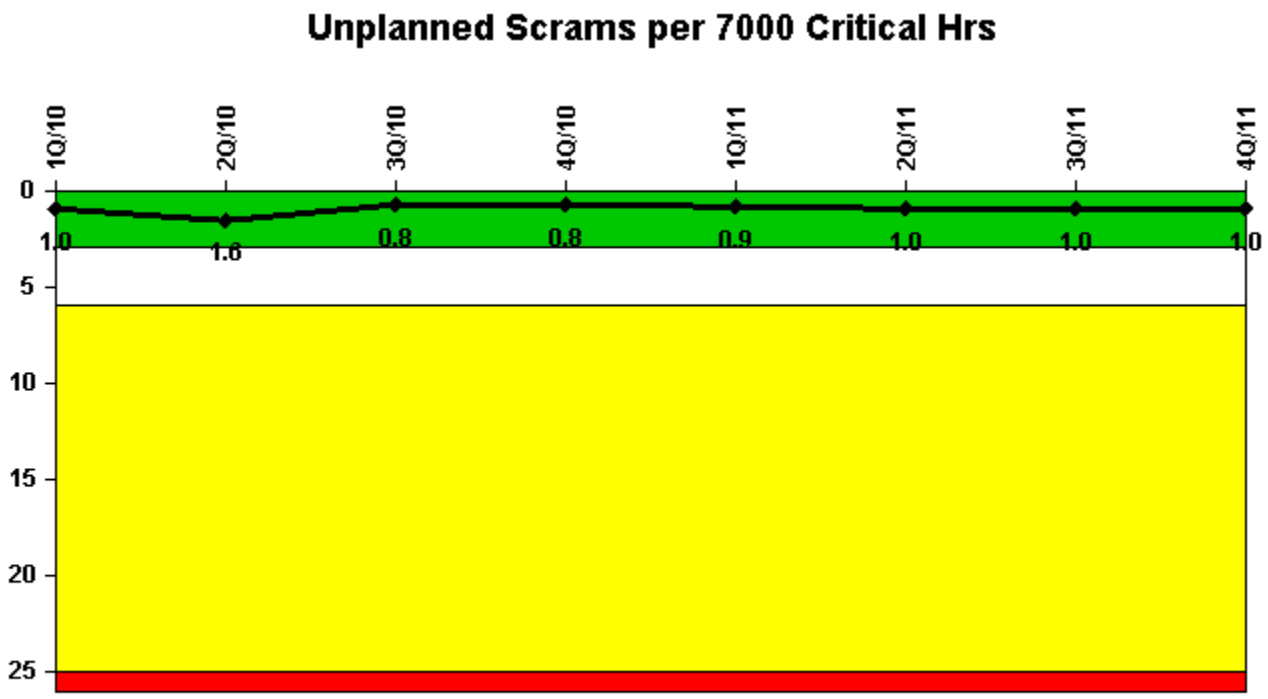
Browns Ferry 2

4Q/2011 Performance Indicators

Licensee's General Comments: none



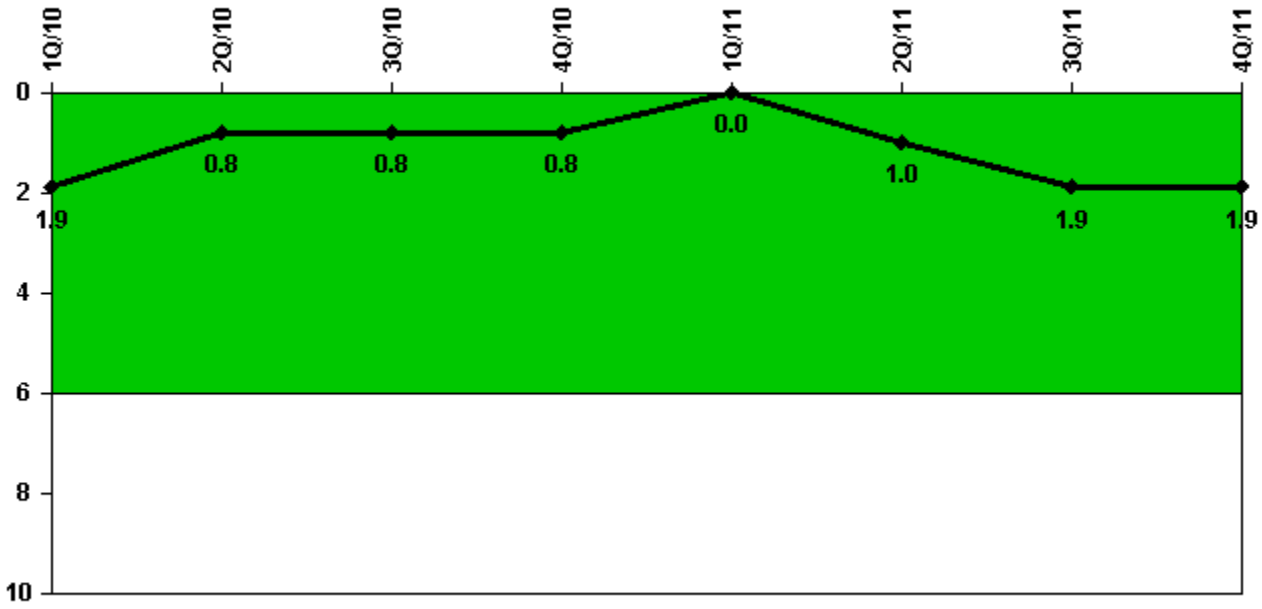
Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

Notes

Unplanned Scrams per 7000 Critical Hrs	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11
Unplanned scrams	0	1.0	0	0	0	1.0	0	0
Critical hours	2038.9	2137.6	2208.0	2209.0	1344.0	1438.2	2208.0	2209.0
Indicator value	**1.0**	**1.6**	**0.8**	**0.8**	**0.9**	**1.0**	**1.0**	**1.0**

Licensee Comments: none

Unplanned Power Changes per 7000 Critical Hrs



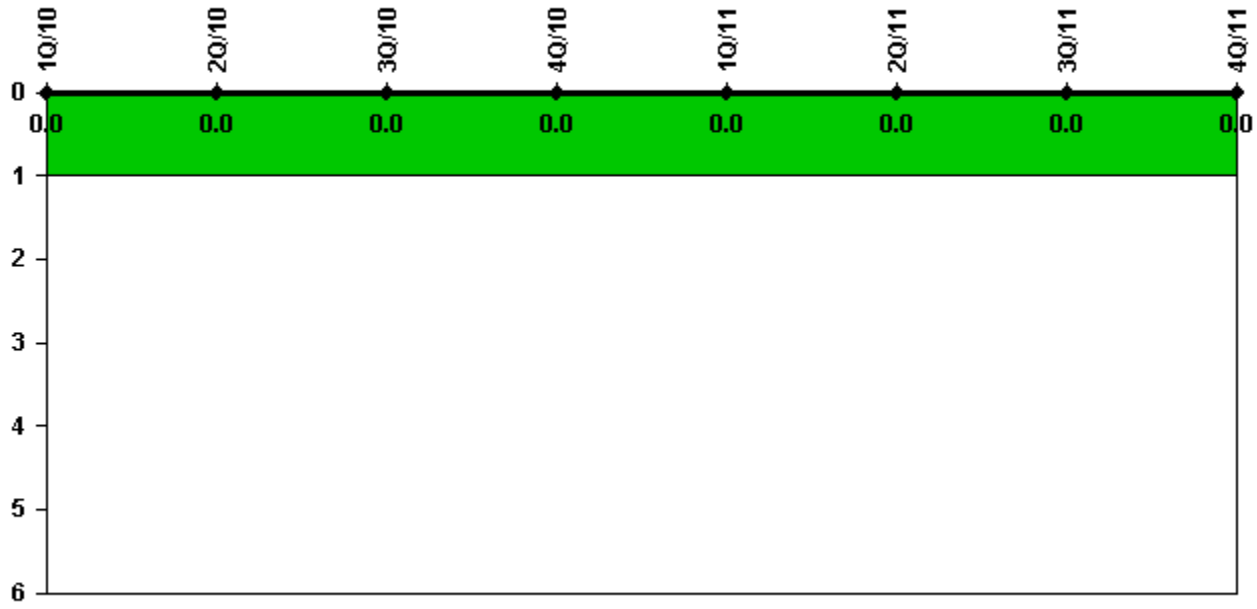
Thresholds: White > 6.0

Notes

Unplanned Power Changes per 7000 Critical Hrs	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11
Unplanned power changes	1.0	0	0	0	0	1.0	1.0	0
Critical hours	2038.9	2137.6	2208.0	2209.0	1344.0	1438.2	2208.0	2209.0
Indicator value	**1.9**	**0.8**	**0.8**	**0.8**	**0**	**1.0**	**1.9**	**1.9**

Licensee Comments: none

Unplanned Scrams with Complications



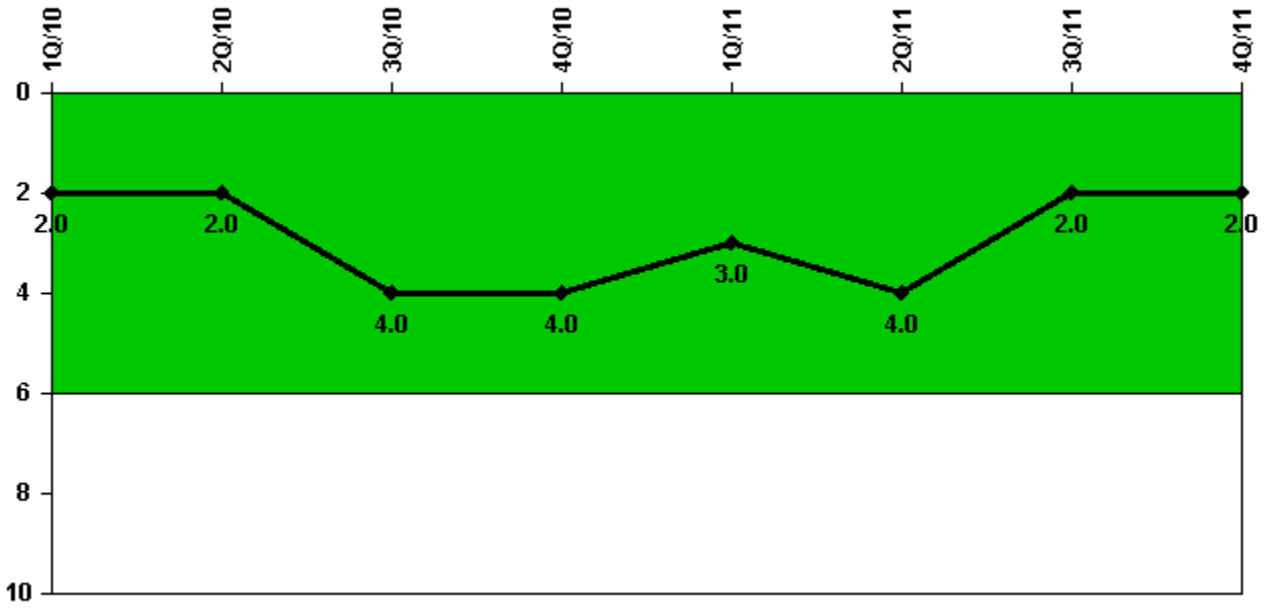
Thresholds: White > 1.0

Notes

Unplanned Scrams with Complications	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11
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

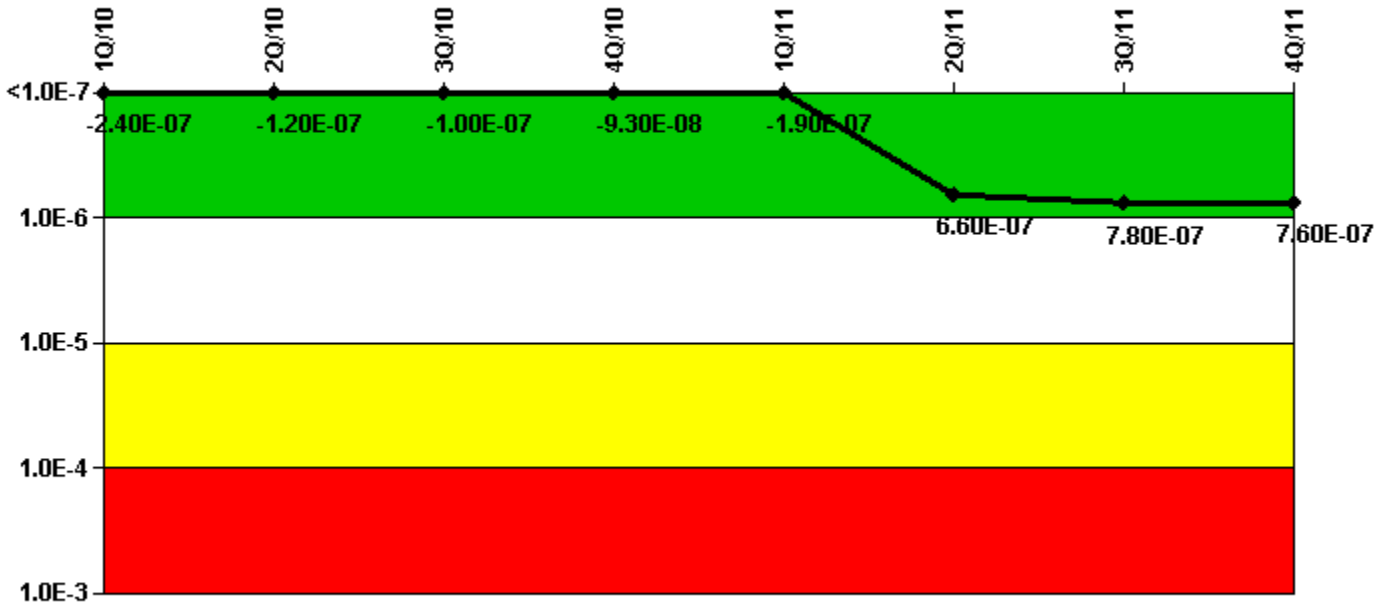
Notes

Safety System Functional Failures (BWR)	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11
Safety System Functional Failures	1	0	2	1	0	1	0	1
Indicator value	**2**	**2**	**4**	**4**	**3**	**4**	**2**	**2**

Licensee Comments:

4Q/11: LER 260/2011-001-00, Core Spray Relay Found in Incorrect Position

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/10	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11
UAI (ΔCDF)	7.96E-08	1.00E-07	1.16E-07	8.10E-08	6.79E-08	7.45E-08	1.00E-07	7.85E-08
URI (ΔCDF)	-3.19E-07	-2.20E-07	-2.20E-07	-1.74E-07	-2.59E-07	5.84E-07	6.84E-07	6.84E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-2.40E-07**	**-1.20E-07**	**-1.00E-07**	**-9.30E-08**	**-1.90E-07**	**6.60E-07**	**7.80E-07**	**7.60E-07**

Licensee Comments:

4Q/11: Risk Cap Invoked. The MSPI Risk Cap is invoked. The contribution from one Failure to Run (7.17E-07) has been replaced by a value of 5.00E-07. Problem Evaluation Report 439980 documented that D DG Failure was incorrectly classified as a Start Failure in EPIX Report 624 associated with Heat Exchanger Fouling. Based on the Past Operability performed on D DG, it was determined that the failure of the DG would have been a load-run failure. This failure classification does not result in a significant impact to MSPI calculations.

3Q/11: Risk Cap Invoked. Revised MSPI Basis Document and MSPI PRA Parameters based on Calculation NDN-000-999-2010-0003 Rev 005 to reflect BFN CAFTA PRA Model Rev 3 which was approved in June 2011. MSPI PRA Parameters based on this model are effective as of Third Quarter 2011. The MSPI Risk Cap is also invoked. The contribution from one Failure to Run (7.17E-07) has been replaced by a value of 5.00E-07. Problem Evaluation Report 439980 documented that D DG Failure was incorrectly classified as a Start Failure in EPIX Report 624 associated with Heat Exchanger Fouling. Based on the Past Operability performed on D DG, it was determined that the failure of the DG would have been a load-run failure. This failure classification does not result in a significant impact to MSPI calculations.

2Q/11: Revised MSPI Basis Document and MSPI PRA Parameters based on Calculation NDN-000-999-2010-0003 rev 003 to correct PRA Model errors associated with the modeling of EECW (Cooling Water System 2) North Header Unavailability and not modeling a failure of a normally operating EECW pump to restart following loss of offsite power. These changes are effective as of Second Quarter 2011. Problem Evaluation Report 439980 documented that D DG Failure was incorrectly classified as a Start Failure in EPIX Report 624 associated with Heat Exchanger Fouling. Based on the Past Operability performed on D DG, it was determined that the failure of the DG would have been a load-run failure. This failure classification does not result in a significant impact to

MSPI calculations.

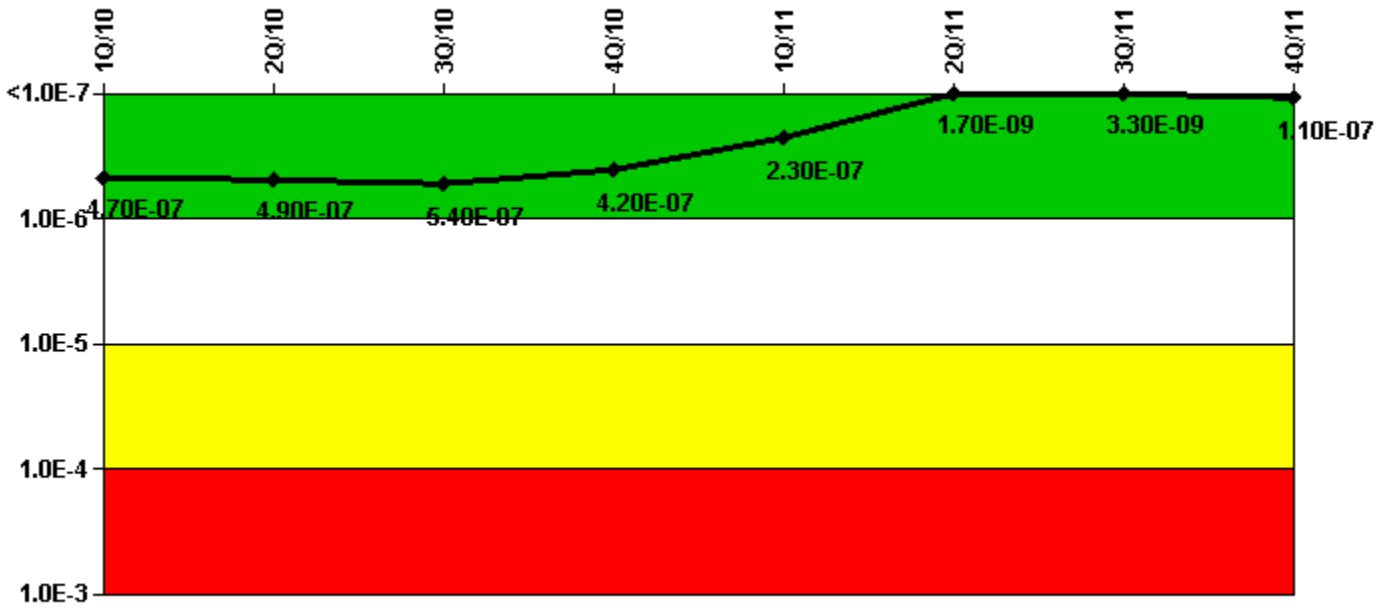
1Q/11: Problem Evaluation Report 439980 documented that D DG Failure was incorrectly classified as a Start Failure in EPIX Report 624 associated with Heat Exchanger Fouling. Based on the Past Operability performed on D DG, it was determined that the failure of the DG would have been a load-run failure. This failure classification does not result in a significant impact to MSPI calculations.

4Q/10: In September 2010, Revision 2 of the Browns Ferry CAFTA PRA Model became the model of record. All MSPI Parameters have been updated to reflect Revision 2 of the PRA model effective October 2010. Problem Evaluation Report 439980 documented that D DG Failure was incorrectly classified as a Start Failure in EPIX Report 624 associated with Heat Exchanger Fouling. Based on the Past Operability performed on D DG, it was determined that the failure of the DG would have been a load-run failure. This failure classification does not result in a significant impact to MSPI calculations.

3Q/10: Problem Evaluation Report 439980 documented that D DG Failure was incorrectly classified as a Start Failure in EPIX Report 624 associated with Heat Exchanger Fouling. Based on the Past Operability performed on D DG, it was determined that the failure of the DG would have been a load-run failure. This failure classification does not result in a significant impact to MSPI calculations.

2Q/10: Problem Evaluation Report 439980 documented that D DG Failure was incorrectly classified as a Start Failure in EPIX Report 624 associated with Heat Exchanger Fouling. Based on the Past Operability performed on D DG, it was determined that the failure of the DG would have been a load-run failure. This failure classification does not result in a significant impact to MSPI calculations.

Mitigating Systems Performance Index, High Pressure Injection System



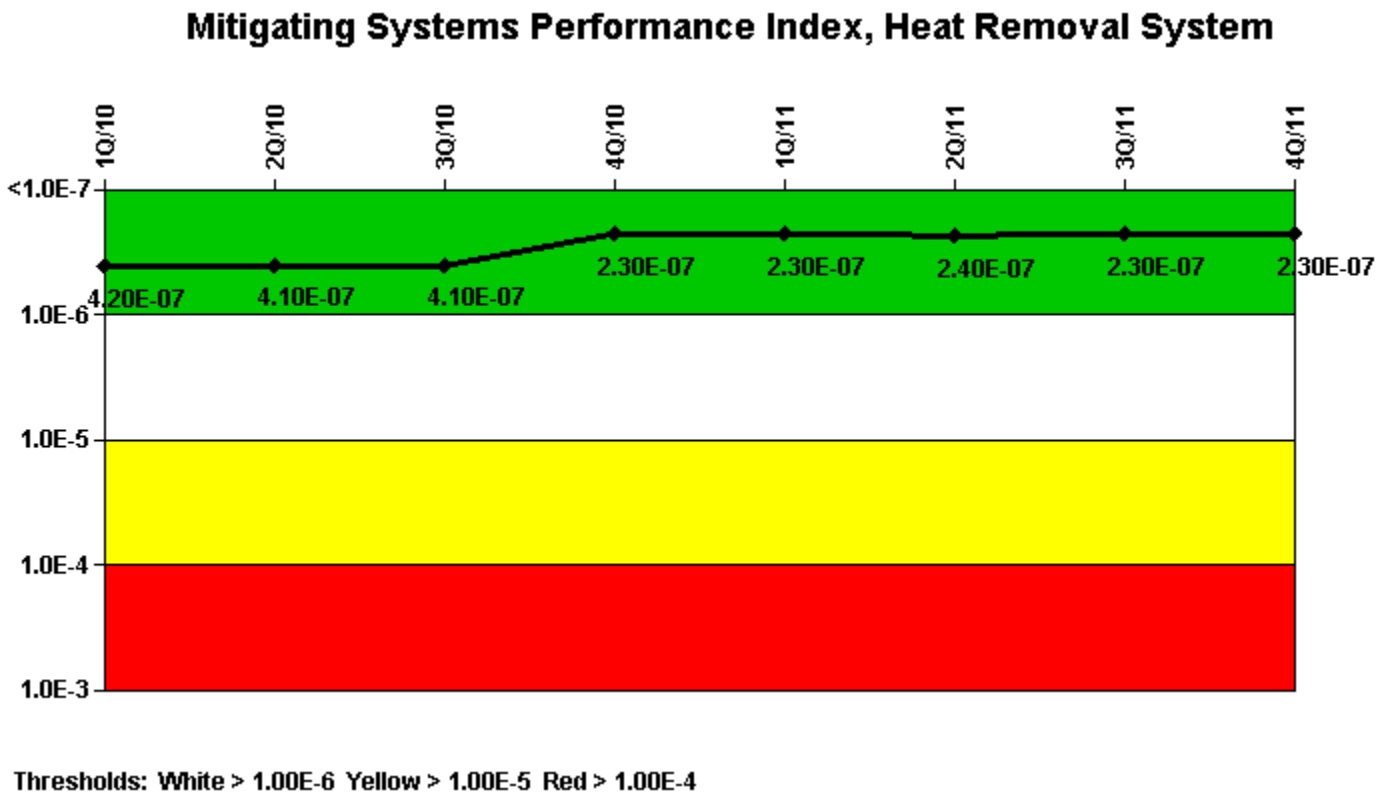
Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, High Pressure Injection System	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11
UAI (ΔCDF)	6.56E-07	6.76E-07	7.36E-07	5.43E-07	3.51E-07	1.27E-07	1.07E-07	2.09E-07
URI (ΔCDF)	-1.86E-07	-1.91E-07	-1.92E-07	-1.25E-07	-1.25E-07	-1.26E-07	-1.04E-07	-1.04E-07

PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**4.70E-07**	**4.90E-07**	**5.40E-07**	**4.20E-07**	**2.30E-07**	**1.70E-09**	**3.30E-09**	**1.10E-07**

Licensee Comments: none

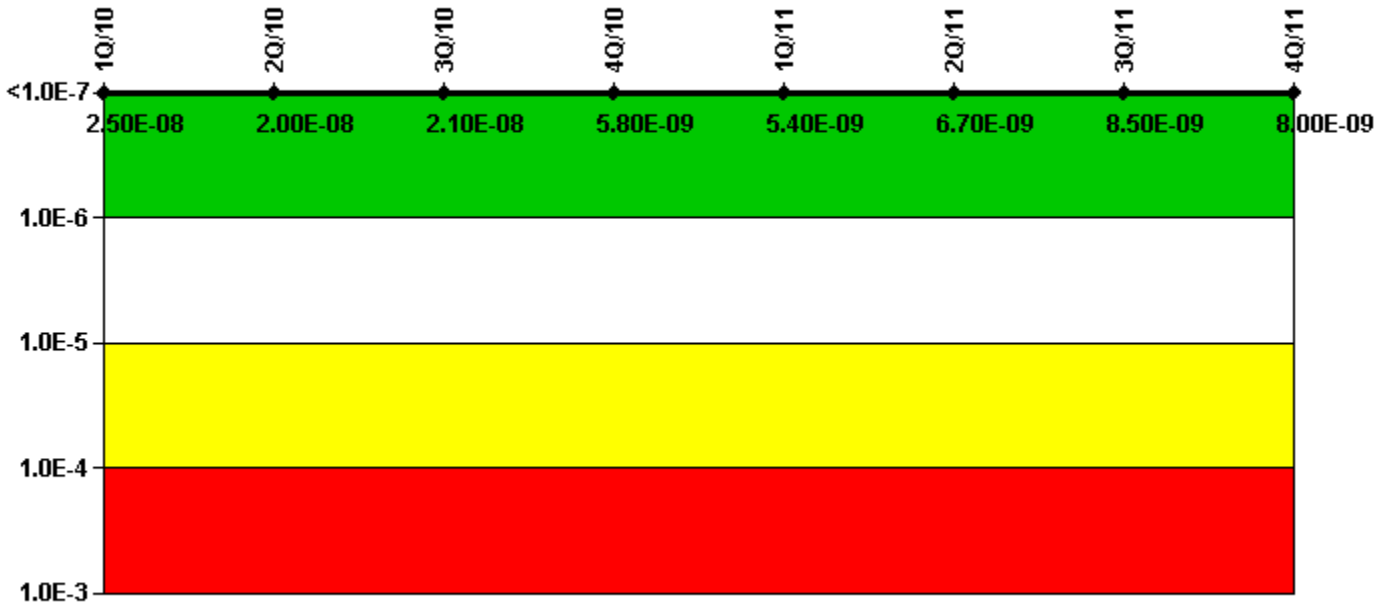


Notes

Mitigating Systems Performance Index, Heat Removal System	**1Q/10**	**2Q/10**	**3Q/10**	**4Q/10**	**1Q/11**	**2Q/11**	**3Q/11**	**4Q/11**
UAI (ΔCDF)	2.79E-07	2.75E-07	2.74E-07	1.24E-07	1.29E-07	1.34E-07	1.53E-07	1.59E-07
URI (ΔCDF)	1.45E-07	1.34E-07	1.33E-07	1.06E-07	1.05E-07	1.04E-07	7.52E-08	7.45E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**4.20E-07**	**4.10E-07**	**4.10E-07**	**2.30E-07**	**2.30E-07**	**2.40E-07**	**2.30E-07**	**2.30E-07**

Licensee Comments: none

Mitigating Systems Performance Index, Residual Heat Removal System



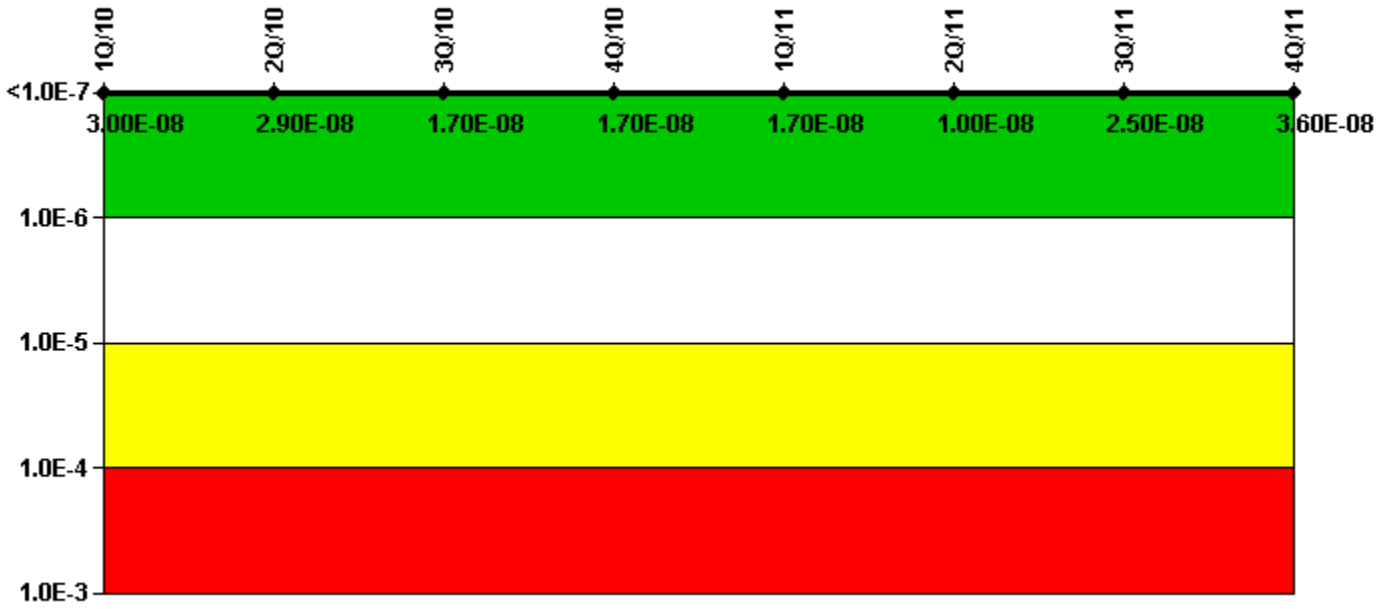
Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Residual Heat Removal System	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11
UAI (ΔCDF)	1.17E-08	1.15E-08	9.81E-09	1.87E-09	2.68E-09	2.69E-09	6.08E-09	5.55E-09
URI (ΔCDF)	1.34E-08	8.04E-09	1.12E-08	3.96E-09	2.67E-09	4.06E-09	2.45E-09	2.50E-09
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**2.50E-08**	**2.00E-08**	**2.10E-08**	**5.80E-09**	**5.40E-09**	**6.70E-09**	**8.50E-09**	**8.00E-09**

Licensee Comments: none

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/10	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11
UAI (ΔCDF)	1.75E-08	1.71E-08	1.37E-08	3.52E-10	4.12E-10	3.87E-10	6.27E-08	7.36E-08
URI (ΔCDF)	1.21E-08	1.21E-08	3.05E-09	1.69E-08	1.69E-08	9.67E-09	-3.78E-08	-3.78E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**3.00E-08**	**2.90E-08**	**1.70E-08**	**1.70E-08**	**1.70E-08**	**1.00E-08**	**2.50E-08**	**3.60E-08**

Licensee Comments:

3Q/11: Revised MSPI Basis Document and MSPI PRA Parameters based on Calculation NDN-000-999-2010-0003 Rev 005 to reflect BFN CAFTA PRA Model Rev 3 which was approved in June 2011. MSPI PRA Parameters based on this model are effective as of Third Quarter 2011. Problem Evaluation Report 468993 documents changes to RHRSW pump demand failures to run failures on failure reports 573, 584, and 692.

2Q/11: Revised MSPI Basis Document and MSPI PRA Parameters based on Calculation NDN-000-999-2010-0003 rev 003 to correct PRA Model errors associated with the modeling of EECW (Cooling Water System 2) North Header Unavailability and not modeling a failure of a normally operating EECW pump to restart following loss of offsite power. These changes are effective as of Second Quarter 2011. Problem Evaluation Report 468993 documents changes to RHRSW pump demand failures to run failures on failure reports 573, 584, and 692.

1Q/11: Problem Evaluation Report 468993 documents changes to RHRSW pump demand failures to run failures on failure reports 573, 584, and 692.

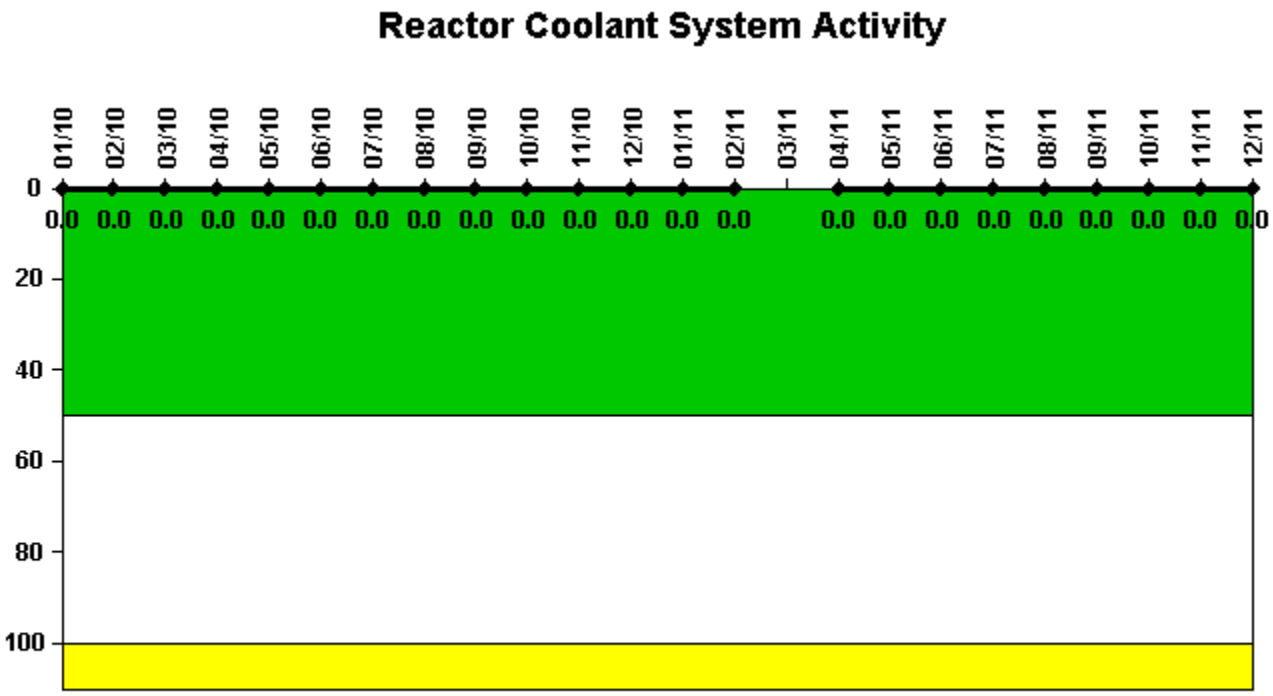
4Q/10: In September 2010, Revision 2 of the Browns Ferry CAFTA PRA Model became the model of record. All MSPI Parameters have been updated to reflect Revision 2 of the PRA model effective October 2010. In January 2011, an error was identified in BFN PRA model rev 2. This error affects the FVUAP terms for the north and south EECW headers. Service Request 311078 has been initiated to address this error. Problem Evaluation Report 468993 documents changes to RHRSW pump demand failures to run failures on failure reports 573, 584, and 692.

3Q/10: Problem Evaluation Report 468993 documents changes to RHRSW pump demand failures to run failures

on failure reports 573, 584, and 692.

2Q/10: Problem Evaluation Report 468993 documents changes to RHRSW pump demand failures to run failures on failure reports 573, 584, and 692.

1Q/10: Changed PRA Parameters in accordance with December 2009 PRA Revision. Problem Evaluation Report 468993 documents changes to RHRSW pump demand failures to run failures on failure reports 573, 584, and 692.



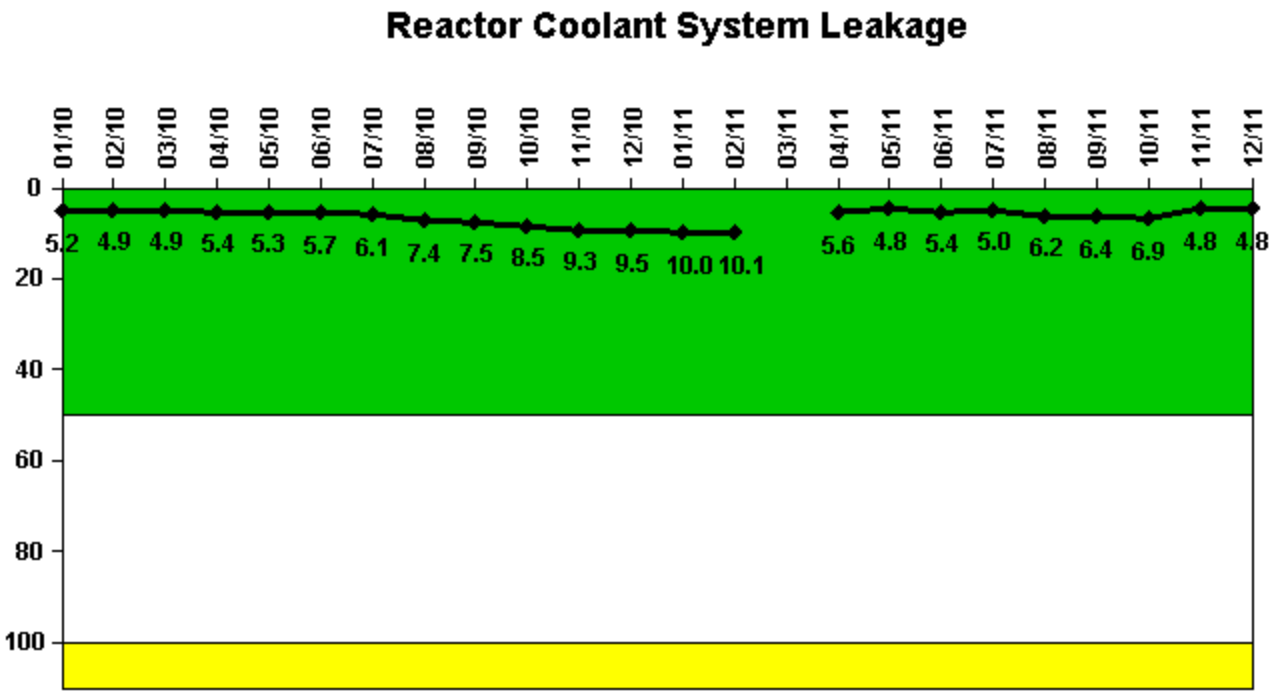
Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Activity	1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	10/10	11/10	12/10
Maximum activity	0.000078	0.000104	0.000084	0.000134	0.000078	0.000072	0.000039	0.000037	0.000137	0.000091	0.000116	0.000082
Technical specification limit	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Reactor Coolant System Activity	1/11	2/11	3/11	4/11	5/11	6/11	7/11	8/11	9/11	10/11	11/11	12/11
Maximum activity	0.000084	0.000104	N/A	0.000072	0.000041	0.000064	0.000039	0.000033	0.000057	0.000061	0.000058	0.000060
Technical specification limit	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
Indicator value	**0**	**0**	**N/A**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none



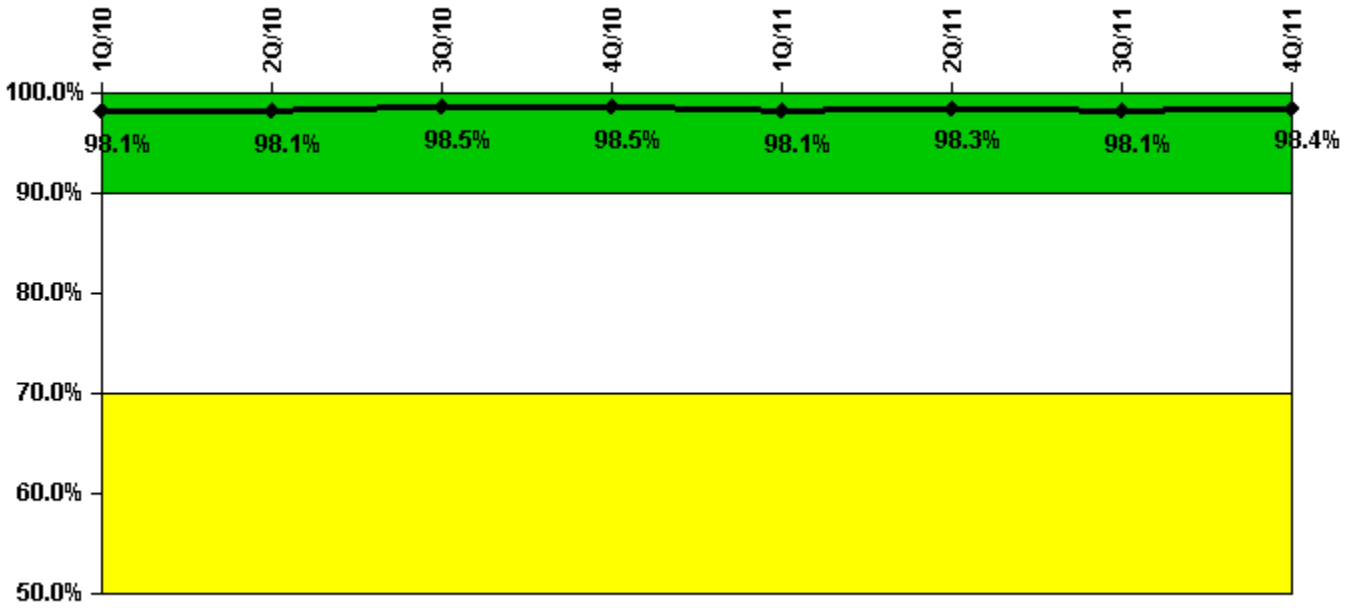
Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Leakage	1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	10/10	11/10	12/10
Maximum leakage	1.550	1.470	1.470	1.630	1.580	1.700	1.820	2.210	2.260	2.560	2.790	2.850
Technical specification limit	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0
Indicator value	**5.2**	**4.9**	**4.9**	**5.4**	**5.3**	**5.7**	**6.1**	**7.4**	**7.5**	**8.5**	**9.3**	**9.5**
Reactor Coolant System Leakage	**1/11**	**2/11**	**3/11**	**4/11**	**5/11**	**6/11**	**7/11**	**8/11**	**9/11**	**10/11**	**11/11**	**12/11**
Maximum leakage	3.000	3.020	N/A	1.680	1.450	1.610	1.490	1.850	1.920	2.060	1.450	1.430
Technical specification limit	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0
Indicator value	**10.0**	**10.1**	**N/A**	**5.6**	**4.8**	**5.4**	**5.0**	**6.2**	**6.4**	**6.9**	**4.8**	**4.8**

Licensee Comments: none

Drill/Exercise Performance



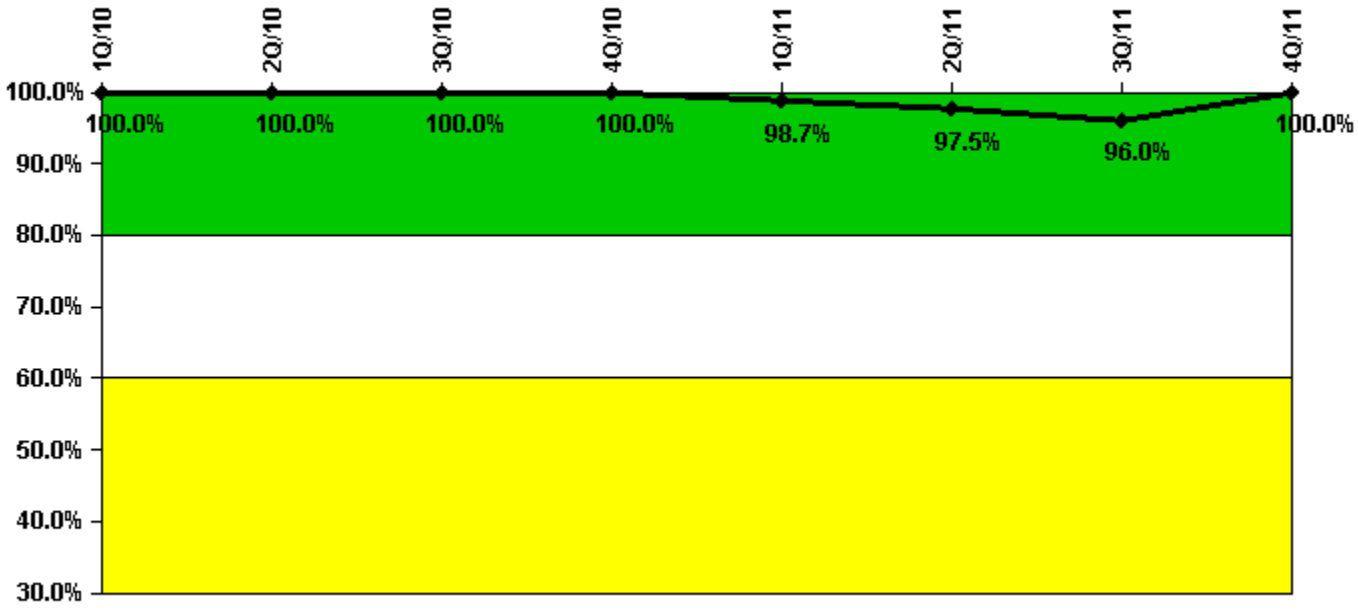
Thresholds: White < 90.0% Yellow < 70.0%

Notes

Drill/Exercise Performance	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11
Successful opportunities	5.0	8.0	50.0	39.0	25.0	24.0	37.0	111.0
Total opportunities	6.0	8.0	50.0	40.0	26.0	24.0	38.0	112.0
Indicator value	**98.1%**	**98.1%**	**98.5%**	**98.5%**	**98.1%**	**98.3%**	**98.1%**	**98.4%**

Licensee Comments: none

ERO Drill Participation



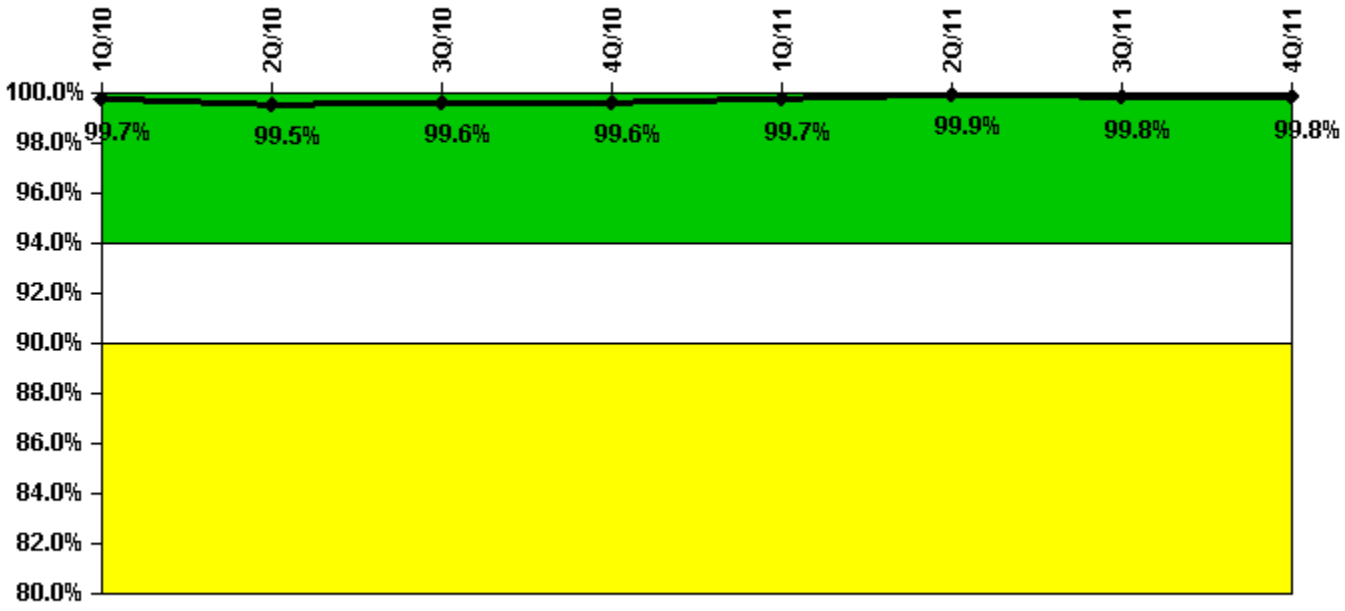
Thresholds: White < 80.0% Yellow < 60.0%

Notes

ERO Drill Participation	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11
Participating Key personnel	72.0	73.0	73.0	74.0	76.0	77.0	72.0	80.0
Total Key personnel	72.0	73.0	73.0	74.0	77.0	79.0	75.0	80.0
Indicator value	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**98.7%**	**97.5%**	**96.0%**	**100.0%**

Licensee Comments: none

Alert & Notification System



Thresholds: White < 94.0% Yellow < 90.0%

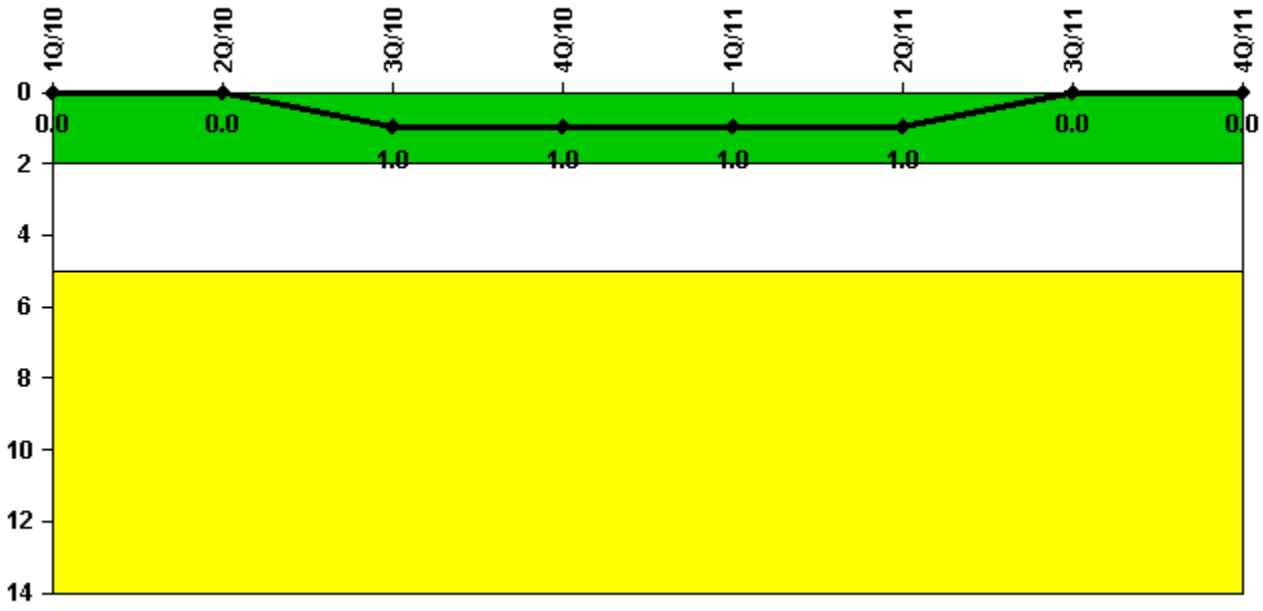
Notes

Alert & Notification System	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11
Successful siren-tests	897	693	898	699	700	599	896	799
Total sirens-tests	900	700	900	700	700	600	900	800
Indicator value	**99.7%**	**99.5%**	**99.6%**	**99.6%**	**99.7%**	**99.9%**	**99.8%**	**99.8%**

Licensee Comments:

2Q/11: Siren Test canceled for May 9, 2011 due to severe weather in the area.

Occupational Exposure Control Effectiveness



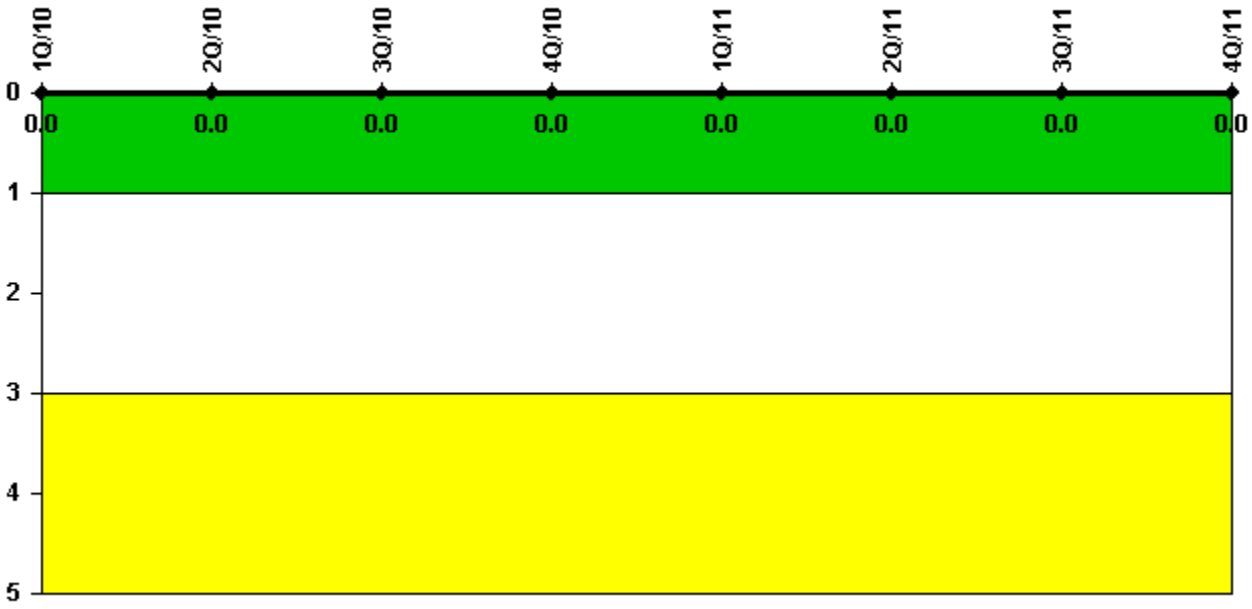
Thresholds: White > 2.0 Yellow > 5.0

Notes

Occupational Exposure Control Effectiveness	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11
High radiation area occurrences	0	0	1	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**	**1**	**1**	**1**	**1**	**0**	**0**

Licensee Comments: none

RETS/ODCM Radiological Effluent



Thresholds: White > 1.0 Yellow > 3.0

Notes

RETS/ODCM Radiological Effluent	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11
RETS/ODCM occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Security information not publicly available.

Action Matrix Summary | Inspection Findings Summary | PI Summary | Reactor Oversight Process

Last Modified: February 2, 2012