

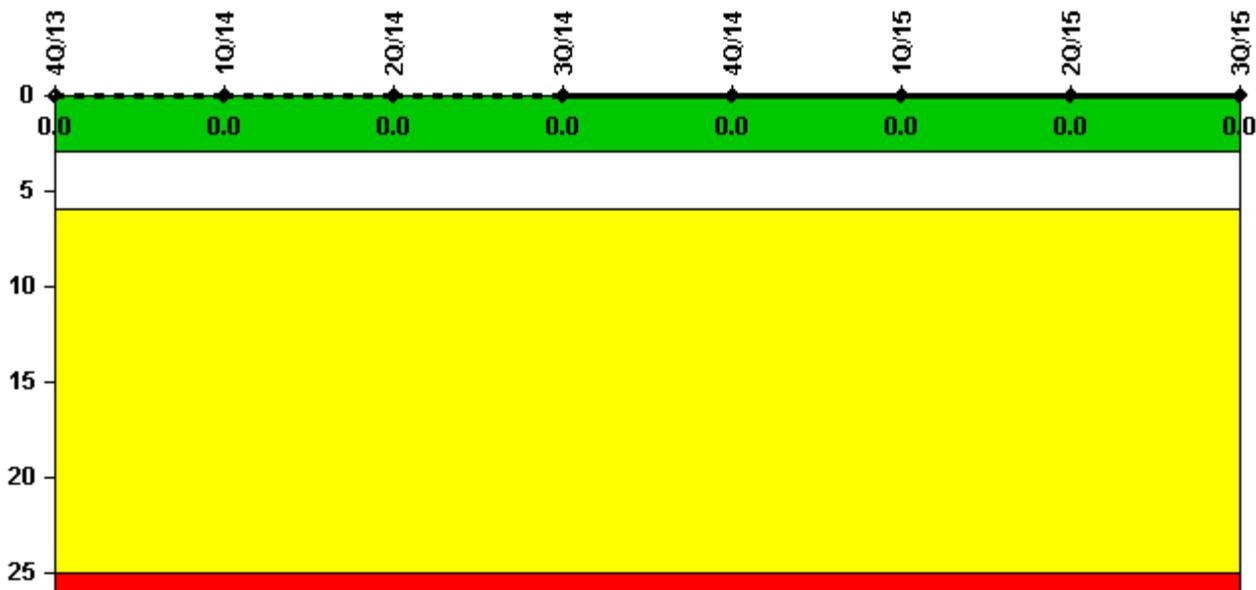
## Brunswick 2

### 3Q/2015 Performance Indicators

The solid trend line represents the current reporting period.

Licensee's General Comments: none

#### Unplanned Scrams per 7000 Critical Hrs



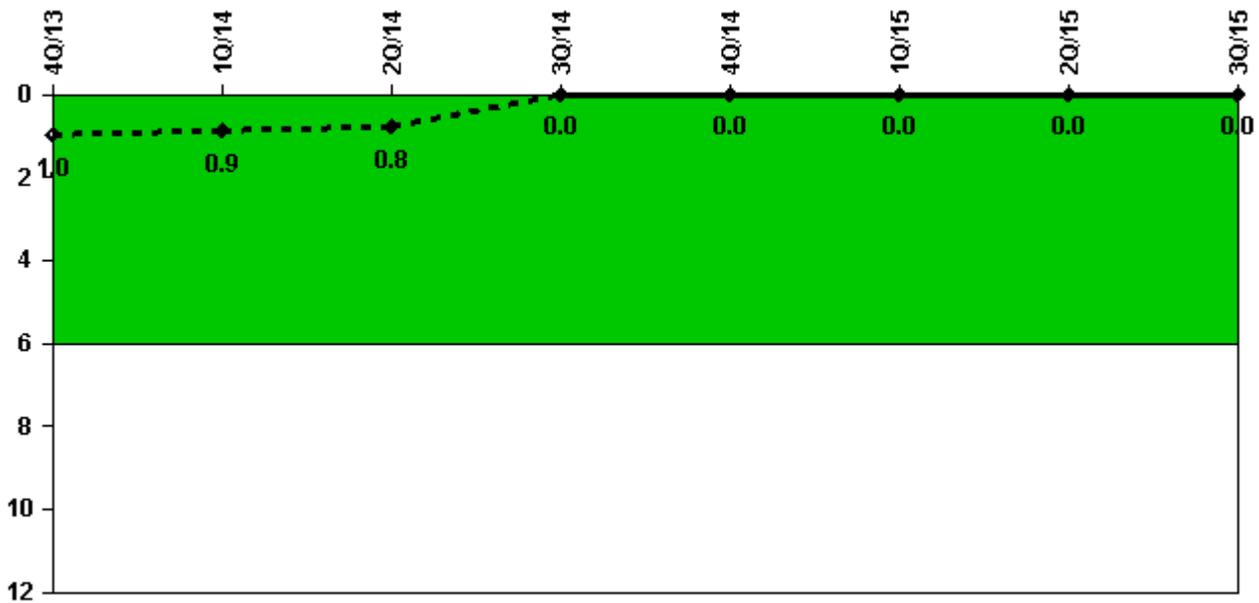
Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

#### Notes

Unplanned Scrams per 7000 Critical Hrs	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15
Unplanned scrams	0	0	0	0	0	0	0	0
Critical hours	2209.0	2159.0	2184.0	2208.0	2209.0	1220.5	2102.0	2208.0
<b>Indicator value</b>	<b>0</b>							

Licensee Comments: none

### Unplanned Power Changes per 7000 Critical Hrs



Thresholds: White > 6.0

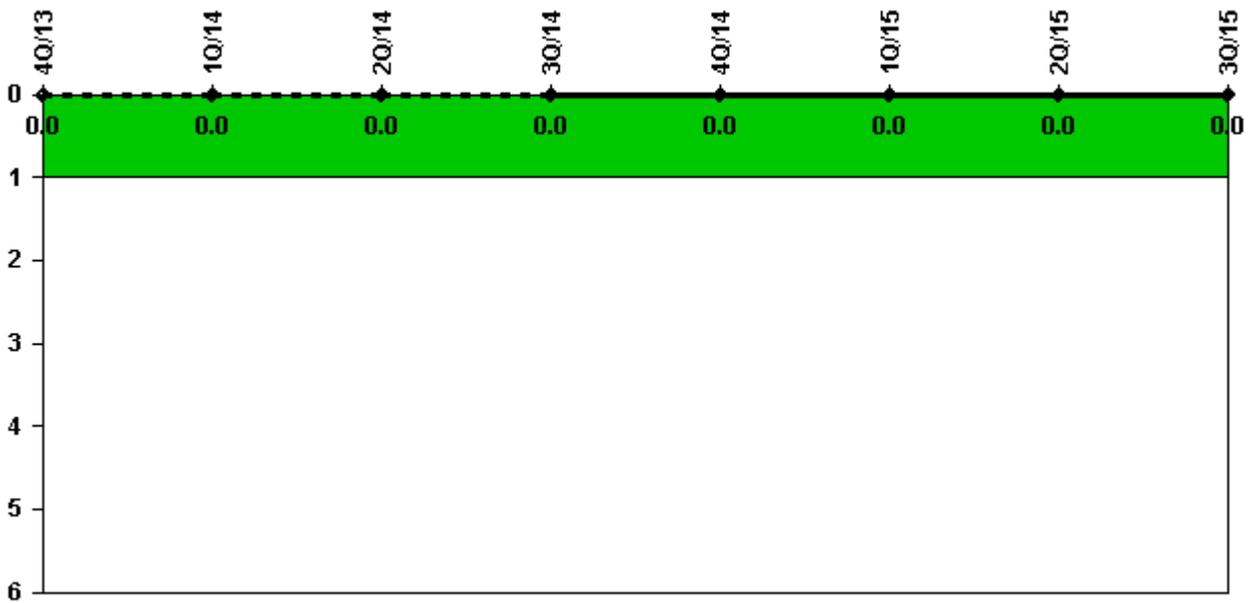
#### Notes

Unplanned Power Changes per 7000 Critical Hrs	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15
Unplanned power changes	0	0	0	0	0	0	0	0
Critical hours	2209.0	2159.0	2184.0	2208.0	2209.0	1220.5	2102.0	2208.0
<b>Indicator value</b>	<b>1.0</b>	<b>0.9</b>	<b>0.8</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

Licensee Comments:

1Q/14: In March a revised data sheet for December 2013 was provided that reclassified the Unplanned Power Change from unplanned to unplanned, but excluded. A change file will be submitted during this quarter.

### Unplanned Scrams with Complications



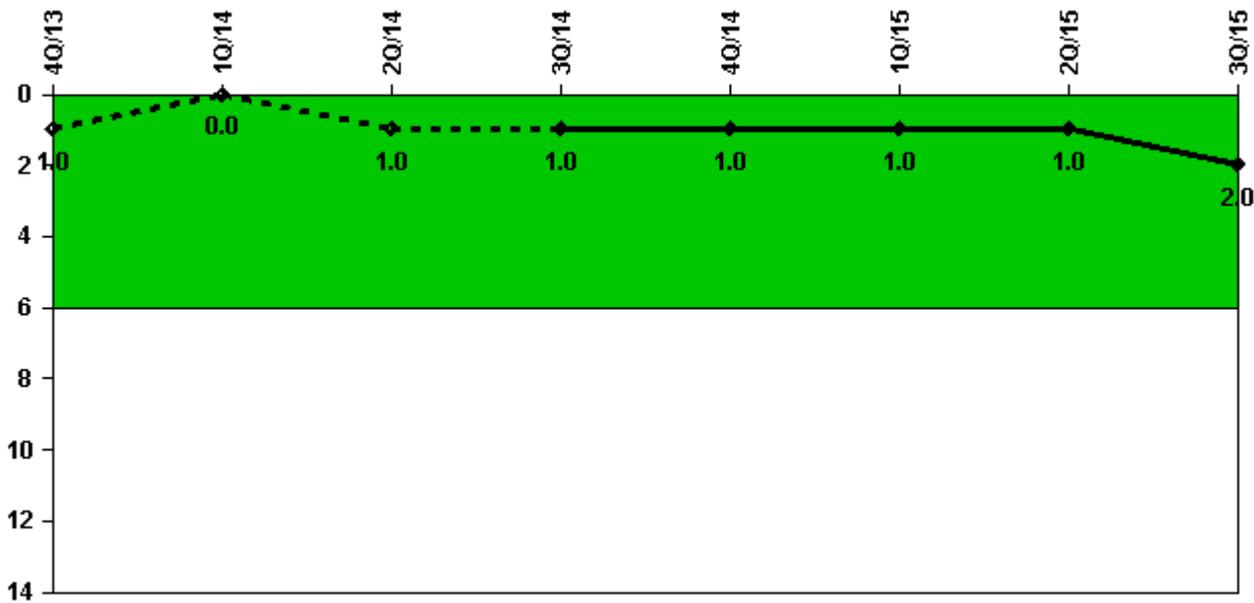
Thresholds: White > 1.0

#### Notes

Unplanned Scrams with Complications	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15
Scrams with complications	0	0	0	0	0	0	0	0
<b>Indicator value</b>	<b>0.0</b>							

Licensee Comments: none

### Safety System Functional Failures (BWR)



Thresholds: White > 6.0

#### Notes

Safety System Functional Failures (BWR)	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15
Safety System Functional Failures	0	0	1	0	0	0	1	1
<b>Indicator value</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>2</b>

#### Licensee Comments:

3Q/15: LER 2-2015-003, Revision 1, dated 8/5/15 reported a loss of safety function on the RHRSW system due to an oil leak that rendered an RHRSW system pump inoperable.

2Q/15: LER 1-2015-002, dated 5/20/15, reported one event where DG3 and DG4 were simultaneously inoperable and considered a SSFF for the onsite standby AC power source. LER 1-2015-002 counted for both Unit 1 and Unit 2.

2Q/14: LER 2-2014-001, dated 5/2/14, reported one event where simultaneous opening of the secondary containment airlock doors resulted in a SSFF. LER 2-2014-002, dated 6/19/14, reported one event where a through-wall leak in the Unit 2 Reactor Building roof drain pipe resulted in a SSFF of Secondary Containment. Additionally, a SSFF reported in November 2013 was removed based on the retraction of LER 1-2013-003 by letter dated 6/13/14. A change file was created in June 2014.

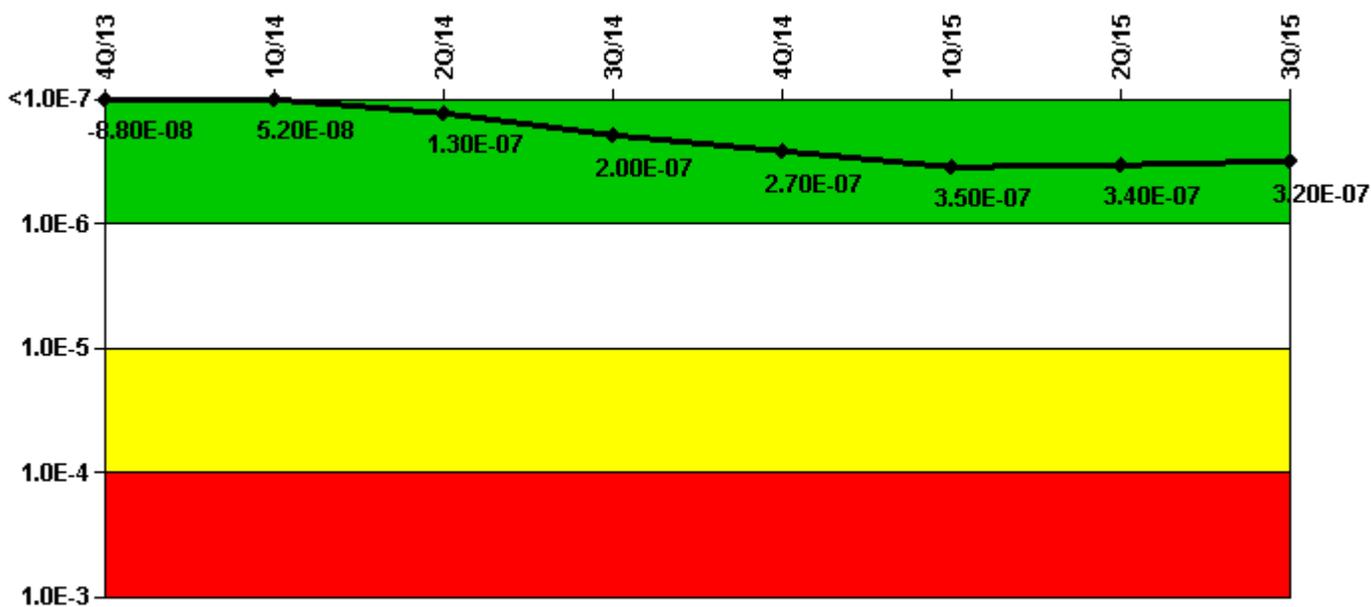
2Q/14: LER 2-2014-001, dated 5/2/14, reported one event where simultaneous opening of the secondary containment airlock doors resulted in a SSFF. A SSFF reported in November 2013 was removed based on the retraction of LER 1-2013-003 by letter dated 6/13/14. Additionally, a SSFF reported in June 2014 was removed based on the cancellation of LER 2-2014-002 by letter dated 12/04/14. A change file was created in December 2014. These changes did not affect the "color" of the indicator.

4Q/13: LER 2-2013-002, was submitted on 05/28/13 for the loss of safety function of 2-E11-F048 from

vibration induced failure. Subsequently, further evaluation determined that the valve remained operable and no loss of safety function occurred. Therefore, the SSFF reported in May 2013 is no longer valid and has been removed from the performance indicator. Also, LER 1-02013-003 was submitted on 11/14/2013 for operation prohibited by Tech Specs when past operability evaluation determined that the Service Water system for both Unit 1 and Unit 2 may have not been able to perform its safety function due to postulated flooding.

4Q/13: LER 2-2013-002, was submitted on 05/28/13 for the loss of safety function of 2-E11-F048 from vibration induced failure. Subsequently, further evaluation determined that the valve remained operable and no loss of safety function occurred. Therefore, the SSFF reported in May 2013 is no longer valid and has been removed from the performance indicator. Also, LER 1-02013-003 was submitted on 11/14/2013 for operation prohibited by Tech Specs when past operability evaluation determined that the Service Water system for both Unit 1 and Unit 2 may have not been able to perform its safety function due to postulated flooding.

### Mitigating Systems Performance Index, Emergency AC Power System



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

#### Notes

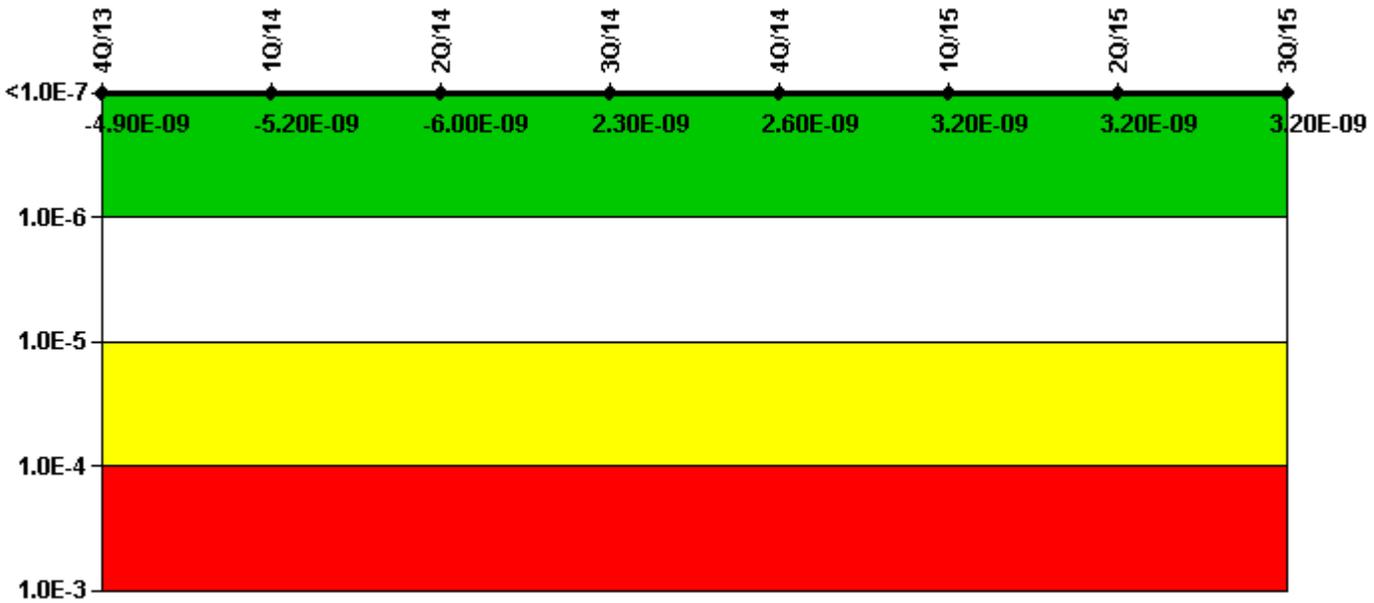
Mitigating Systems Performance Index, Emergency AC Power System	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15
UAI (ΔCDF)	2.97E-08	1.69E-07	1.85E-07	1.92E-07	1.98E-07	2.07E-07	1.95E-07	1.75E-07
URI (ΔCDF)	-1.18E-07	-1.17E-07	-5.04E-08	9.75E-09	7.62E-08	1.42E-07	1.43E-07	1.43E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-8.80E-08	5.20E-08	1.30E-07	2.00E-07	2.70E-07	3.50E-07	3.40E-07	3.20E-07

Licensee Comments:

3Q/14: EDG test was not recognized as unavailability in August 2014. This was corrected in November 2014. This change does not affect the "color" of the indicator.

4Q/13: Changed PRA Parameter(s). The plants PRA model was revised in the 3rd quarter of 2013. The MSPI Basis Document was revised in the 4th quarter of 2013, and the resulting new MSPI coefficients were entered into CDE for the applicable systems. New MSPI coefficients existed on all five MSPI systems, along with change to the CDF.

### Mitigating Systems Performance Index, High Pressure Injection System



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

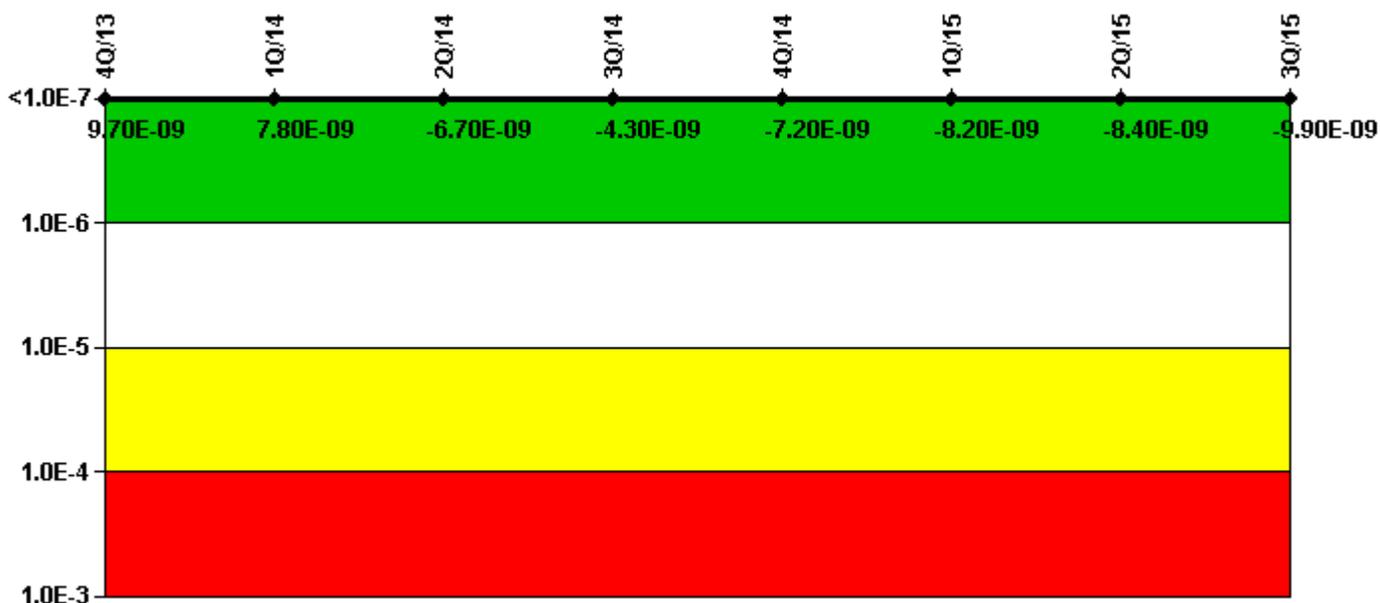
Notes

Mitigating Systems Performance Index, High Pressure Injection System	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15
UAI (ΔCDF)	1.16E-09	8.75E-10	9.26E-11	8.44E-09	8.68E-09	9.33E-09	9.26E-09	9.27E-09
URI (ΔCDF)	-6.11E-09							
PLE	NO							
Indicator value	-4.90E-09	-5.20E-09	-6.00E-09	2.30E-09	2.60E-09	3.20E-09	3.20E-09	3.20E-09

Licensee Comments:

4Q/13: Changed PRA Parameter(s). The plants PRA model was revised in the 3rd quarter of 2013. The MSPI Basis Document was revised in the 4th quarter of 2013, and the resulting new MSPI coefficients were entered into CDE for the applicable systems. New MSPI coefficients existed on all five MSPI systems, along with change to the CDF.

### Mitigating Systems Performance Index, Heat Removal System



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

#### Notes

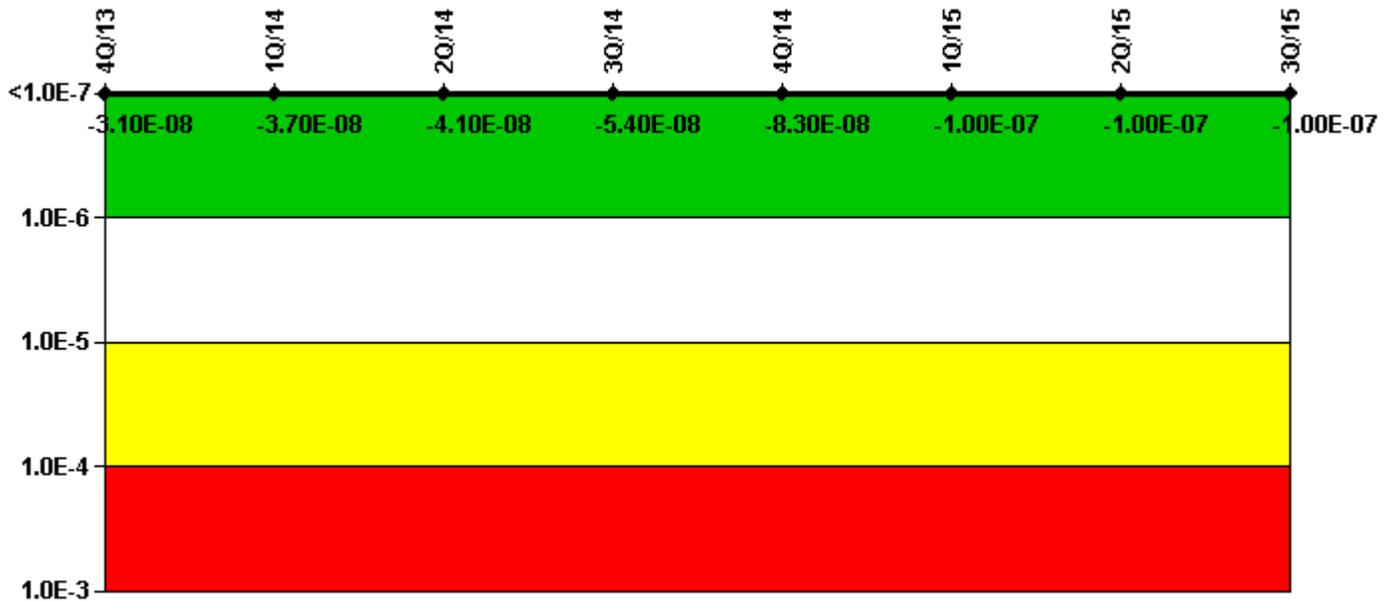
Mitigating Systems Performance Index, Heat Removal System	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15
UAI (ΔCDF)	1.05E-08	8.66E-09	4.27E-09	6.65E-09	3.82E-09	2.81E-09	2.58E-09	1.12E-09
URI (ΔCDF)	-8.26E-10	-8.26E-10	-1.10E-08	-1.10E-08	-1.10E-08	-1.10E-08	-1.10E-08	-1.10E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
<b>Indicator value</b>	<b>9.70E-09</b>	<b>7.80E-09</b>	<b>-6.70E-09</b>	<b>-4.30E-09</b>	<b>-7.20E-09</b>	<b>-8.20E-09</b>	<b>-8.40E-09</b>	<b>-9.90E-09</b>

Licensee Comments:

4Q/13: Changed PRA Parameter(s). The plants PRA model was revised in the 3rd quarter of 2013. The MSPI Basis Document was revised in the 4th quarter of 2013, and the resulting new MSPI coefficients were entered into CDE for the applicable systems. New MSPI coefficients existed on all five MSPI systems, along with change

to the CDF.

### 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	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15
UAI ( $\Delta$ CDF)	3.75E-08	3.06E-08	2.67E-08	1.37E-08	-1.44E-08	-3.37E-08	-3.38E-08	-3.38E-08
URI ( $\Delta$ CDF)	-6.81E-08							
PLE	NO							
Indicator value	-3.10E-08	-3.70E-08	-4.10E-08	-5.40E-08	-8.30E-08	-1.00E-07	-1.00E-07	-1.00E-07

Licensee Comments:

4Q/13: Changed PRA Parameter(s). The plants PRA model was revised in the 3rd quarter of 2013. The MSPI Basis Document was revised in the 4th quarter of 2013, and the resulting new MSPI coefficients were entered into CDE for the applicable systems. New MSPI coefficients existed on all five MSPI systems, along with change to the CDF.

### 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	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15
UAI ( $\Delta$ CDF)	-2.06E-09	-2.74E-09	7.65E-10	-1.57E-08	-1.31E-08	-2.19E-08	-2.05E-08	-8.13E-09
URI ( $\Delta$ CDF)	-1.72E-08	-1.73E-08	-1.65E-08	-1.45E-08	-1.45E-08	-1.45E-08	-1.45E-08	-1.45E-08
PLE	NO							
Indicator value	-1.90E-08	-2.00E-08	-1.60E-08	-3.00E-08	-2.80E-08	-3.60E-08	-3.50E-08	-2.30E-08

#### Licensee Comments:

3Q/15: Changed PRA Parameter(s). The MSPI Basis document (BNP-PSA-069), Revision 13, was approved on 3/24/14 that corrected data for the Service Water (Cooling Water) pump alignments and various valves. This data was not updated within CDE until 8/24/15 due to lack of communication of the change to the MSPI Basis Document. CDE values for Cooling Water were updated back to the approval date of the MSPI Basis Document. No thresholds were crossed due to this change and the greatest delta in calculated unavailability margin due to this change was only 3%.

2Q/15: Changed PRA Parameter(s). The MSPI Basis document (BNP-PSA-069), Revision 13, was approved on 3/24/14 that corrected data for the Service Water (Cooling Water) pump alignments and various valves. This data was not updated within CDE until 8/24/15 due to lack of communication of the change to the MSPI Basis

Document. CDE values for Cooling Water were updated back to the approval date of the MSPI Basis Document. No thresholds were crossed due to this change and the greatest delta in calculated unavailability margin due to this change was only 3%.

1Q/15: Changed PRA Parameter(s). The MSPI Basis document (BNP-PSA-069), Revision 13, was approved on 3/24/14 that corrected data for the Service Water (Cooling Water) pump alignments and various valves. This data was not updated within CDE until 8/24/15 due to lack of communication of the change to the MSPI Basis Document. CDE values for Cooling Water were updated back to the approval date of the MSPI Basis Document. No thresholds were crossed due to this change and the greatest delta in calculated unavailability margin due to this change was only 3%.

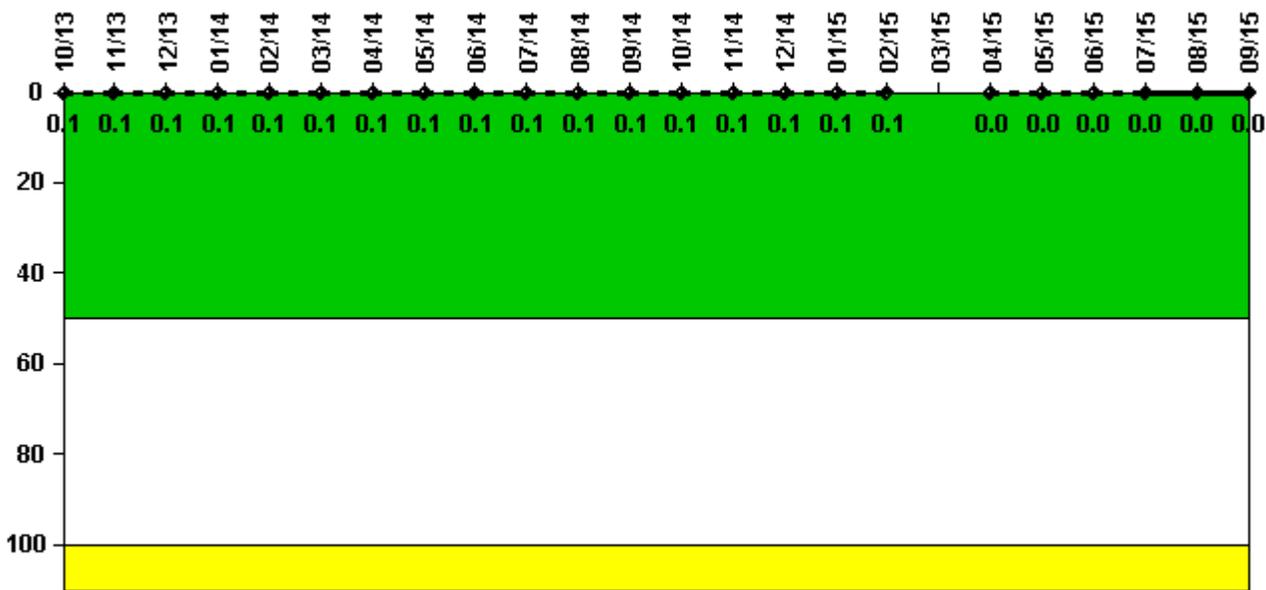
4Q/14: Changed PRA Parameter(s). The MSPI Basis document (BNP-PSA-069), Revision 13, was approved on 3/24/14 that corrected data for the Service Water (Cooling Water) pump alignments and various valves. This data was not updated within CDE until 8/24/15 due to lack of communication of the change to the MSPI Basis Document. CDE values for Cooling Water were updated back to the approval date of the MSPI Basis Document. No thresholds were crossed due to this change and the greatest delta in calculated unavailability margin due to this change was only 3%.

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2Q/14: Changed PRA Parameter(s). The MSPI Basis document (BNP-PSA-069), Revision 13, was approved on 3/24/14 that corrected data for the Service Water (Cooling Water) pump alignments and various valves. This data was not updated within CDE until 8/24/15 due to lack of communication of the change to the MSPI Basis Document. CDE values for Cooling Water were updated back to the approval date of the MSPI Basis Document. No thresholds were crossed due to this change and the greatest delta in calculated unavailability margin due to this change was only 3%.

4Q/13: Changed PRA Parameter(s). The plants PRA model was revised in the 3rd quarter of 2013. The MSPI Basis Document was revised in the 4th quarter of 2013, and the resulting new MSPI coefficients were entered into CDE for the applicable systems. New MSPI coefficients existed on all five MSPI systems, along with change to the CDF.

### Reactor Coolant System Activity



Thresholds: White > 50.0 Yellow > 100.0

#### Notes

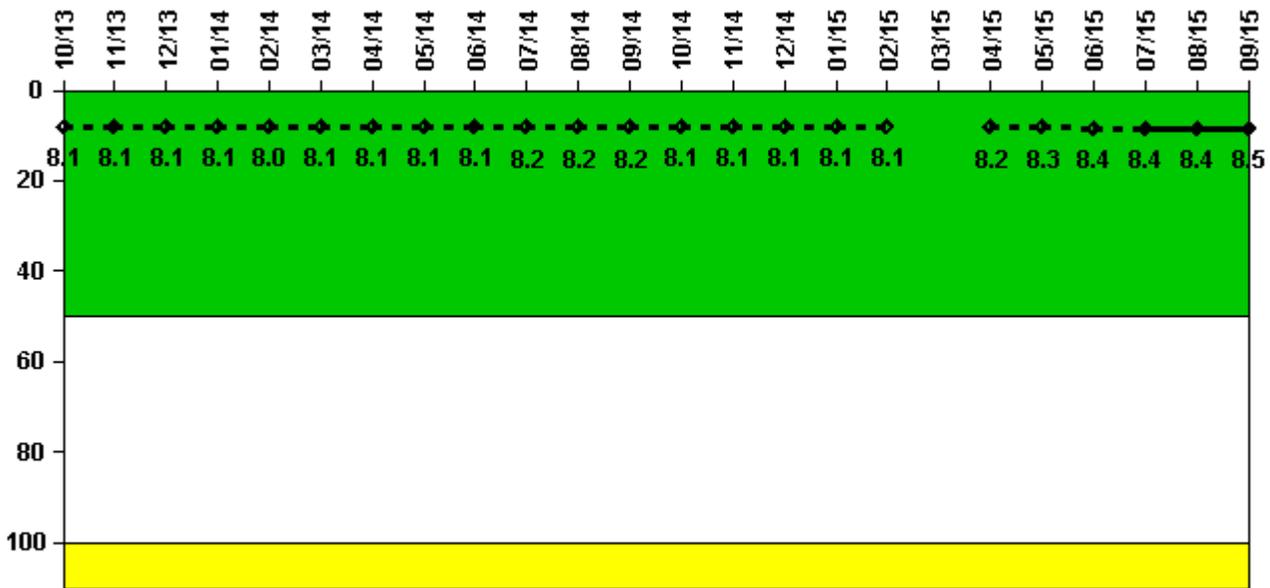
Reactor Coolant System Activity	10/13	11/13	12/13	1/14	2/14	3/14	4/14	5/14	6/14	7/14	8/14	9/14
Maximum activity	0.000106	0.000102	0.000106	0.000101	0.000106	0.000117	0.000109	0.000106	0.000106	0.000101	0.000137	0.000105
Technical specification limit	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Indicator value	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

Reactor Coolant System Activity	10/14	11/14	12/14	1/15	2/15	3/15	4/15	5/15	6/15	7/15	8/15	9/15
Maximum activity	0.000122	0.000105	0.000109	0.000111	0.000101	N/A	0.000060	0.000056	0.000057	0.000070	0.000070	0.000061
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	0.1	0.1	0.1	0.1	0.1	N/A	0	0	0	0	0	0

Licensee Comments: none

### Reactor Coolant System Leakage



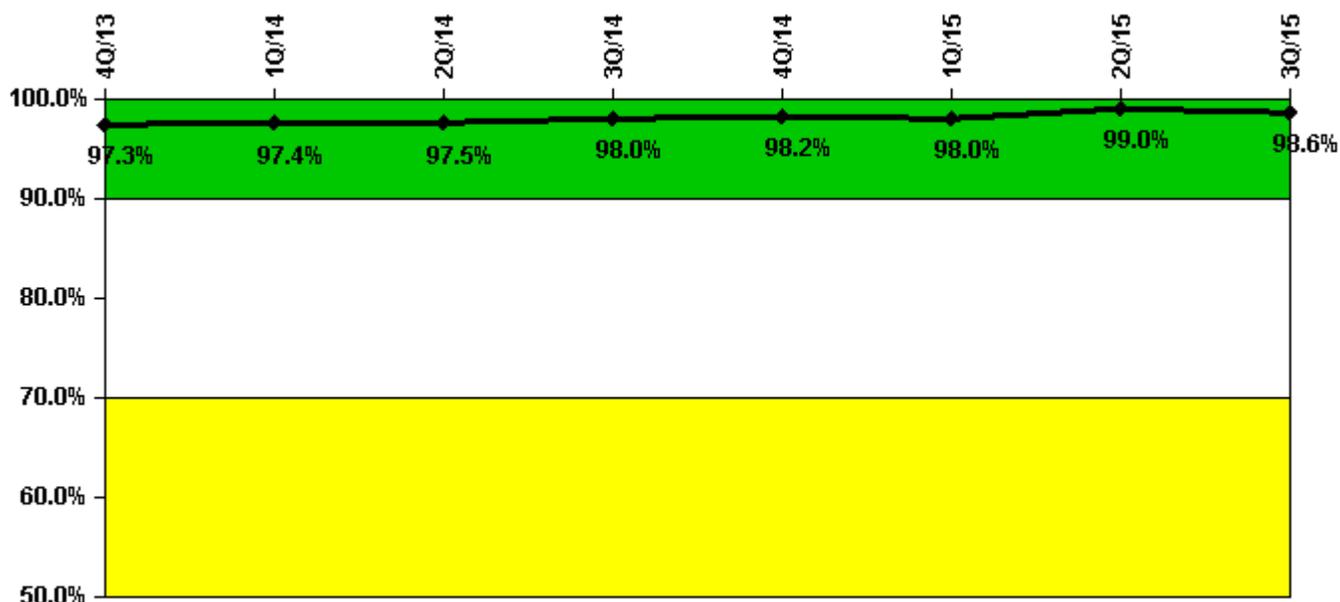
Thresholds: White > 50.0 Yellow > 100.0

#### Notes

Reactor Coolant System Leakage	10/13	11/13	12/13	1/14	2/14	3/14	4/14	5/14	6/14	7/14	8/14	9/14
Maximum leakage	2.028	2.037	2.016	2.018	2.010	2.024	2.028	2.026	2.029	2.042	2.047	2.061
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	8.1	8.1	8.1	8.1	8.0	8.1	8.1	8.1	8.1	8.2	8.2	8.2
Reactor Coolant System Leakage	10/14	11/14	12/14	1/15	2/15	3/15	4/15	5/15	6/15	7/15	8/15	9/15
Maximum leakage	2.029	2.036	2.026	2.024	2.021	N/A	2.053	2.070	2.090	2.090	2.110	2.130
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	8.1	8.1	8.1	8.1	8.1	N/A	8.2	8.3	8.4	8.4	8.4	8.5

Licensee Comments: none

### Drill/Exercise Performance



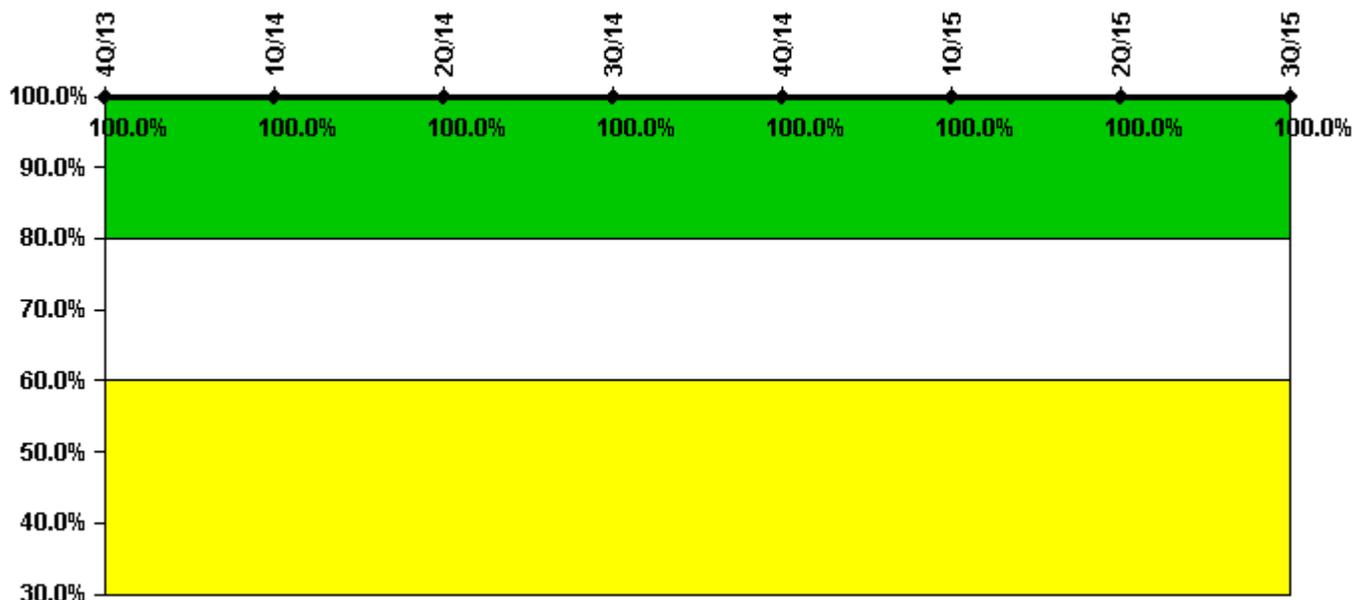
Thresholds: White < 90.0% Yellow < 70.0%

#### Notes

Drill/Exercise Performance	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15
Successful opportunities	54.0	20.0	22.0	33.0	19.0	8.0	21.0	30.0
Total opportunities	54.0	20.0	23.0	33.0	19.0	8.0	22.0	31.0
<b>Indicator value</b>	<b>97.3%</b>	<b>97.4%</b>	<b>97.5%</b>	<b>98.0%</b>	<b>98.2%</b>	<b>98.0%</b>	<b>99.0%</b>	<b>98.6%</b>

Licensee Comments: none

### ERO Drill Participation



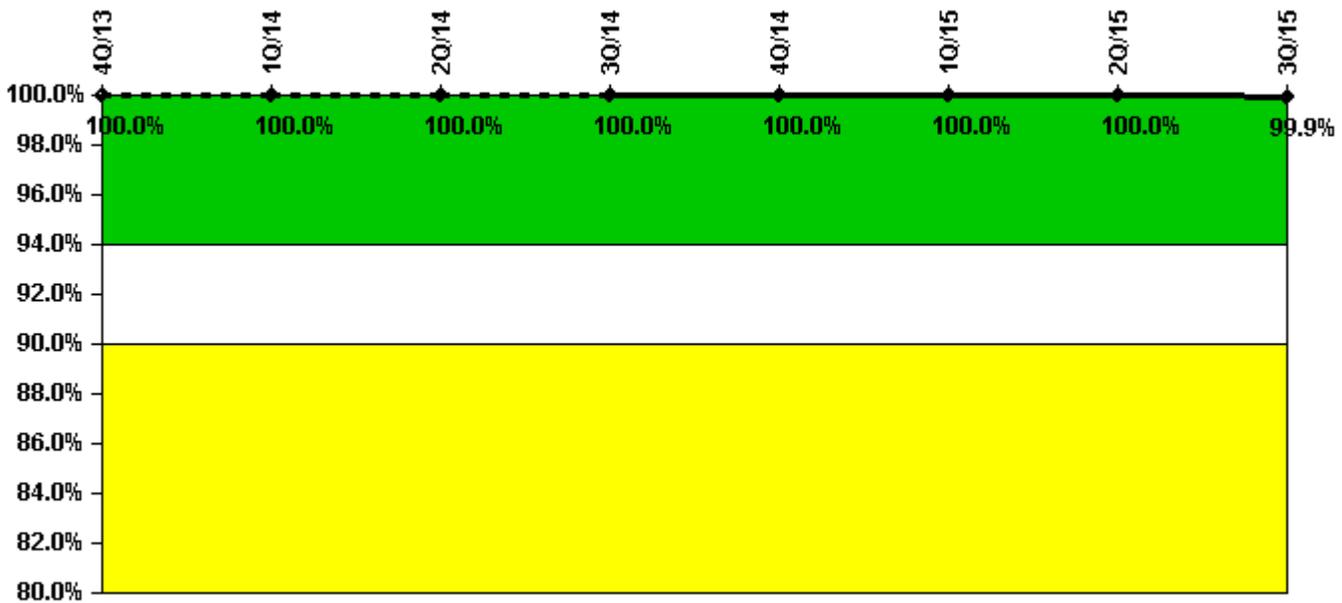
Thresholds: White < 80.0% Yellow < 60.0%

#### Notes

ERO Drill Participation	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15
Participating Key personnel	98.0	95.0	100.0	94.0	92.0	93.0	101.0	106.0
Total Key personnel	98.0	95.0	100.0	94.0	92.0	93.0	101.0	106.0
Indicator value	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Licensee Comments: none

### Alert & Notification System



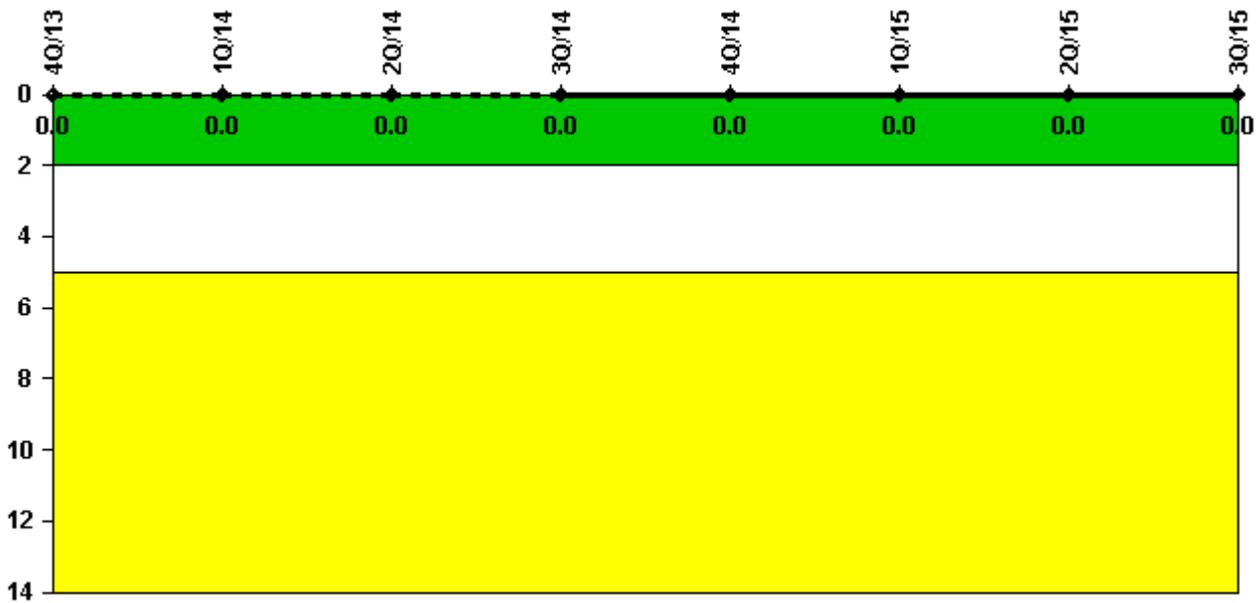
Thresholds: White < 94.0% Yellow < 90.0%

#### Notes

Alert & Notification System	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15
Successful siren-tests	608	494	532	570	570	532	532	530
Total sirens-tests	608	494	532	570	570	532	532	532
Indicator value	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	99.9%

Licensee Comments: none

### Occupational Exposure Control Effectiveness



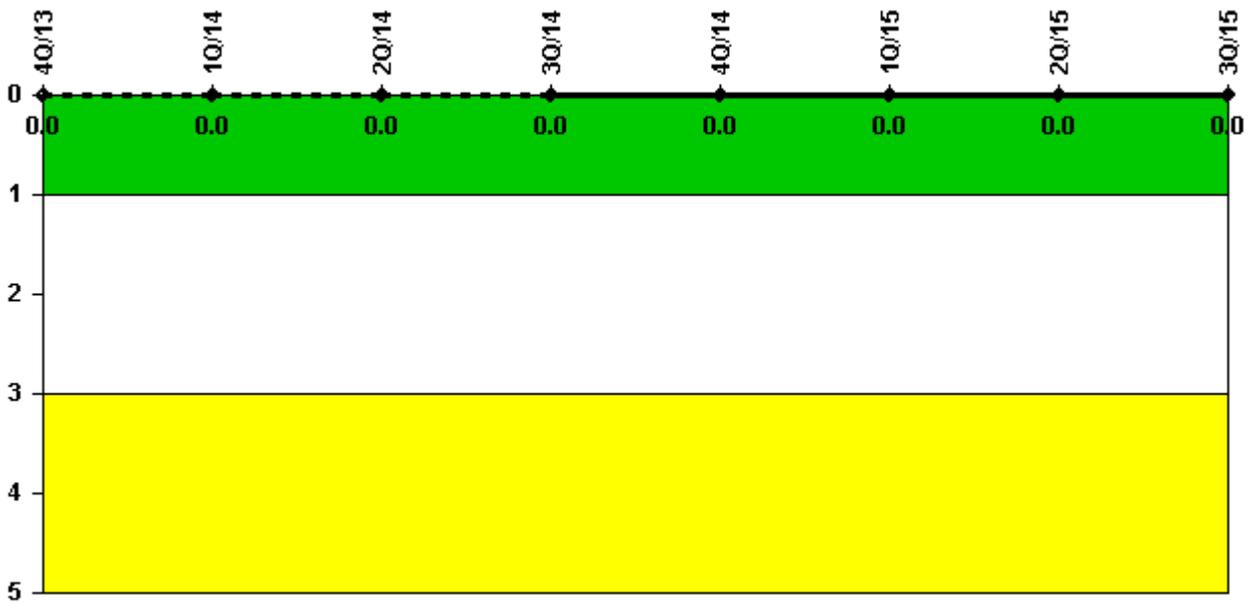
Thresholds: White > 2.0 Yellow > 5.0

#### Notes

Occupational Exposure Control Effectiveness	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15	3Q/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
<b>Indicator value</b>	<b>0</b>							

Licensee Comments: none

### RETS/ODCM Radiological Effluent



Thresholds: White > 1.0 Yellow > 3.0

#### Notes

RETS/ODCM Radiological Effluent	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15
RETS/ODCM occurrences	0	0	0	0	0	0	0	0
<b>Indicator value</b>	<b>0</b>							

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: December 15, 2015*