

Crystal River 3

1Q/2013 Performance Indicators

Crystal River 3 has been shutdown since September 2009. Because the Unplanned Scrams with Complications (USwC) and Mitigating Systems Performance Index (MSPI) performance indicators (PIs) are heavily influenced by the operational status of the reactor, NRC staff has evaluated the validity of these PIs. The NRC also discussed the question of PI validity with NEI and other external stakeholders during ROP working group meetings. Because the reactor has not been critical for over three years, there have been no opportunities for a scram that would count in the USwC indicator. Similarly, the MSPI values are skewed because of the very low number of critical hours in three years. For these reasons, the staff has determined that these PIs no longer provide valid indications of performance.

Licensee's General Comments: none

Unplanned Scrams per 7000 Critical Hrs



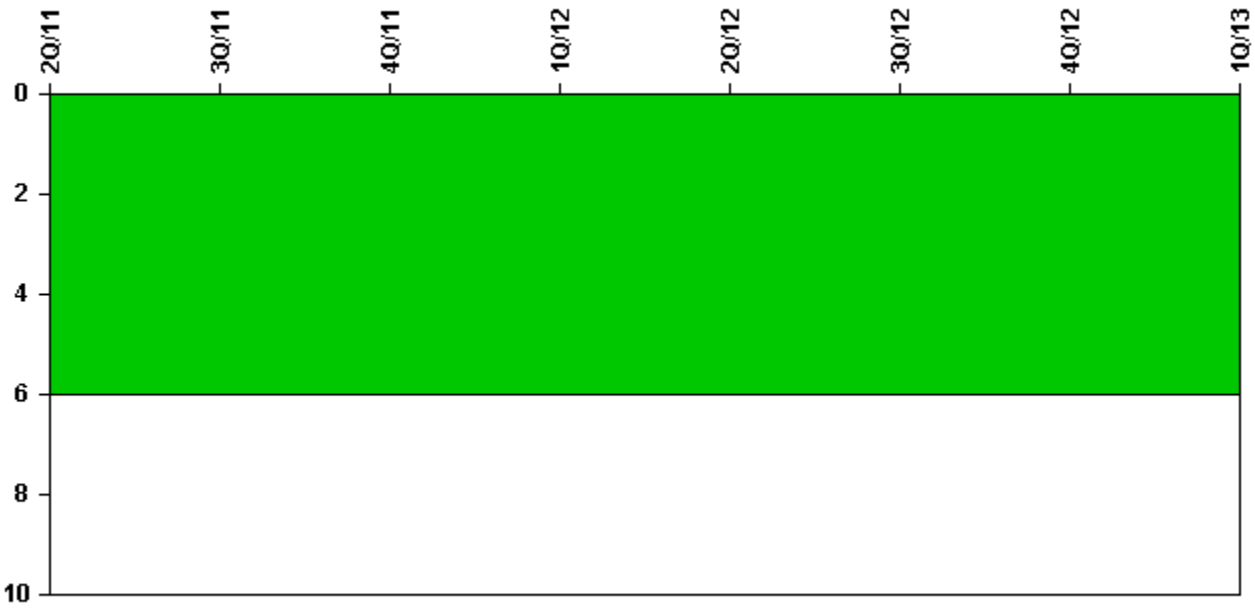
Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

Notes

Unplanned Scrams per 7000 Critical Hrs	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13
Unplanned scrams	0	0	0	0	0	0	0	0
Critical hours	0	0	0	0	0	0	0	0
Indicator value	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Licensee Comments: none

Unplanned Power Changes per 7000 Critical Hrs



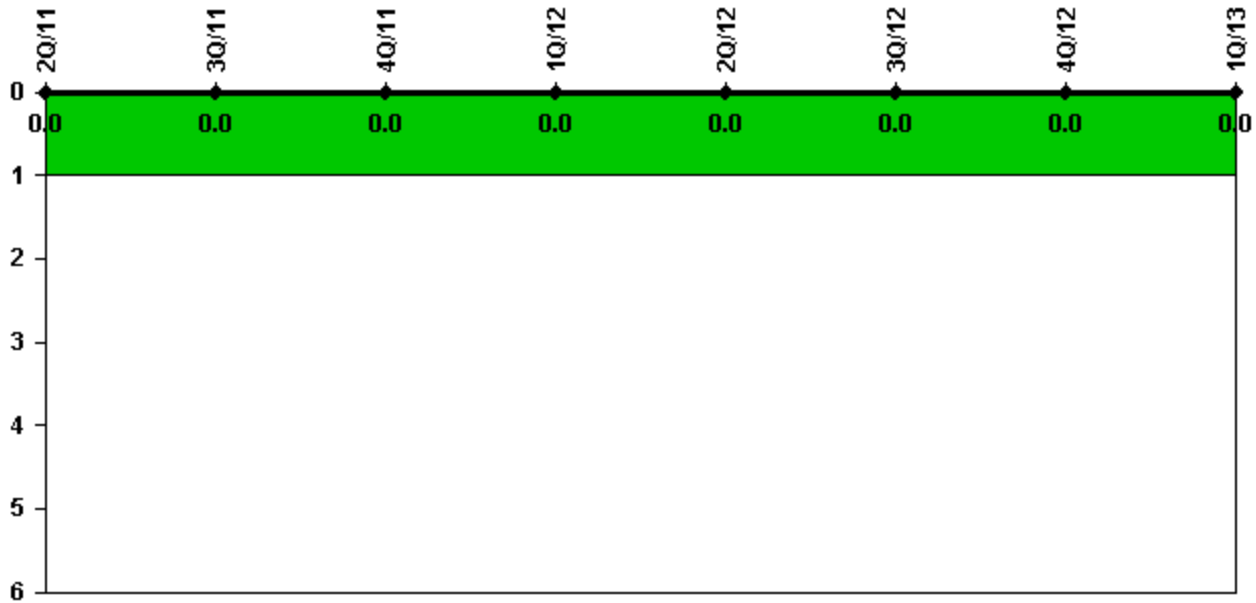
Thresholds: White > 6.0

Notes

Unplanned Power Changes per 7000 Critical Hrs	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13
Unplanned power changes	0	0	0	0	0	0	0	0
Critical hours	0	0	0	0	0	0	0	0
Indicator value	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Licensee Comments: none

Unplanned Scrams with Complications



Thresholds: White > 1.0

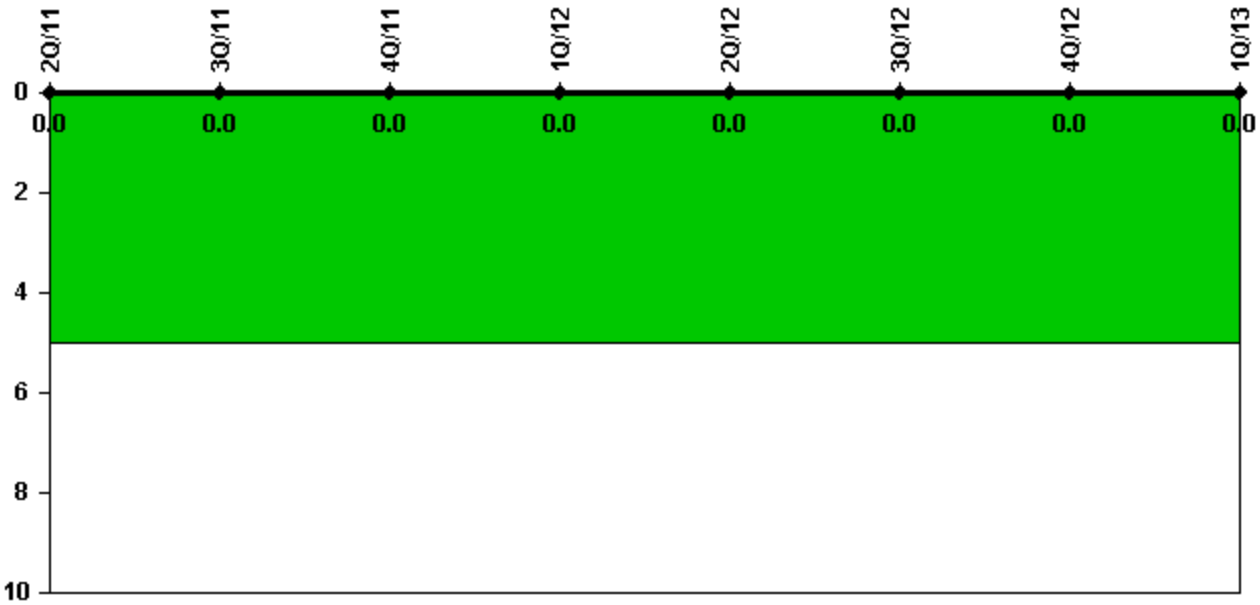
Notes

Unplanned Scrams with Complications	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13
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:

2Q/11: Proposed FAQ 11-09 has been submitted to consider adding guidance to NEI 99-02 to address the CR-3 extended shutdown condition.

Safety System Functional Failures (PWR)



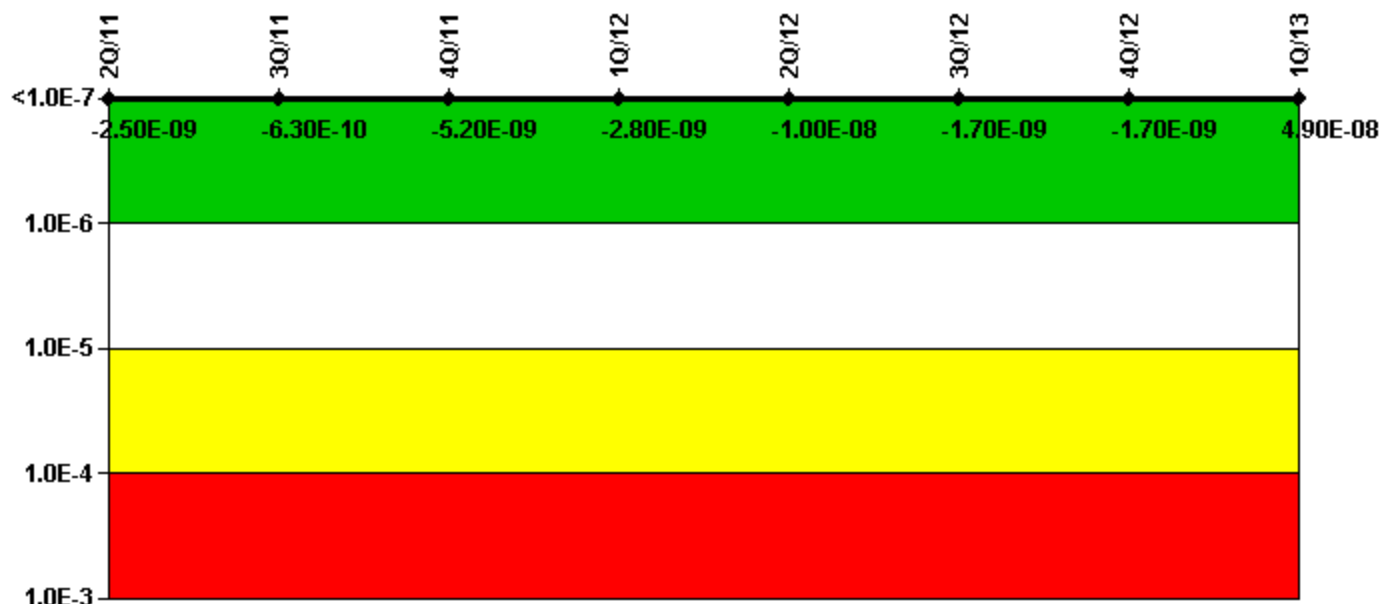
Thresholds: White > 5.0

Notes

Safety System Functional Failures (PWR)	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13
Safety System Functional Failures	0	0	0	0	0	0	0	0
Indicator value	0	0	0	0	0	0	0	0

Licensee Comments: none

Mitigating Systems Performance Index, Emergency AC Power System



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

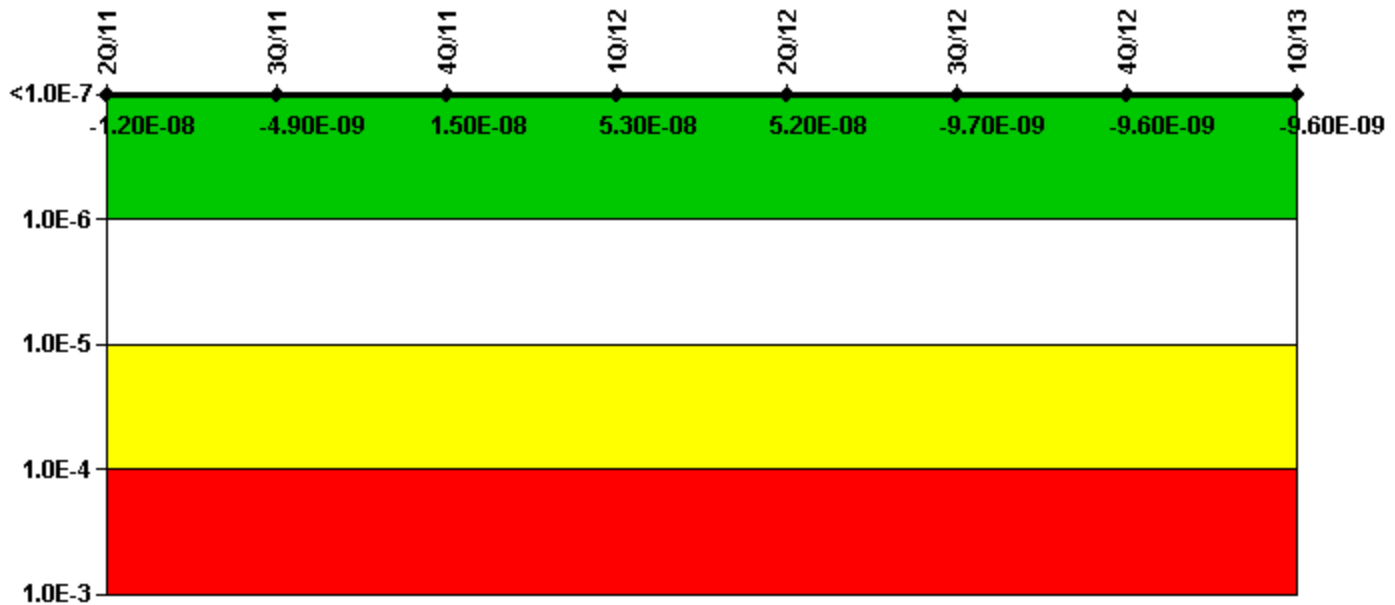
Notes

Mitigating Systems Performance Index, Emergency AC Power System	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13
UAI (Δ CDF)	-8.44E-10	1.04E-09	-3.56E-09	-1.13E-09	-8.45E-09	0.00E+00	0.00E+00	0.00E+00
URI (Δ CDF)	-1.68E-09	-1.68E-09	-1.68E-09	-1.68E-09	-1.68E-09	-1.68E-09	-1.68E-09	4.92E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-2.50E-09	-6.30E-10	-5.20E-09	-2.80E-09	-1.00E-08	-1.70E-09	-1.70E-09	4.90E-08

Licensee Comments:

2Q/11: Proposed FAQ 11-09 has been submitted to consider adding guidance to NEI 99-02 to address the CR-3 extended shutdown condition and recovery after startup.

Mitigating Systems Performance Index, High Pressure Injection System



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

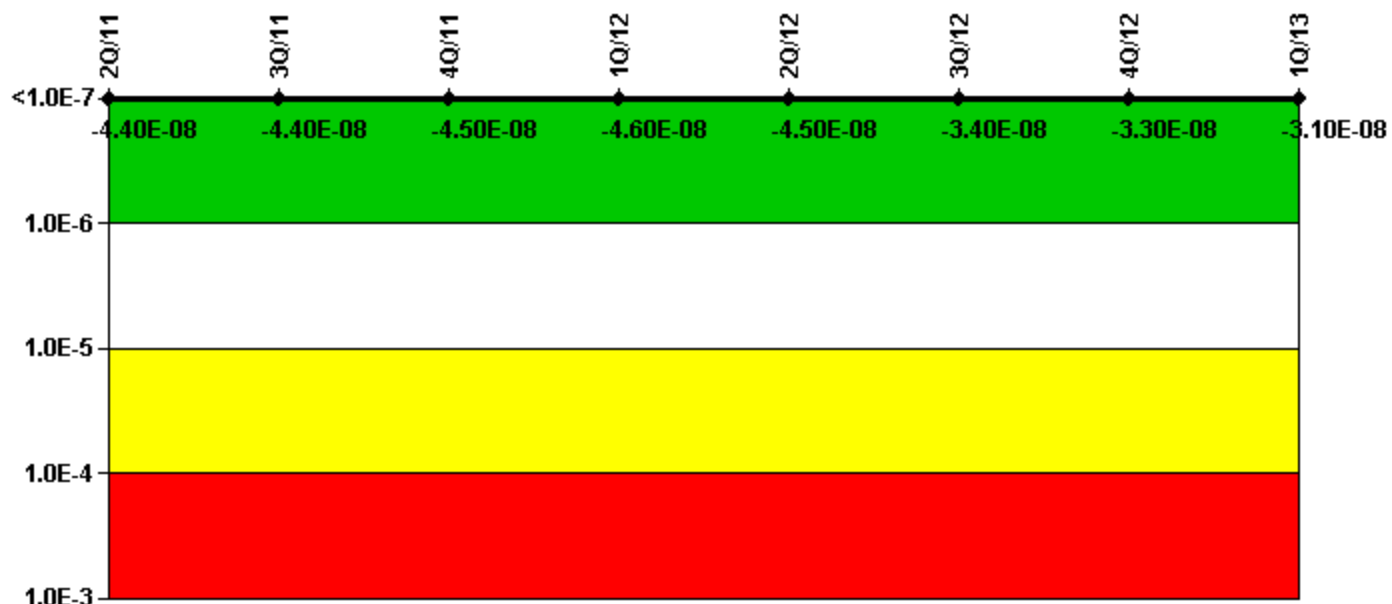
Notes

Mitigating Systems Performance Index, High Pressure Injection System	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13
UAI (Δ CDF)	-1.86E-09	5.00E-09	2.48E-08	6.32E-08	6.16E-08	0.00E+00	0.00E+00	0.00E+00
URI (Δ CDF)	-9.91E-09	-9.87E-09	-9.83E-09	-9.78E-09	-9.74E-09	-9.69E-09	-9.65E-09	-9.60E-09
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-1.20E-08	-4.90E-09	1.50E-08	5.30E-08	5.20E-08	-9.70E-09	-9.60E-09	-9.60E-09

Licensee Comments:

2Q/11: Proposed FAQ 11-09 has been submitted to consider adding guidance to NEI 99-02 to address the CR-3 extended shutdown condition and recovery after startup.

Mitigating Systems Performance Index, Heat Removal System



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

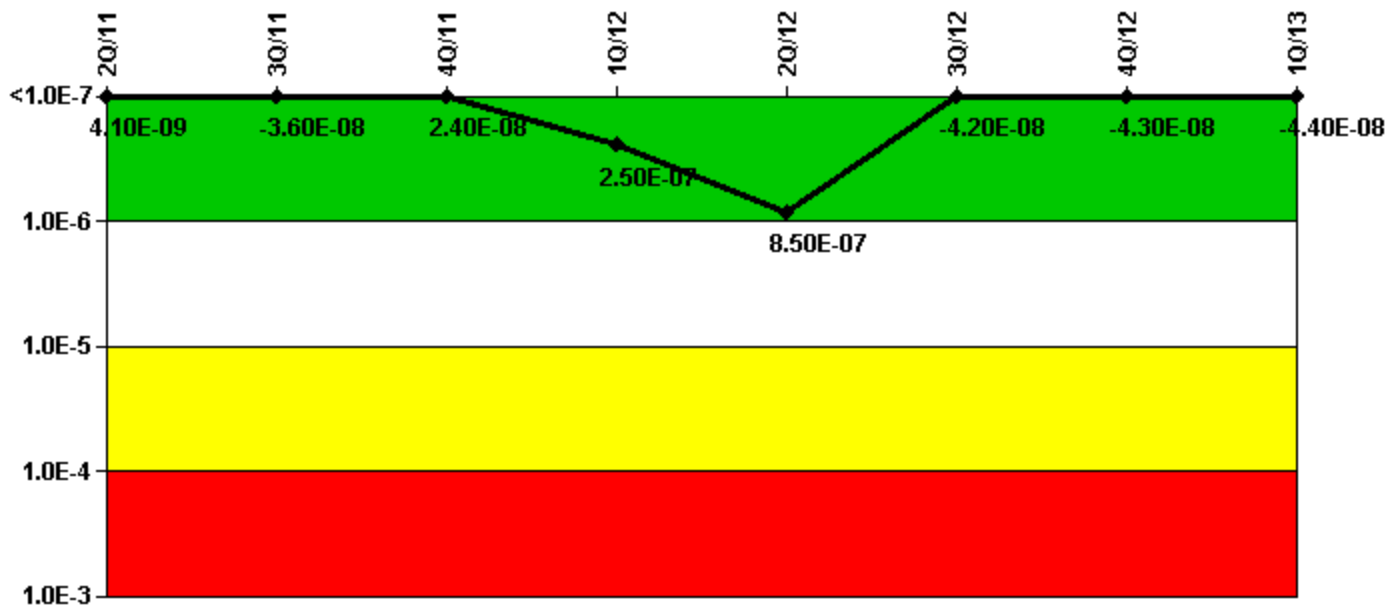
Notes

Mitigating Systems Performance Index, Heat Removal System	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13
UAI (Δ CDF)	-2.37E-09	-3.52E-09	-5.87E-09	-9.19E-09	-9.19E-09	0.00E+00	0.00E+00	0.00E+00
URI (Δ CDF)	-4.17E-08	-4.02E-08	-3.88E-08	-3.73E-08	-3.58E-08	-3.42E-08	-3.26E-08	-3.09E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-4.40E-08	-4.40E-08	-4.50E-08	-4.60E-08	-4.50E-08	-3.40E-08	-3.30E-08	-3.10E-08

Licensee Comments:

2Q/11: Proposed FAQ 11-09 has been submitted to consider adding guidance to NEI 99-02 to address the CR-3 extended shutdown condition and recovery after startup.

Mitigating Systems Performance Index, Residual Heat Removal System



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

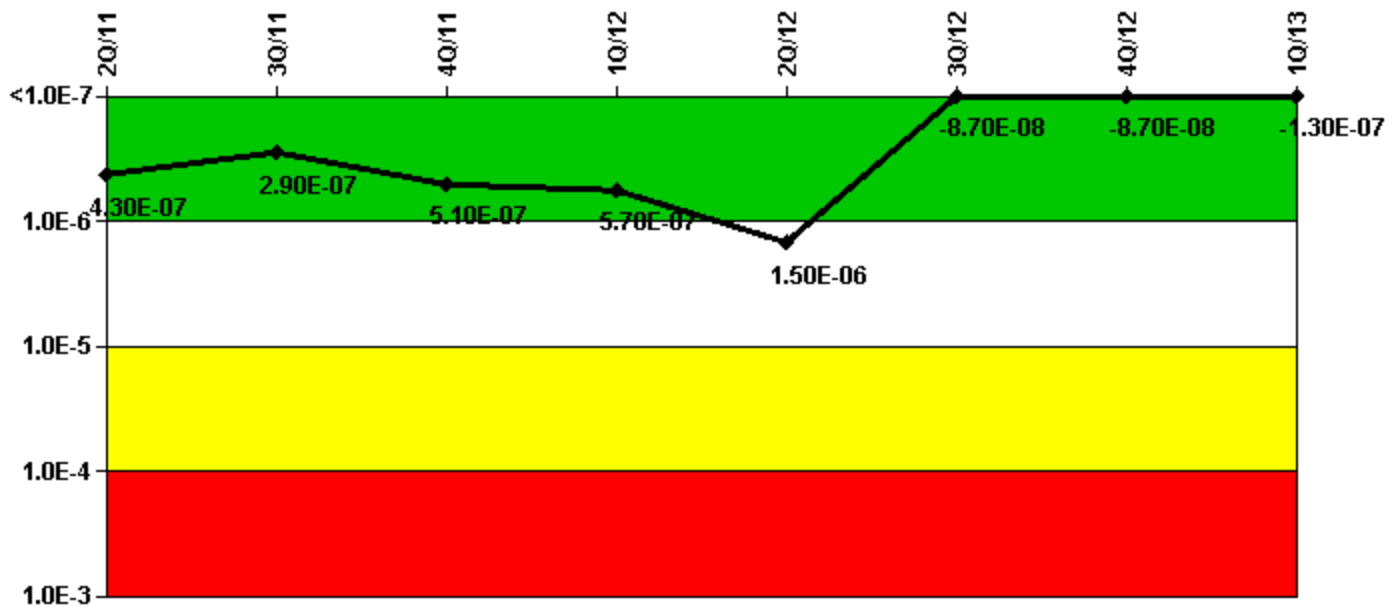
Notes

Mitigating Systems Performance Index, Residual Heat Removal System	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13
UAI (Δ CDF)	3.87E-08	-5.17E-10	6.19E-08	2.87E-07	8.93E-07	0.00E+00	0.00E+00	0.00E+00
URI (Δ CDF)	-3.45E-08	-3.60E-08	-3.74E-08	-3.88E-08	-4.02E-08	-4.16E-08	-4.29E-08	-4.42E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	4.10E-09	-3.60E-08	2.40E-08	2.50E-07	8.50E-07	-4.20E-08	-4.30E-08	-4.40E-08

Licensee Comments:

2Q/11: Proposed FAQ 11-09 has been submitted to consider adding guidance to NEI 99-02 to address the CR-3 extended shutdown condition and recovery after startup.

Mitigating Systems Performance Index, Cooling Water Systems



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

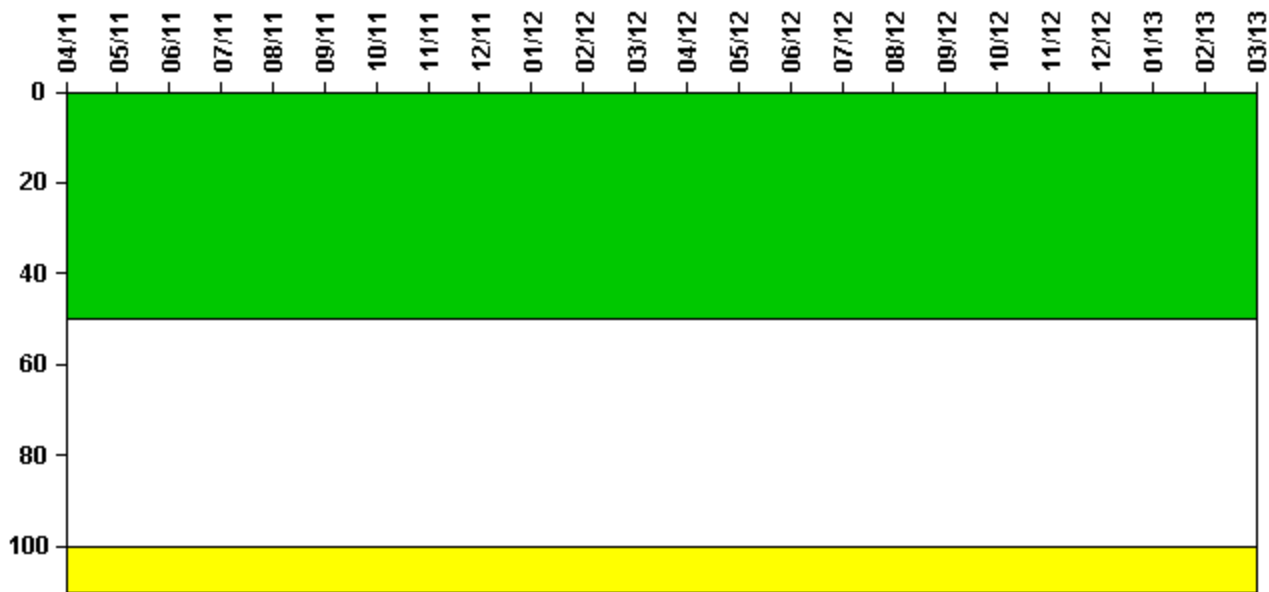
Notes

Mitigating Systems Performance Index, Cooling Water Systems	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13
UAI (ΔCDF)	4.24E-07	2.81E-07	4.98E-07	5.51E-07	1.47E-06	0.00E+00	0.00E+00	0.00E+00
URI (ΔCDF)	1.01E-08	1.31E-08	1.62E-08	1.95E-08	2.29E-08	-8.65E-08	-8.65E-08	-1.35E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	4.30E-07	2.90E-07	5.10E-07	5.70E-07	1.50E-06	-8.70E-08	-8.70E-08	-1.30E-07

Licensee Comments:

2Q/11: Proposed FAQ 11-09 has been submitted to consider adding guidance to NEI 99-02 to address the CR-3 extended shutdown condition and recovery after startup.

Reactor Coolant System Activity



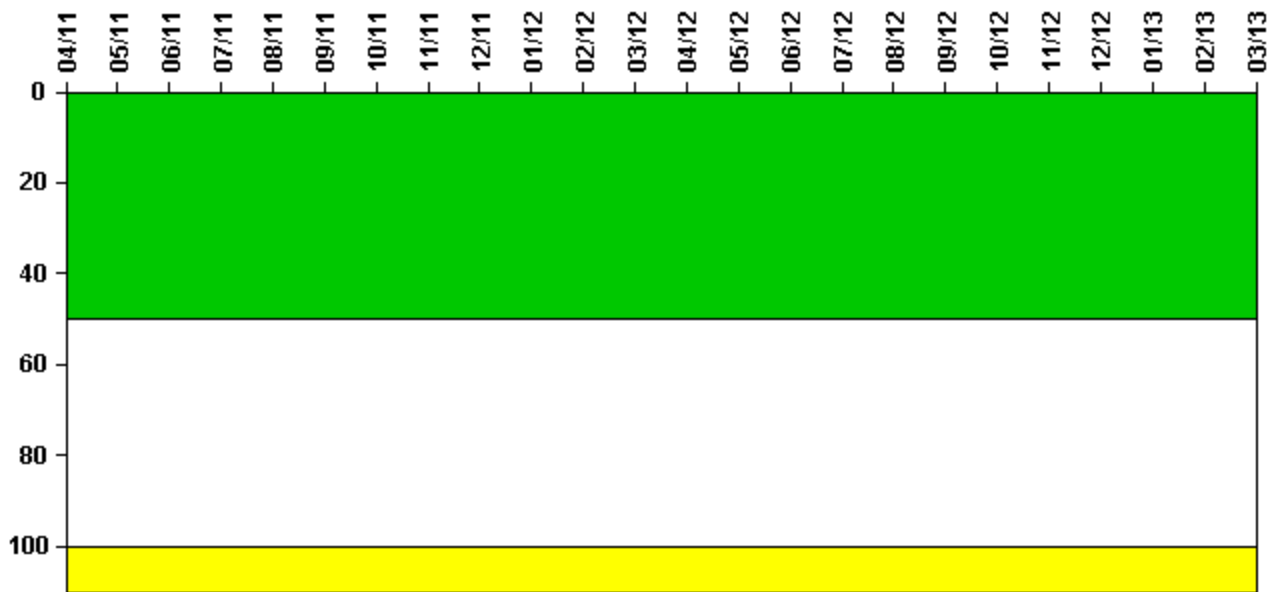
Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Activity	4/11	5/11	6/11	7/11	8/11	9/11	10/11	11/11	12/11	1/12	2/12	3/12
Maximum activity	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
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	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Reactor Coolant System Activity	4/12	5/12	6/12	7/12	8/12	9/12	10/12	11/12	12/12	1/13	2/13	3/13
Maximum activity	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
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	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Licensee Comments: none

Reactor Coolant System Leakage



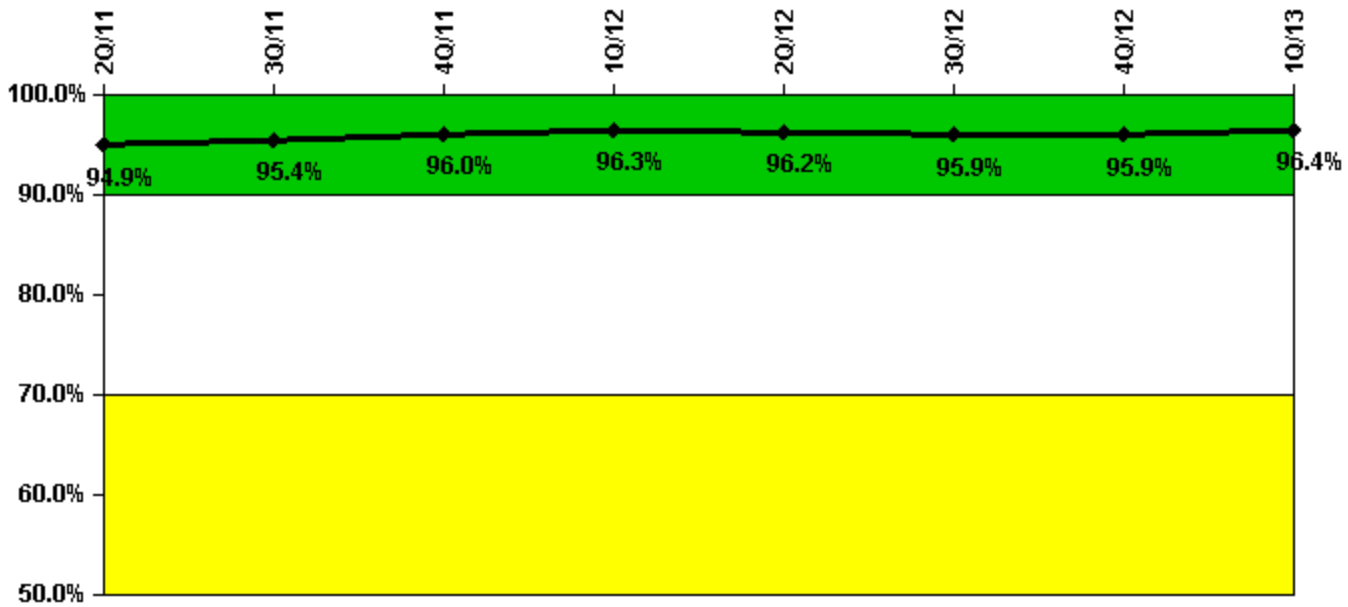
Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Leakage	4/11	5/11	6/11	7/11	8/11	9/11	10/11	11/11	12/11	1/12	2/12	3/12
Maximum leakage	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
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	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Reactor Coolant System Leakage	4/12	5/12	6/12	7/12	8/12	9/12	10/12	11/12	12/12	1/13	2/13	3/13
Maximum leakage	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
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	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Licensee Comments: none

Drill/Exercise Performance



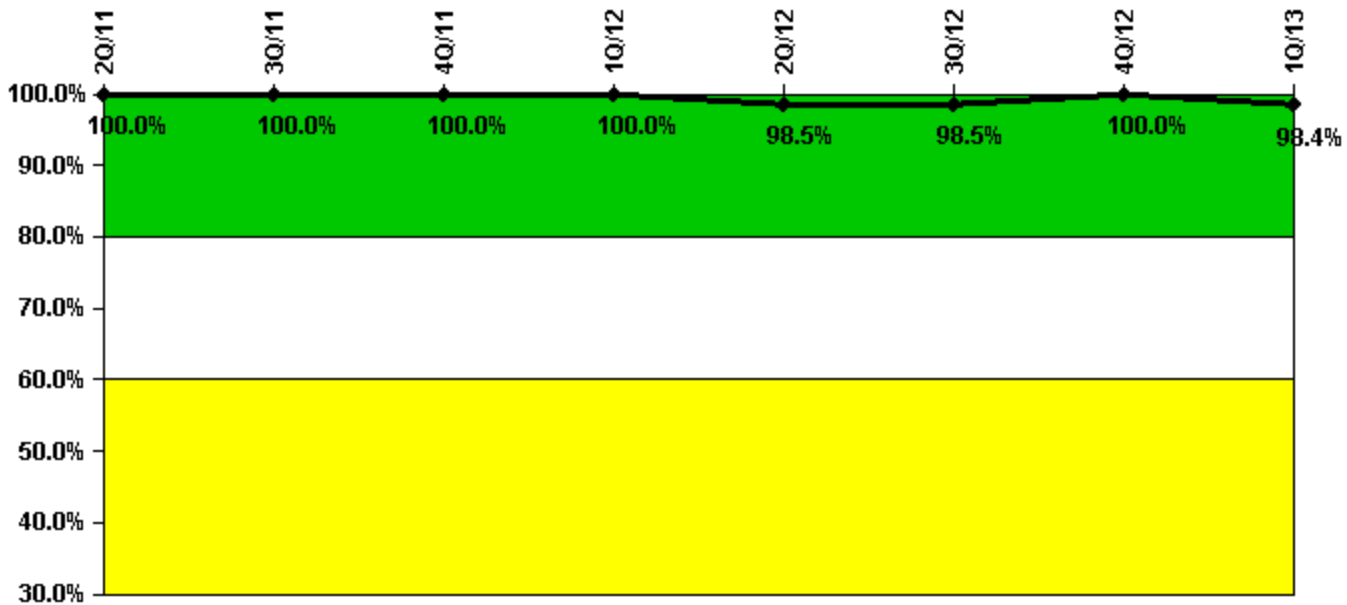
Thresholds: White < 90.0% Yellow < 70.0%

Notes

Drill/Exercise Performance	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13
Successful opportunities	11.0	24.0	30.0	29.0	39.0	20.0	28.0	6.0
Total opportunities	12.0	24.0	30.0	30.0	41.0	21.0	30.0	6.0
Indicator value	94.9%	95.4%	96.0%	96.3%	96.2%	95.9%	95.9%	96.4%

Licensee Comments: none

ERO Drill Participation



Thresholds: White < 80.0% Yellow < 60.0%

Notes

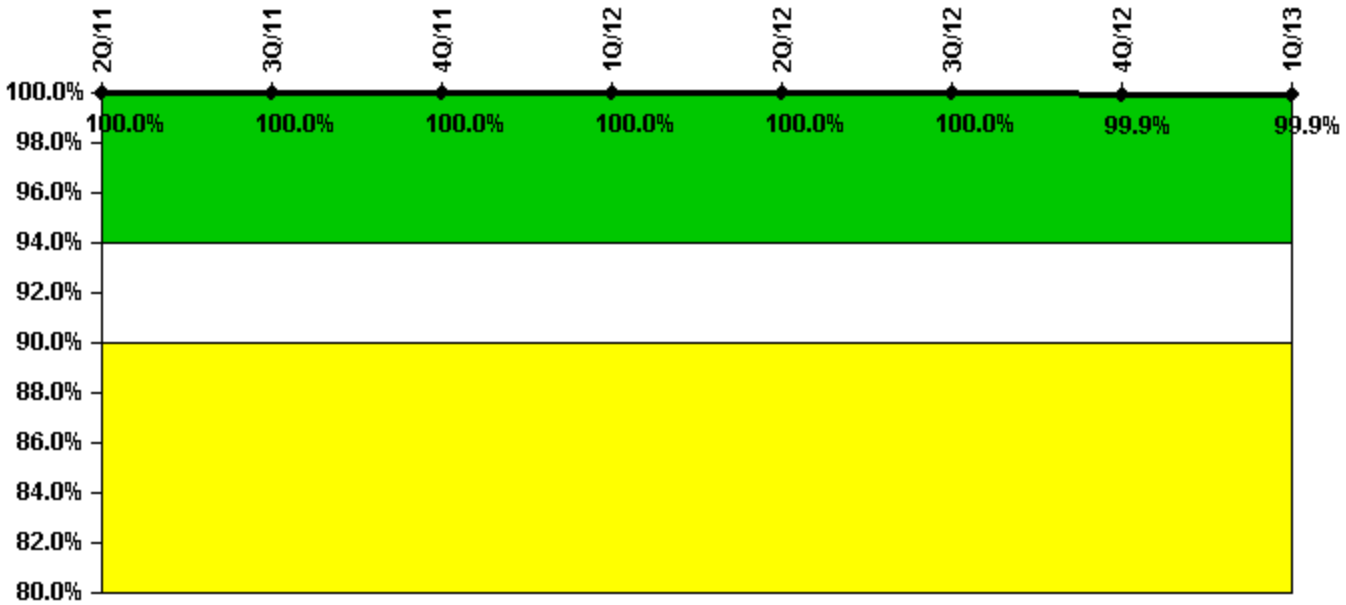
ERO Drill Participation	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13
Participating Key personnel	69.0	69.0	70.0	68.0	67.0	67.0	67.0	61.0
Total Key personnel	69.0	69.0	70.0	68.0	68.0	68.0	67.0	62.0
Indicator value	100.0%	100.0%	100.0%	100.0%	98.5%	98.5%	100.0%	98.4%

Licensee Comments:

3Q/12: Due to an administrative error, the 3Q2012 ERO Drill Participation should have been 67 out of 68 instead of 68 out of 68. This change does not affect the color of the performance indicator.

2Q/12: Due to an administrative error, the 2Q2012 ERO Drill Participation should have been 67 out of 68 instead of 68 out of 68. This change does not affect the color of the performance indicator.

Alert & Notification System



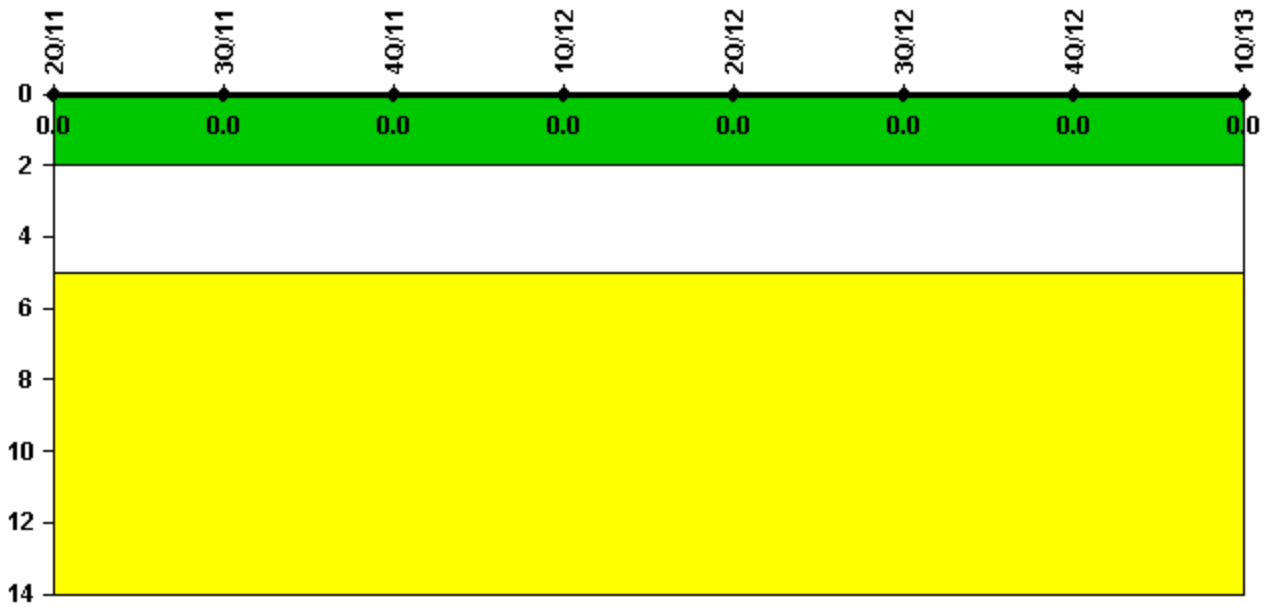
Thresholds: White < 94.0% Yellow < 90.0%

Notes

Alert & Notification System	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13
Successful siren-tests	1039	1080	1028	1040	1040	1026	1039	1040
Total sirens-tests	1040	1080	1028	1040	1040	1028	1040	1040
Indicator value	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	99.9%	99.9%

Licensee Comments: none

Occupational Exposure Control Effectiveness



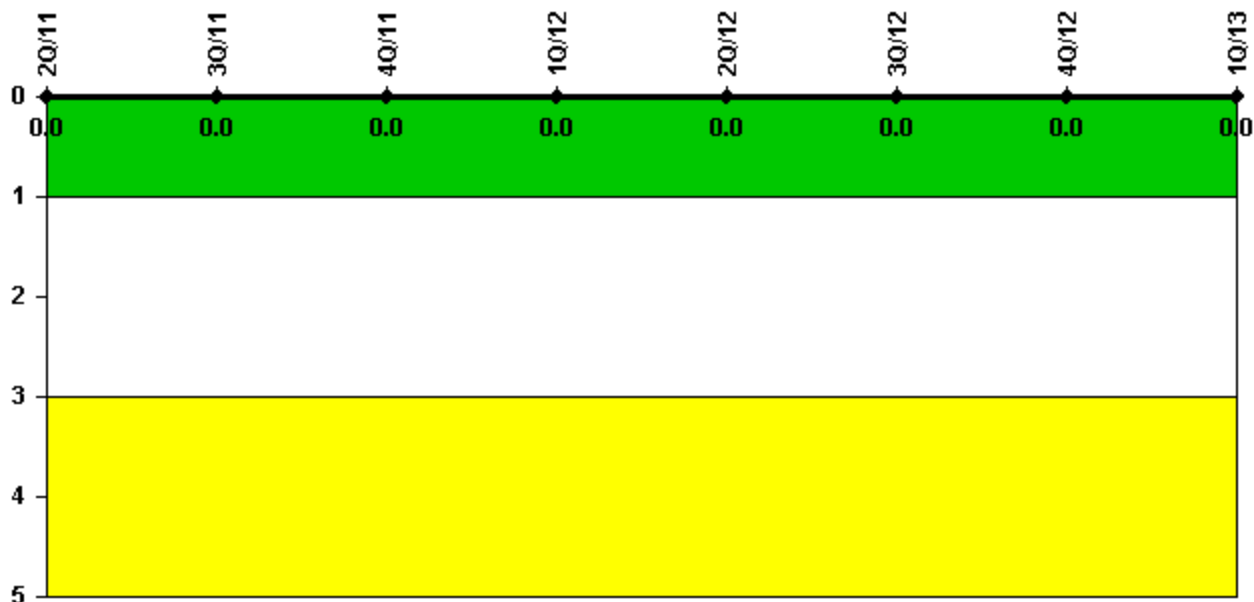
Thresholds: White > 2.0 Yellow > 5.0

Notes

Occupational Exposure Control Effectiveness	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13
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	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13
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: April 23, 2013