

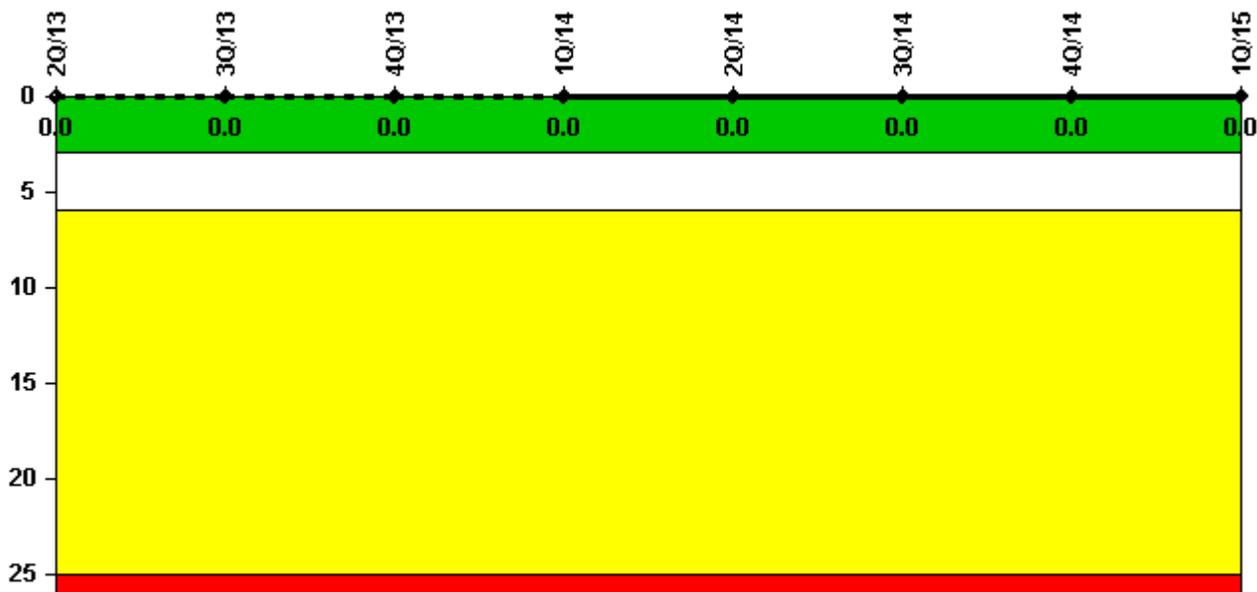
# Columbia Generating Station

## 1Q/2015 Performance Indicators

The solid trend line represents the current reporting period.

Licensee's General Comments: PRA Model was revised and RCIC valves became part of RCIC pump boundary effective 1/1/2015. Therefore the valve failure in 10/2014 now is against the pump resulting in an increase in the MSPI data for 4 qtr. 2014.

### Unplanned Scrams per 7000 Critical Hrs



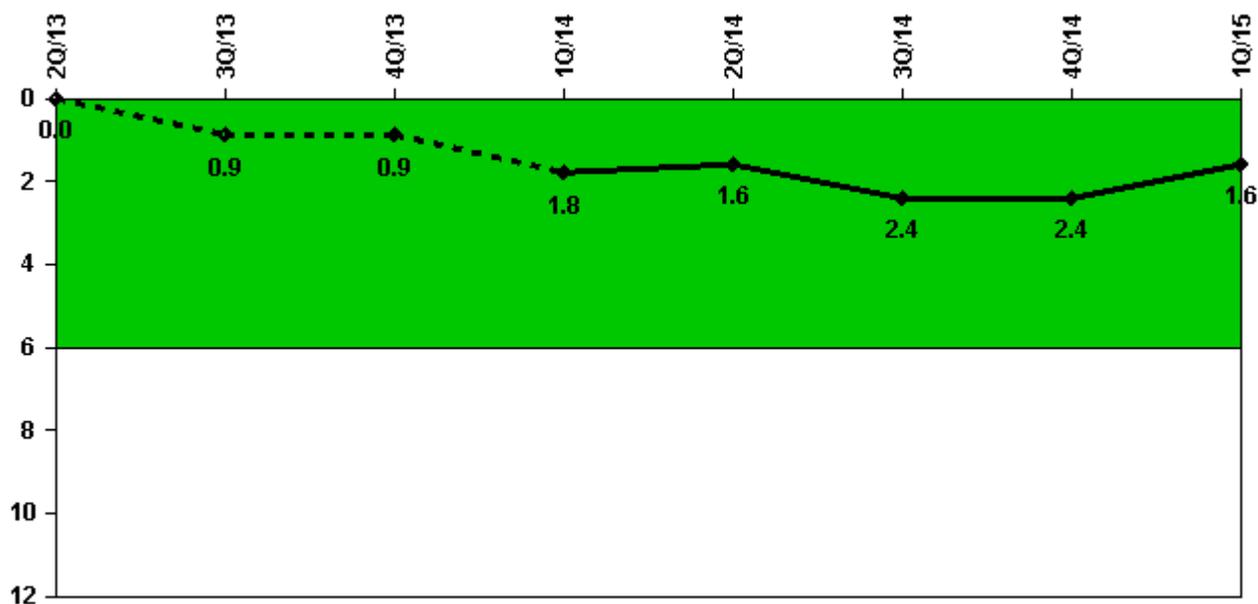
Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

### Notes

Unplanned Scrams per 7000 Critical Hrs	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15
Unplanned scrams	0	0	0	0	0	0	0	0
Critical hours	1163.8	2208.0	2209.0	2159.0	2184.0	2208.0	2209.0	2159.0
<b>Indicator value</b>	<b>0</b>							

Licensee Comments: none

### Unplanned Power Changes per 7000 Critical Hrs



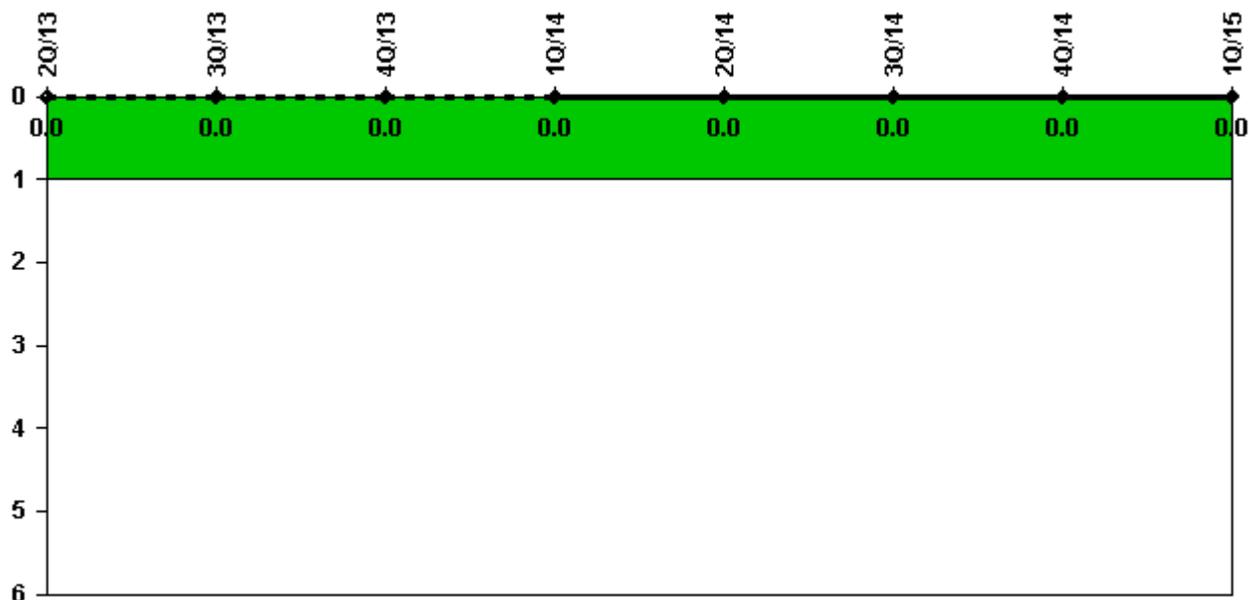
Thresholds: White > 6.0

#### Notes

Unplanned Power Changes per 7000 Critical Hrs	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15
Unplanned power changes	0	1.0	0	1.0	0	2.0	0	0
Critical hours	1163.8	2208.0	2209.0	2159.0	2184.0	2208.0	2209.0	2159.0
<b>Indicator value</b>	<b>0</b>	<b>0.9</b>	<b>0.9</b>	<b>1.8</b>	<b>1.6</b>	<b>2.4</b>	<b>2.4</b>	<b>1.6</b>

Licensee Comments: none

### Unplanned Scrams with Complications



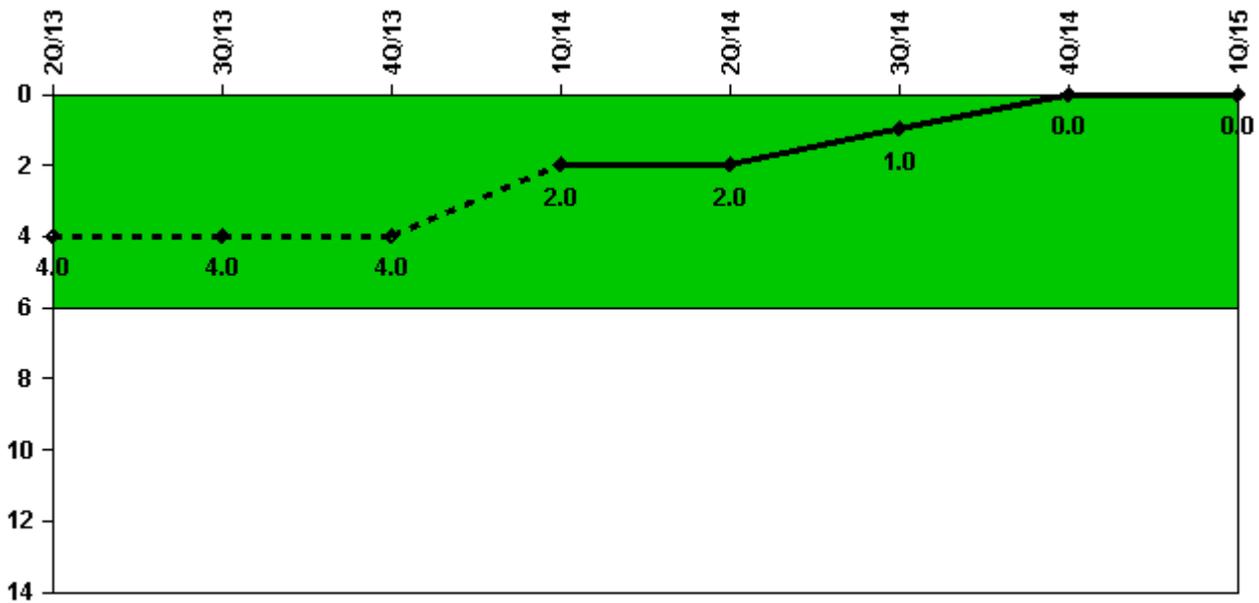
Thresholds: White > 1.0

#### Notes

Unplanned Scrams with Complications	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14	1Q/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

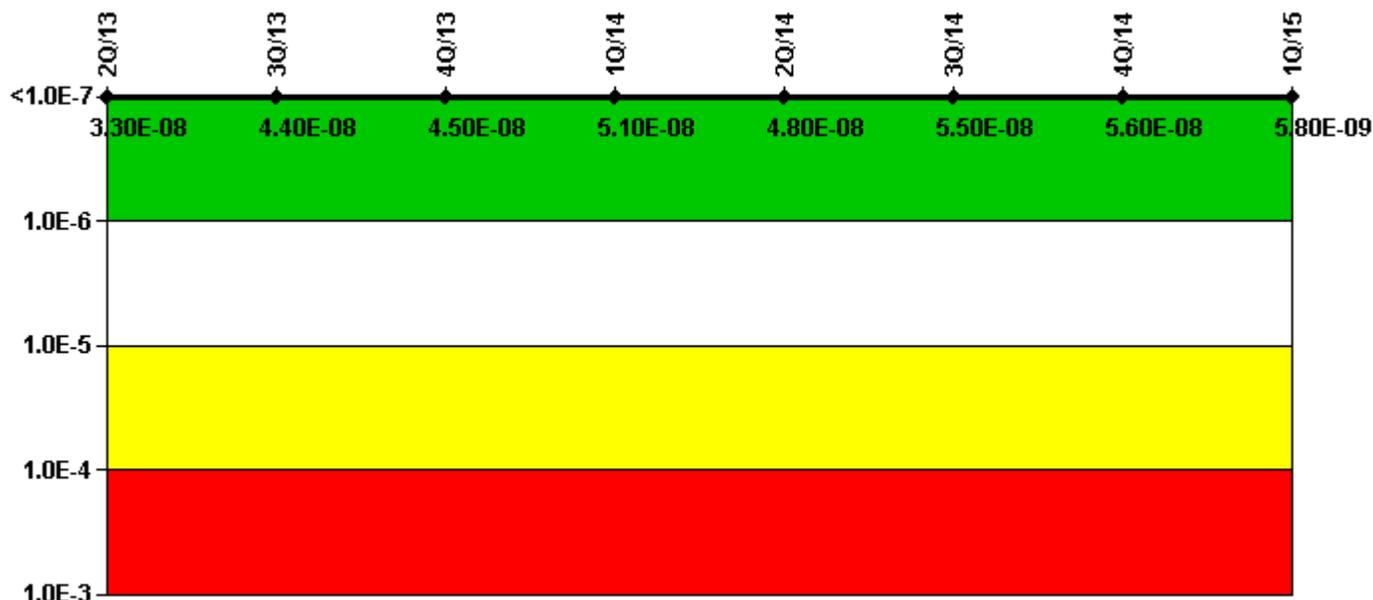
Safety System Functional Failures (BWR)	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15
Safety System Functional Failures	0	1	1	0	0	0	0	0
<b>Indicator value</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>2</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>0</b>

Licensee Comments:

4Q/13: LER 2013-007-00 -- Secondary Containment Pressure Exceeded During Severe Weather Conditions.

3Q/13: LER 2013-004-00 -- Jumper makes suppression pool spray valve remote transfer switch inoperable. LER 2013-004-01 removed the reporting criteria of 10 CFR 50.73(a)(2)(v)(D). Therefore, the reported condition was not considered a safety system functional failure. The color of the indicator does not change. DRJ.

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



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

#### Notes

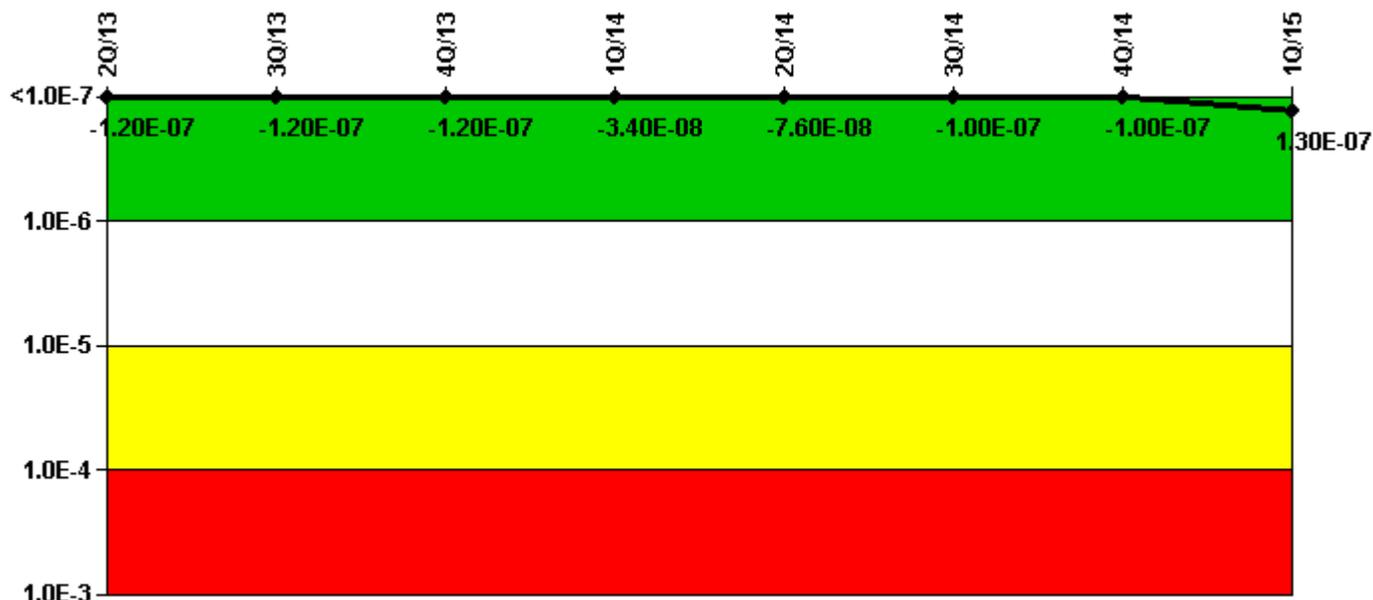
Mitigating Systems Performance Index, Emergency AC Power System	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15
UAI ( $\Delta$ CDF)	6.12E-09	1.54E-08	1.53E-08	1.91E-08	1.48E-08	1.99E-08	1.97E-08	5.74E-09
URI ( $\Delta$ CDF)	2.68E-08	2.83E-08	2.99E-08	3.15E-08	3.32E-08	3.49E-08	3.67E-08	6.18E-11
PLE	NO							
Indicator value	3.30E-08	4.40E-08	4.50E-08	5.10E-08	4.80E-08	5.50E-08	5.60E-08	5.80E-09

#### Licensee Comments:

1Q/15: Changed PRA Parameter(s). The MSPI coefficients were revised due to PRA updates. The MSPI Bases document was revised in December 2014 due to the PRA update. CDE was revised using the override function in January for the PRA updates that occurred in 4th quarter 2014.

4Q/14: The MSPI coefficients were revised due to PRA updates. The MSPI Bases document was revised in December 2014 due to the PRA update. CDE PRA parameters were changed in January to support the Basis update for the 4th quarter.

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



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

#### Notes

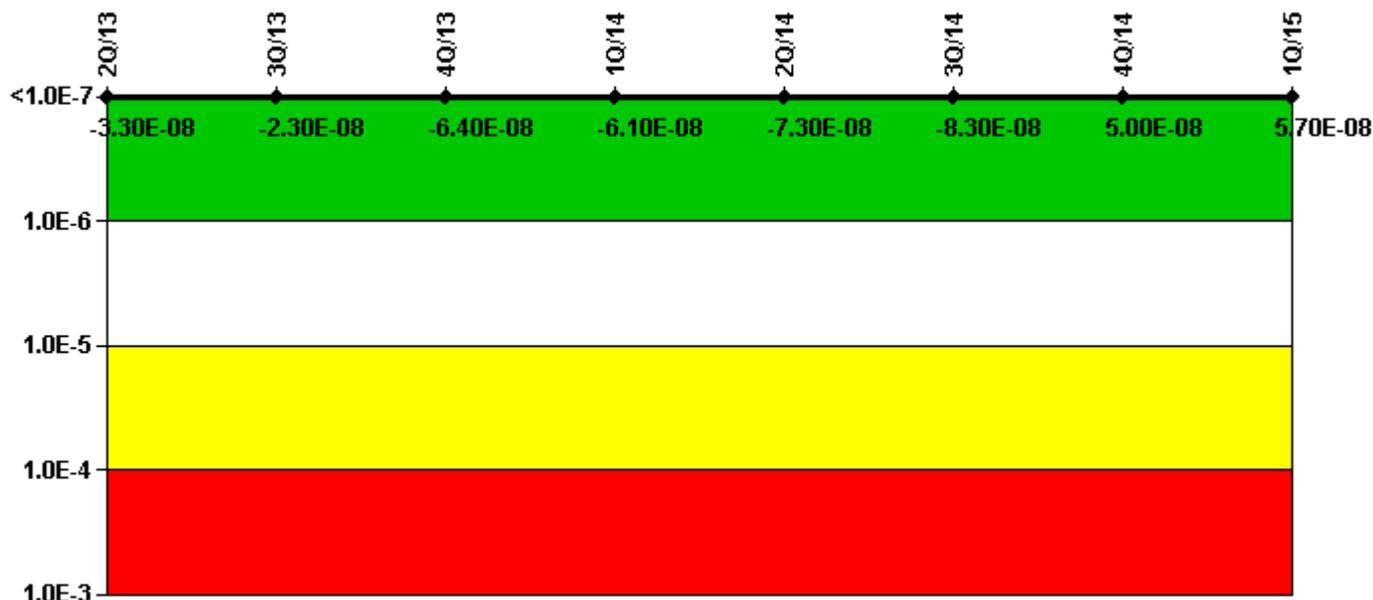
Mitigating Systems Performance Index, High Pressure Injection System	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15
UAI ( $\Delta$ CDF)	2.96E-07	2.89E-07	2.86E-07	3.65E-07	3.18E-07	2.86E-07	2.83E-07	4.09E-07
URI ( $\Delta$ CDF)	-4.15E-07	-4.10E-07	-4.05E-07	-3.99E-07	-3.94E-07	-3.89E-07	-3.83E-07	-2.78E-07
PLE	NO							
Indicator value	-1.20E-07	-1.20E-07	-1.20E-07	-3.40E-08	-7.60E-08	-1.00E-07	-1.00E-07	1.30E-07

#### Licensee Comments:

1Q/15: Changed PRA Parameter(s). The MSPI coefficients where revised due to PRA updates. The MSPI Bases document was revised in December 2014 due to the PRA update. CDE PRA parameters were changed in January to support the Basis update for the 4th quarter.

4Q/14: The MSPI coefficients where revised due to PRA updates. The MSPI Bases document was revised in December 2014 due to the PRA update. CDE PRA parameters were changed in January to support the Basis update for the 4th quarter.

### 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/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15
UAI ( $\Delta$ CDF)	1.04E-07	1.11E-07	6.92E-08	7.08E-08	5.67E-08	4.49E-08	1.95E-08	2.43E-08
URI ( $\Delta$ CDF)	-1.36E-07	-1.35E-07	-1.33E-07	-1.31E-07	-1.30E-07	-1.28E-07	3.01E-08	3.25E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-3.30E-08	-2.30E-08	-6.40E-08	-6.10E-08	-7.30E-08	-8.30E-08	5.00E-08	5.70E-08

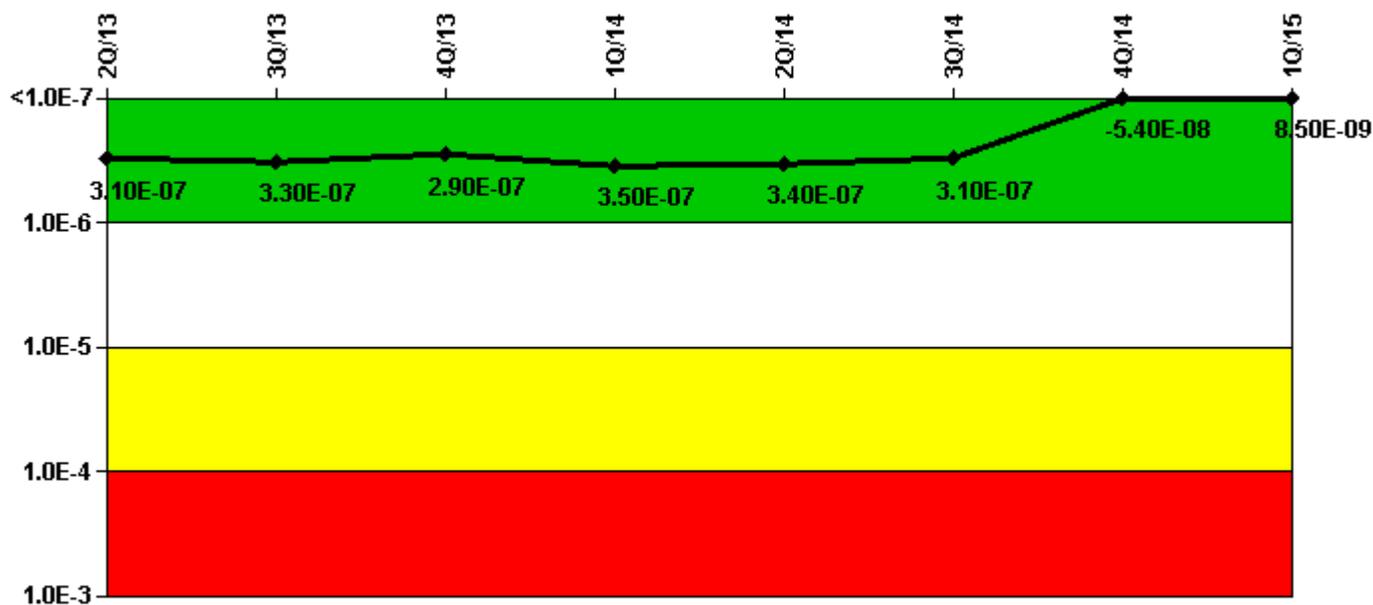
#### Licensee Comments:

1Q/15: Changed PRA Parameter(s). The MSPI coefficients were revised due to PRA updates. The MSPI Bases document was revised in December 2014 due to the PRA update. CDE PRA parameters were changed in January to support the Basis update for the 4th quarter.

4Q/14: The MSPI coefficients were revised due to PRA updates. The MSPI Bases document was revised in December 2014 due to the PRA update. CDE PRA parameters were changed in January to support the Basis update for the 4th quarter.

4Q/14: The MSPI coefficients were revised due to PRA updates. The MSPI Bases document was revised in December 2014 due to the PRA update. CDE PRA parameters were changed in January to support the Basis update for the 4th quarter.

### Mitigating Systems Performance Index, Residual Heat Removal System



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

#### Notes

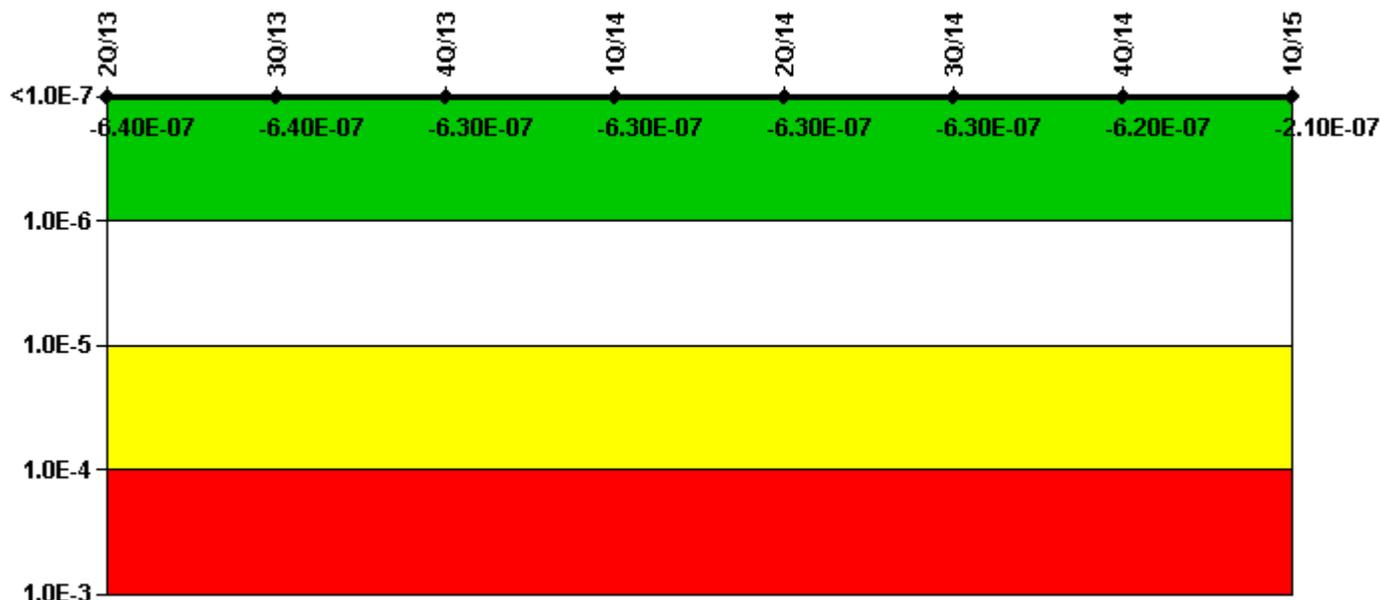
Mitigating Systems Performance Index, Residual Heat Removal System	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15
UAI ( $\Delta$ CDF)	4.81E-07	4.82E-07	4.16E-07	4.50E-07	4.10E-07	3.47E-07	3.09E-07	3.30E-08
URI ( $\Delta$ CDF)	-1.70E-07	-1.49E-07	-1.26E-07	-1.00E-07	-7.05E-08	-3.67E-08	-3.63E-07	-2.46E-08
PLE	NO	NO						
<b>Indicator value</b>	<b>3.10E-07</b>	<b>3.30E-07</b>	<b>2.90E-07</b>	<b>3.50E-07</b>	<b>3.40E-07</b>	<b>3.10E-07</b>	<b>-5.40E-08</b>	<b>8.50E-09</b>

#### Licensee Comments:

1Q/15: Changed PRA Parameter(s). The MSPI coefficients were revised due to PRA updates. The MSPI Bases document was revised in December 2014 due to the PRA update. CDE PRA parameters were changed in January to support the Basis update for the 4th quarter.

4Q/14: The MSPI coefficients were revised due to PRA updates. The MSPI Bases document was revised in December 2014 due to the PRA update. CDE PRA parameters were changed in January to support the Basis update for the 4th quarter.

### Mitigating Systems Performance Index, Cooling Water Systems



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

#### Notes

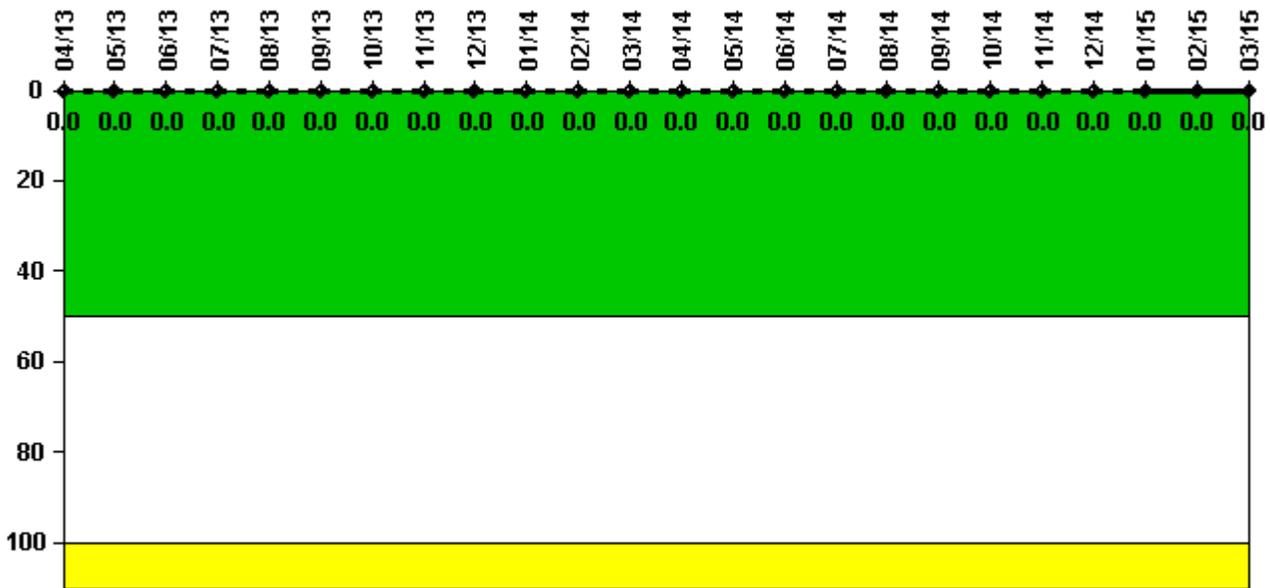
Mitigating Systems Performance Index, Cooling Water Systems	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15
UAI ( $\Delta$ CDF)	-1.04E-07	-3.88E-08						
URI ( $\Delta$ CDF)	-5.33E-07	-5.31E-07	-5.29E-07	-5.27E-07	-5.25E-07	-5.23E-07	-5.20E-07	-1.66E-07
PLE	NO							
Indicator value	-6.40E-07	-6.40E-07	-6.30E-07	-6.30E-07	-6.30E-07	-6.30E-07	-6.20E-07	-2.10E-07

#### Licensee Comments:

1Q/15: Changed PRA Parameter(s). The MSPI coefficients were revised due to PRA updates. The MSPI Bases document was revised in December 2014 due to the PRA update. CDE PRA parameters were changed in January to support the Basis update for the 4th quarter.

4Q/14: The MSPI coefficients were revised due to PRA updates. The MSPI Bases document was revised in December 2014 due to the PRA update. CDE PRA parameters were changed in January to support the Basis update for the 4th quarter.

### Reactor Coolant System Activity



Thresholds: White > 50.0 Yellow > 100.0

#### Notes

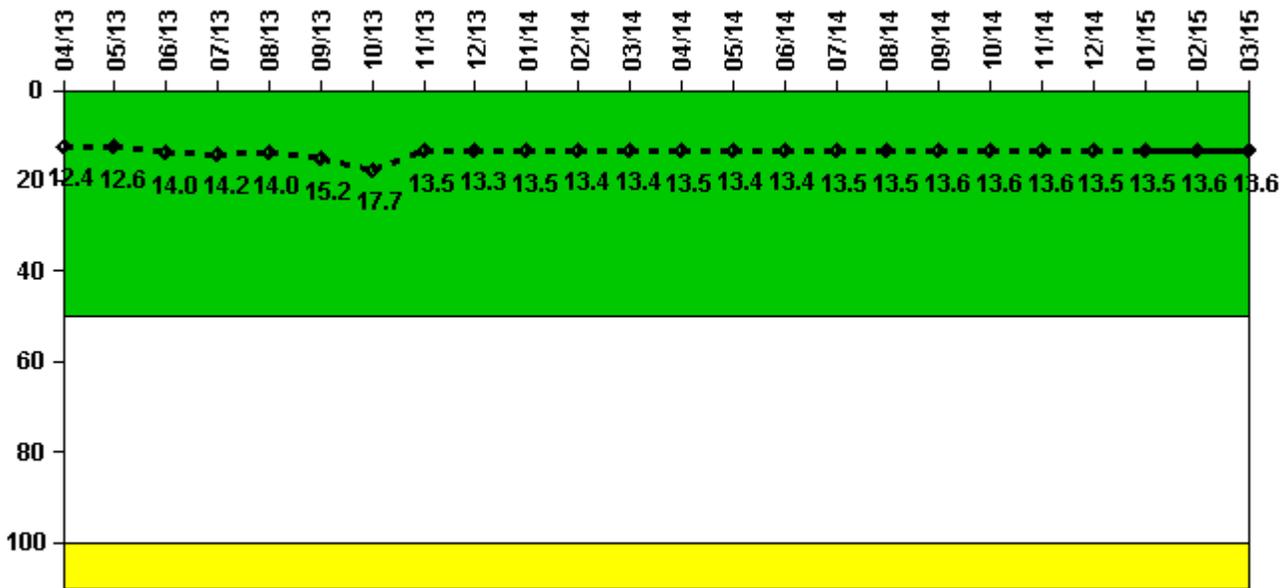
Reactor Coolant System Activity	4/13	5/13	6/13	7/13	8/13	9/13	10/13	11/13	12/13	1/14	2/14	3/14
Maximum activity	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001
Technical specification limit	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Indicator value	0	0	0	0	0	0	0	0	0	0	0	0

Reactor Coolant System Activity	4/14	5/14	6/14	7/14	8/14	9/14	10/14	11/14	12/14	1/15	2/15	3/15
Maximum activity	0.000001	0.000001	0.000006	0	0	0	0.000001	0	0.000001	0.000002	0.000001	0.000001
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

Licensee Comments: none

### Reactor Coolant System Leakage



Thresholds: White > 50.0 Yellow > 100.0

#### Notes

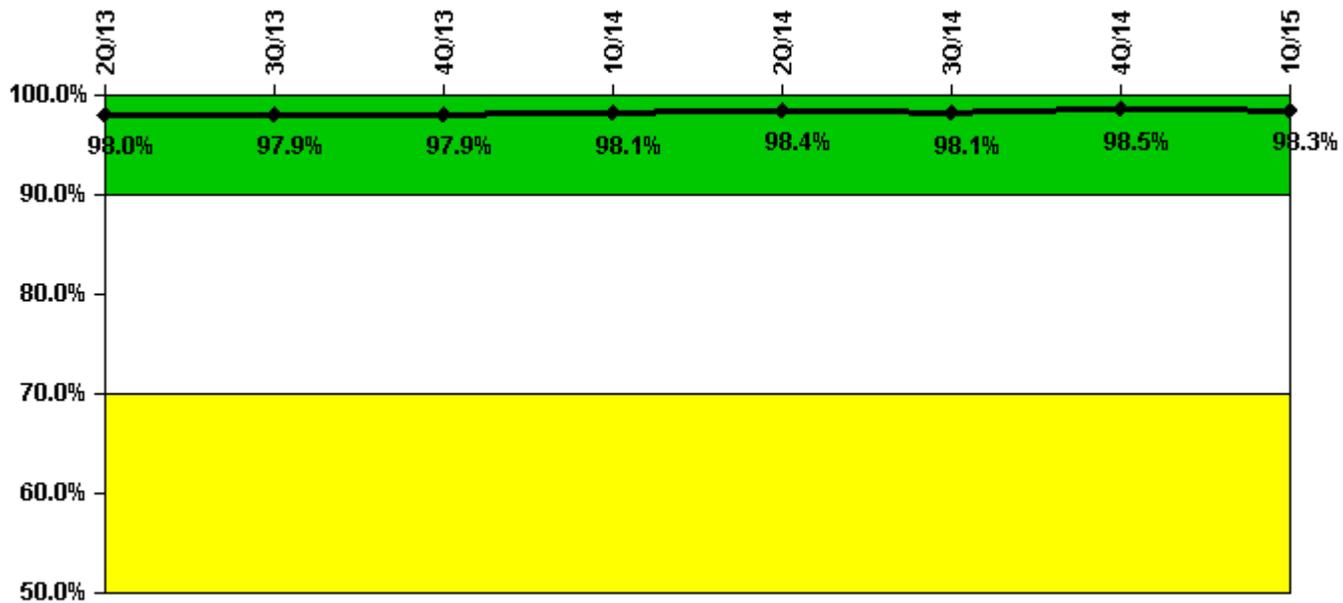
Reactor Coolant System Leakage	4/13	5/13	6/13	7/13	8/13	9/13	10/13	11/13	12/13	1/14	2/14	3/14
Maximum leakage	3.110	3.150	3.490	3.540	3.490	3.800	4.420	3.370	3.330	3.380	3.350	3.340
Technical specification limit	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
Indicator value	12.4	12.6	14.0	14.2	14.0	15.2	17.7	13.5	13.3	13.5	13.4	13.4

Reactor Coolant System Leakage	4/14	5/14	6/14	7/14	8/14	9/14	10/14	11/14	12/14	1/15	2/15	3/15
Maximum leakage	3.370	3.350	3.360	3.370	3.380	3.410	3.390	3.390	3.370	3.370	3.390	3.400
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	13.5	13.4	13.4	13.5	13.5	13.6	13.6	13.6	13.5	13.5	13.6	13.6

Licensee Comments: none

### Drill/Exercise Performance



Thresholds: White < 90.0% Yellow < 70.0%

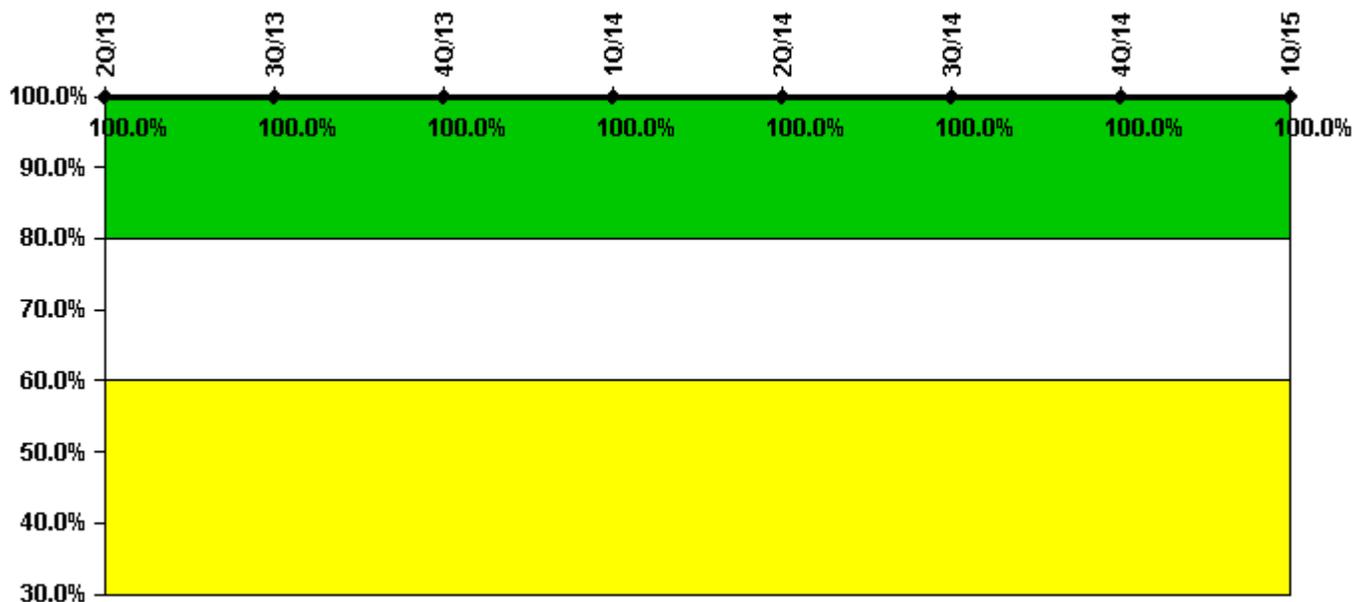
#### Notes

Drill/Exercise Performance	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15
Successful opportunities	12.0	19.0	40.0	61.0	28.0	49.0	51.0	33.0
Total opportunities	13.0	19.0	41.0	61.0	28.0	51.0	51.0	34.0
Indicator value	98.0%	97.9%	97.9%	98.1%	98.4%	98.1%	98.5%	98.3%

Licensee Comments:

2Q/13: Upon further review of NEI 99-02 and CGS procedure guidance for the development of PARs, that PARs follow the GE classification, the PAR opportunity from 4-30-13 has been changed from a miss to a success which does not change the overall PI color.

### ERO Drill Participation



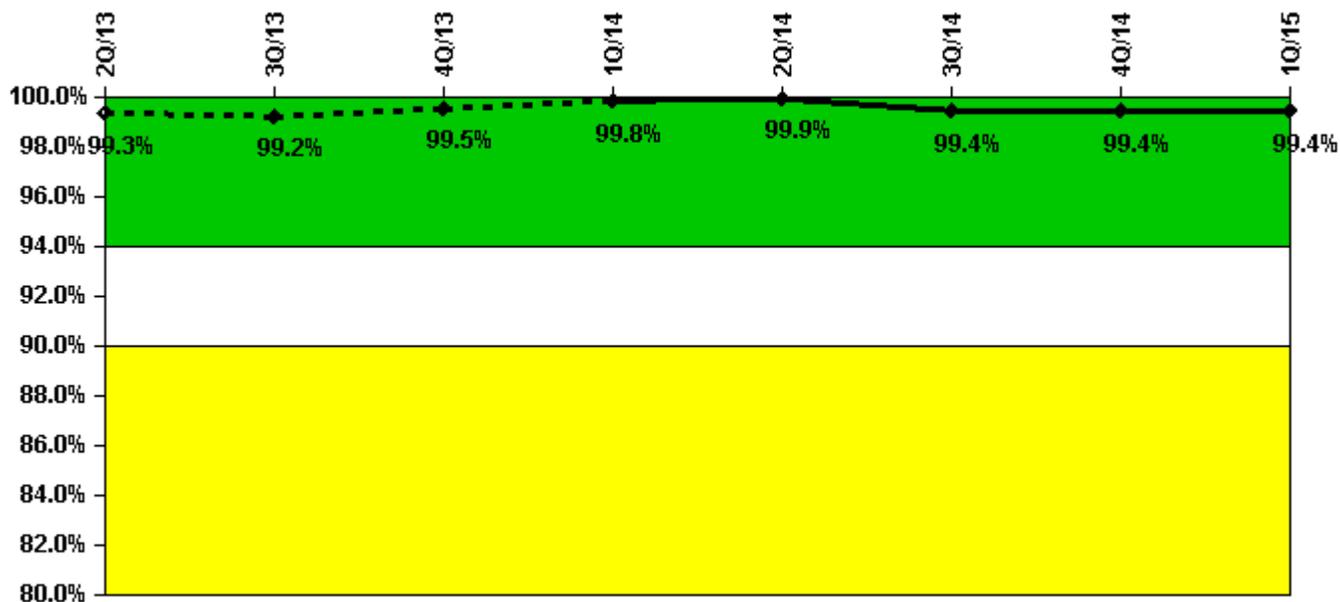
Thresholds: White < 80.0% Yellow < 60.0%

#### Notes

ERO Drill Participation	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15
Participating Key personnel	56.0	41.0	41.0	40.0	40.0	42.0	43.0	45.0
Total Key personnel	56.0	41.0	41.0	40.0	40.0	42.0	43.0	45.0
Indicator value	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Licensee Comments: none

### Alert & Notification System



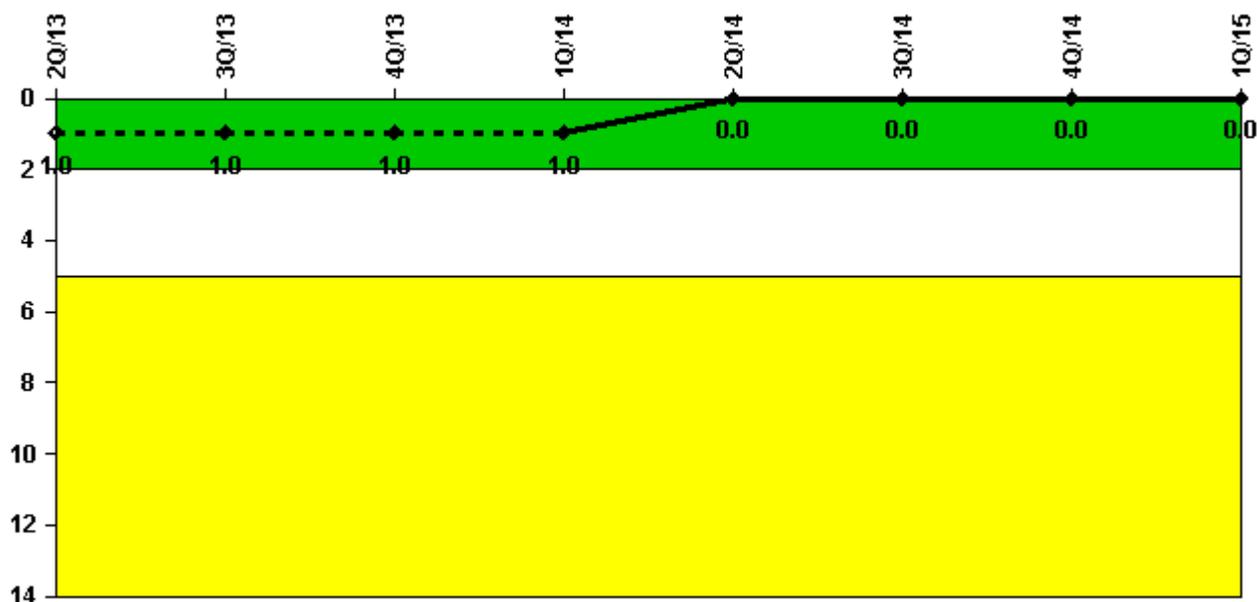
Thresholds: White < 94.0% Yellow < 90.0%

#### Notes

Alert & Notification System	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15
Successful siren-tests	143	171	169	182	168	178	182	156
Total sirens-tests	143	172	169	182	168	182	182	156
Indicator value	99.3%	99.2%	99.5%	99.8%	99.9%	99.4%	99.4%	99.4%

Licensee Comments: none

### Occupational Exposure Control Effectiveness



Thresholds: White > 2.0 Yellow > 5.0

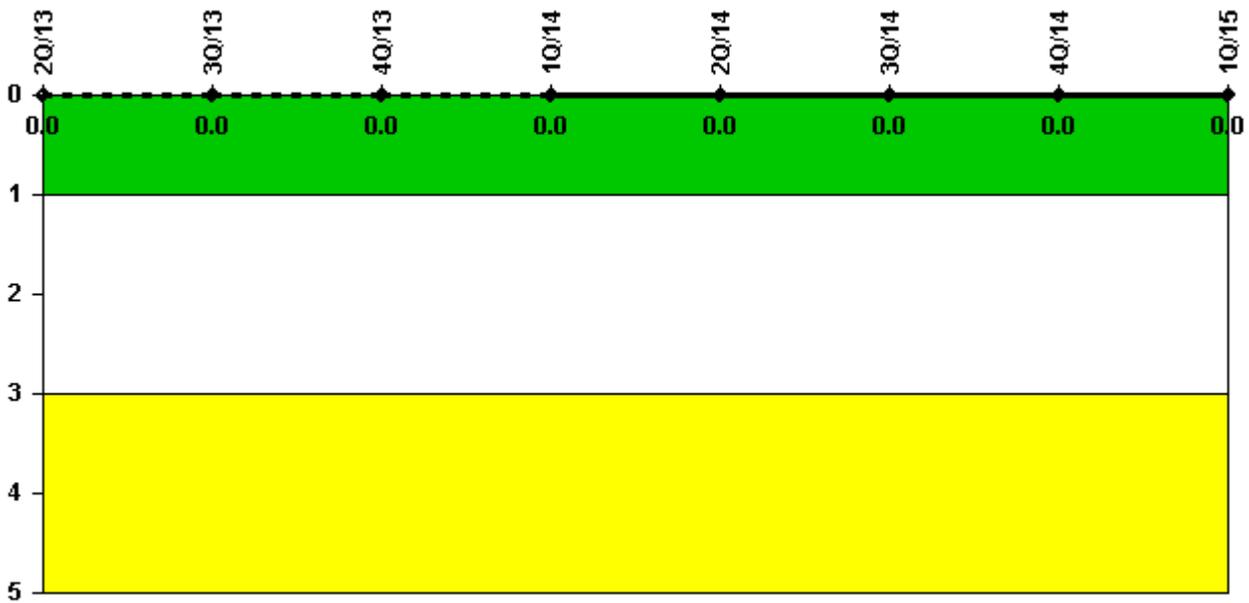
#### Notes

Occupational Exposure Control Effectiveness	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15
High radiation area occurrences	1	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>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

Licensee Comments:

3Q/14: The High Radiation Area Occurrence that was originally submitted for September 2014 CDE has been removed. The occurrence did not meet the criteria as defined in NEI 99-02 Rev 7 Technical Specification High Radiation Area (>1 rem per hour) Occurrence. No threshold change occurred.

### RETS/ODCM Radiological Effluent



Thresholds: White > 1.0 Yellow > 3.0

#### Notes

RETS/ODCM Radiological Effluent	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14	1Q/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: April 23, 2015*