

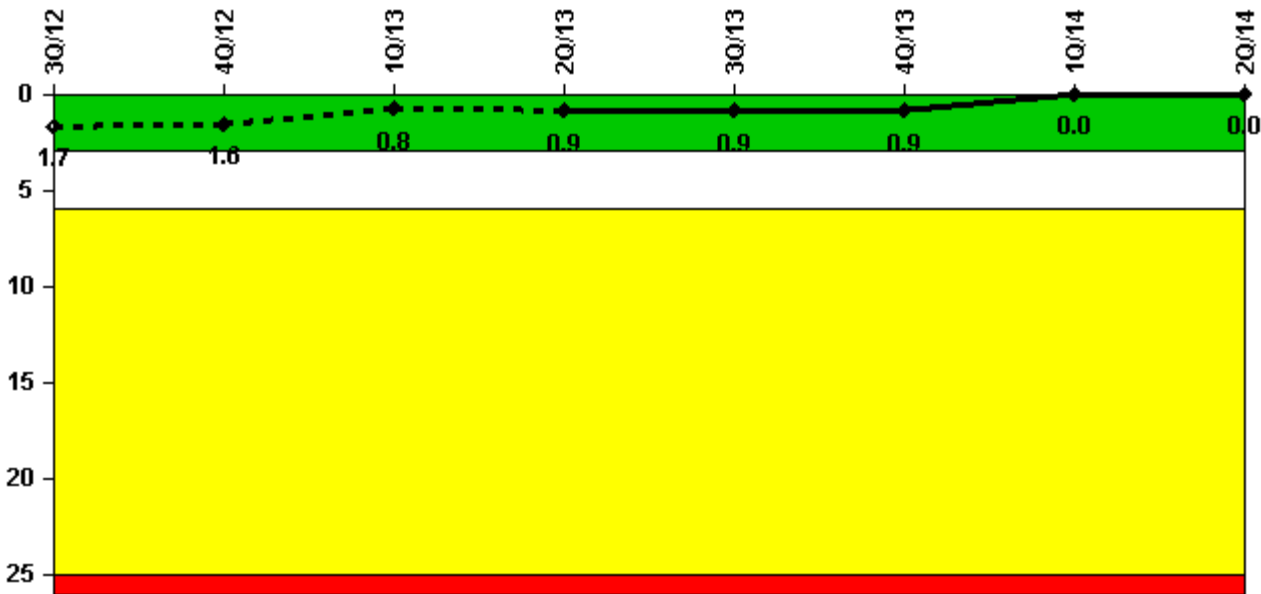
Byron 2

2Q/2014 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

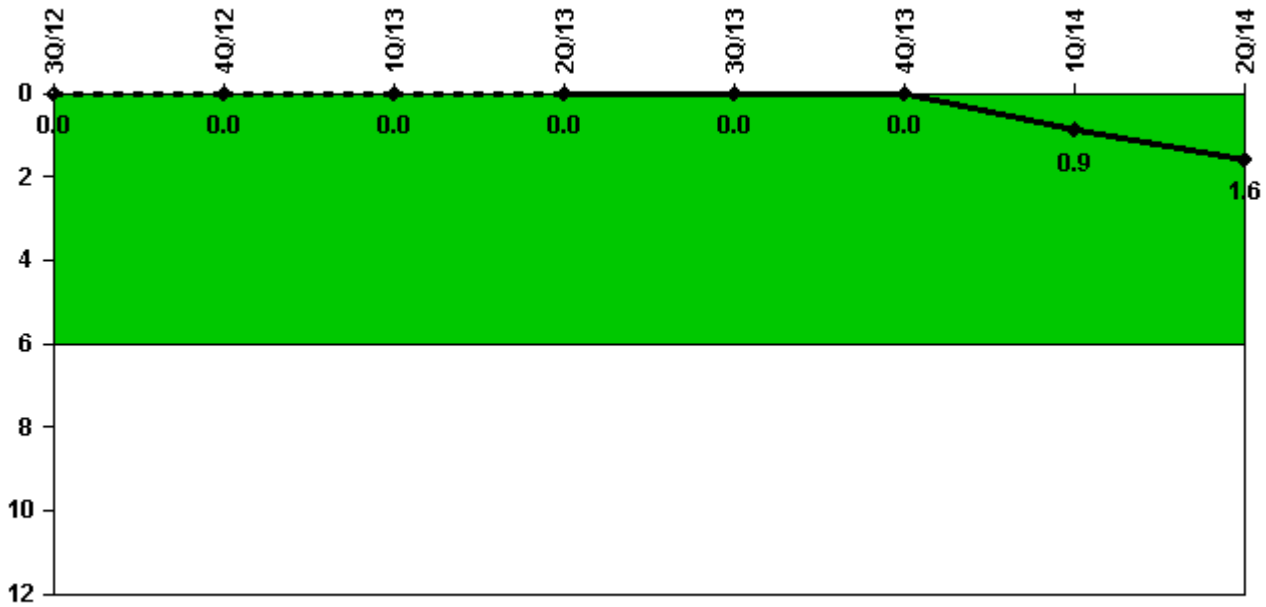
Notes

Unplanned Scrams per 7000 Critical Hrs	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14
Unplanned scrams	0	0	1.0	0	0	0	0	0
Critical hours	2208.0	2209.0	2129.6	1653.7	2208.0	2209.0	2159.0	2184.0
Indicator value	1.7	1.6	0.8	0.9	0.9	0.9	0	0

Licensee Comments:

1Q/13: U-2 Reactor was manually tripped 3/20/2013 @ 7:51 PM. 2A GC Pump tripped with 2B GC pump unavailable. A root cause investigation and corrective actions are tracked in IR 01490315

Unplanned Power Changes per 7000 Critical Hrs



Thresholds: White > 6.0

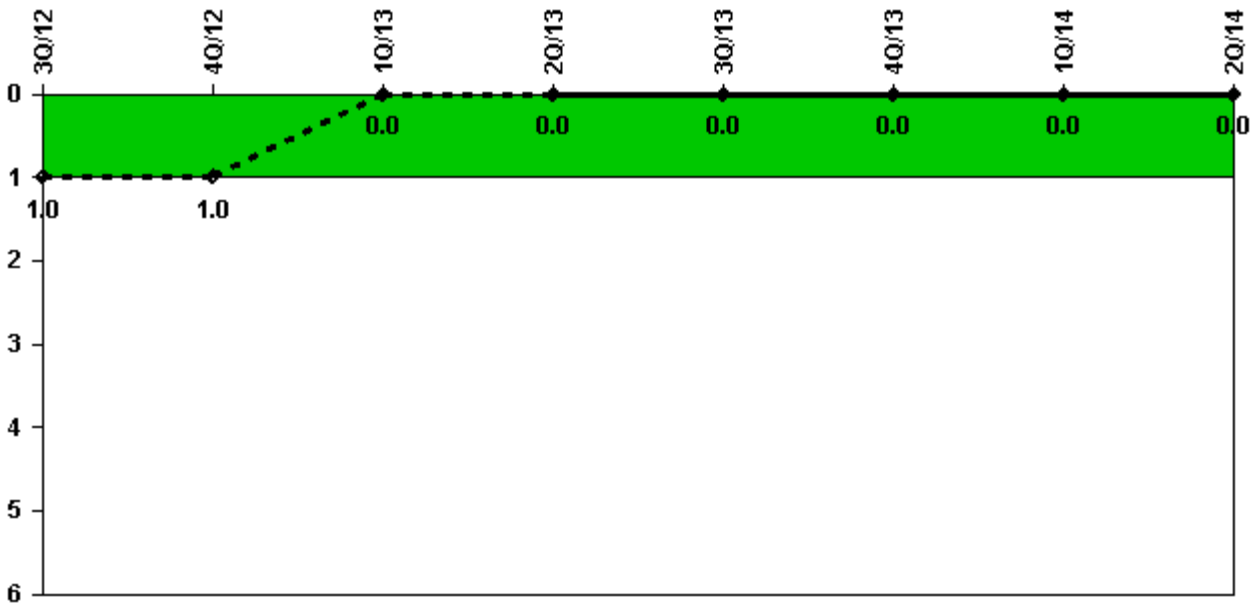
Notes

Unplanned Power Changes per 7000 Critical Hrs	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14
Unplanned power changes	0	0	0	0	0	0	1.0	1.0
Critical hours	2208.0	2209.0	2129.6	1653.7	2208.0	2209.0	2159.0	2184.0
Indicator value	0	0	0	0	0	0	0.9	1.6

Licensee Comments:

1Q/14: Power was lowered from 100% to 49% within 4 hours from when the shutdown rods mis-positioned. To recover the two shutdown rods. power was lowered from 49% to 38.4%. ICES # 302697, IR 1607715.

Unplanned Scrams with Complications



Thresholds: White > 1.0

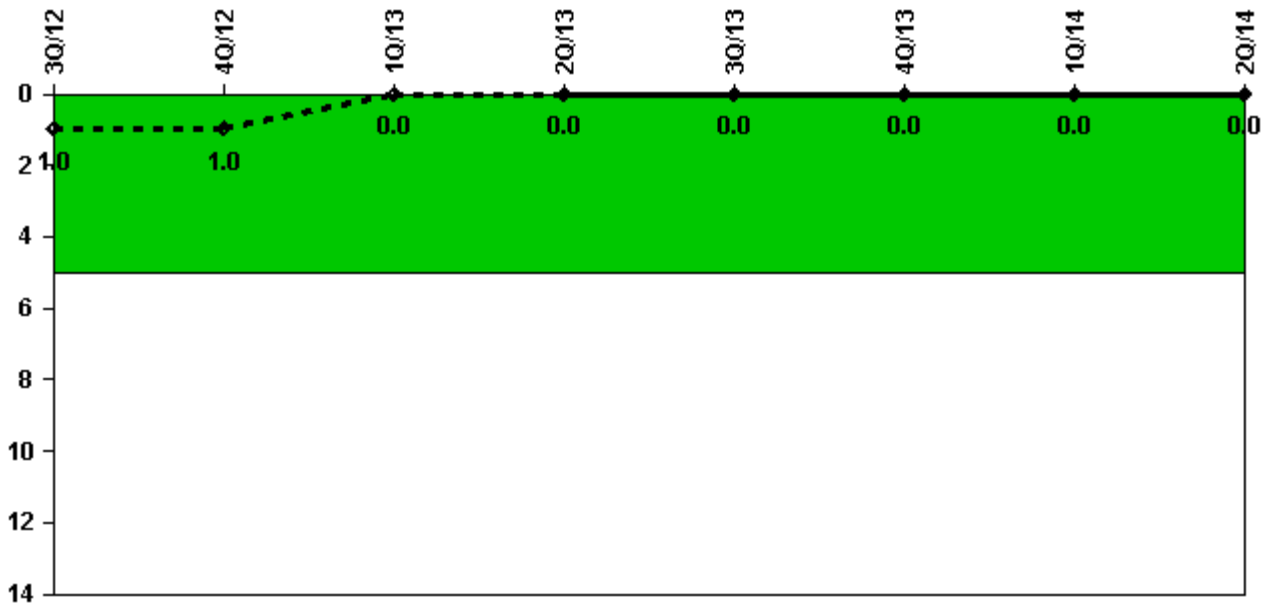
Notes

Unplanned Scrams with Complications	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14
Scrams with complications	0	0	0	0	0	0	0	0
Indicator value	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0

Licensee Comments:

1Q/13: February 2012 Unit 2 experienced a manual reactor trip. (IR 1323547). This event rolled off.

Safety System Functional Failures (PWR)



Thresholds: White > 5.0

Notes

Safety System Functional Failures (PWR)	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14
Safety System Functional Failures	0	0	0	0	0	0	0	0
Indicator value	1	1	0	0	0	0	0	0

Licensee Comments:

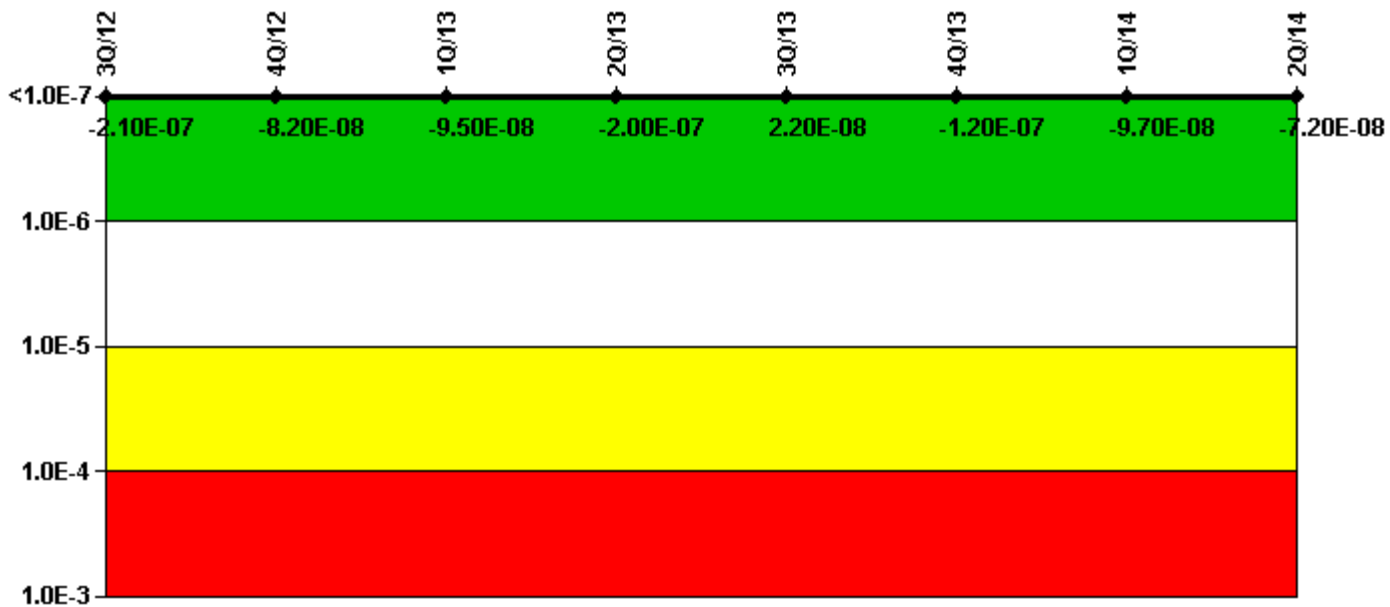
2Q/13: LER 454-2012-001, Unit 2 Manual Reactor Trip Due to Loss of Main Generator Stator Cooling Water

2Q/13: LER 454-2012-001, Unit 2 Manual Reactor Trip Due to Loss of Main Generator Stator Cooling Water was originally counted as an SSFF, but was retracted based on the definition of an SSFF in LS-AA-2080 on 5/13/14.

1Q/13: March 2012, LER 454-2012-001, Unit 2 Loss of Offsite Power drops off.

3Q/12: LER 2012-001-01 issued for U2 LOOP and Rx Trip and U1 LOOP due to SAT inverted insulators. Determined to NOT be an event or condition that could prevent fulfillment of a safety function

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	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14
UAI (Δ CDF)	3.62E-08	4.00E-08	1.42E-08	9.68E-09	1.52E-08	-1.56E-08	-7.87E-09	3.98E-09
URI (Δ CDF)	-2.42E-07	-1.22E-07	-1.09E-07	-2.14E-07	7.27E-09	-1.03E-07	-8.96E-08	-7.56E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-2.10E-07	-8.20E-08	-9.50E-08	-2.00E-07	2.20E-08	-1.20E-07	-9.70E-08	-7.20E-08

Licensee Comments:

4Q/12: Changed PRA Parameter(s).

4Q/12: Changed PRA Parameter(s).

3Q/12: Changed PRA Parameter(s).

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	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14
UAI (Δ CDF)	-3.81E-08	-2.89E-08	-2.89E-08	-2.89E-08	-2.89E-08	-2.89E-08	-2.89E-08	-2.89E-08
URI (Δ CDF)	-5.89E-09	-8.70E-09	-8.70E-09	-8.70E-09	-8.70E-09	-8.70E-09	-8.70E-09	-8.70E-09
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-4.40E-08	-3.80E-08	-3.80E-08	-3.80E-08	-3.80E-08	-3.80E-08	-3.80E-08	-3.80E-08

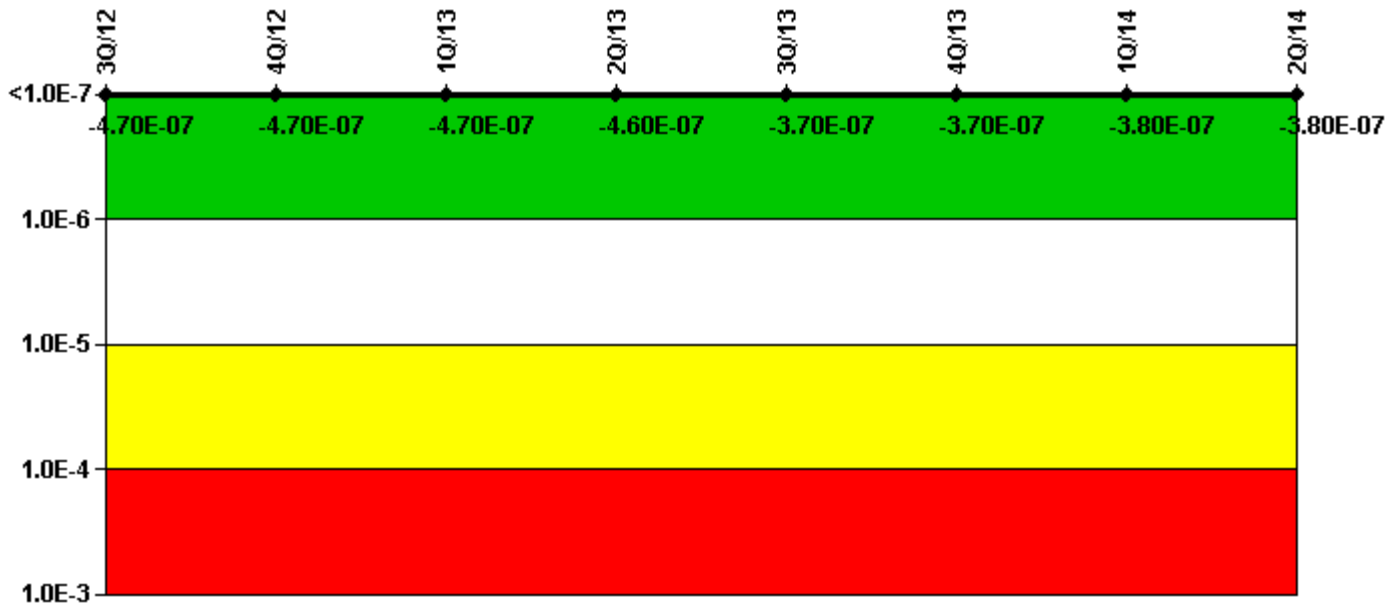
Licensee Comments:

4Q/12: Changed PRA Parameter(s).

4Q/12: Changed PRA Parameter(s).

3Q/12: Changed PRA Parameter(s).

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	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14
UAI (Δ CDF)	-4.75E-08	-7.83E-08	-7.73E-08	-7.81E-08	1.36E-08	1.28E-08	9.26E-09	6.48E-09
URI (Δ CDF)	-4.25E-07	-3.93E-07	-3.93E-07	-3.87E-07	-3.85E-07	-3.85E-07	-3.85E-07	-3.85E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-4.70E-07	-4.70E-07	-4.70E-07	-4.60E-07	-3.70E-07	-3.70E-07	-3.80E-07	-3.80E-07

Licensee Comments:

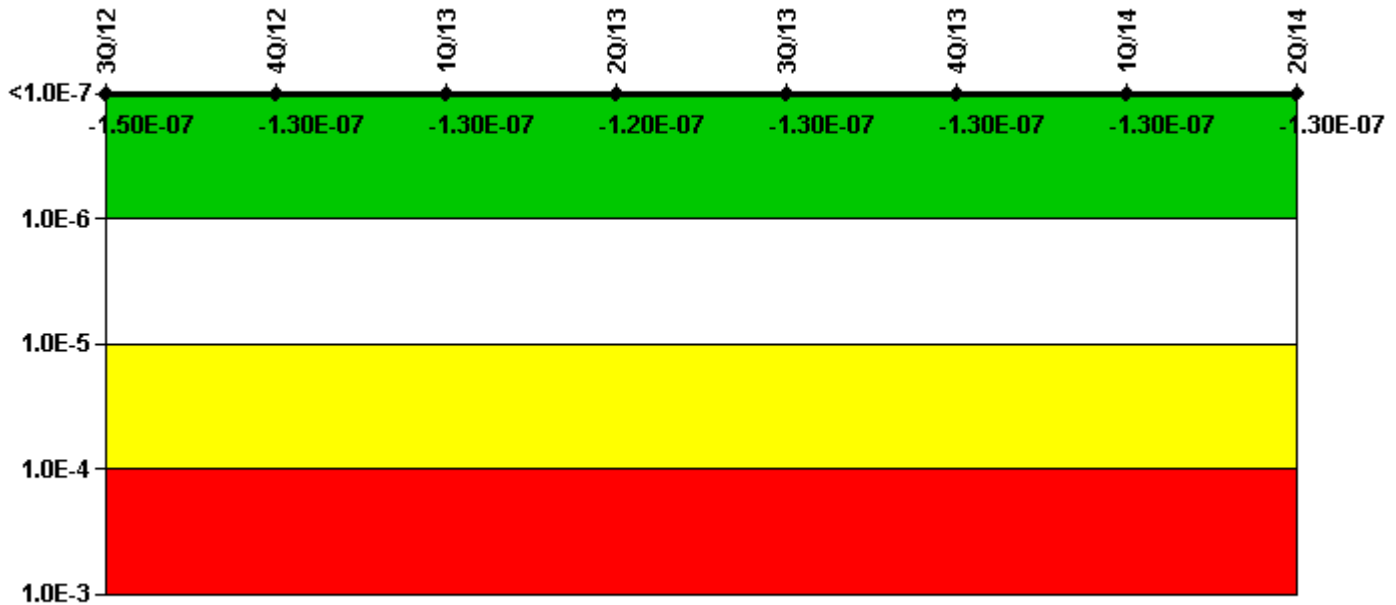
1Q/13: U1-U2 Train A Cross-tie considered unavailable starting on 10/28/2011 when standing order 11-057 and 1/2BFR H.1 procedure revisions were issued to remove procedural guidance on use of the crosstie modification pending NRC approval. Reference IR#01257908. ICES record #304960

4Q/12: Changed PRA Parameter(s).

4Q/12: Changed PRA Parameter(s).

3Q/12: Changed PRA Parameter(s).

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	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14
UAI (Δ CDF)	-3.42E-08	-3.33E-08	-3.33E-08	-2.41E-08	-3.33E-08	-3.33E-08	-3.33E-08	-3.33E-08
URI (Δ CDF)	-1.20E-07	-9.77E-08	-9.77E-08	-9.77E-08	-9.77E-08	-9.77E-08	-9.77E-08	-9.77E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-1.50E-07	-1.30E-07	-1.30E-07	-1.20E-07	-1.30E-07	-1.30E-07	-1.30E-07	-1.30E-07

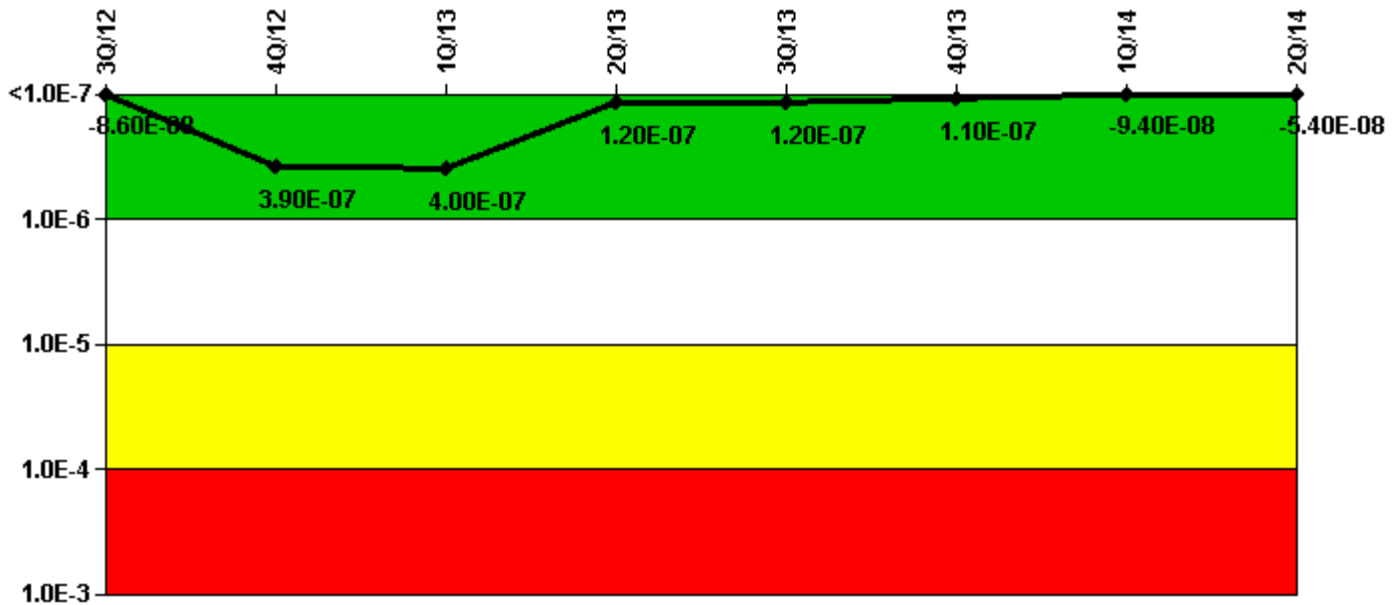
Licensee Comments:

4Q/12: Changed PRA Parameter(s).

4Q/12: Changed PRA Parameter(s).

3Q/12: Changed PRA Parameter(s).

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	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14
UAI (Δ CDF)	2.58E-07	5.21E-07	5.23E-07	2.44E-07	2.45E-07	2.28E-07	1.79E-08	5.32E-08
URI (Δ CDF)	-3.44E-07	-1.31E-07	-1.28E-07	-1.24E-07	-1.20E-07	-1.16E-07	-1.12E-07	-1.07E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-8.60E-08	3.90E-07	4.00E-07	1.20E-07	1.20E-07	1.10E-07	-9.40E-08	-5.40E-08

Licensee Comments:

2Q/13: Changed PRA Parameter(s).

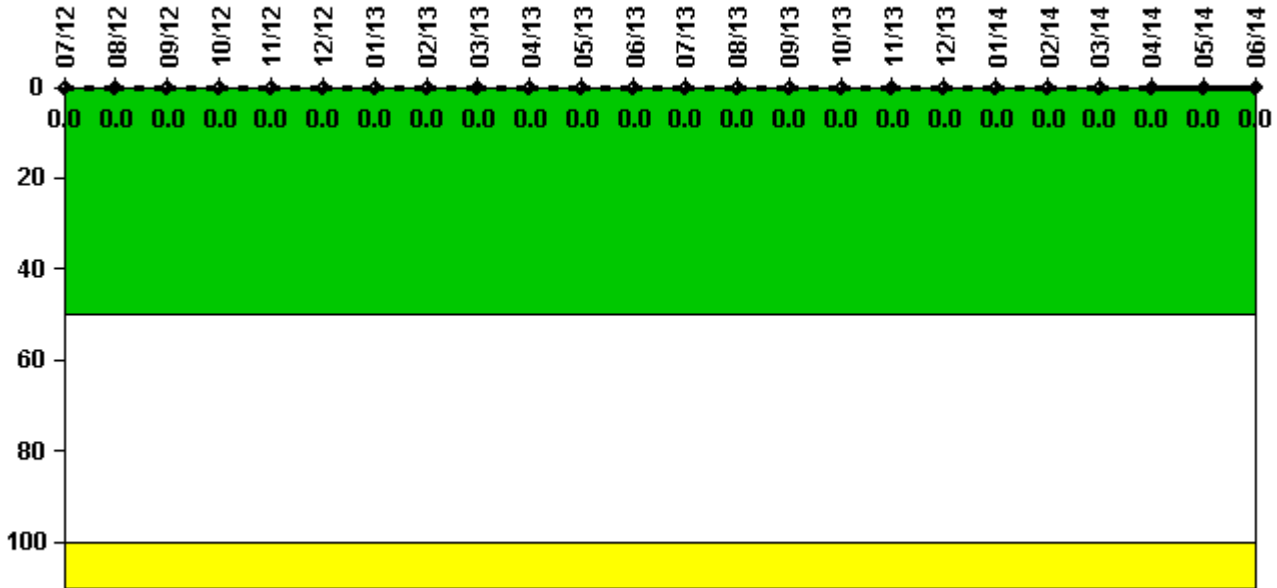
4Q/12: Changed PRA Parameter(s).

4Q/12: Changed PRA Parameter(s).

3Q/12: IR#1414688 1B SX pp tripped unexpectedly. Data was actually entered in October due to INPO implementation of ICES it was unavailable to enter data in Sept.

3Q/12: Changed PRA Parameter(s).

Reactor Coolant System Activity



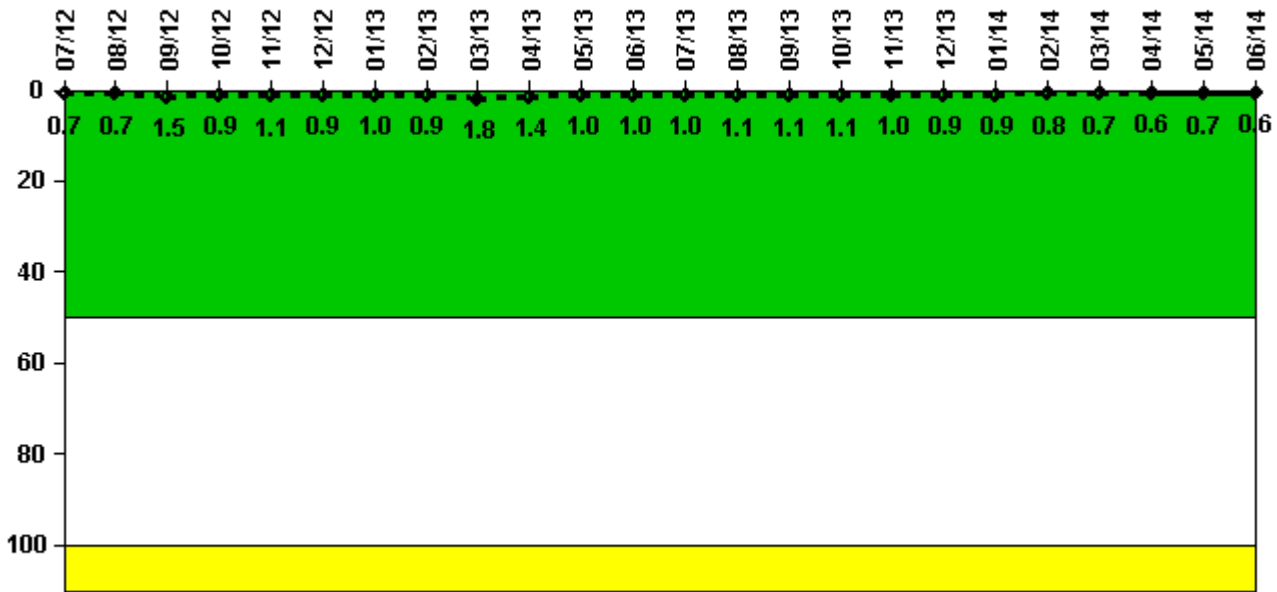
Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Activity	7/12	8/12	9/12	10/12	11/12	12/12	1/13	2/13	3/13	4/13	5/13	6/13
Maximum activity	0.000129	0.000224	0.000090	0.000118	0.000091	0.000095	0.000099	0.000102	0.000104	0.000176	0.000049	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	0	0	0	0
Reactor Coolant System Activity	7/13	8/13	9/13	10/13	11/13	12/13	1/14	2/14	3/14	4/14	5/14	6/14
Maximum activity	0.000049	0.000053	0.000054	0.000062	0.000061	0.000069	0.000069	0.000072	0.000073	0.000076	0.000087	0.000078
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: none

Reactor Coolant System Leakage



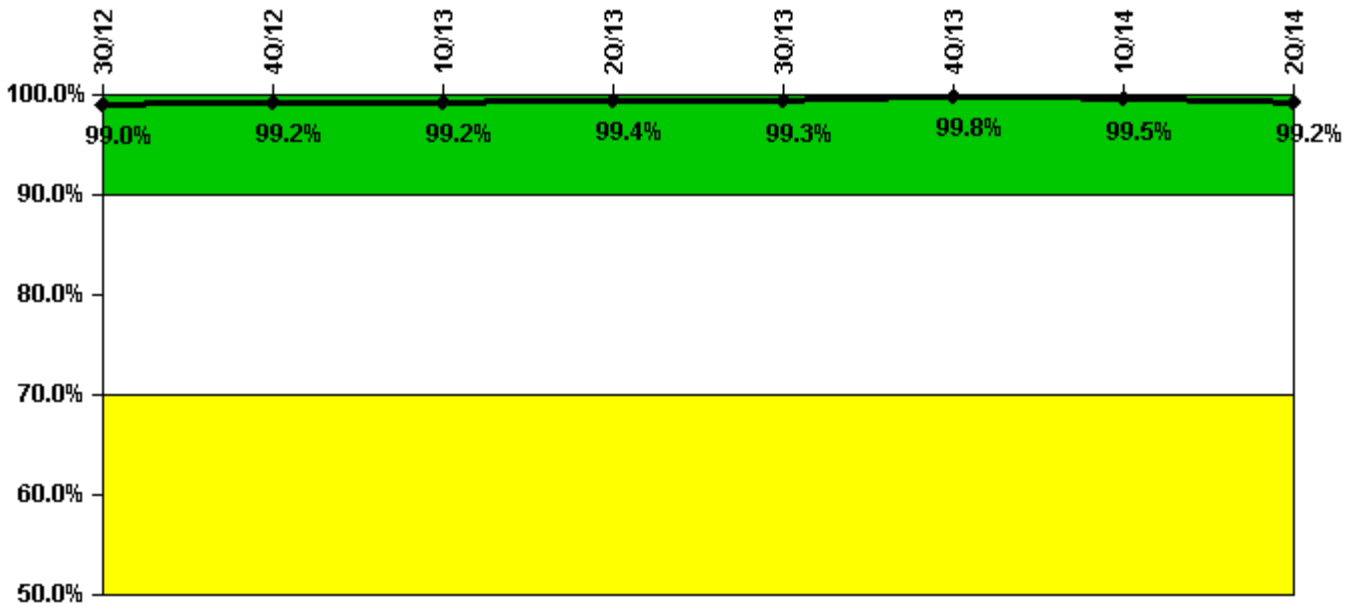
Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Leakage	7/12	8/12	9/12	10/12	11/12	12/12	1/13	2/13	3/13	4/13	5/13	6/13
Maximum leakage	0.070	0.070	0.150	0.090	0.110	0.090	0.100	0.090	0.180	0.140	0.100	0.100
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	0.7	0.7	1.5	0.9	1.1	0.9	1.0	0.9	1.8	1.4	1.0	1.0
Reactor Coolant System Leakage	7/13	8/13	9/13	10/13	11/13	12/13	1/14	2/14	3/14	4/14	5/14	6/14
Maximum leakage	0.100	0.110	0.110	0.110	0.100	0.090	0.090	0.080	0.070	0.060	0.070	0.060
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	1.0	1.1	1.1	1.1	1.0	0.9	0.9	0.8	0.7	0.6	0.7	0.6

Licensee Comments: none

Drill/Exercise Performance



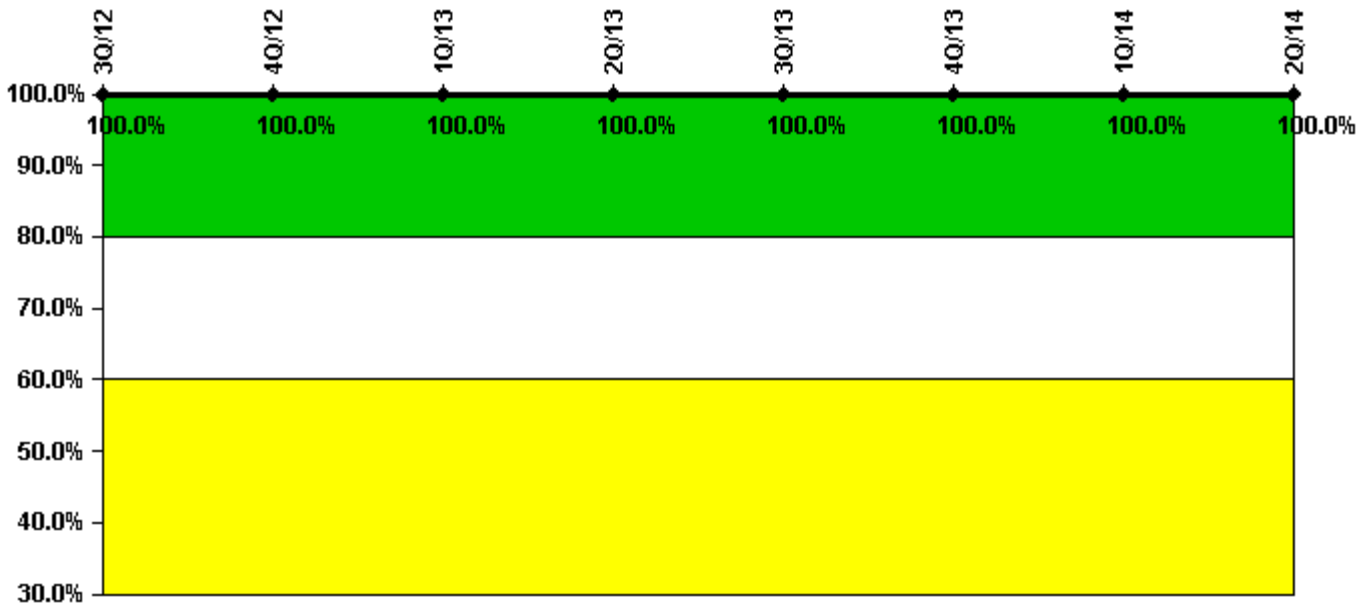
Thresholds: White < 90.0% Yellow < 70.0%

Notes

Drill/Exercise Performance	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14
Successful opportunities	24.0	3.0	104.0	12.0	55.0	32.0	62.0	58.0
Total opportunities	24.0	3.0	104.0	12.0	55.0	32.0	64.0	59.0
Indicator value	99.0%	99.2%	99.2%	99.4%	99.3%	99.8%	99.5%	99.2%

Licensee Comments: none

ERO Drill Participation



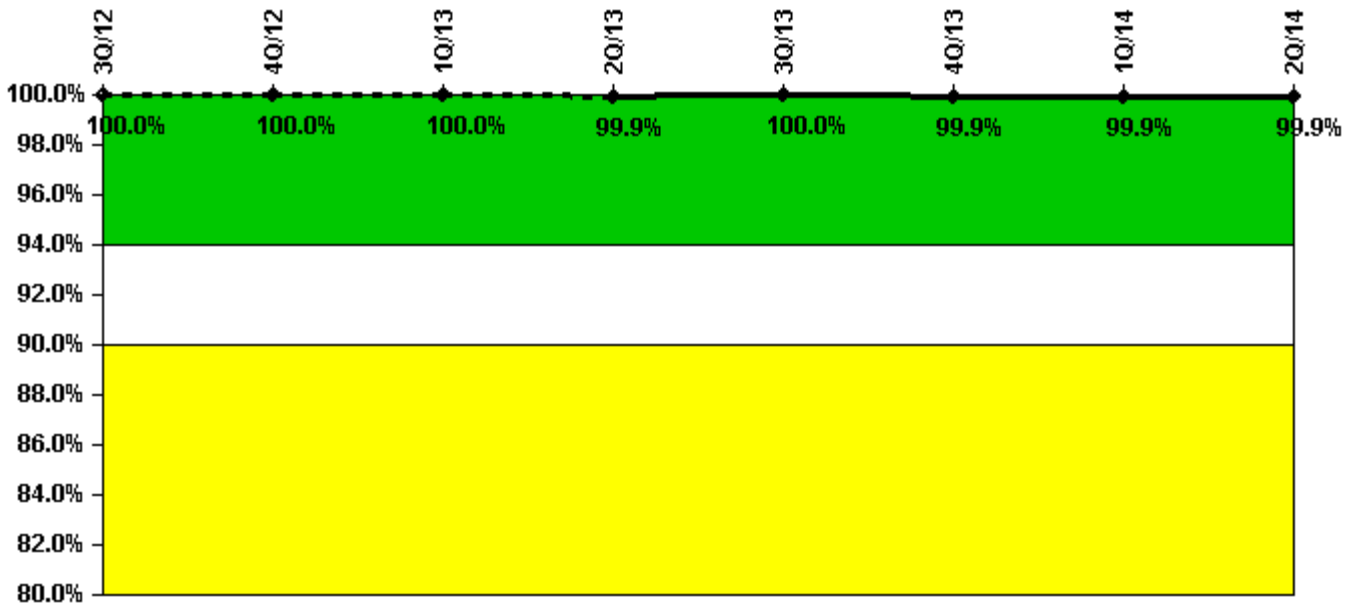
Thresholds: White < 80.0% Yellow < 60.0%

Notes

ERO Drill Participation	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14
Participating Key personnel	78.0	78.0	78.0	76.0	71.0	74.0	77.0	79.0
Total Key personnel	78.0	78.0	78.0	76.0	71.0	74.0	77.0	79.0
Indicator value	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Licensee Comments: none

Alert & Notification System



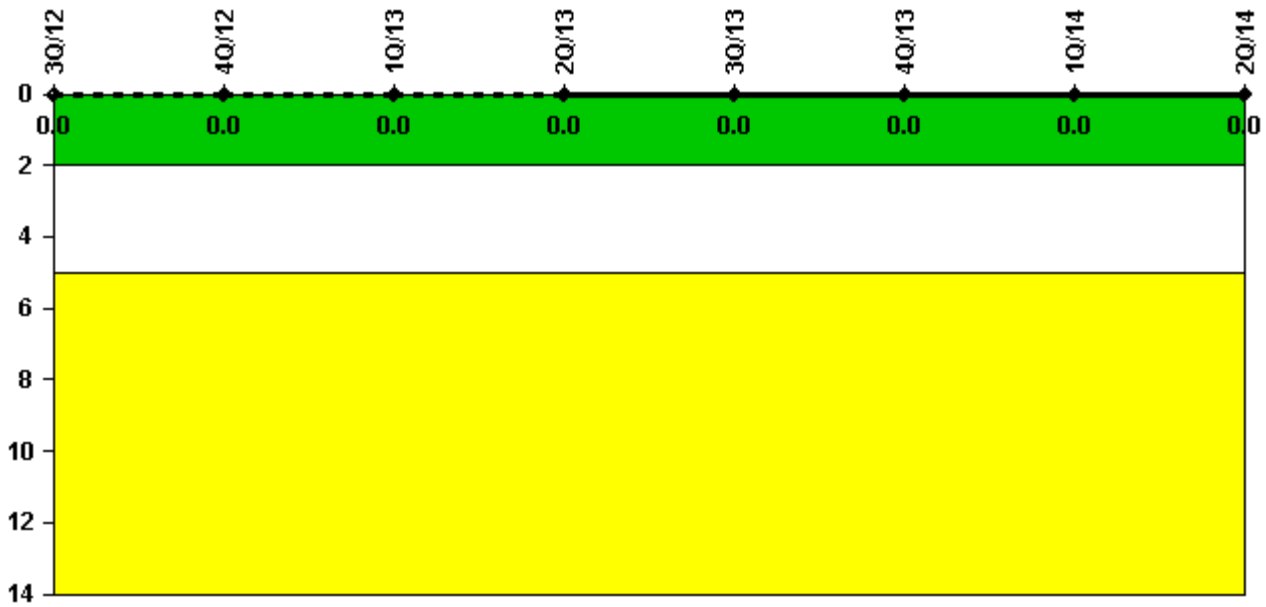
Thresholds: White < 94.0% Yellow < 90.0%

Notes

Alert & Notification System	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14
Successful siren-tests	3841	3904	3902	3900	3903	3900	3841	3898
Total sirens-tests	3843	3904	3904	3904	3904	3904	3843	3904
Indicator value	100.0%	100.0%	100.0%	99.9%	100.0%	99.9%	99.9%	99.9%

Licensee Comments: none

Occupational Exposure Control Effectiveness



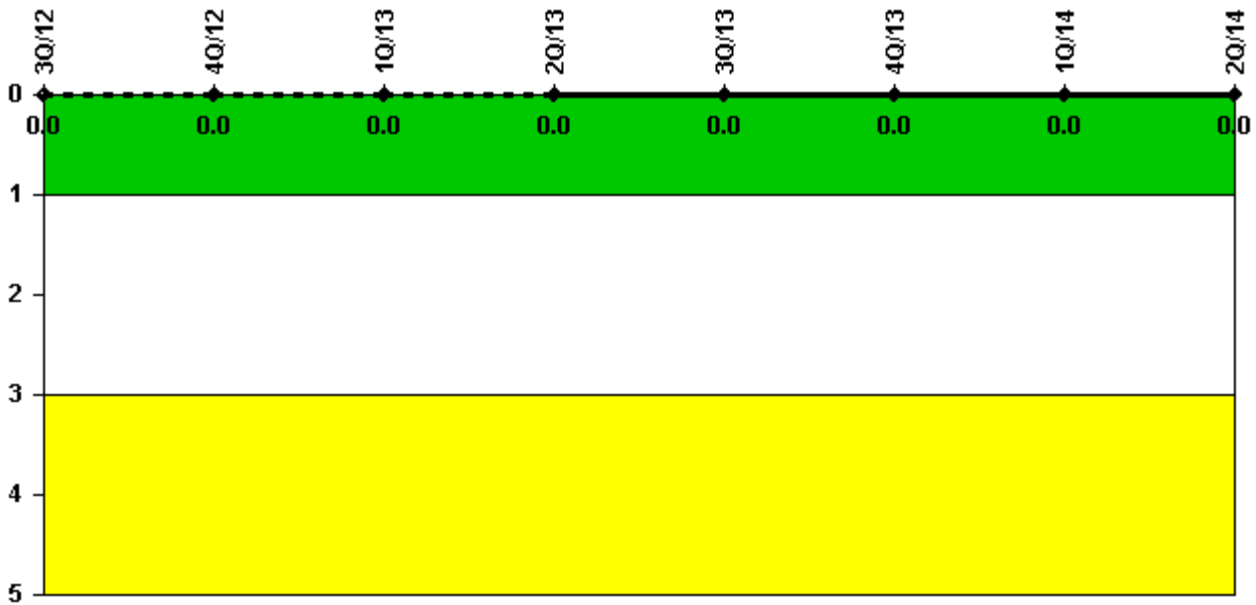
Thresholds: White > 2.0 Yellow > 5.0

Notes

Occupational Exposure Control Effectiveness	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14
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	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14
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: July 31, 2014