

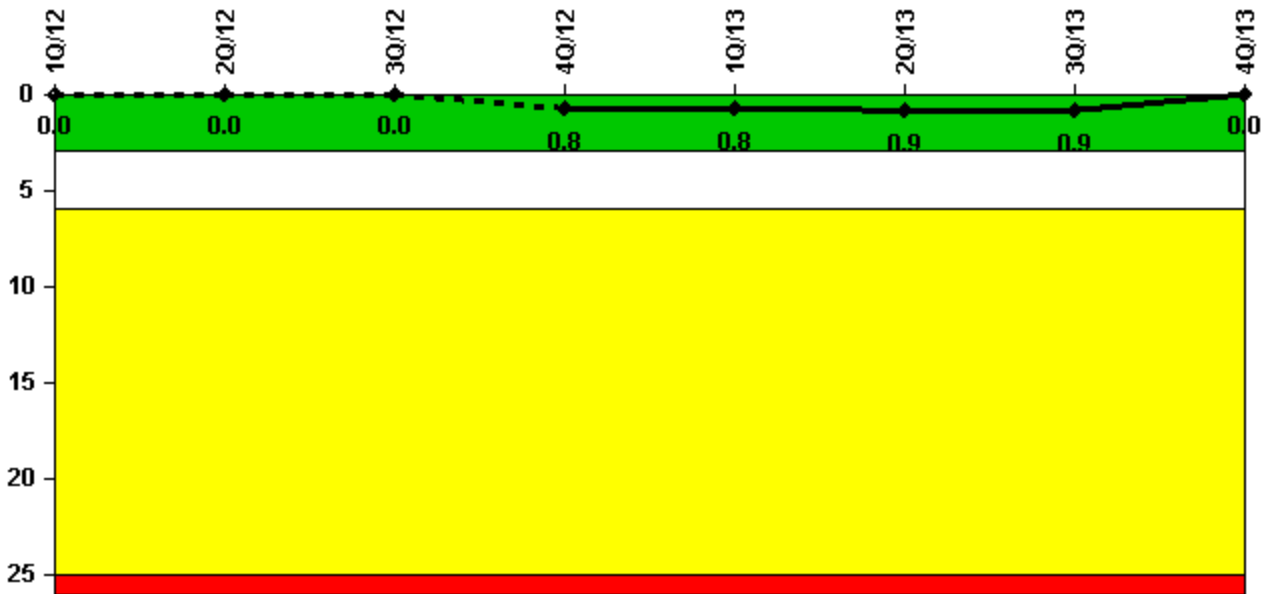
# Comanche Peak 1

## 4Q/2013 Performance Indicators

The solid trend line represents the current reporting period.

Licensee's General Comments: none

### Unplanned Scrams per 7000 Critical Hrs



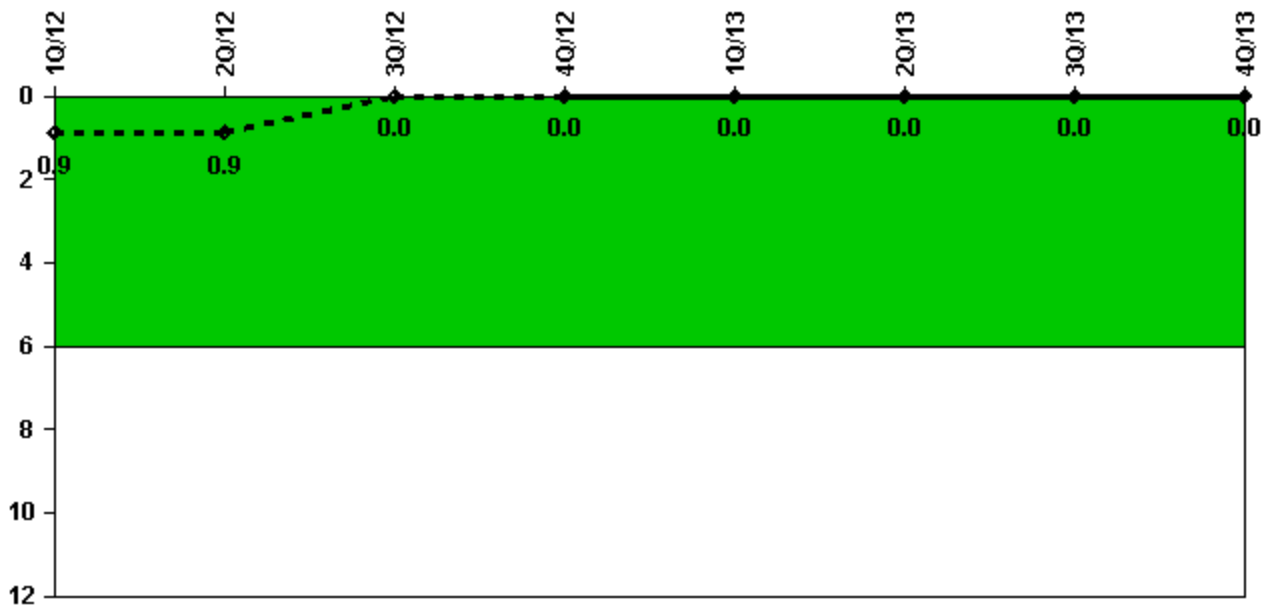
Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

### Notes

Unplanned Scrams per 7000 Critical Hrs	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13
Unplanned scrams	0	0	0	1.0	0	0	0	0
Critical hours	2183.0	2184.0	2195.7	1987.5	2123.0	1707.8	2196.2	2209.0
Indicator value	0	0	0	0.8	0.8	0.9	0.9	0

Licensee Comments: none

### Unplanned Power Changes per 7000 Critical Hrs



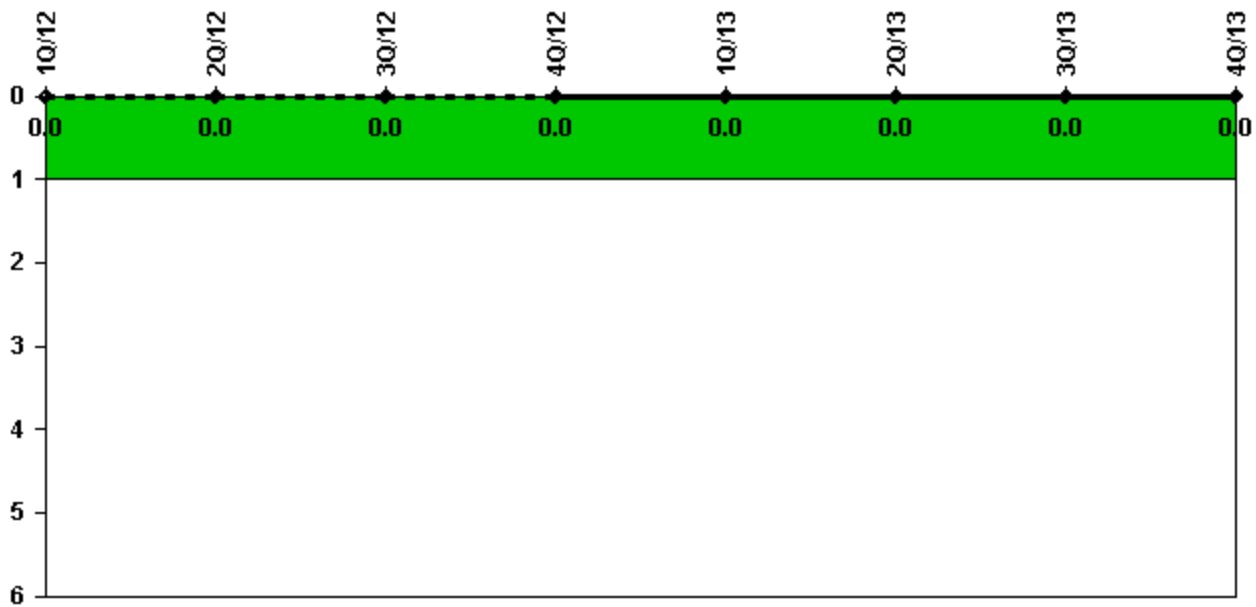
Thresholds: White > 6.0

#### Notes

Unplanned Power Changes per 7000 Critical Hrs	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13
Unplanned power changes	0	0	0	0	0	0	0	0
Critical hours	2183.0	2184.0	2195.7	1987.5	2123.0	1707.8	2196.2	2209.0
<b>Indicator value</b>	<b>0.9</b>	<b>0.9</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

Licensee Comments: none

### Unplanned Scrams with Complications



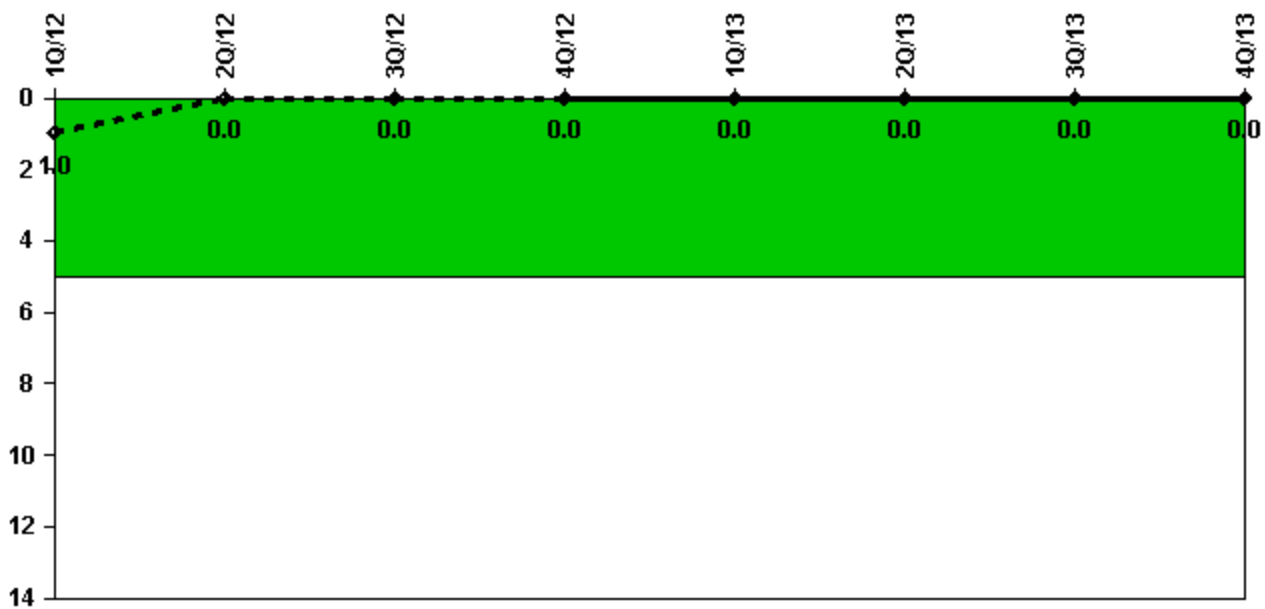
Thresholds: White > 1.0

#### Notes

Unplanned Scrams with Complications	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13
Scrams with complications	0	0	0	0	0	0	0	0
<b>Indicator value</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>

Licensee Comments: none

### Safety System Functional Failures (PWR)



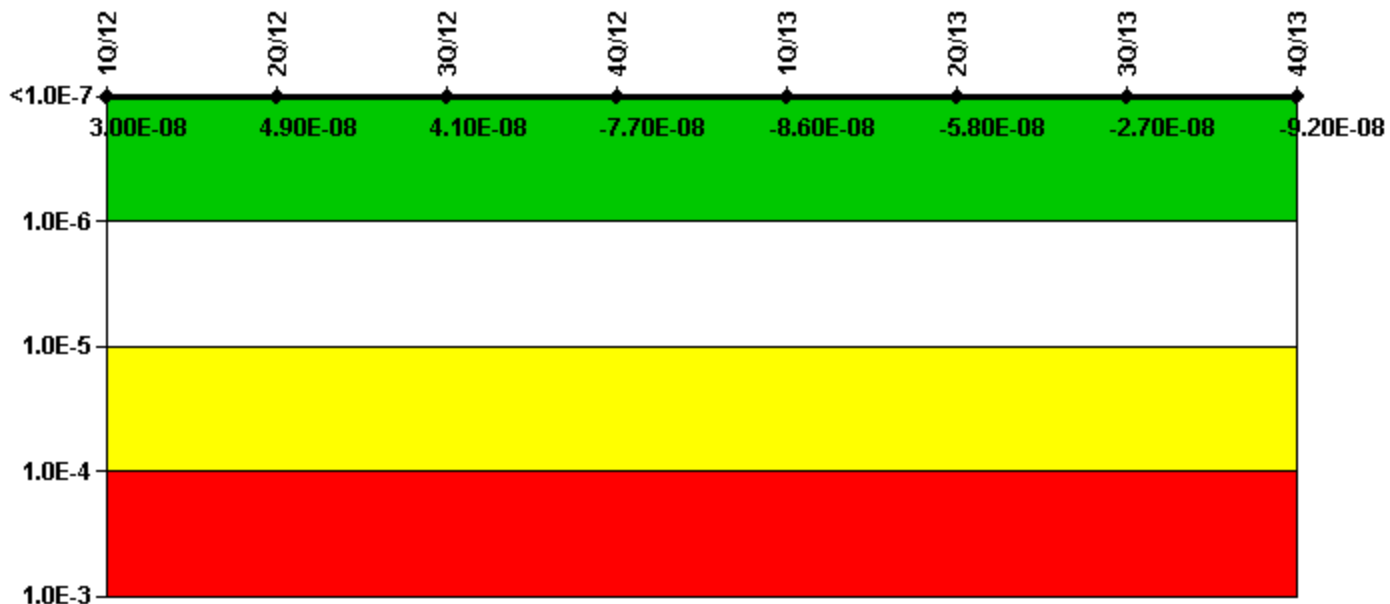
Thresholds: White > 5.0

#### Notes

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

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

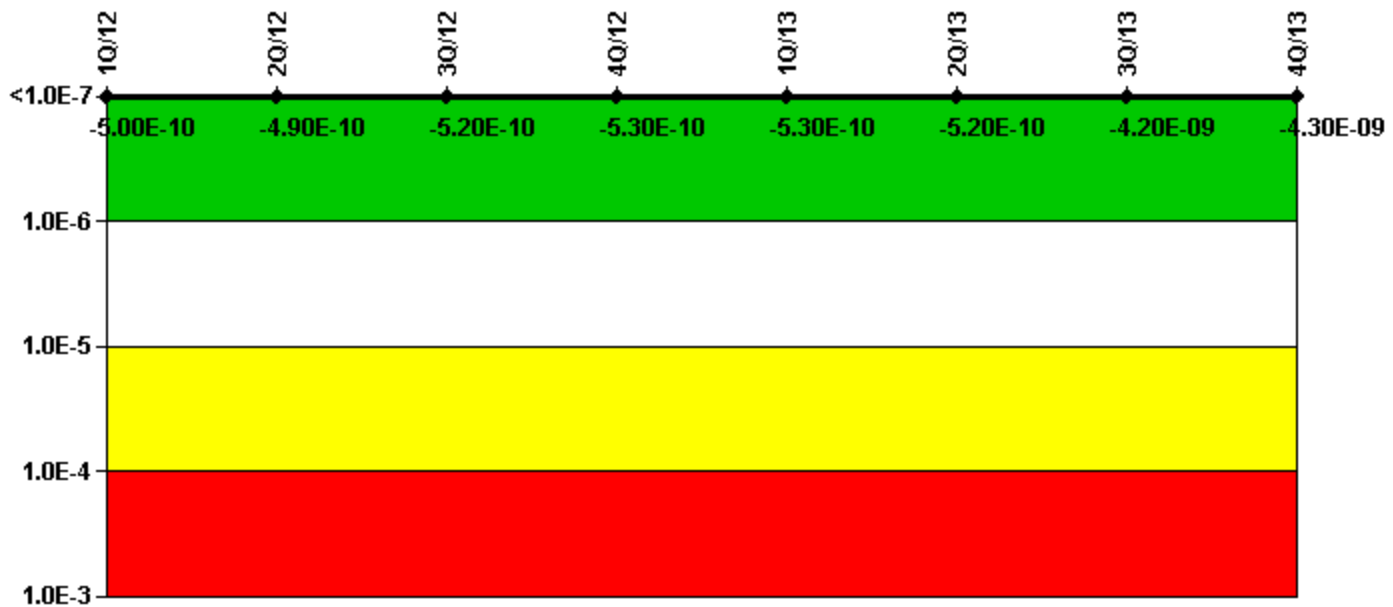
Mitigating Systems Performance Index, Emergency AC Power System	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13
UAI ( $\Delta$ CDF)	-1.46E-08	7.60E-09	-4.40E-09	-2.85E-09	-1.60E-08	-4.35E-09	-2.03E-09	-4.35E-09
URI ( $\Delta$ CDF)	4.45E-08	4.18E-08	4.55E-08	-7.38E-08	-6.95E-08	-5.36E-08	-2.47E-08	-8.77E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	3.00E-08	4.90E-08	4.10E-08	7.70E-08	8.60E-08	5.80E-08	2.70E-08	9.20E-08

#### Licensee Comments:

3Q/13: Changed PRA Parameter(s). Changed PRA Parameters due to PRA Model Update Revision 5. Reference MSPI Basis Document, R&R-PN-112, Revision 7.

2Q/13: Changed PRA Parameter(s). Changed PRA Parameters due to PRA Model Update Revision 4. Updated reliability reporting from Monthly Actuals to Estimates on all components per CPNPP MSPI Basis Document, R&R-PN-112, Revision 6.

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



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

#### Notes

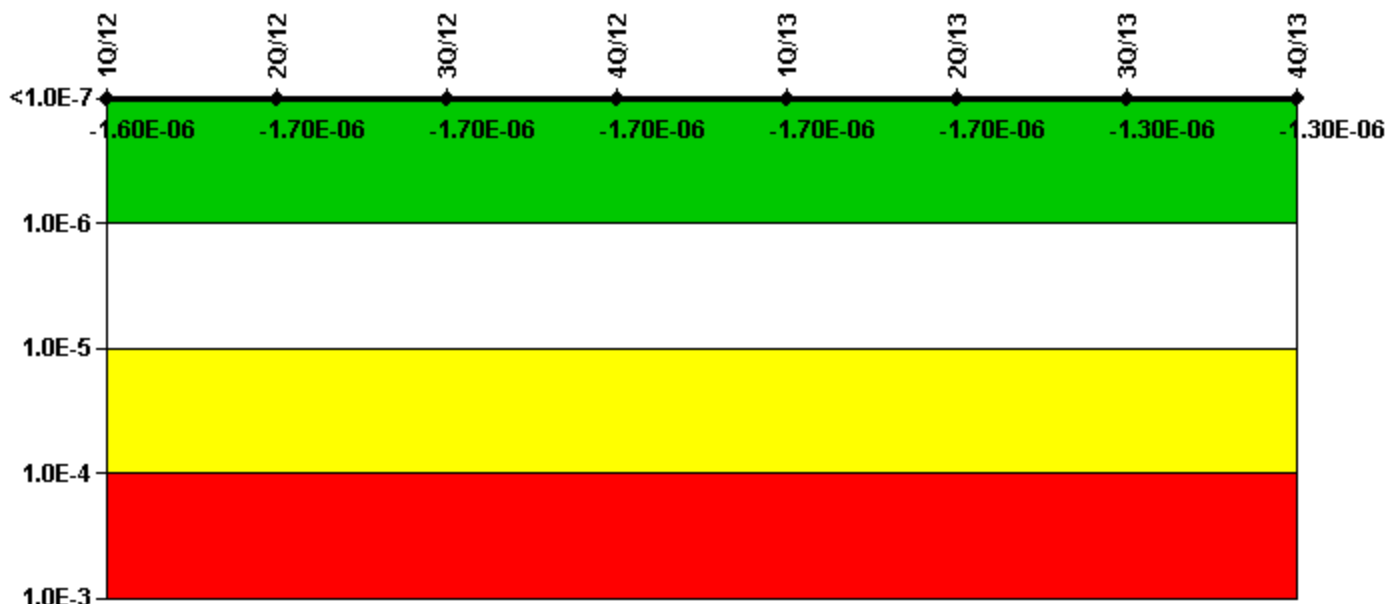
Mitigating Systems Performance Index, High Pressure Injection System	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13
UAI (ΔCDF)	-1.73E-10	-1.71E-10	-2.04E-10	-2.05E-10	-2.05E-10	-2.05E-10	-2.34E-09	-2.34E-09
URI (ΔCDF)	-3.23E-10	-3.22E-10	-3.21E-10	-3.23E-10	-3.26E-10	-3.17E-10	-1.88E-09	-1.93E-09
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-5.00E-10	-4.90E-10	-5.20E-10	-5.30E-10	-5.30E-10	-5.20E-10	-4.20E-09	-4.30E-09

#### Licensee Comments:

3Q/13: Changed PRA Parameter(s). Changed PRA Parameters due to PRA Model Update Revision 5. Reference MSPI Basis Document, R&R-PN-112, Revision 7.

2Q/13: Changed PRA Parameter(s). Changed PRA Parameters due to PRA Model Update Revision 4. Updated reliability reporting from Monthly Actuals to Estimates on all components per CPNPP MSPI Basis Document, R&R-PN-112, Revision 6.

### 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	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13
UAI (ΔCDF)	-1.39E-06	-1.45E-06	-1.45E-06	-1.45E-06	-1.45E-06	-1.43E-06	-1.09E-06	-1.09E-06
URI (ΔCDF)	-2.55E-07	-2.45E-07	-2.66E-07	-2.58E-07	-2.67E-07	-2.54E-07	-2.48E-07	-2.64E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-1.60E-06	-1.70E-06	-1.70E-06	-1.70E-06	-1.70E-06	-1.70E-06	-1.30E-06	-1.30E-06

#### Licensee Comments:

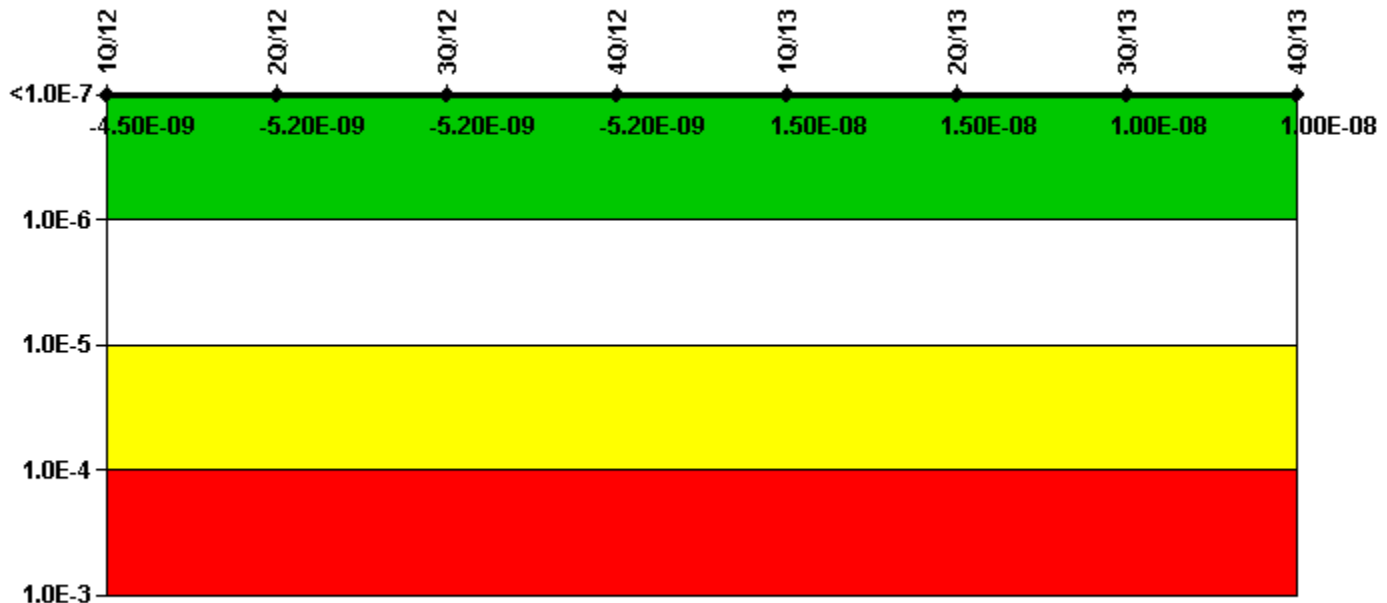
3Q/13: Changed PRA Parameter(s). Changed PRA Parameters due to PRA Model Update Revision 5. Reference MSPI Basis Document, R&R-PN-112, Revision 7.

2Q/13: Changed PRA Parameter(s). Changed PRA Parameters due to PRA Model Update Revision 4. Updated reliability reporting from Monthly Actuals to Estimates on all components per CPNPP MSPI Basis Document, R&R-PN-112, Revision 6.

4Q/12: The Heat Removal System MS08 data for 4Q2012 has been corrected to include an additional failure (ICES 305334) that was not reported in the 4Q submittal. This data change did not result in a change to the indicator color.

3Q/12: The Heat Removal System MS08 data has been corrected to include an additional 6.38 hours of unavailability hours that were not reported in the 3Q12 submittal. This data change did not result in a change to the indicator color.

### 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/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13
UAI ( $\Delta$ CDF)	-7.24E-10	-1.38E-09	-1.38E-09	-1.38E-09	-1.38E-09	-1.38E-09	-8.59E-10	-8.59E-10
URI ( $\Delta$ CDF)	-3.79E-09	-3.80E-09	-3.80E-09	-3.81E-09	1.68E-08	1.68E-08	1.10E-08	1.10E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-4.50E-09	-5.20E-09	-5.20E-09	-5.20E-09	1.50E-08	1.50E-08	1.00E-08	1.00E-08

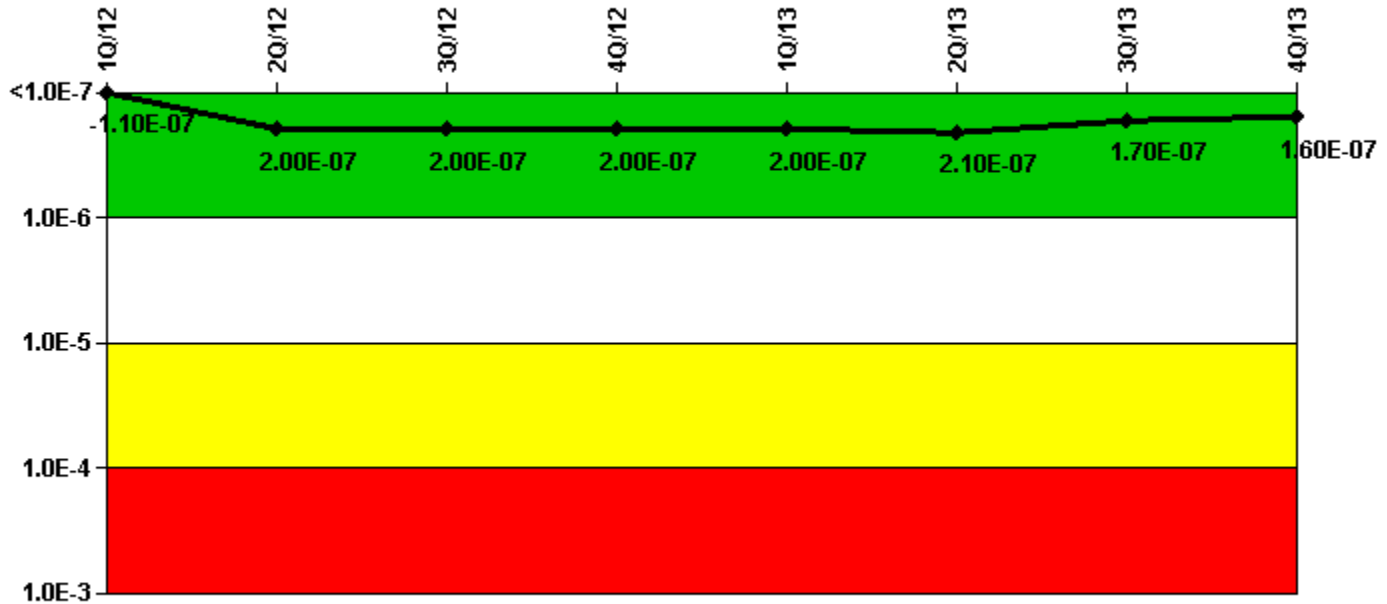
#### Licensee Comments:

3Q/13: Changed PRA Parameter(s). Changed PRA Parameters due to PRA Model Update Revision 5. Reference MSPI Basis Document, R&R-PN-112, Revision 7.

2Q/13: Changed PRA Parameter(s). Changed PRA Parameters due to PRA Model Update Revision 4. Updated reliability reporting from Monthly Actuals to Estimates on all components per CPNPP MSPI Basis Document, R&R-PN-112, Revision 6.



### Mitigating Systems Performance Index, Cooling Water Systems



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

#### Notes

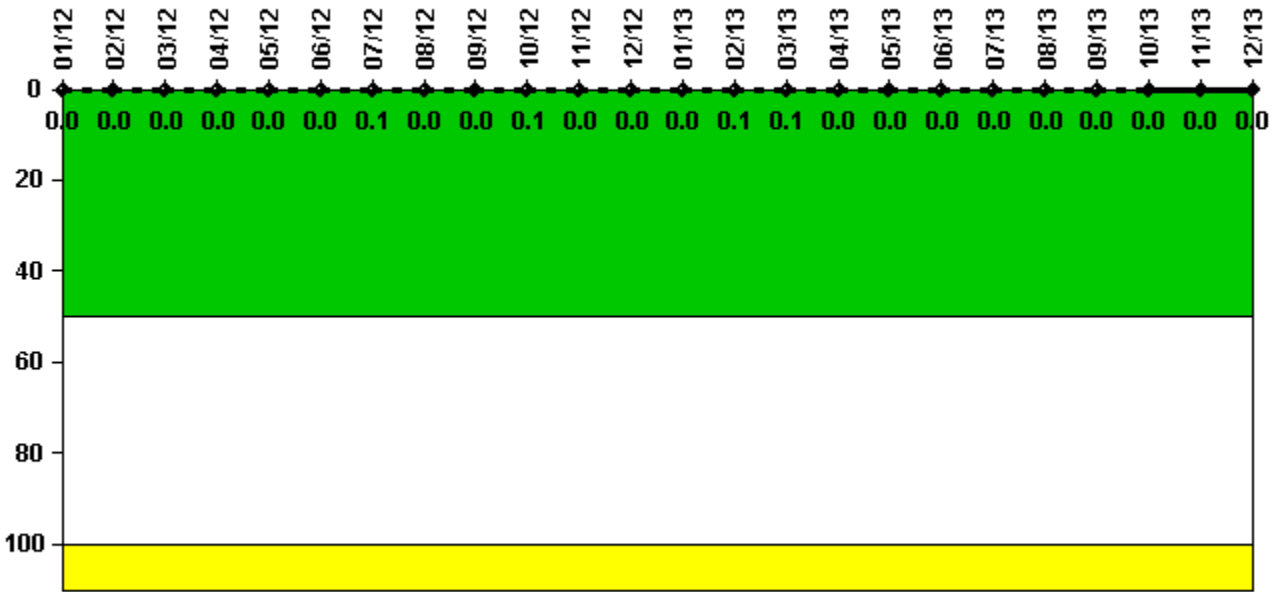
Mitigating Systems Performance Index, Cooling Water Systems	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13
UAI (ΔCDF)	1.21E-08	2.21E-08	2.34E-08	2.36E-08	2.32E-08	2.46E-08	2.12E-08	2.12E-08
URI (ΔCDF)	-1.19E-07	1.76E-07	1.72E-07	1.71E-07	1.75E-07	1.82E-07	1.44E-07	1.40E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-1.10E-07	2.00E-07	2.00E-07	2.00E-07	2.00E-07	2.10E-07	1.70E-07	1.60E-07

Licensee Comments:

3Q/13: Changed PRA Parameter(s). Changed PRA Parameters due to PRA Model Update Revision 5. Reference MSPI Basis Document, R&R-PN-112, Revision 7.

2Q/13: Changed PRA Parameter(s). Changed PRA Parameters due to PRA Model Update Revision 4. Updated reliability reporting from Monthly Actuals to Estimates on all components per CPNPP MSPI Basis Document, R&R-PN-112, Revision 6.

### Reactor Coolant System Activity



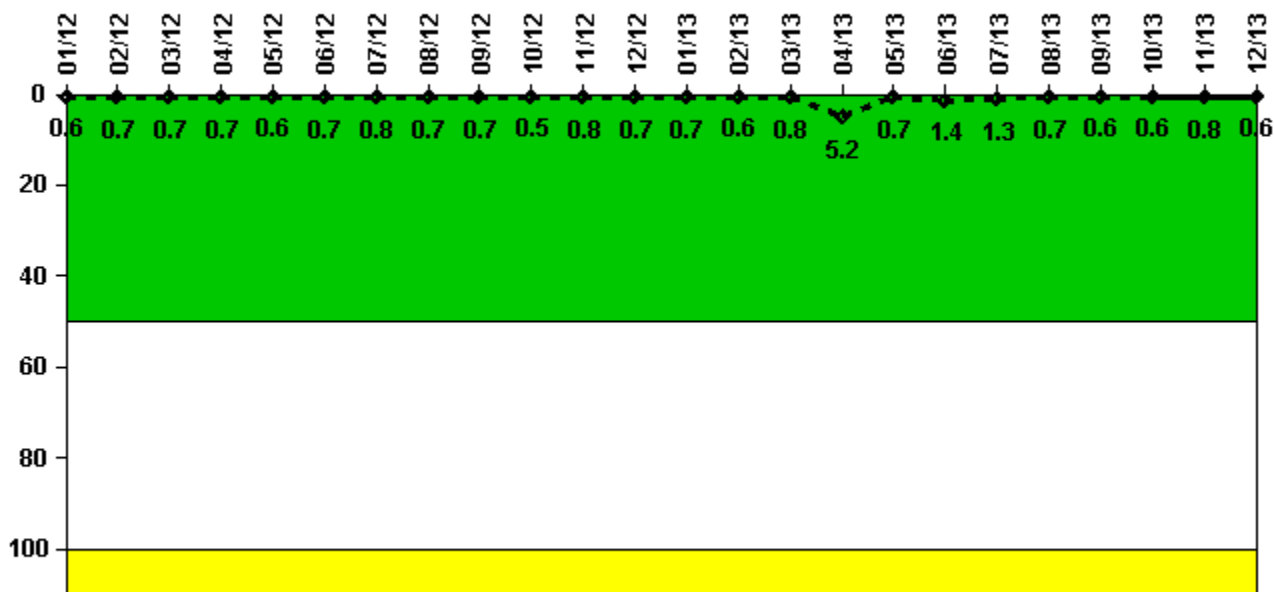
Thresholds: White > 50.0 Yellow > 100.0

### Notes

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	0.000133	0.000147	0.000138	0.000145	0.000145	0.000136	0.000228	0.000146	0.000152	0.000255	0.000159	0.000170
Technical specification limit	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Indicator value	0	0	0	0	0	0	0.1	0	0	0.1	0	0
Reactor Coolant System Activity	1/13	2/13	3/13	4/13	5/13	6/13	7/13	8/13	9/13	10/13	11/13	12/13
Maximum activity	0.000170	0.000249	0.000474	0.000085	0.000114	0.000106	0.000147	0.000107	0.000126	0.000127	0.000131	0.000139
Technical specification limit	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Indicator value	0	0.1	0.1	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	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	0.064	0.067	0.068	0.069	0.056	0.069	0.080	0.066	0.072	0.050	0.084	0.066
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
<b>Indicator value</b>	<b>0.6</b>	<b>0.7</b>	<b>0.7</b>	<b>0.7</b>	<b>0.6</b>	<b>0.7</b>	<b>0.8</b>	<b>0.7</b>	<b>0.7</b>	<b>0.5</b>	<b>0.8</b>	<b>0.7</b>
Reactor Coolant System Leakage	1/13	2/13	3/13	4/13	5/13	6/13	7/13	8/13	9/13	10/13	11/13	12/13
Maximum leakage	0.067	0.063	0.078	0.518	0.069	0.141	0.130	0.065	0.061	0.058	0.076	0.059
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
<b>Indicator value</b>	<b>0.7</b>	<b>0.6</b>	<b>0.8</b>	<b>5.2</b>	<b>0.7</b>	<b>1.4</b>	<b>1.3</b>	<b>0.7</b>	<b>0.6</b>	<b>0.6</b>	<b>0.8</b>	<b>0.6</b>

Licensee Comments:

12/13: RCS total leakage is being reported as identified leakage.

9/13: RCS total leakage is being reported as identified leakage.

6/13: RCS total leakage is being reported as identified leakage.

3/13: RCS total leakage is being reported as identified leakage.

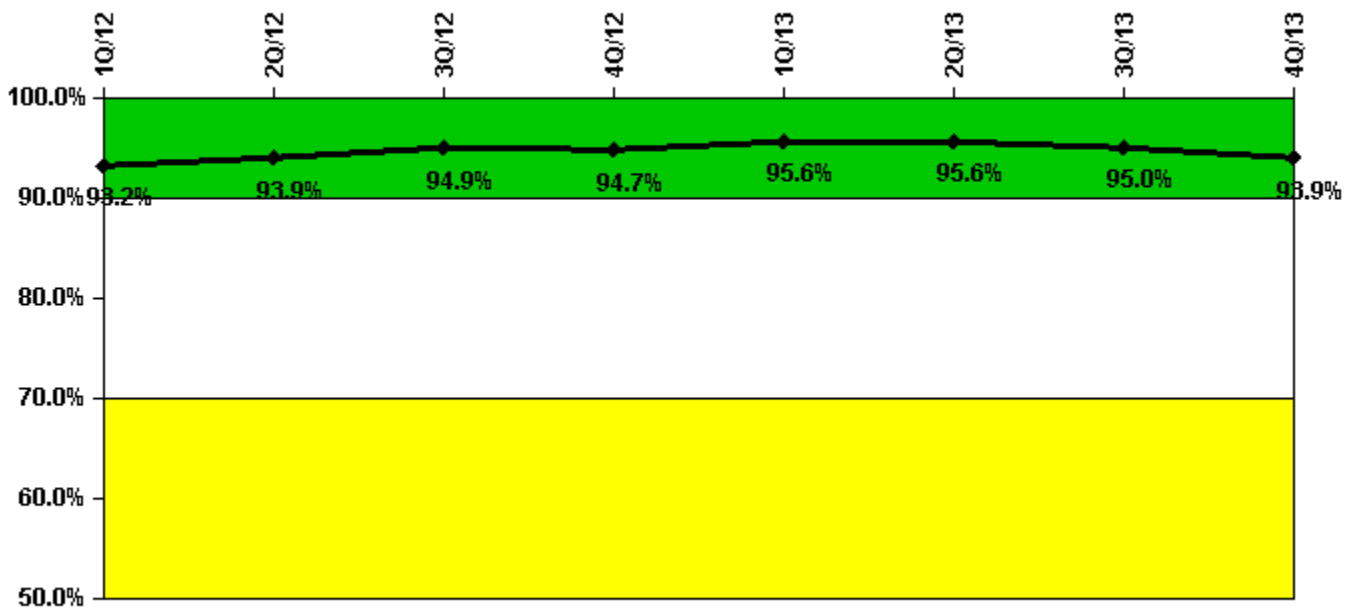
12/12: RCS total leakage is being reported as identified leakage.

9/12: RCS total leakage is being reported as identified leakage.

6/12: RCS total leakage is being reported as identified leakage.

3/12: RCS total leakage is being reported as identified leakage.

### Drill/Exercise Performance



Thresholds: White < 90.0% Yellow < 70.0%

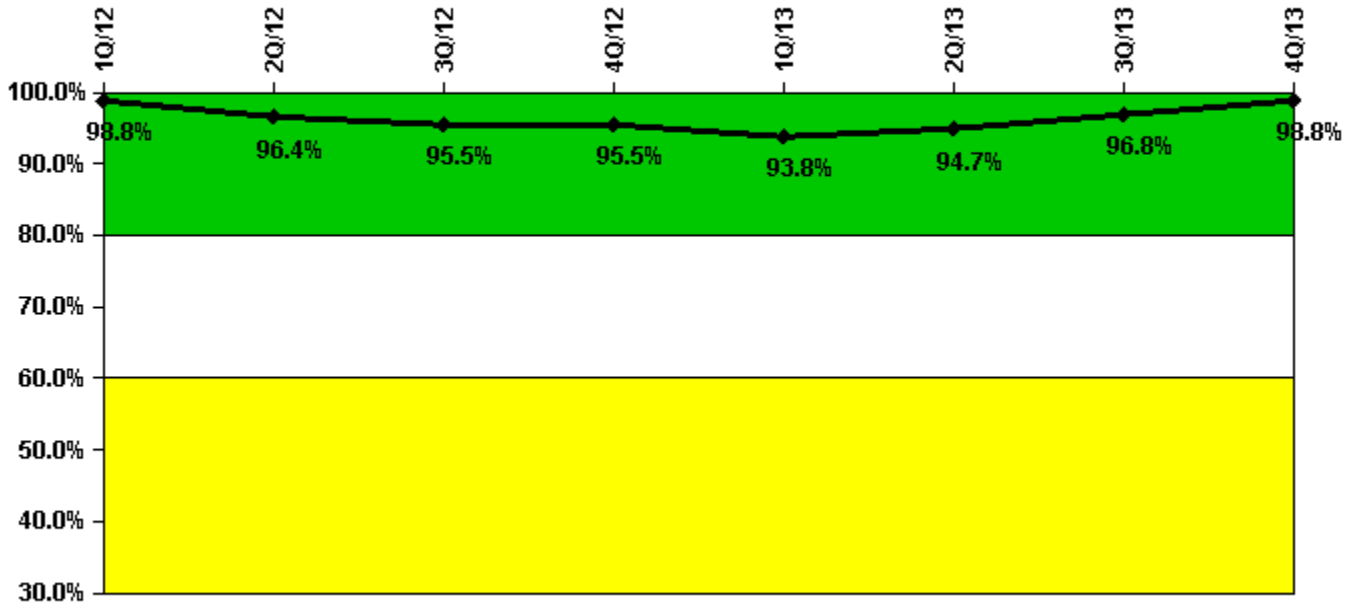
### Notes

Drill/Exercise Performance	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13
Successful opportunities	7.0	24.0	26.0	2.0	30.0	22.0	15.0	29.0
Total opportunities	11.0	25.0	26.0	2.0	30.0	23.0	16.0	32.0
Indicator value	93.2%	93.9%	94.9%	94.7%	95.6%	95.6%	95.0%	93.9%

Licensee Comments:

3Q/13: Discovered that the opportunities from 09/30/2013 were included with 4Q2013 data, vice 3Q2013. The affected time period was September 2013, and this change did not affect the "color" of the indicator.

### ERO Drill Participation



Thresholds: White < 80.0% Yellow < 60.0%

#### Notes

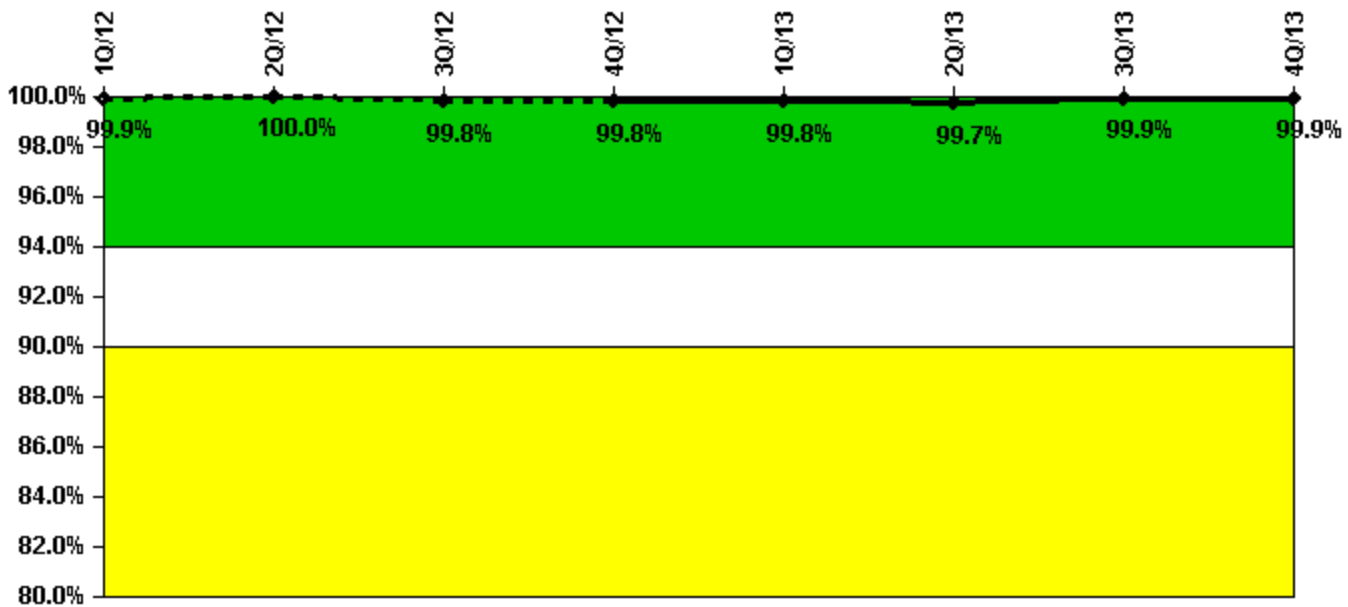
ERO Drill Participation	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13
Participating Key personnel	79.0	80.0	84.0	85.0	90.0	89.0	92.0	84.0
Total Key personnel	80.0	83.0	88.0	89.0	96.0	94.0	95.0	85.0
Indicator value	98.8%	96.4%	95.5%	95.5%	93.8%	94.7%	96.8%	98.8%

#### Licensee Comments:

3Q/13: Discovered that an evaluation performed by an individual on another ERO position had not been included in EROP monthly data since June 2013. The affected time periods were June, July, Aug, & Sept 2013. This change did not affect the "color" of the indicator.

2Q/13: Discovered that an evaluation performed by an individual on another ERO position had not been included in EROP monthly data since June 2013. The affected time periods were June, July, Aug, & Sept 2013. This change did not affect the "color" of the indicator.

### Alert & Notification System



Thresholds: White < 94.0% Yellow < 90.0%

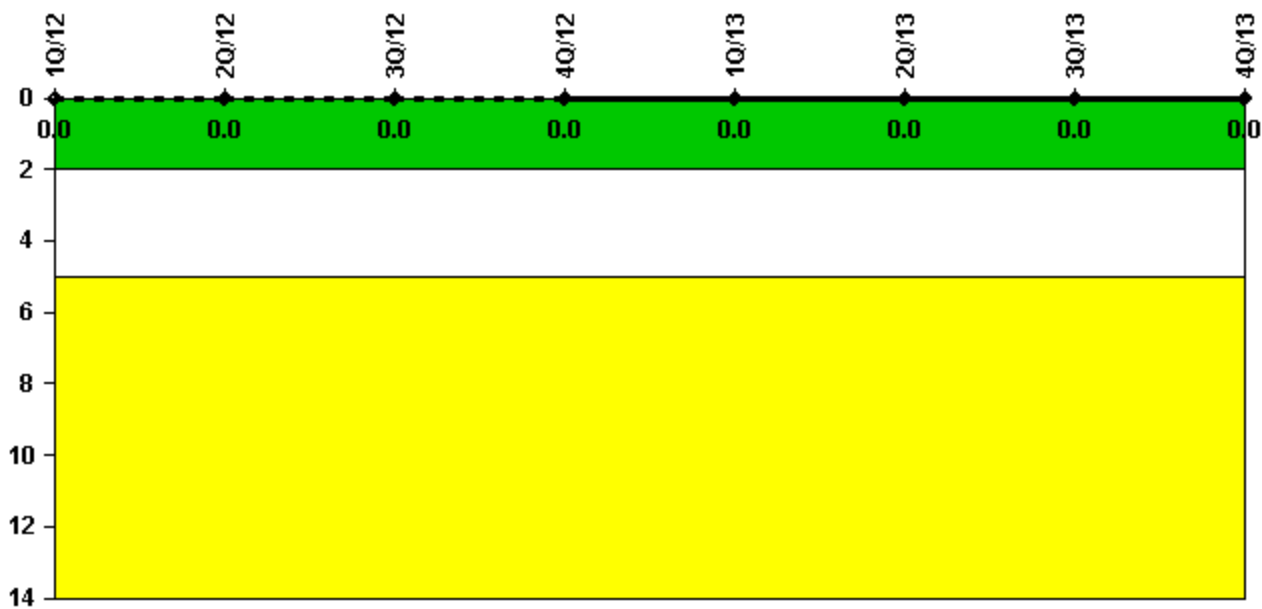
#### Notes

Alert & Notification System	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13
Successful siren-tests	360	432	428	432	432	431	432	432
Total sirens-tests	360	432	432	432	432	432	432	432
Indicator value	99.9%	100.0%	99.8%	99.8%	99.8%	99.7%	99.9%	99.9%

Licensee Comments:

1Q/12: 1 missed siren test in March 2012 due to error by offsite authority.

### Occupational Exposure Control Effectiveness



Thresholds: White > 2.0 Yellow > 5.0

**Notes**

Occupational Exposure Control Effectiveness	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13	4Q/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
<b>Indicator value</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

Licensee Comments: none

### RETS/ODCM Radiological Effluent



Thresholds: White > 1.0 Yellow > 3.0

#### Notes

RETS/ODCM Radiological Effluent	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13
RETS/ODCM occurrences	0	0	0	0	0	0	0	0
<b>Indicator value</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</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: January 22, 2014*