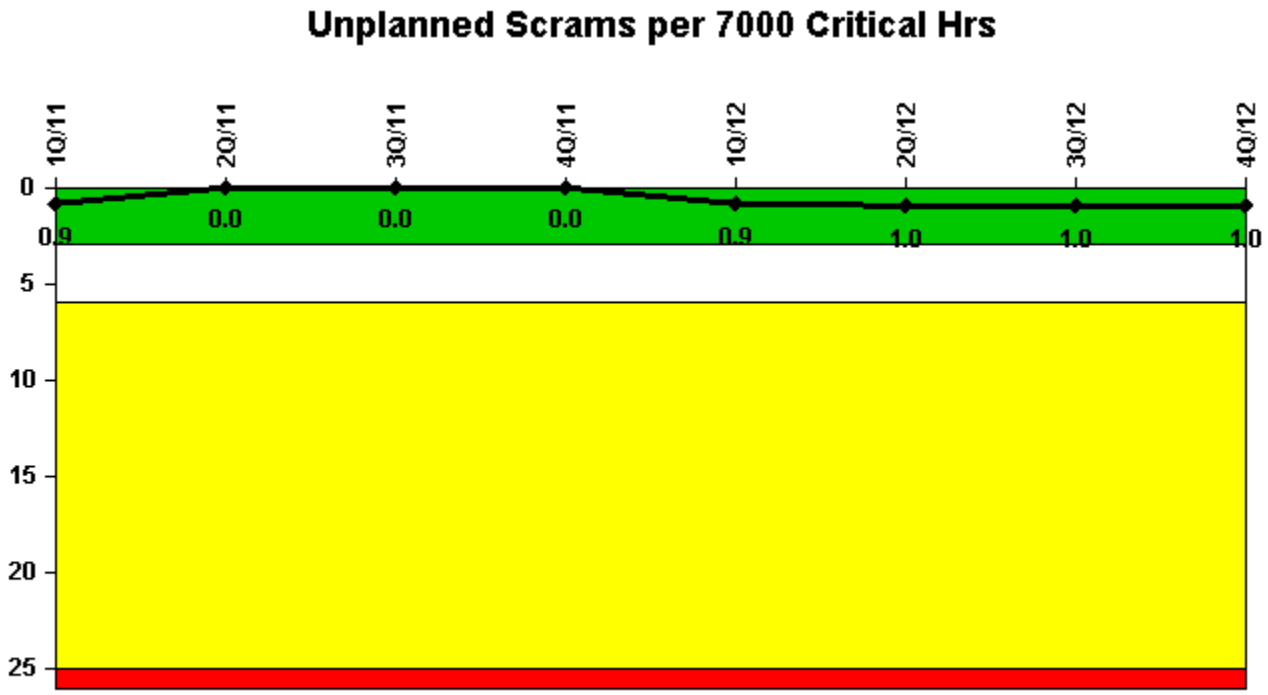
Brunswick 1

4Q/2012 Performance Indicators

Licensee's General Comments: none



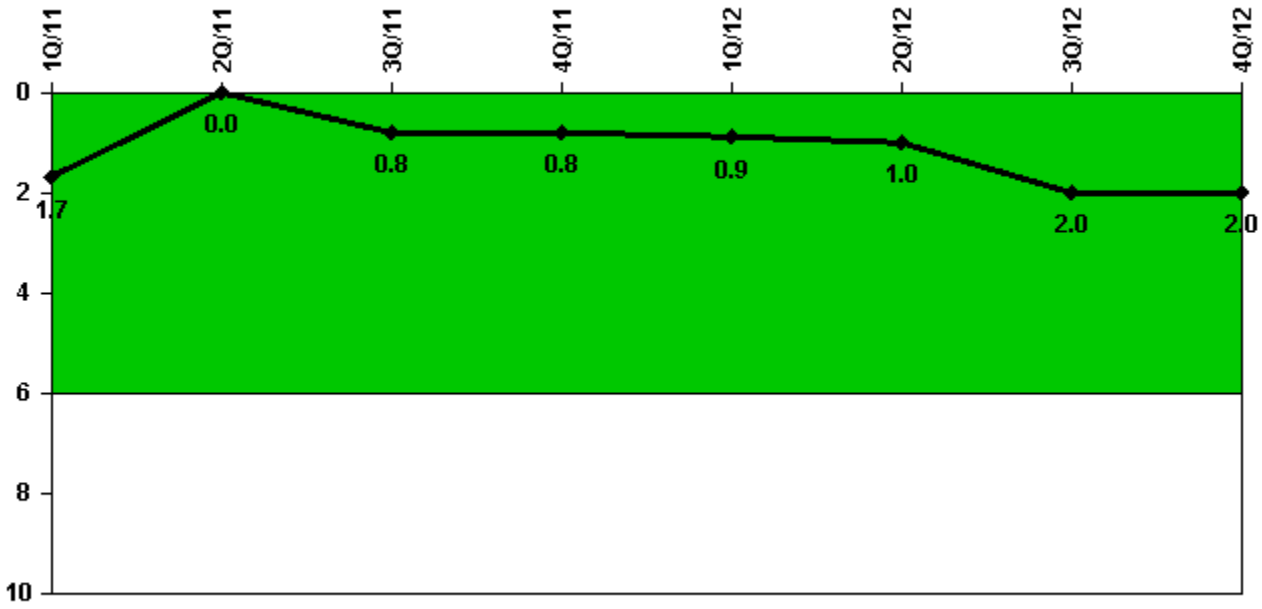
Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

Notes

Unplanned Scrams per 7000 Critical Hrs	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12
Unplanned scrams	0	0	0	0	1.0	0	0	0
Critical hours	2159.0	2109.7	2208.0	2209.0	1271.3	1502.0	1941.4	2209.0
Indicator value	**0.9**	**0**	**0**	**0**	**0.9**	**1.0**	**1.0**	**1.0**

Licensee Comments: none

Unplanned Power Changes per 7000 Critical Hrs



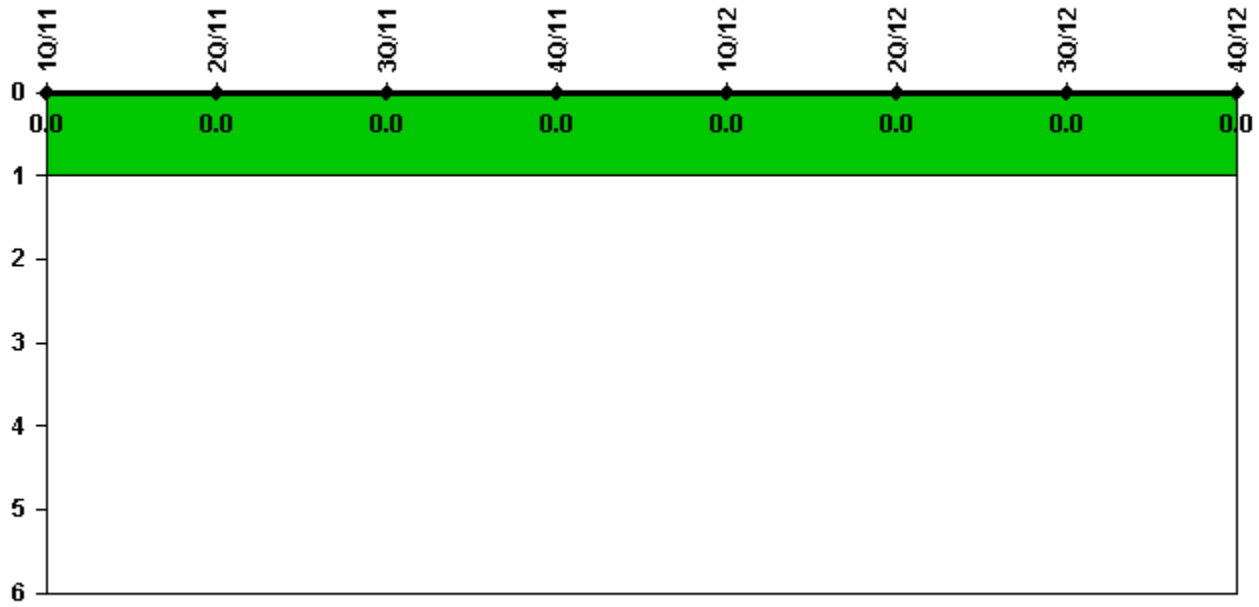
Thresholds: White > 6.0

Notes

Unplanned Power Changes per 7000 Critical Hrs	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12
Unplanned power changes	0	0	1.0	0	0	0	2.0	0
Critical hours	2159.0	2109.7	2208.0	2209.0	1271.3	1502.0	1941.4	2209.0
Indicator value	**1.7**	**0**	**0.8**	**0.8**	**0.9**	**1.0**	**2.0**	**2.0**

Licensee Comments: none

Unplanned Scrams with Complications



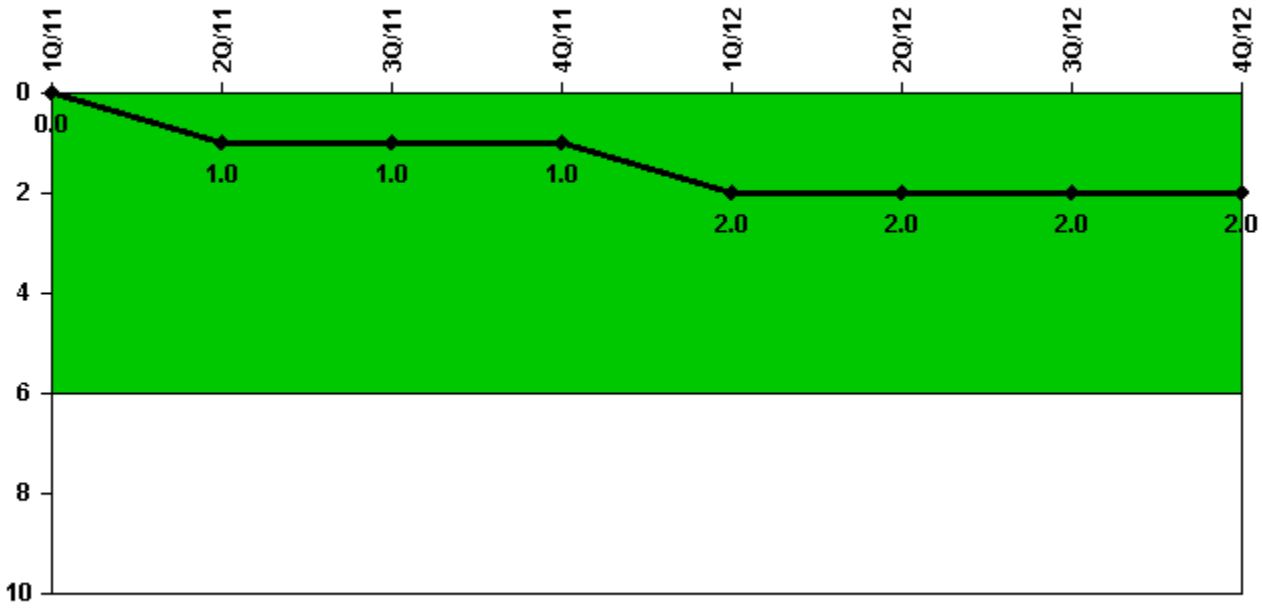
Thresholds: White > 1.0

Notes

Unplanned Scrams with Complications	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12
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/11	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12
Safety System Functional Failures	0	1	0	0	1	1	0	0
Indicator value	**0**	**1**	**1**	**1**	**2**	**2**	**2**	**2**

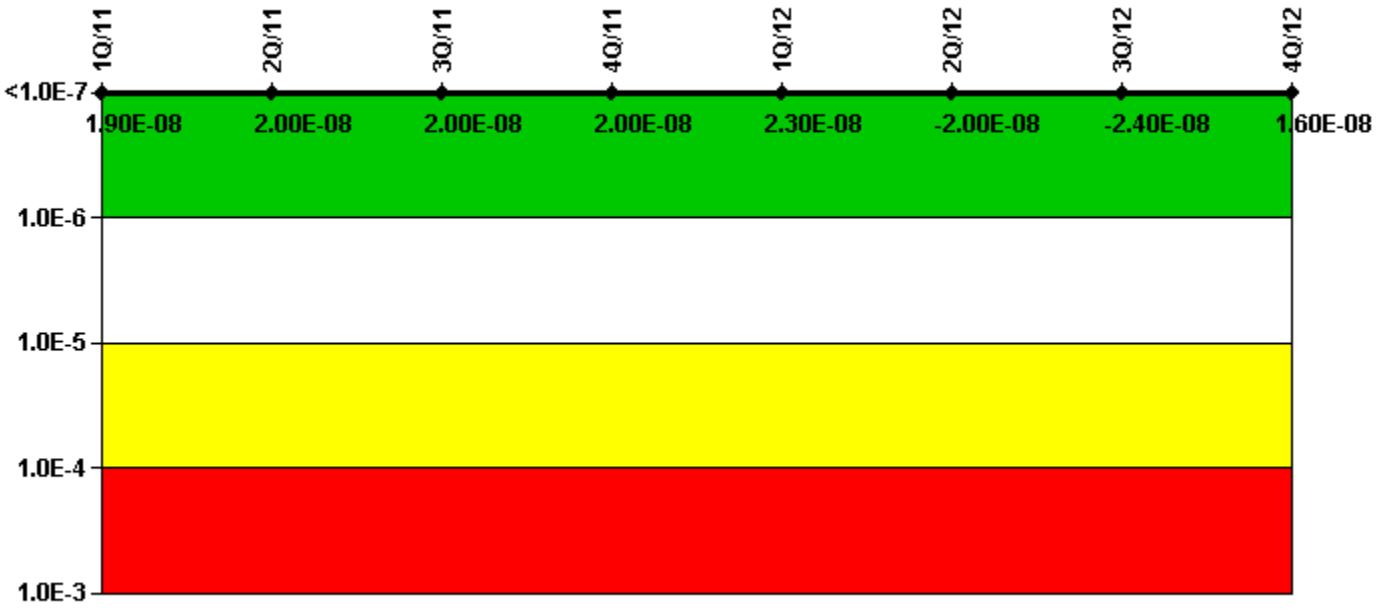
Licensee Comments:

2Q/12: LER 1-2012-004 was submitted on 06/29/2012 for HPCI inoperability, as an event that could have prevented the fulfillment of a safety function.

1Q/12: LER 1-2011-003 was submitted on January 30, 2012, for loss of Control Room Air Conditioning and Emergency Ventilation (CREV) due to failure of the control building instrument air dryer.

2Q/11: LER 1-2011-001 was submitted on 06/02/2011 for loss of Control Room Emergency Ventilation (CREV) due to trip of emergency bus E7.

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/11	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12
UAI (ΔCDF)	-4.37E-09	-3.83E-09	-4.11E-09	7.64E-09	8.70E-09	9.03E-10	-6.65E-09	-4.51E-09
URI (ΔCDF)	2.39E-08	2.39E-08	2.39E-08	1.23E-08	1.40E-08	-2.09E-08	-1.74E-08	2.08E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**1.90E-08**	**2.00E-08**	**2.00E-08**	**2.00E-08**	**2.30E-08**	**-2.00E-08**	**-2.40E-08**	**1.60E-08**

Licensee Comments:

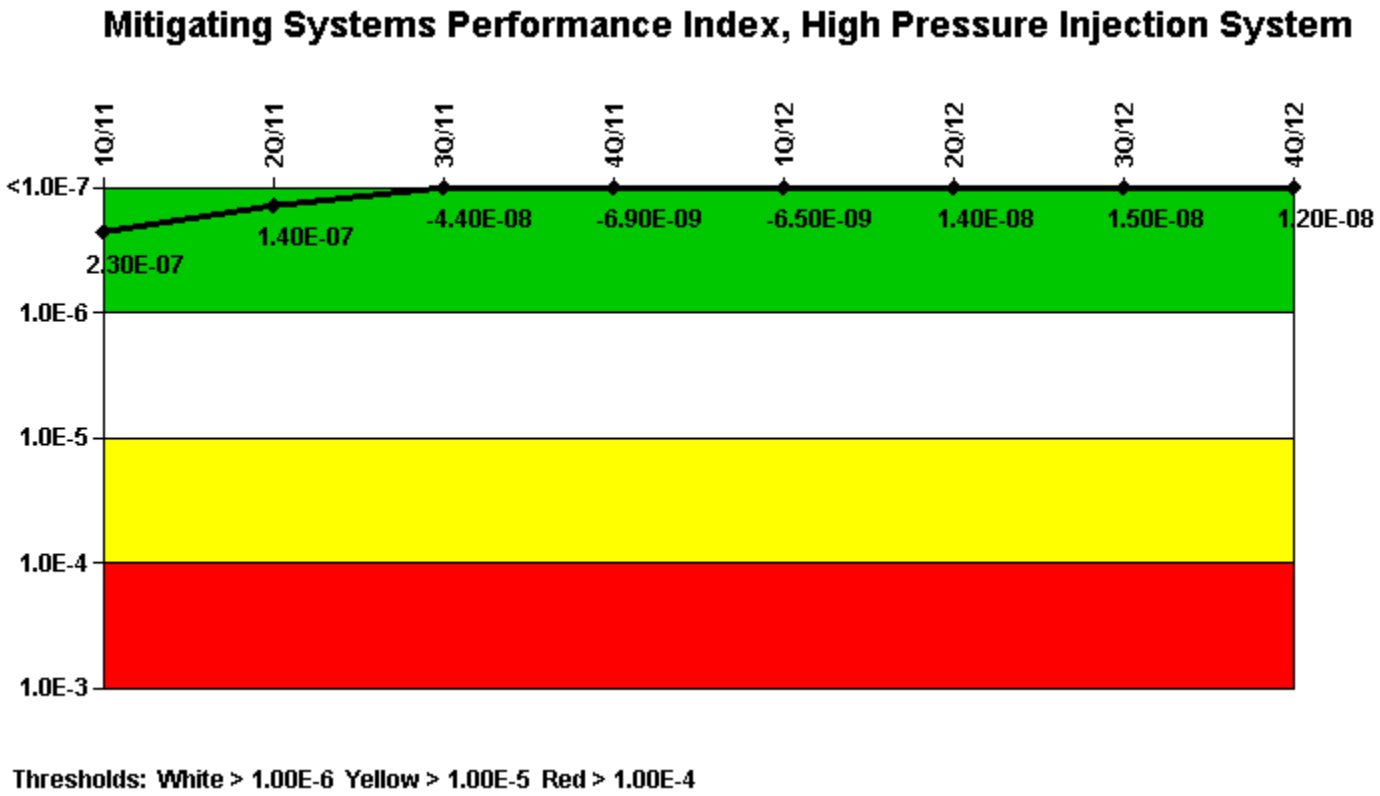
1Q/12: The emergency diesel generators run time hours were revised to incorporate NRC approved FAQ 480. The run time hours decreased, and were entered as estimated beginning in the first quarter of 2012. The Brunswick MSPI Basis Document was revised in the 4th quarter of 2011.

4Q/11: Changed PRA Parameter(s). Changes to Brunswick's plant-specific PRA were made resulting in new MSPI coefficients entered into CDE effective for the 4th quarter of 2011. Model changes included updating accident sequences for loss of offsite power analysis, providing more detailed common cause methods for component failures, changes to data related to component failures was updated to currently available data, and the human reliability analysis was updated to use the industry standard database. The plant-specific PRA and MSPI Basis Document were updated in the 3rd quarter and the 4th quarter of 2011, respectively.

2Q/11: Changed PRA Parameter(s). PRA parameters were unchanged for the 2nd quarter. PRA parameters were entered into CDE in April (i.e., prior to April 21, in accordance with NEI 99-02) to be effective for the 1st quarter. See the 1st quarter submittal for explanation of changes.

1Q/11: Changed PRA Parameter(s). The Brunswick PRA model-of-record was revised in December 2010, and the revised MSPI coefficients were entered into INPOs CDE and the Brunswick MSPI Basis Document to be effective for the 1st Quarter of 2011. Changes included using plant-specific Common Cause Factors (CCFs) for the RHR system versus generic values, updated the instrument air system due to plant modifications, incorporated some Reg Guide 1.200 improvements, and updated ATWS to industry standard BWR methodology. Coefficients on all

five MSPI systems for both Unit 1 and Unit 2 were affected by this revision. In addition, 96 hours of Planned Unavailability was added to the baseline for Emergency Diesel Generator (EDG) 2 and EDG 4, to account for a one-time maintenance evolution to replace the collector rings. These additional hours will be removed in the first quarter 2014.



Notes

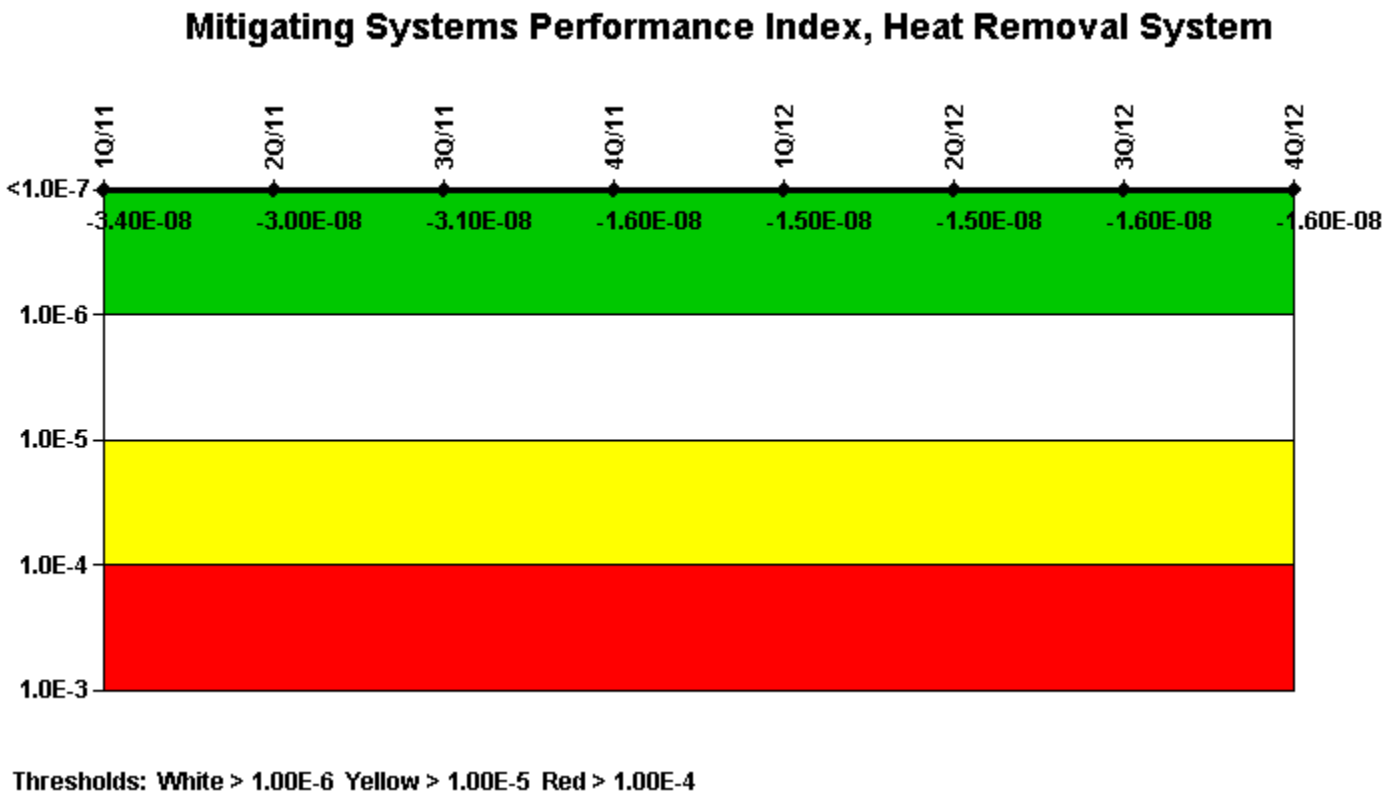
Mitigating Systems Performance Index, High Pressure Injection System	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12
UAI (ΔCDF)	1.69E-07	1.01E-07	1.52E-08	1.68E-09	2.07E-09	4.67E-09	5.29E-09	2.83E-09
URI (ΔCDF)	6.46E-08	3.49E-08	-5.88E-08	-8.57E-09	-8.57E-09	9.54E-09	9.54E-09	9.54E-09
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**2.30E-07**	**1.40E-07**	**-4.40E-08**	**-6.90E-09**	**-6.50E-09**	**1.40E-08**	**1.50E-08**	**1.20E-08**

Licensee Comments:

4Q/11: Changed PRA Parameter(s). Changes to Brunswick's plant-specific PRA were made resulting in new MSPI coefficients entered into CDE effective for the 4th quarter of 2011. Model changes included updating accident sequences for loss of offsite power analysis, providing more detailed common cause methods for component failures, changes to data related to component failures was updated to currently available data, and the human reliability analysis was updated to use the industry standard database. The plant-specific PRA and MSPI Basis Document were updated in the 3rd quarter and the 4th quarter of 2011, respectively.

2Q/11: Changed PRA Parameter(s). PRA parameters were unchanged for the 2nd quarter. PRA parameters were entered into CDE in April (i.e., prior to April 21, in accordance with NEI 99-02) to be effective for the 1st quarter. See the 1st quarter submittal for explanation of changes.

1Q/11: Changed PRA Parameter(s). The Brunswick PRA model-of-record was revised in December 2010, and the revised MSPI coefficients were entered into INPOs CDE and the Brunswick MSPI Basis Document to be effective for the 1st Quarter of 2011. Changes included using plant-specific Common Cause Factors (CCFs) for the RHR system versus generic values, updated the instrument air system due to plant modifications, incorporated some Reg Guide 1.200 improvements, and updated ATWS to industry standard BWR methodology. Coefficients on all five MSPI systems for both Unit 1 and Unit 2 were affected by this revision.



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

Notes

Mitigating Systems Performance Index, Heat Removal System	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12
UAI (ΔCDF)	-6.81E-09	-3.15E-09	-3.44E-09	-1.46E-09	-8.24E-10	-1.11E-09	-1.78E-09	-1.88E-09
URI (ΔCDF)	-2.71E-08	-2.71E-08	-2.72E-08	-1.42E-08	-1.42E-08	-1.42E-08	-1.42E-08	-1.42E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-3.40E-08**	**-3.00E-08**	**-3.10E-08**	**-1.60E-08**	**-1.50E-08**	**-1.50E-08**	**-1.60E-08**	**-1.60E-08**

Licensee Comments:

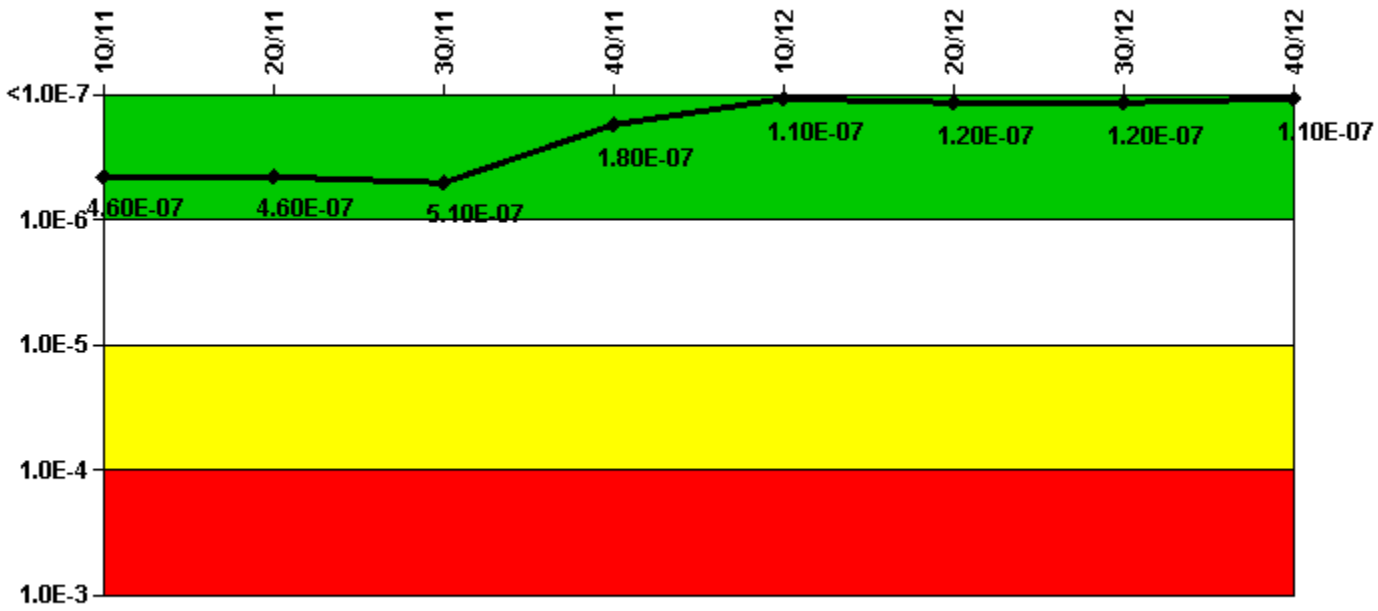
4Q/11: Changed PRA Parameter(s). Changes to Brunswick's plant-specific PRA were made resulting in new MSPI coefficients entered into CDE effective for the 4th quarter of 2011. Model changes included updating accident sequences for loss of offsite power analysis, providing more detailed common cause methods for component failures, changes to data related to component failures was updated to currently available data, and the human reliability analysis was updated to use the industry standard database. The plant-specific PRA and MSPI Basis Document were updated in the 3rd quarter and the 4th quarter of 2011, respectively.

2Q/11: Changed PRA Parameter(s). PRA parameters were unchanged for the 2nd quarter. PRA parameters were

entered into CDE in April (i.e., prior to April 21, in accordance with NEI 99-02) to be effective for the 1st quarter. See the 1st quarter submittal for explanation of changes.

1Q/11: Changed PRA Parameter(s). The Brunswick PRA model-of-record was revised in December 2010, and the revised MSPI coefficients were entered into INPOs CDE and the Brunswick MSPI Basis Document to be effective for the 1st Quarter of 2011. Changes included using plant-specific Common Cause Factors (CCFs) for the RHR system versus generic values, updated the instrument air system due to plant modifications, incorporated some Reg Guide 1.200 improvements, and updated ATWS to industry standard BWR methodology. Coefficients on all five MSPI systems for both Unit 1 and Unit 2 were affected by this revision.

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/11	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12
UAI (ΔCDF)	3.39E-07	3.29E-07	3.77E-07	1.20E-07	4.52E-08	5.08E-08	4.52E-08	3.74E-08
URI (ΔCDF)	1.25E-07	1.31E-07	1.37E-07	6.35E-08	6.63E-08	6.92E-08	7.22E-08	7.52E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**4.60E-07**	**4.60E-07**	**5.10E-07**	**1.80E-07**	**1.10E-07**	**1.20E-07**	**1.20E-07**	**1.10E-07**

Licensee Comments:

1Q/12: Changed PRA Parameter(s). The planned baseline unavailability hours were revised to include a chemical decontamination of the Unit 1 RHR system (an infrequent activity). These hours shall be removed beginning in the first quarter of 2013. The Brunswick MSPI Basis Document was revised in the 4th quarter of 2011, incorporating these changes.

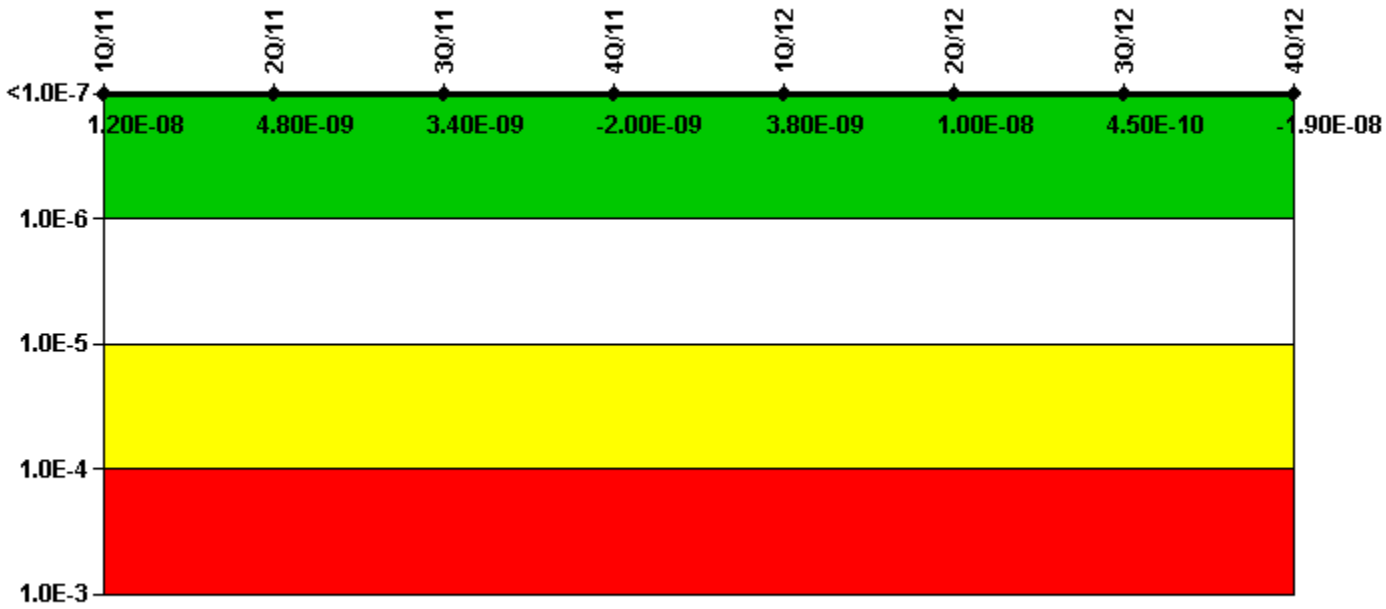
4Q/11: Changed PRA Parameter(s). Changes to Brunswick's plant-specific PRA were made resulting in new MSPI

coefficients entered into CDE effective for the 4th quarter of 2011. Model changes included updating accident sequences for loss of offsite power analysis, providing more detailed common cause methods for component failures, changes to data related to component failures was updated to currently available data, and the human reliability analysis was updated to use the industry standard database. The plant-specific PRA and MSPI Basis Document were updated in the 3rd quarter and the 4th quarter of 2011, respectively.

2Q/11: Changed PRA Parameter(s). PRA parameters were unchanged for the 2nd quarter. PRA parameters were entered into CDE in April (i.e., prior to April 21, in accordance with NEI 99-02) to be effective for the 1st quarter. See the 1st quarter submittal for explanation of changes.

1Q/11: Changed PRA Parameter(s). The Brunswick PRA model-of-record was revised in December 2010, and the revised MSPI coefficients were entered into INPOs CDE and the Brunswick MSPI Basis Document to be effective for the 1st Quarter of 2011. Changes included using plant-specific Common Cause Factors (CCFs) for the RHR system versus generic values, updated the instrument air system due to plant modifications, incorporated some Reg Guide 1.200 improvements, and updated ATWS to industry standard BWR methodology. Coefficients on all five MSPI systems for both Unit 1 and Unit 2 were affected by this revision.

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/11	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12
UAI (ΔCDF)	3.00E-08	2.24E-08	2.10E-08	-2.18E-09	3.63E-09	9.96E-09	2.64E-10	-1.91E-08
URI (ΔCDF)	-1.75E-08	-1.75E-08	-1.75E-08	2.11E-10	2.04E-10	1.98E-10	1.91E-10	1.84E-10
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**1.20E-08**	**4.80E-09**	**3.40E-09**	**-2.00E-09**	**3.80E-09**	**1.00E-08**	**4.50E-10**	**-1.90E-08**

Licensee Comments:

2Q/12: A revision to previously submitted data was made in the 2nd quarter of 2012 for the Unit 1 Cooling Water system. The change was negligible to the overall MSPI, and did not affect the color of the indicator. The revised data, found during an engineering review of system unavailability, found that the total Unplanned Unavailable hours for October and September of 2010 was incorrect for one train. The total Unplanned hours for the 1A NSW train increased from 7.05 hours to 14.74 hours total between the two months (Sept-Oct 2010). A Change File will be submitted in the 2nd quarter 2012.

4Q/11: Changes to Brunswick's plant-specific PRA were made resulting in new MSPI coefficients entered into CDE effective for the 4th quarter of 2011. Model changes included updating accident sequences for loss of offsite power analysis, providing more detailed common cause methods for component failures, changes to data related to component failures was updated to currently available data, and the human reliability analysis was updated to use the industry standard database. The plant-specific PRA and MSPI Basis Document were updated in the 3rd quarter and the 4th quarter of 2011, respectively.

4Q/11: Changed PRA Parameter(s). Changes to Brunswick's plant-specific PRA were made resulting in new MSPI coefficients entered into CDE effective for the 4th quarter of 2011. Model changes included updating accident sequences for loss of offsite power analysis, providing more detailed common cause methods for component failures, changes to data related to component failures was updated to currently available data, and the human reliability analysis was updated to use the industry standard database. The plant-specific PRA and MSPI Basis Document were updated in the 3rd quarter and the 4th quarter of 2011, respectively.

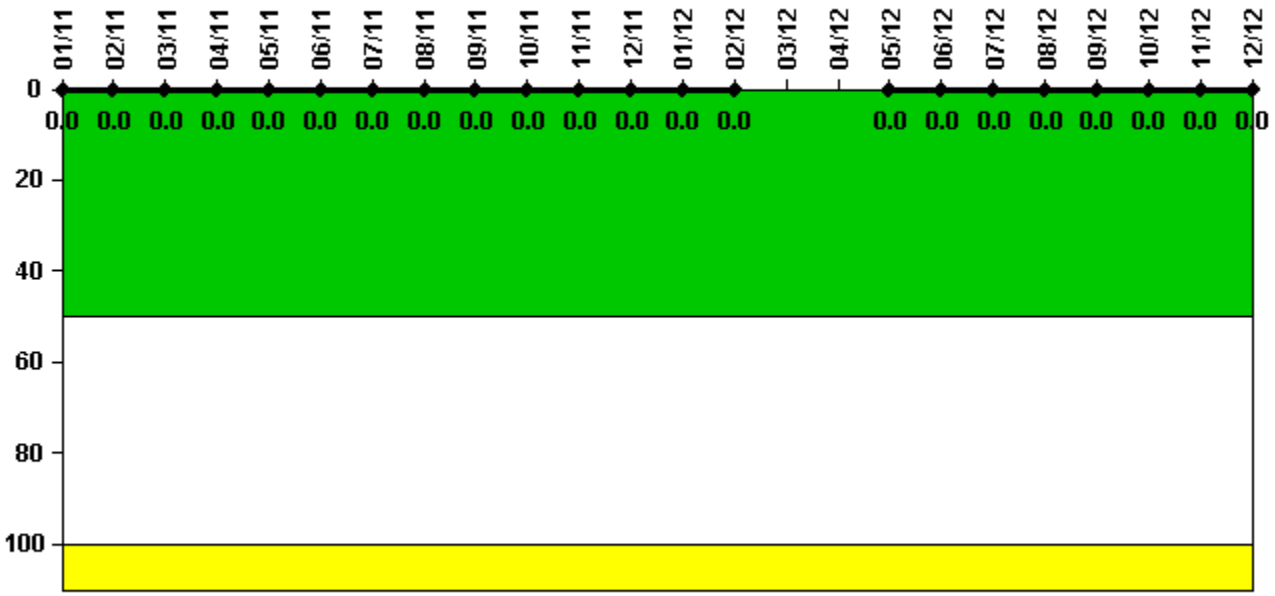
2Q/11: PRA parameters were unchanged for the 2nd quarter. PRA parameters were entered into CDE in April (i.e., prior to April 21, in accordance with NEI 99-02) to be effective for the 1st quarter. See the 1st quarter submittal for explanation of changes.

2Q/11: Changed PRA Parameter(s). PRA parameters were unchanged for the 2nd quarter. PRA parameters were entered into CDE in April (i.e., prior to April 21, in accordance with NEI 99-02) to be effective for the 1st quarter. See the 1st quarter submittal for explanation of changes.

1Q/11: The Brunswick PRA model-of-record was revised in December 2010, and the revised MSPI coefficients were entered into INPOs CDE and the Brunswick MSPI Basis Document to be effective for the 1st Quarter of 2011. Changes included using plant-specific Common Cause Factors (CCFs) for the RHR system versus generic values, updated the instrument air system due to plant modifications, incorporated some Reg Guide 1.200 improvements, and updated ATWS to industry standard BWR methodology. Coefficients on all five MSPI systems for both Unit 1 and Unit 2 were affected by this revision.

1Q/11: Changed PRA Parameter(s). The Brunswick PRA model-of-record was revised in December 2010, and the revised MSPI coefficients were entered into INPOs CDE and the Brunswick MSPI Basis Document to be effective for the 1st Quarter of 2011. Changes included using plant-specific Common Cause Factors (CCFs) for the RHR system versus generic values, updated the instrument air system due to plant modifications, incorporated some Reg Guide 1.200 improvements, and updated ATWS to industry standard BWR methodology. Coefficients on all five MSPI systems for both Unit 1 and Unit 2 were affected by this revision.

Reactor Coolant System Activity



Thresholds: White > 50.0 Yellow > 100.0

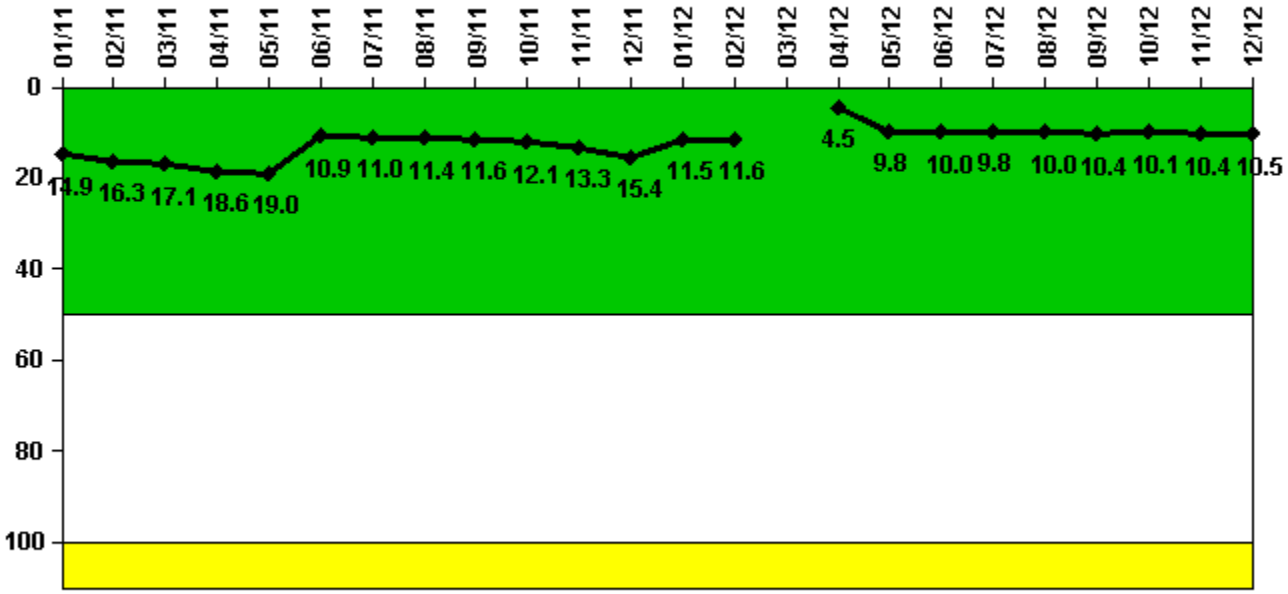
Notes

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	0.000053	0.000052	0.000060	0.000060	0.000058	0.000058	0.000061	0.000062	0.000062	0.000057	0.000058	0.000058
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	**1/12**	**2/12**	**3/12**	**4/12**	**5/12**	**6/12**	**7/12**	**8/12**	**9/12**	**10/12**	**11/12**	**12/12**
Maximum activity	0.000061	0.000067	N/A	N/A	0.000038	0.000047	0.000043	0.000049	0.000046	0.000045	0.000050	0.000045
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**	**N/A**	**N/A**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Reactor Coolant System Leakage



Thresholds: White > 50.0 Yellow > 100.0

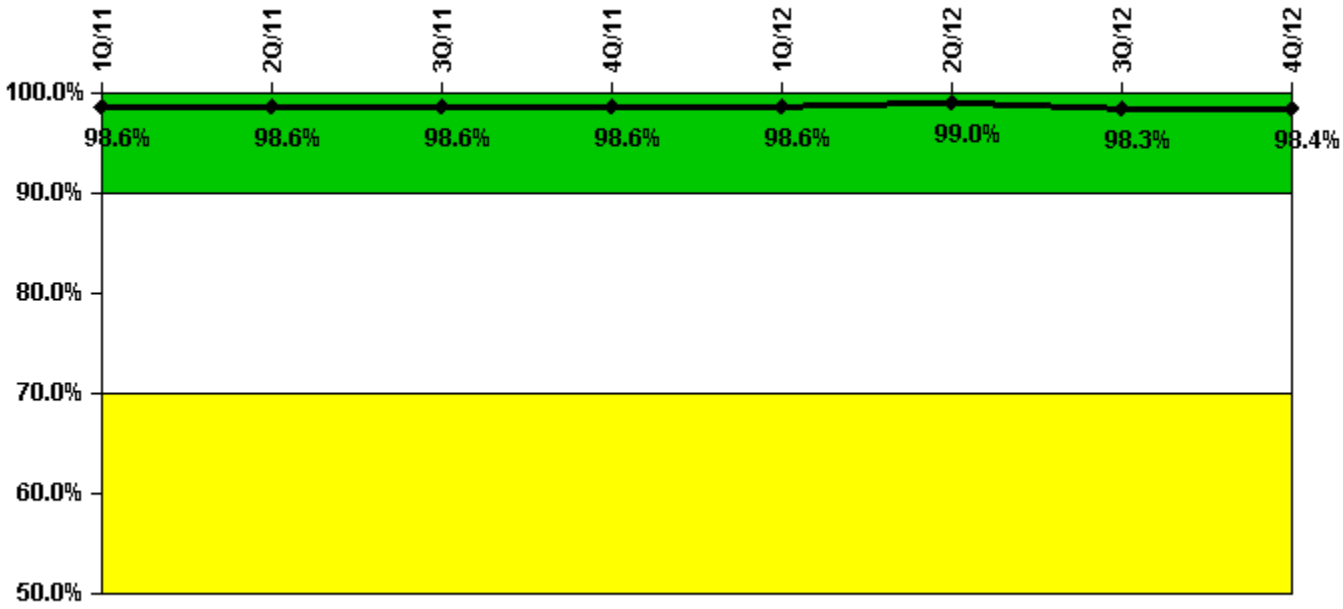
Notes

Reactor Coolant System Leakage	1/11	2/11	3/11	4/11	5/11	6/11	7/11	8/11	9/11	10/11	11/11	12/11
Maximum leakage	3.730	4.080	4.270	4.650	4.750	2.730	2.760	2.850	2.910	3.020	3.330	3.860
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	**14.9**	**16.3**	**17.1**	**18.6**	**19.0**	**10.9**	**11.0**	**11.4**	**11.6**	**12.1**	**13.3**	**15.4**

Reactor Coolant System Leakage	1/12	2/12	3/12	4/12	5/12	6/12	7/12	8/12	9/12	10/12	11/12	12/12
Maximum leakage	2.870	2.900	N/A	1.130	2.440	2.490	2.460	2.500	2.600	2.530	2.600	2.630
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	**11.5**	**11.6**	**N/A**	**4.5**	**9.8**	**10.0**	**9.8**	**10.0**	**10.4**	**10.1**	**10.4**	**10.5**

Licensee Comments: none

Drill/Exercise Performance

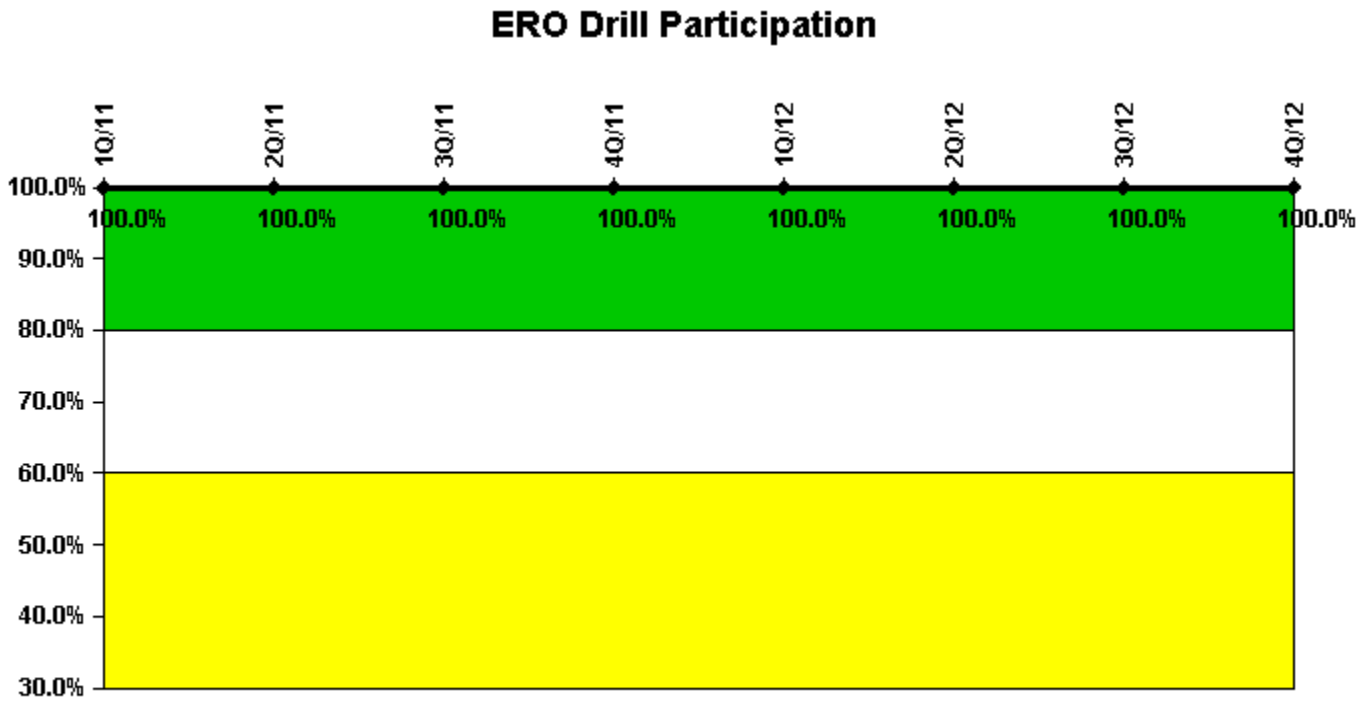


Thresholds: White < 90.0% Yellow < 70.0%

Notes

Drill/Exercise Performance	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12
Successful opportunities	10.0	31.0	4.0	38.0	8.0	17.0	26.0	46.0
Total opportunities	10.0	31.0	4.0	38.0	8.0	18.0	27.0	47.0
Indicator value	**98.6%**	**98.6%**	**98.6%**	**98.6%**	**98.6%**	**99.0%**	**98.3%**	**98.4%**

Licensee Comments: none



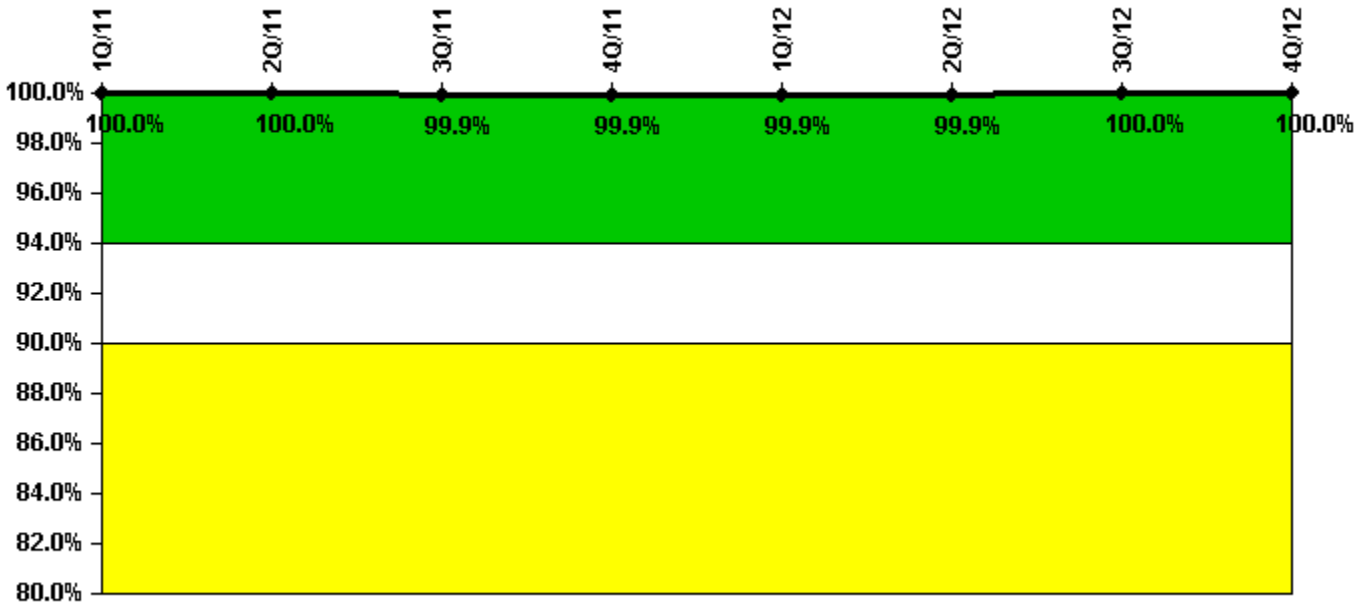
Thresholds: White < 80.0% Yellow < 60.0%

Notes

ERO Drill Participation	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12
Participating Key personnel	109.0	107.0	105.0	106.0	103.0	103.0	100.0	97.0
Total Key personnel	109.0	107.0	105.0	106.0	103.0	103.0	100.0	97.0
Indicator value	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Licensee Comments: none

Alert & Notification System



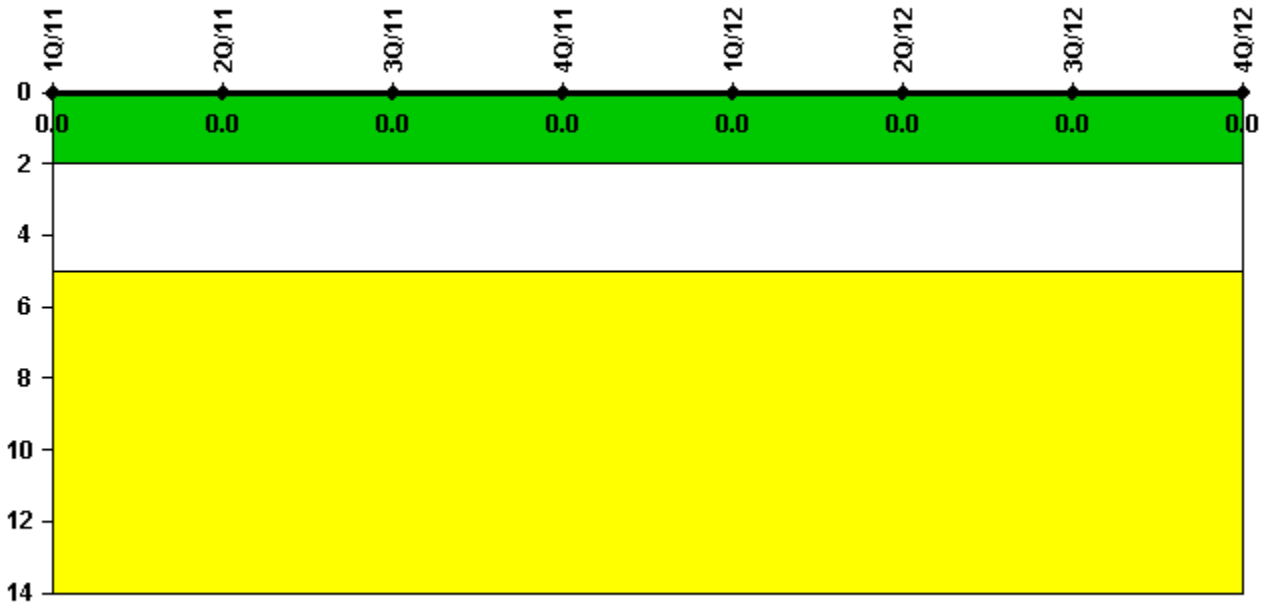
Thresholds: White < 94.0% Yellow < 90.0%

Notes

Alert & Notification System	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12
Successful siren-tests	532	532	530	570	532	532	531	570
Total sirens-tests	532	532	532	570	532	532	532	570
Indicator value	**100.0%**	**100.0%**	**99.9%**	**99.9%**	**99.9%**	**99.9%**	**100.0%**	**100.0%**

Licensee Comments: none

Occupational Exposure Control Effectiveness



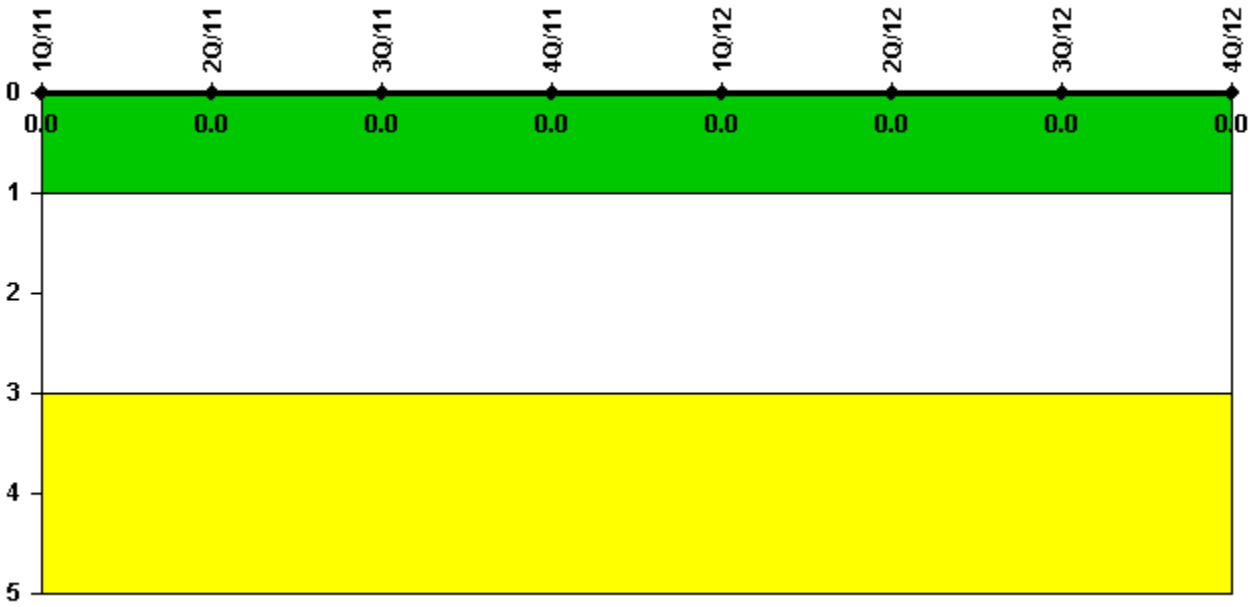
Thresholds: White > 2.0 Yellow > 5.0

Notes

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