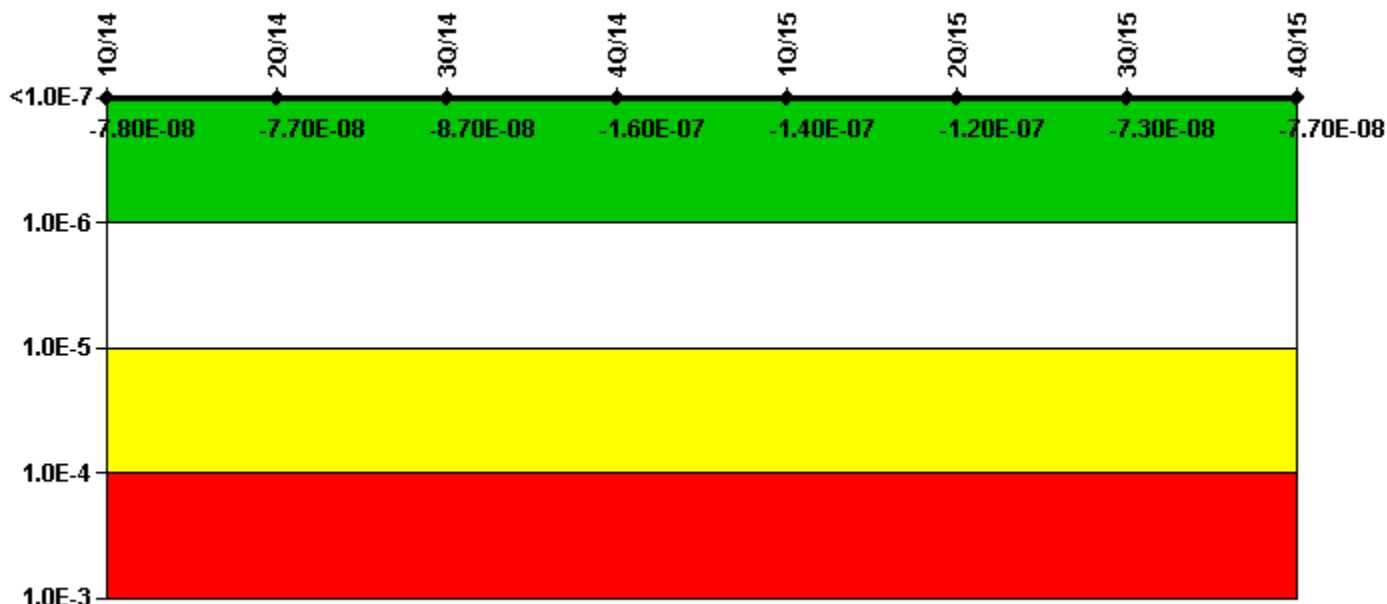
Notes

Mitigating Systems Performance Index, Heat Removal System	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15
UAI (Δ CDF)	3.33E-07	3.33E-07	3.31E-07	3.49E-07	3.59E-07	3.57E-07	3.57E-07	3.34E-07
URI (Δ CDF)	1.35E-08	1.35E-08	1.35E-08	1.35E-08	1.35E-08	1.35E-08	1.35E-08	1.35E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	3.50E-07	3.50E-07	3.40E-07	3.60E-07	3.70E-07	3.70E-07	3.70E-07	3.50E-07

Licensee Comments:

2Q/14: Maintenance LCO to install the modification on the RCIC governor power supply dropping resistor

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/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15
UAI (ΔCDF)	1.55E-07	1.58E-07	1.49E-07	7.95E-08	1.00E-07	1.20E-07	1.64E-07	1.59E-07
URI (ΔCDF)	-2.33E-07	-2.34E-07	-2.36E-07	-2.36E-07	-2.36E-07	-2.36E-07	-2.36E-07	-2.36E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-7.80E-08	-7.70E-08	-8.70E-08	-1.60E-07	-1.40E-07	-1.20E-07	-7.30E-08	-7.70E-08

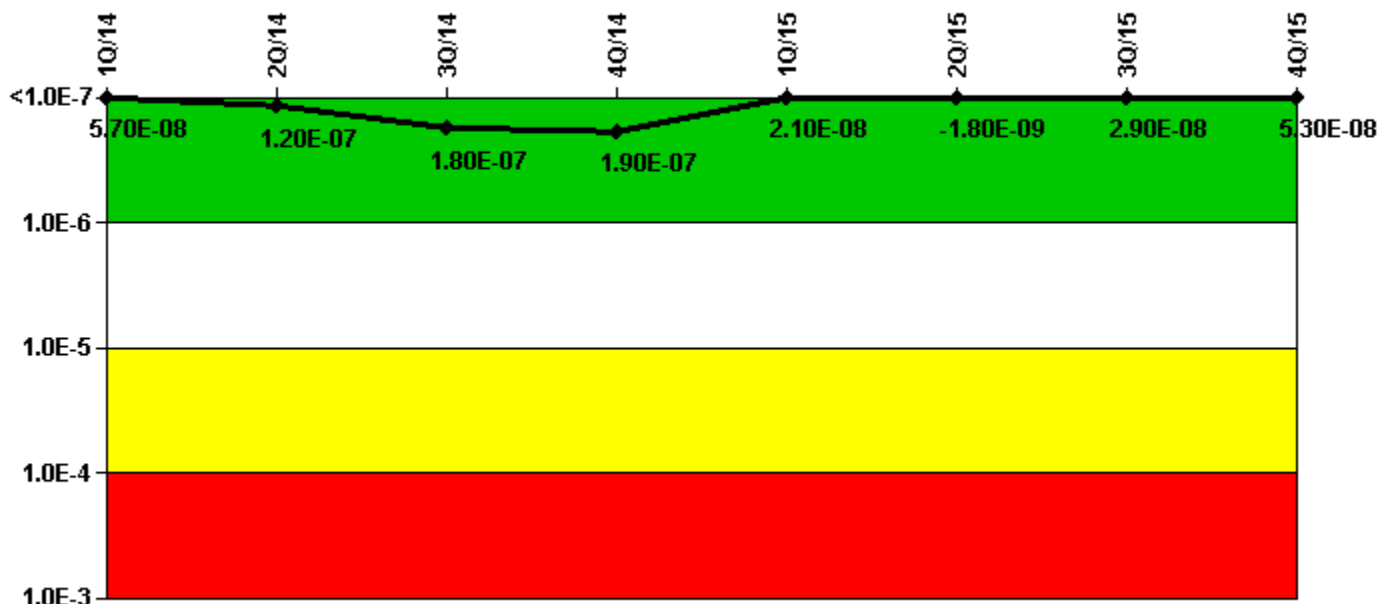
Licensee Comments:

2Q/15: The A RHR SW changed from 10.75 to 0.00 hours. The hours were adjusted based on MSPI DBD 46/102 Rev 3 which includes the RHR SW A/B RHR heat exchanger discharge valves MO2046/MO1947 in the RHR System.

1Q/15: A RHR in February 2015 changed from 0.00 hours to 11.00 hours. The hours were adjusted based on the MSPI DBD 46/102 Rev 3 which includes the RHR SW A/B RHR heat exchanger discharge valves MO2046/MO1947 in the RHR System.

2Q/14: Pit Diving RHR SW motor cooling from ESW HBD022 MOD

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/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15
UAI (ΔCDF)	3.38E-07	4.04E-07	4.62E-07	4.67E-07	3.02E-07	2.79E-07	3.10E-07	3.34E-07
URI (ΔCDF)	-2.81E-07	-2.81E-07	-2.81E-07	-2.81E-07	-2.81E-07	-2.81E-07	-2.81E-07	-2.81E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	5.70E-08	1.20E-07	1.80E-07	1.90E-07	2.10E-08	-1.80E-09	2.90E-08	5.30E-08

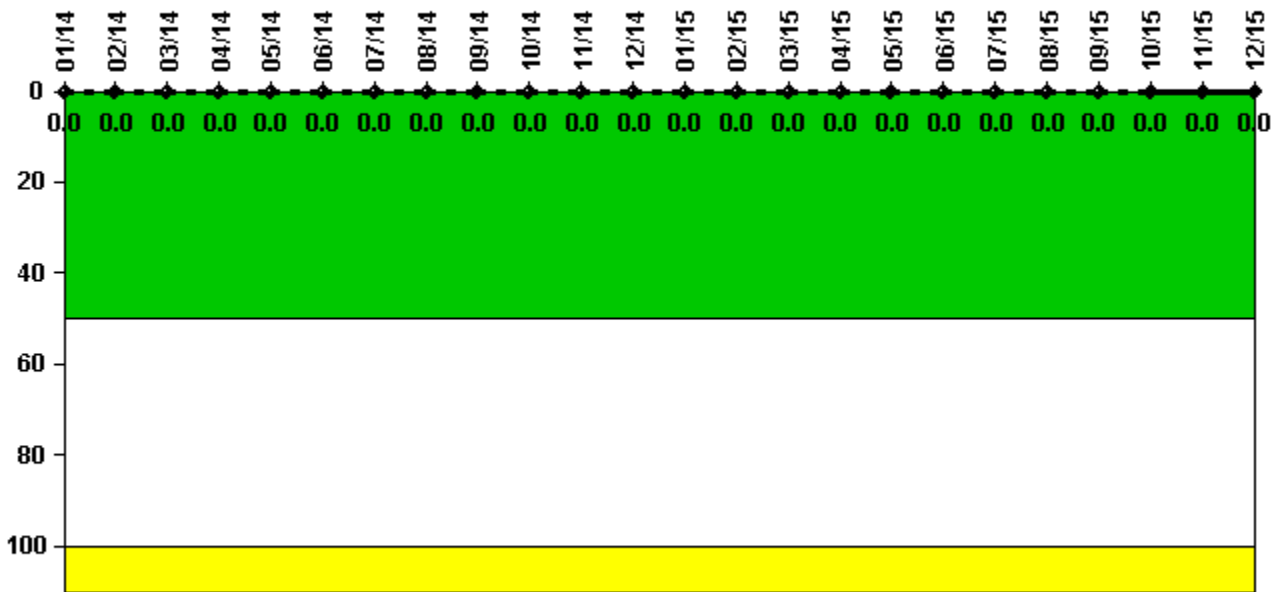
Licensee Comments:

2Q/15: The B RHRSW changed from 16.5 hours to 5.7 hours. The hours were adjusted based on MSPI DBD 46/102 Rev 3 which includes the RHRSW A/B RHR heat exchanger discharge valves MO2046/MO1947 in the RHR System.

1Q/15: B RHR in February 2015 changed from 22.00 hours to 44.00 hours. The hours were adjusted based on MSPI DBD 46/102 Rev 3 which includes the RHRSW A/B RHR heat exchanger discharge valves MO2046/MO1947 in the RHR System.

2Q/14: Pit Diving

Reactor Coolant System Activity



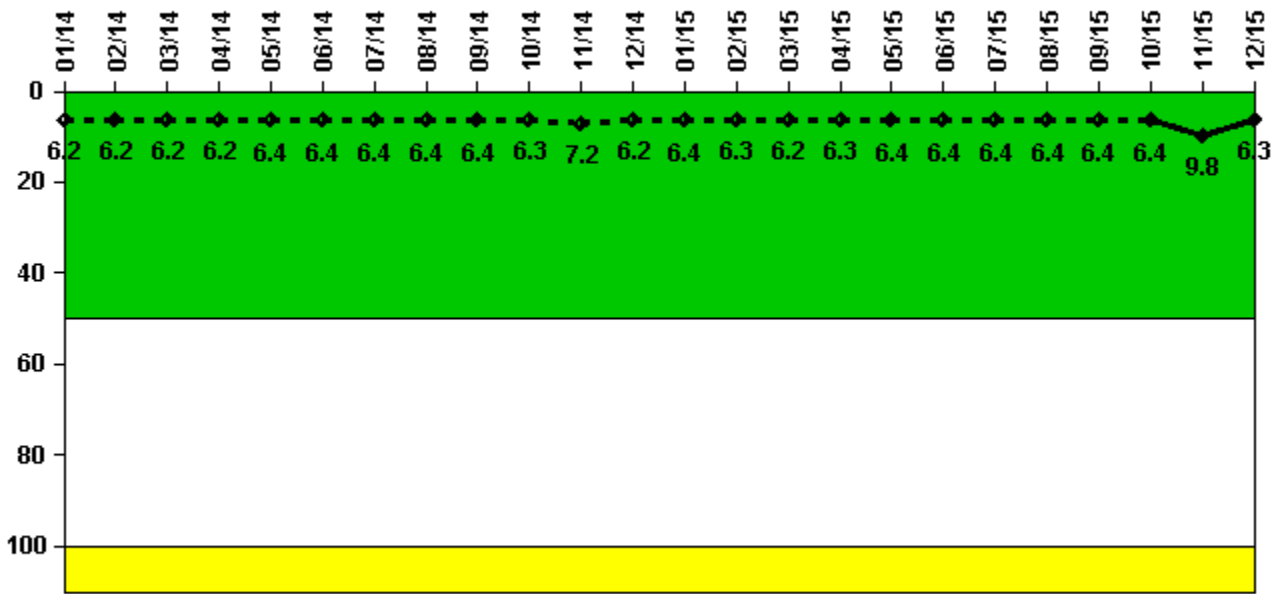
Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Activity	1/14	2/14	3/14	4/14	5/14	6/14	7/14	8/14	9/14	10/14	11/14	12/14
Maximum activity	0	0	0	0	0.000002	0	0	0	0	0	0	0
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	1/15	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	0.000002	0	0	0	0	0	0	0	0	0	0
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

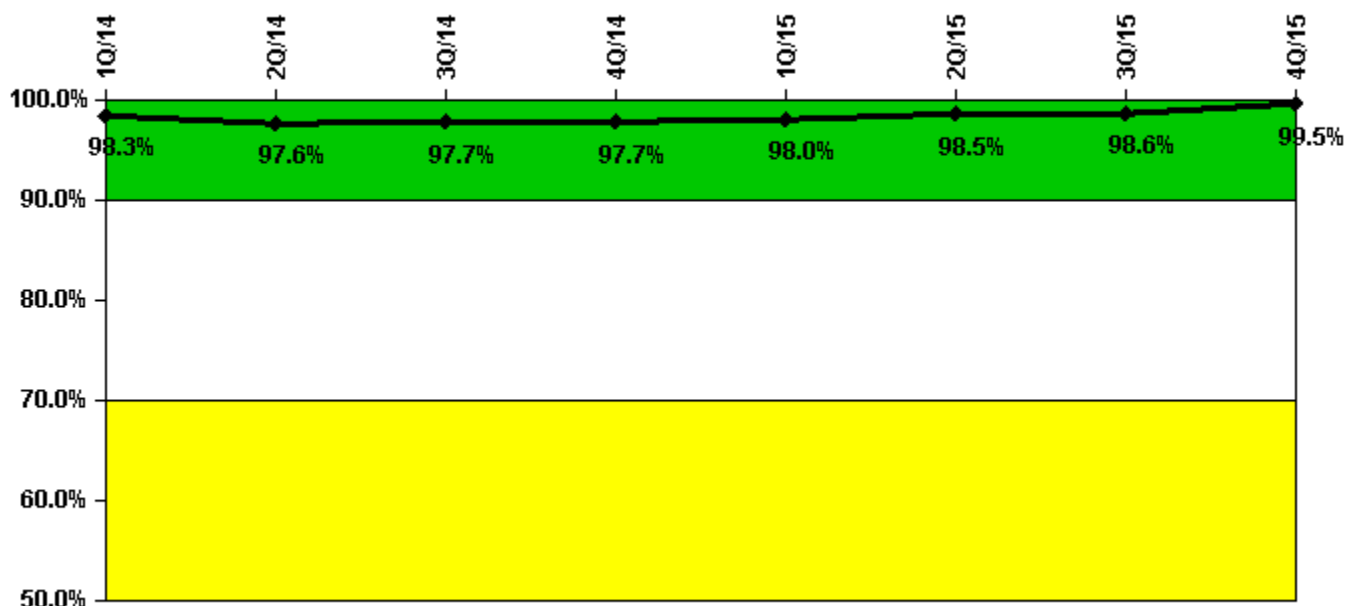
Notes

Reactor Coolant System Leakage	1/14	2/14	3/14	4/14	5/14	6/14	7/14	8/14	9/14	10/14	11/14	12/14
Maximum leakage	1.550	1.540	1.550	1.560	1.590	1.600	1.600	1.600	1.590	1.570	1.800	1.540
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	6.2	6.2	6.2	6.2	6.4	6.4	6.4	6.4	6.4	6.3	7.2	6.2

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	1.600	1.570	1.560	1.570	1.600	1.600	1.600	1.610	1.610	1.600	2.460	1.580
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	6.4	6.3	6.2	6.3	6.4	6.4	6.4	6.4	6.4	6.4	9.8	6.3

Licensee Comments: none

Drill/Exercise Performance



Thresholds: White < 90.0% Yellow < 70.0%

Notes

Drill/Exercise Performance	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15
Successful opportunities	20.0	25.0	38.0	0	24.0	35.0	26.0	18.0
Total opportunities	20.0	26.0	38.0	0	24.0	35.0	26.0	18.0
Indicator value	98.3%	97.6%	97.7%	97.7%	98.0%	98.5%	98.6%	99.5%

Licensee Comments: none

ERO Drill Participation



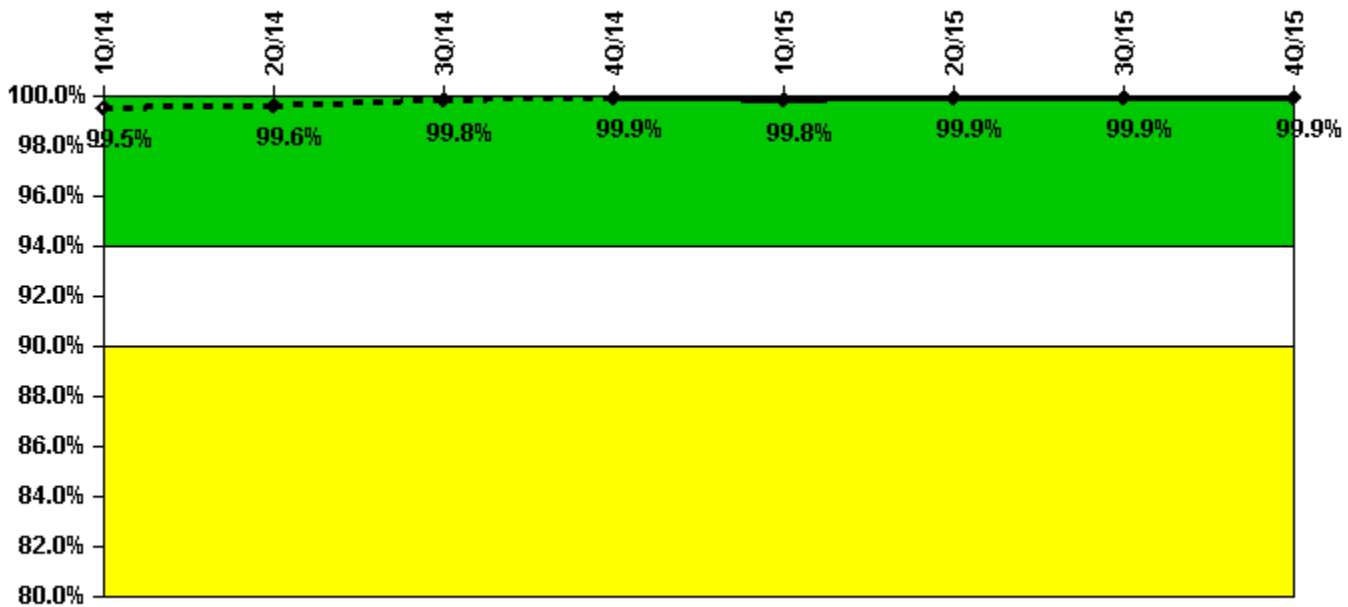
Thresholds: White < 80.0% Yellow < 60.0%

Notes

ERO Drill Participation	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15
Participating Key personnel	92.0	89.0	85.0	86.0	82.0	90.0	90.0	89.0
Total Key personnel	92.0	89.0	85.0	86.0	82.0	90.0	90.0	89.0
Indicator value	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Licensee Comments: none

Alert & Notification System



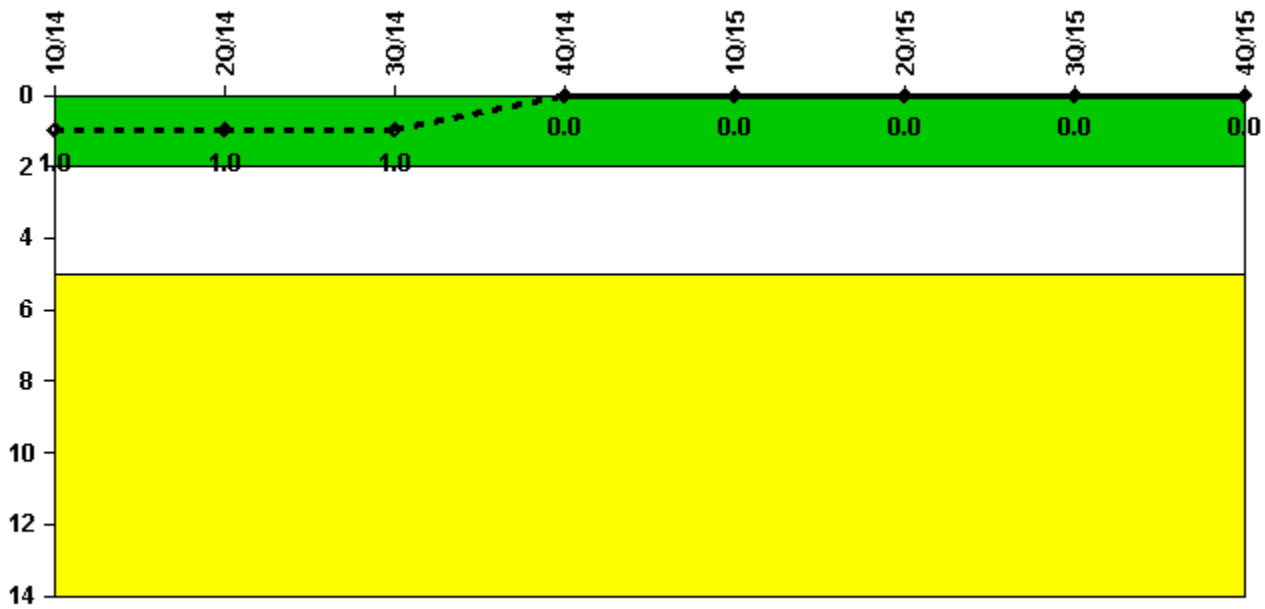
Thresholds: White < 94.0% Yellow < 90.0%

Notes

Alert & Notification System	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15
Successful siren-tests	432	431	431	432	431	432	431	430
Total sirens-tests	432	432	432	432	432	432	432	430
Indicator value	99.5%	99.6%	99.8%	99.9%	99.8%	99.9%	99.9%	99.9%

Licensee Comments: none

Occupational Exposure Control Effectiveness



Thresholds: White > 2.0 Yellow > 5.0

Notes

Occupational Exposure Control Effectiveness	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15
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	1	1	1	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/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15
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: March 1, 2016