

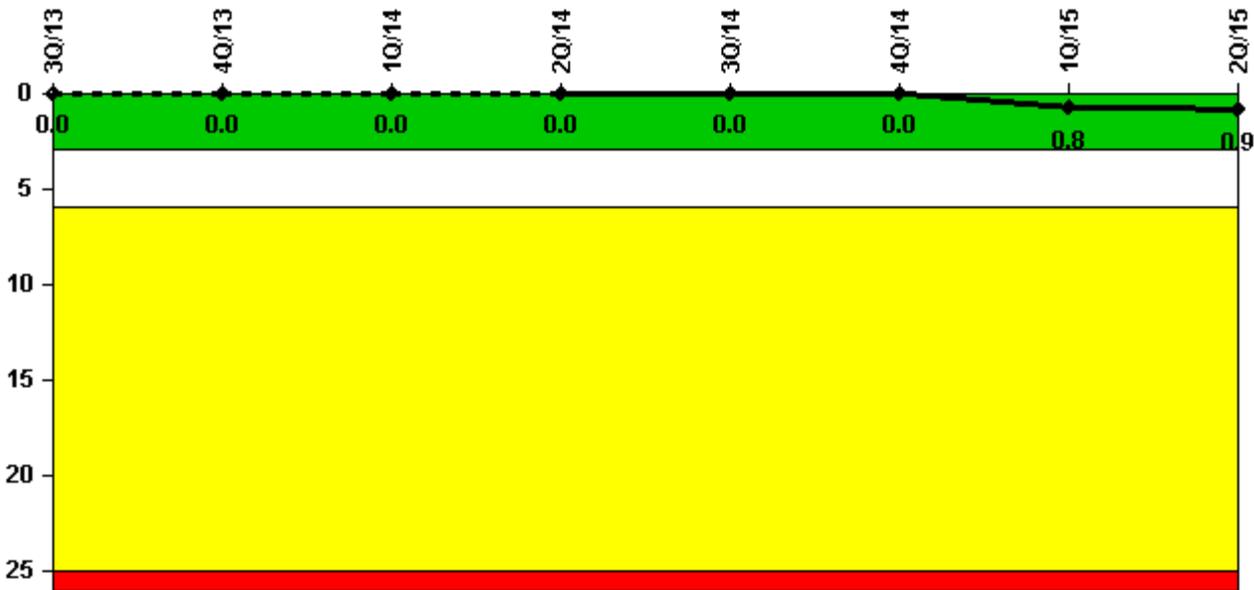
# Sequoyah 1

## 2Q/2015 Performance Indicators

The solid trend line represents the current reporting period.

Licensee's General Comments: none

### Unplanned Scrams per 7000 Critical Hrs



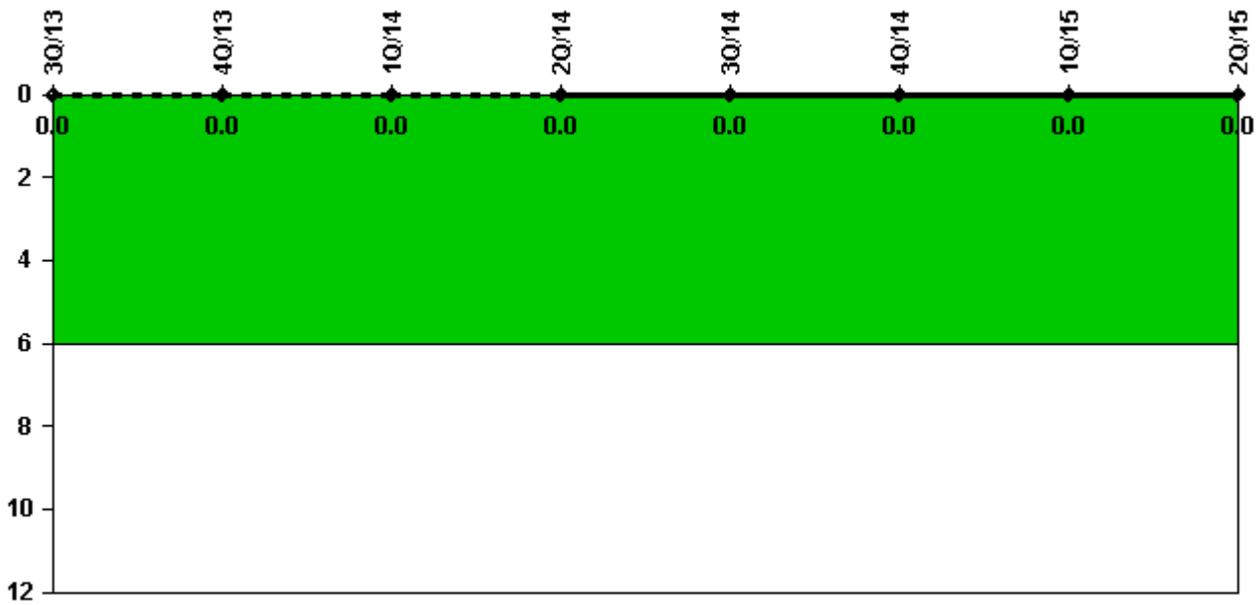
Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

### Notes

Unplanned Scrams per 7000 Critical Hrs	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15
Unplanned scrams	0	0	0	0	0	0	1.0	0
Critical hours	2208.0	1304.9	2159.0	2184.0	2208.0	2209.0	2086.6	1357.5
<b>Indicator value</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.8</b>	<b>0.9</b>

Licensee Comments: none

### Unplanned Power Changes per 7000 Critical Hrs



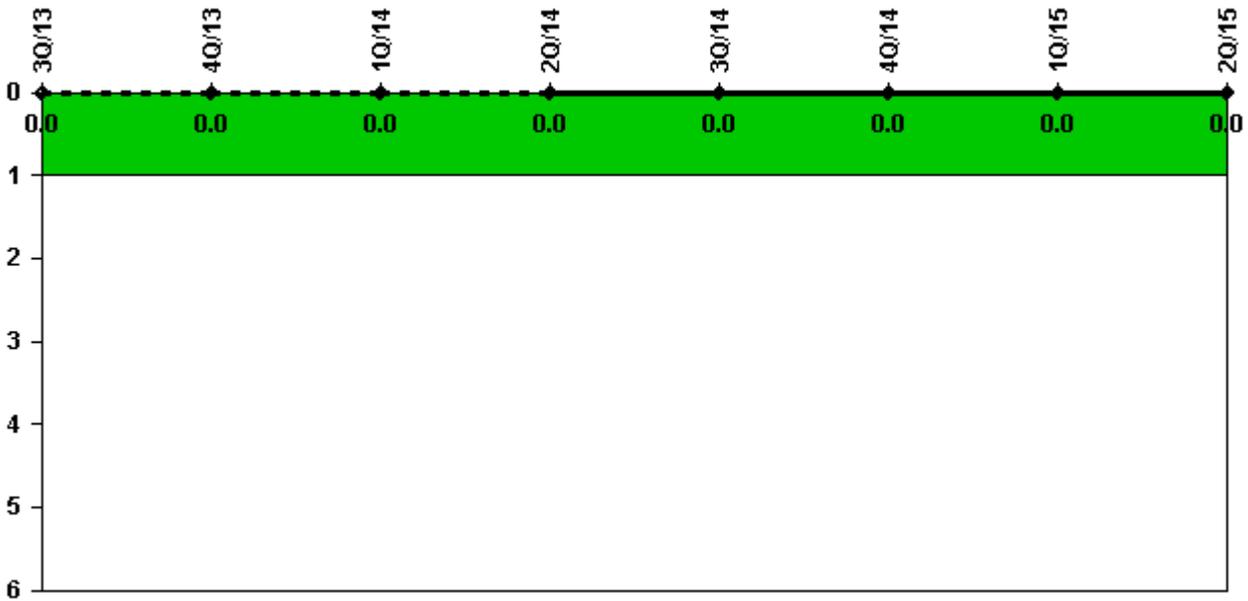
Thresholds: White > 6.0

#### Notes

Unplanned Power Changes per 7000 Critical Hrs	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15
Unplanned power changes	0	0	0	0	0	0	0	0
Critical hours	2208.0	1304.9	2159.0	2184.0	2208.0	2209.0	2086.6	1357.5
<b>Indicator value</b>	<b>0</b>							

Licensee Comments: none

### Unplanned Scrams with Complications



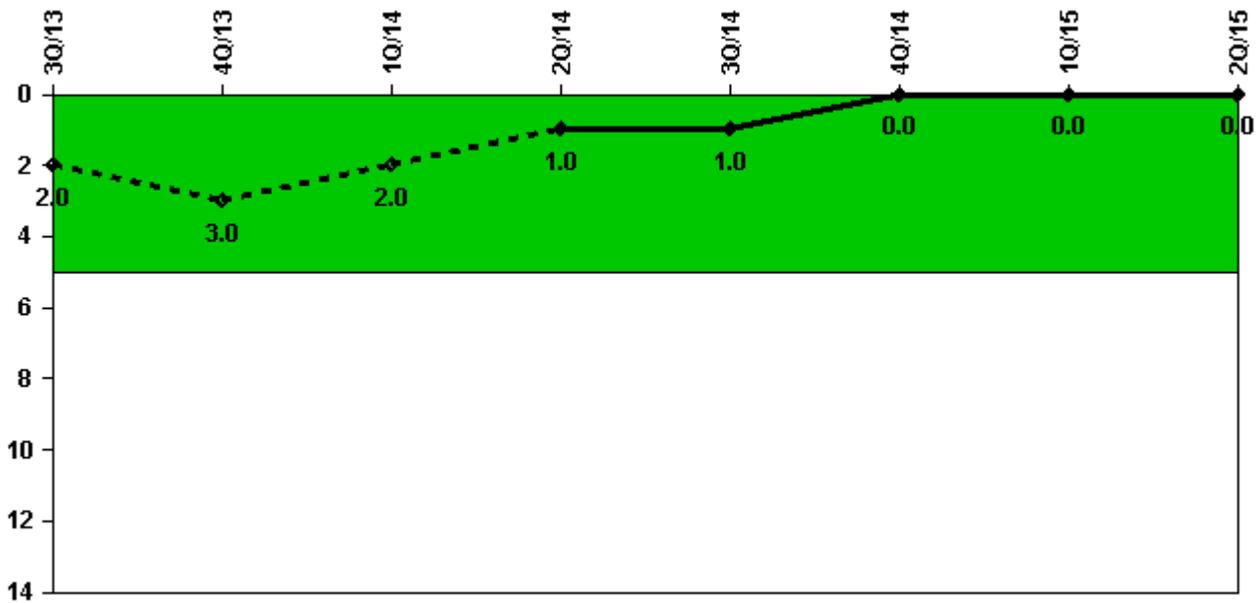
Thresholds: White > 1.0

#### Notes

Unplanned Scrams with Complications	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/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 (PWR)



Thresholds: White > 5.0

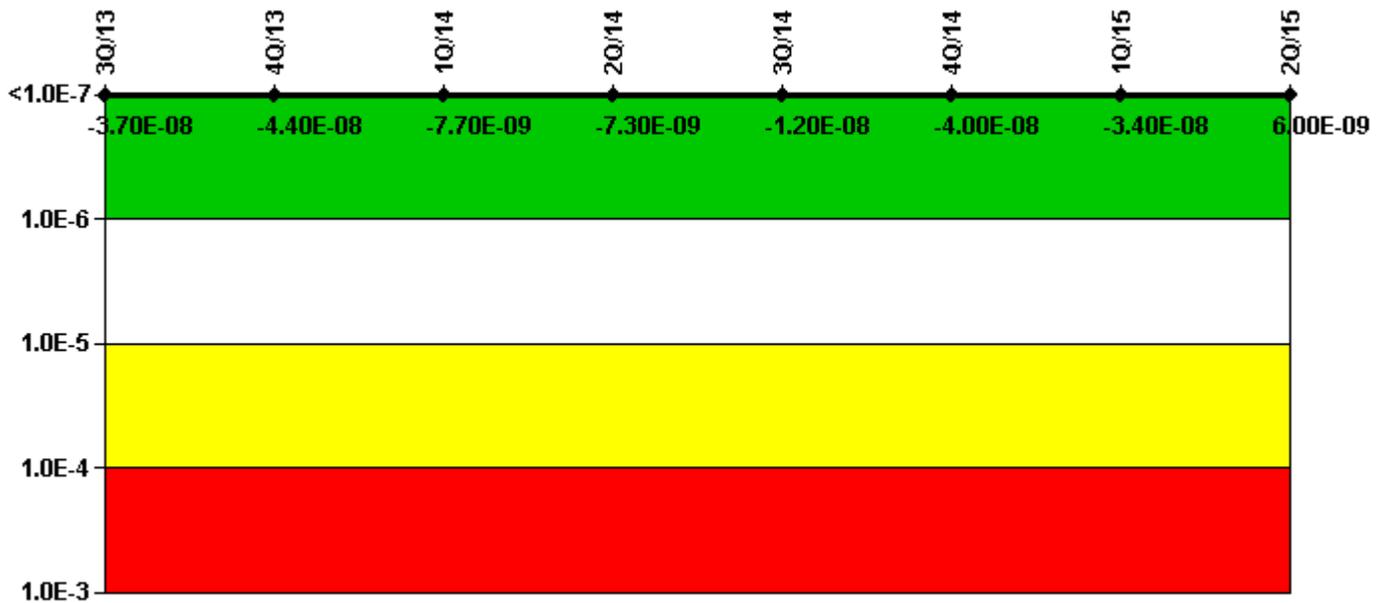
#### Notes

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

Licensee Comments:

4Q/13: 03/27/2014 LER 1-2013-004-01 - Revised LER indicates safety system functional failure did not occur. Affected 4th Qtr 2013 and 1st Qtr 2014. No change to indicator color.

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



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

#### Notes

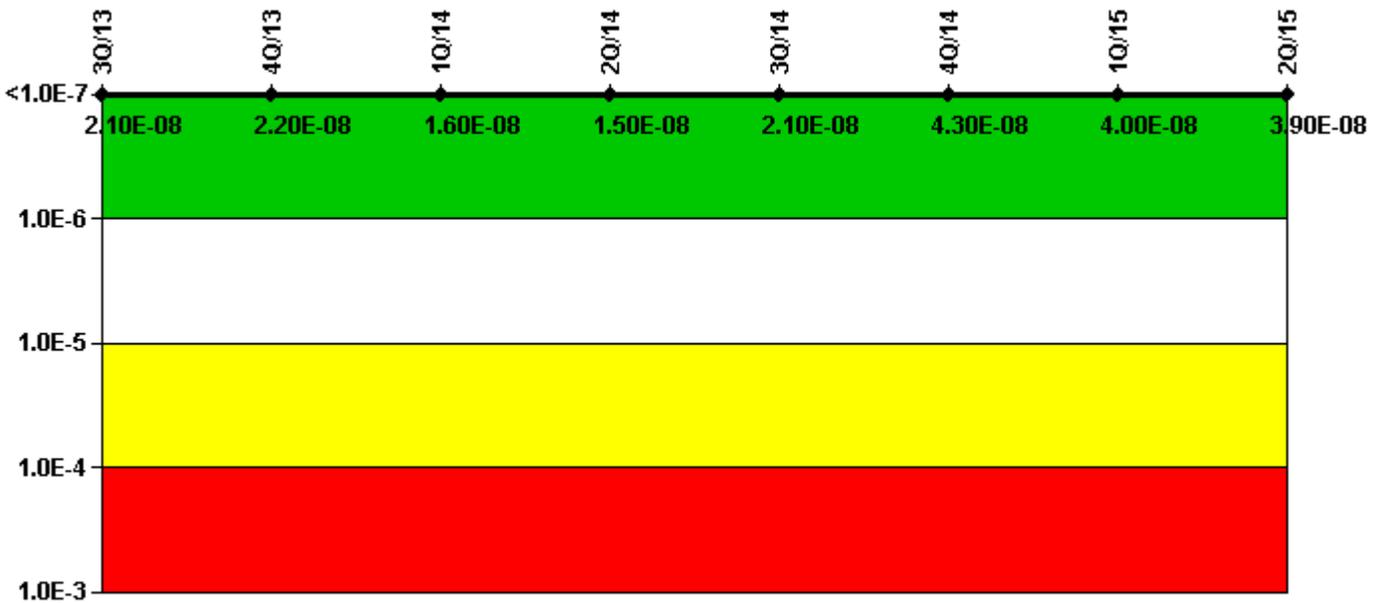
Mitigating Systems Performance Index, Emergency AC Power System	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15
UAI ( $\Delta$ CDF)	9.71E-08	9.27E-08	1.26E-08	1.16E-08	7.89E-09	3.63E-09	8.49E-09	1.86E-08
URI ( $\Delta$ CDF)	-1.34E-07	-1.36E-07	-2.03E-08	-1.89E-08	-1.96E-08	-4.33E-08	-4.30E-08	-1.26E-08
PLE	NO							
Indicator value	-3.70E-08	-4.40E-08	-7.70E-09	-7.30E-09	-1.20E-08	-4.00E-08	-3.40E-08	6.00E-09

#### Licensee Comments:

4Q/14: Changed PRA Parameter(s). The Sequoyah U1 and U2 PRA model Revision 3 was issued on August 5, 2014 with corresponding Revision 9 of MSPI Basis Document issued on 1-6-2015. The PRA model revision was periodic update to the model which made corrections to the Containment, CVCS, Electric Power (6900V, 480V 250V and Below, and Diesel Generators), ERCW, PORVs and Safeties, RCP Seals and Thermal Barrier, RPS and SI system models. As a result of the PRA model change, the CDF, Fussel-Vesely and Basic Event Probabilities for all monitored trains and components were revised

1Q/14: Changed PRA Parameter(s). The PRA Model of Record was revised 12/31/13, updating the PRA model using the CAFTA program. The base numbers used in the MSPI database were also updated in accordance with NEI 99-02. As a result of the PRA model change, the CDF, Fussel-Vesely and Basic Event Probabilities for all monitored trains and components were revised.

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



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

#### Notes

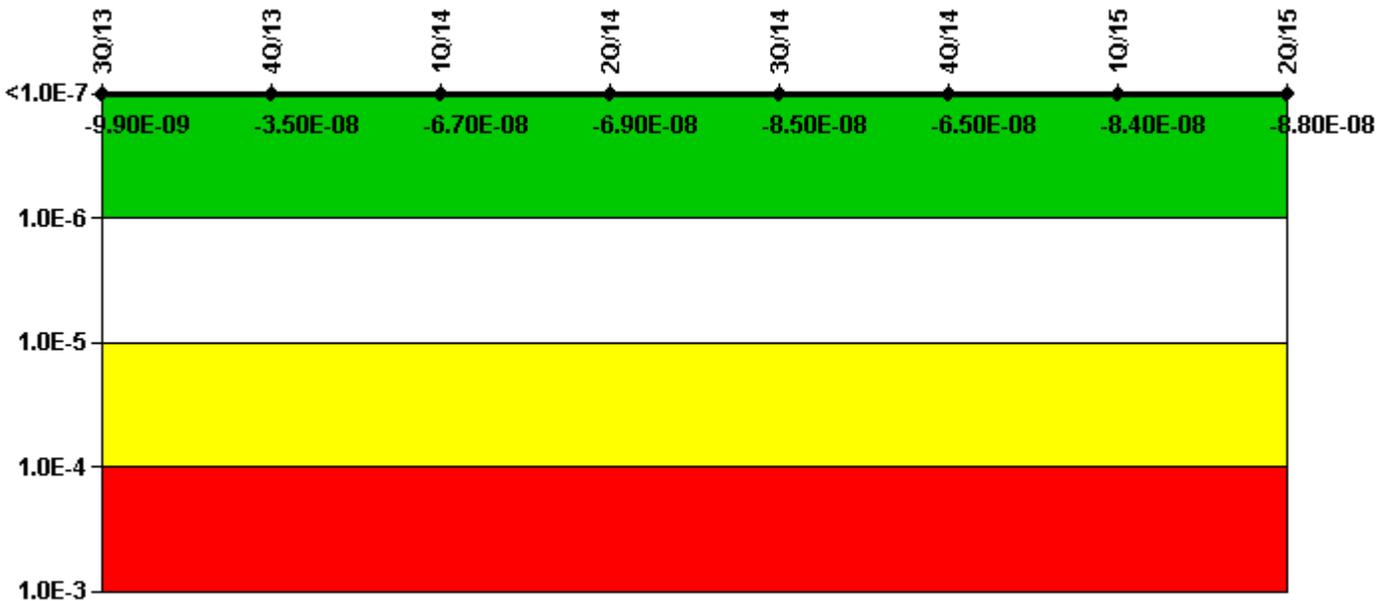
Mitigating Systems Performance Index, High Pressure Injection System	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15
UAI ( $\Delta$ CDF)	2.17E-08	2.22E-08	1.68E-08	1.51E-08	1.86E-08	3.61E-08	3.30E-08	3.21E-08
URI ( $\Delta$ CDF)	-6.35E-10	-6.36E-10	-4.76E-10	-4.77E-10	1.99E-09	7.22E-09	7.22E-09	7.22E-09
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	2.10E-08	2.20E-08	1.60E-08	1.50E-08	2.10E-08	4.30E-08	4.00E-08	3.90E-08

#### Licensee Comments:

4Q/14: Changed PRA Parameter(s). The Sequoyah U1 and U2 PRA model Revision 3 was issued on August 5, 2014 with corresponding Revision 9 of MSPI Basis Document issued on 1-6-2015. The PRA model revision was periodic update to the model which made corrections to the Containment, CVCS, Electric Power (6900V, 480V 250V and Below, and Diesel Generators), ERCW, PORVs and Safeties, RCP Seals and Thermal Barrier, RPS and SI system models. As a result of the PRA model change, the CDF, Fussel-Vesely and Basic Event Probabilities for all monitored trains and components were revised

1Q/14: Changed PRA Parameter(s). The PRA Model of Record was revised 12/31/13, updating the PRA model using the CAFTA program. The base numbers used in the MSPI database were also updated in accordance with NEI 99-02. As a result of the PRA model change, the CDF, Fussel-Vesely and Basic Event Probabilities for all monitored trains and components were revised.

### 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	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15
UAI ( $\Delta$ CDF)	1.22E-07	9.26E-08	8.77E-08	8.39E-08	6.29E-08	2.37E-08	6.79E-09	4.45E-09
URI ( $\Delta$ CDF)	-1.32E-07	-1.27E-07	-1.55E-07	-1.53E-07	-1.48E-07	-8.91E-08	-9.08E-08	-9.20E-08
PLE	NO							
Indicator value	-9.90E-09	-3.50E-08	-6.70E-08	-6.90E-08	-8.50E-08	-6.50E-08	-8.40E-08	-8.80E-08

#### Licensee Comments:

4Q/14: Changed PRA Parameter(s). The Sequoyah U1 and U2 PRA model Revision 3 was issued on August 5, 2014 with corresponding Revision 9 of MSPI Basis Document issued on 1-6-2015. The PRA model revision was periodic update to the model which made corrections to the Containment, CVCS, Electric Power (6900V, 480V 250V and Below, and Diesel Generators), ERCW, PORVs and Safeties, RCP Seals and Thermal Barrier, RPS and SI system models. As a result of the PRA model change, the CDF, Fussel-Vesely and Basic Event Probabilities for all monitored trains and components were revised

2Q/14: Note in 1B (2) Removed 1:46 hours. Unavailability was previously counted against AFW due to one train of Auxiliary Compressed Air being out of service. Reference PER 913726 Note in 1A-S (3) Removed 1:46 hours. Unavailability was previously counted against AFW due to one train of Auxiliary Compressed Air being out of

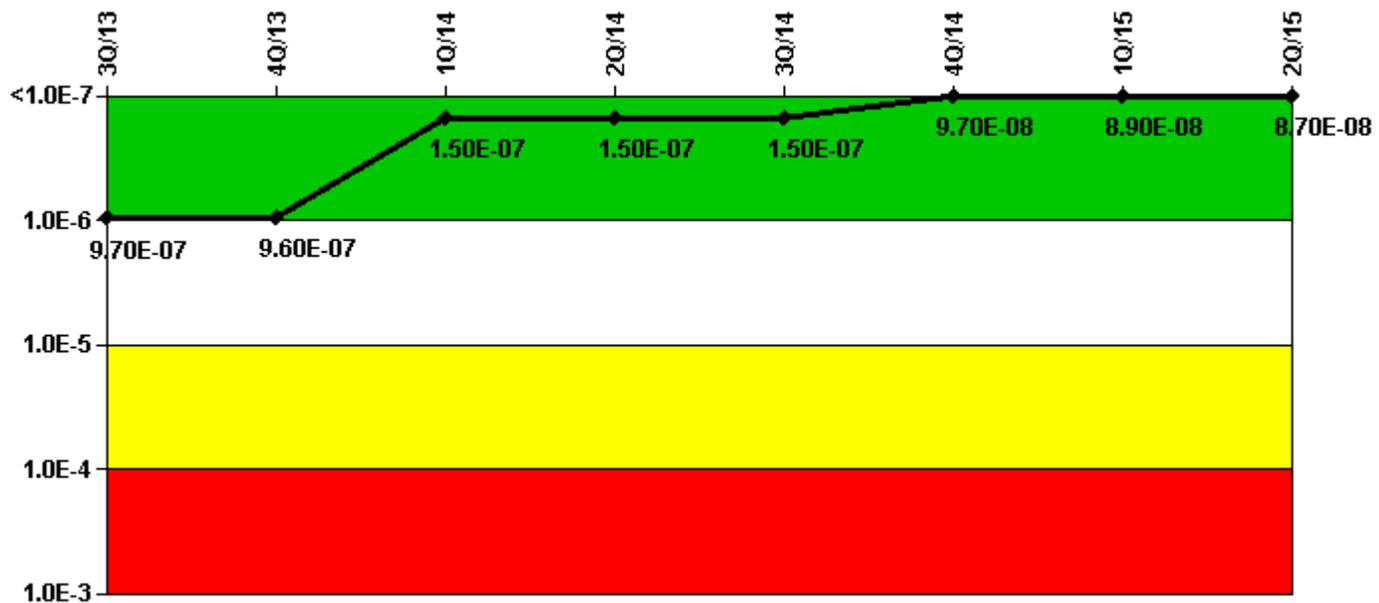
service. Reference PER 913726

1Q/14: The PRA Model of Record was revised 12/31/13, updating the PRA model using the CAFTA program. The base numbers used in the MSPI database were also updated in accordance with NEI 99-02. As a result of the PRA model change, the CDF, Fussel-Vesely and Basic Event Probabilities for all monitored trains and components were revised. Note in 1A (1) Removed 7:57 hours. Unavailability was previously counted against AFW due to one train of Auxiliary Compressed Air being out of service. Reference PER 913726 Note in 1A-S (3) Removed 7:57 hours. Unavailability was previously counted against AFW due to one train of Auxiliary Compressed Air being out of service. Reference PER 913726

1Q/14: Changed PRA Parameter(s). The PRA Model of Record was revised 12/31/13, updating the PRA model using the CAFTA program. The base numbers used in the MSPI database were also updated in accordance with NEI 99-02. As a result of the PRA model change, the CDF, Fussel-Vesely and Basic Event Probabilities for all monitored trains and components were revised.

3Q/13: Note in 1A (1) Removed 0:57 hours. Unavailability was previously counted against AFW due to one train of Auxiliary Compressed Air being out of service. Reference PER 913726 Note in 1A-S (3) Removed 0:57 hours. Unavailability was previously counted against AFW due to one train of Auxiliary Compressed Air being out of service. Reference PER 913726

### 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	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15

UAI ( $\Delta$ CDF)	6.91E-07	6.81E-07	3.59E-08	3.69E-08	3.89E-08	2.86E-08	2.17E-08	2.12E-08
URI ( $\Delta$ CDF)	2.80E-07	2.77E-07	1.14E-07	1.12E-07	1.09E-07	6.88E-08	6.74E-08	6.61E-08
PLE	NO							
<b>Indicator value</b>	<b>9.70E-07</b>	<b>9.60E-07</b>	<b>1.50E-07</b>	<b>1.50E-07</b>	<b>1.50E-07</b>	<b>9.70E-08</b>	<b>8.90E-08</b>	<b>8.70E-08</b>

## Licensee Comments:

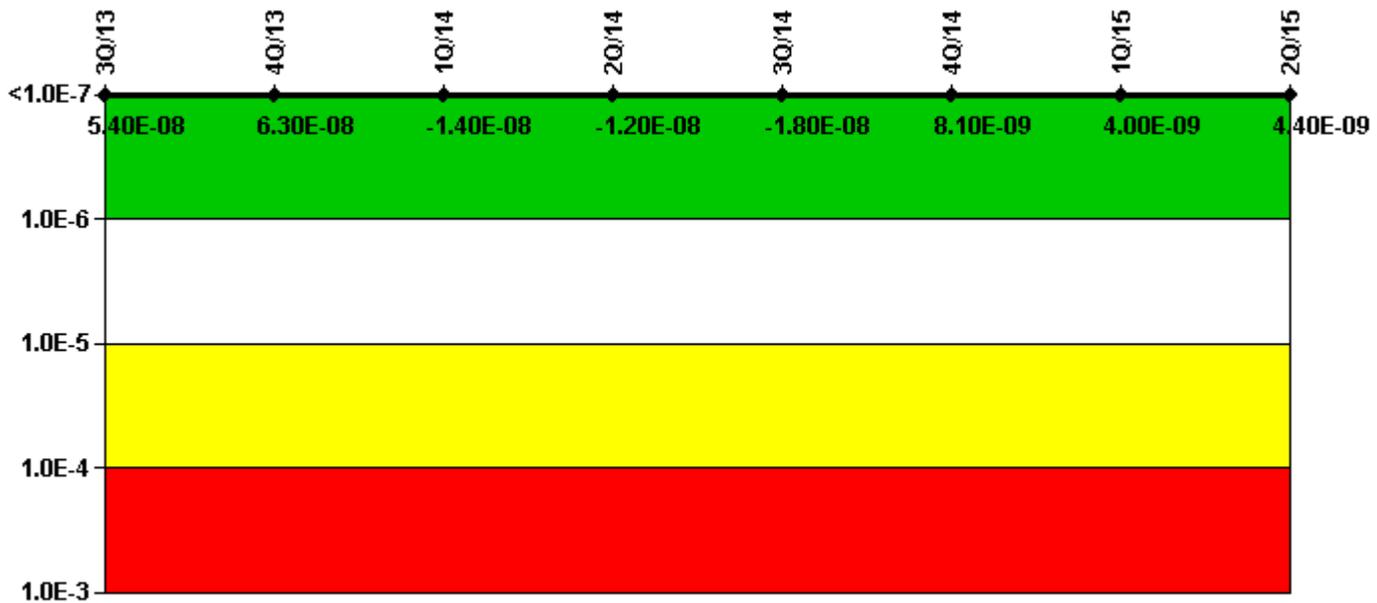
4Q/14: Changed PRA Parameter(s). The Sequoyah U1 and U2 PRA model Revision 3 was issued on August 5, 2014 with corresponding Revision 9 of MSPI Basis Document issued on 1-6-2015. The PRA model revision was periodic update to the model which made corrections to the Containment, CVCS, Electric Power (6900V, 480V 250V and Below, and Diesel Generators), ERCW, PORVs and Safeties, RCP Seals and Thermal Barrier, RPS and SI system models. As a result of the PRA model change, the CDF, Fussel-Vesely and Basic Event Probabilities for all monitored trains and components were revised

1Q/14: Changed PRA Parameter(s). The PRA Model of Record was revised 12/31/13, updating the PRA model using the CAFTA program. The base numbers used in the MSPI database were also updated in accordance with NEI 99-02. As a result of the PRA model change, the CDF, Fussel-Vesely and Basic Event Probabilities for all monitored trains and components were revised.

4Q/13: Risk Cap Invoked.

3Q/13: Risk Cap Invoked. The failure of 1-FCV-074-0003 to close was determined to be the starting time of this Unplanned Unavailability. The dual indication on 1-FCV-063-0072 was not classified as the initiating time from a MSPI point of view.

### 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	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15
UAI ( $\Delta$ CDF)	1.83E-07	1.91E-07	1.86E-08	1.90E-08	1.34E-08	1.58E-08	1.17E-08	1.21E-08
URI ( $\Delta$ CDF)	-1.28E-07	-1.28E-07	-3.25E-08	-3.13E-08	-3.13E-08	-7.68E-09	-7.68E-09	-7.68E-09
PLE	NO							
Indicator value	5.40E-08	6.30E-08	-1.40E-08	-1.20E-08	-1.80E-08	8.10E-09	4.00E-09	4.40E-09

#### Licensee Comments:

4Q/14: Changed PRA Parameter(s). The Sequoyah U1 and U2 PRA model Revision 3 was issued on August 5, 2014 with corresponding Revision 9 of MSPI Basis Document issued on 1-6-2015. The PRA model revision was periodic update to the model which made corrections to the Containment, CVCS, Electric Power (6900V, 480V 250V and Below, and Diesel Generators), ERCW, PORVs and Safeties, RCP Seals and Thermal Barrier, RPS and SI system models. As a result of the PRA model change, the CDF, Fussel-Vesely and Basic Event Probabilities for all monitored trains and components were revised

3Q/14: Changed PRA Parameter(s).

2Q/14: Changed PRA Parameter(s). The planned unavailability baselines for 1 or more ERCW pumps were adjusted as needed to reflect past and current planned maintenance not performed every 3 years or less as specified by NEI 99-02.

1Q/14: Changed PRA Parameter(s). The PRA Model of Record was revised 12/31/13, updating the PRA model using the CAFTA program. The base numbers used in the MSPI database were also updated in accordance with

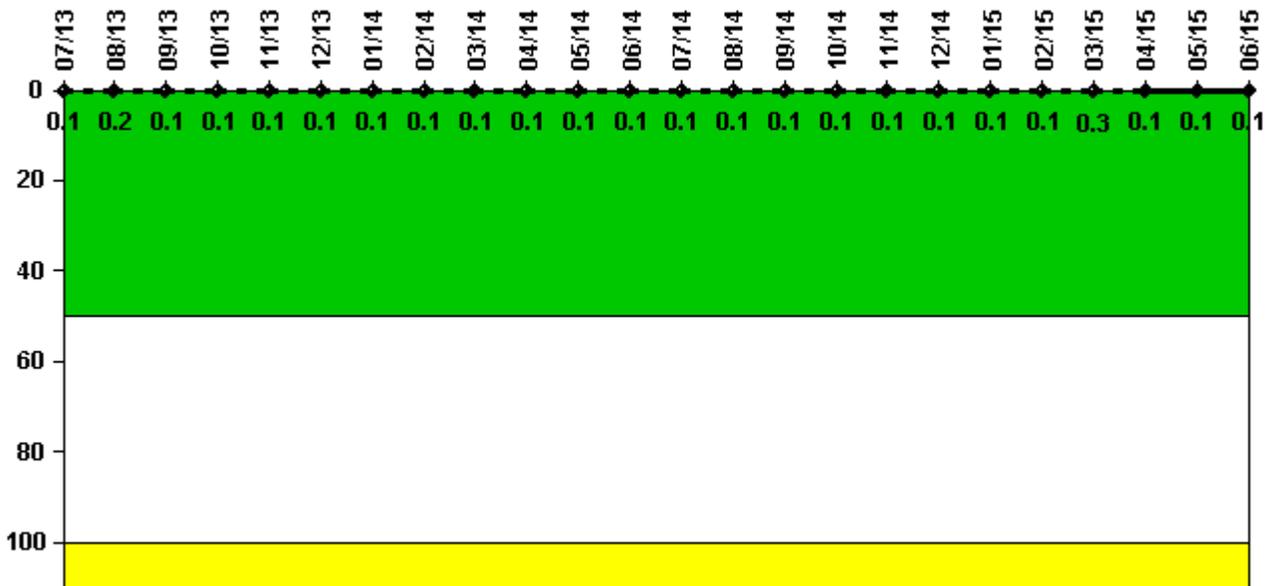
NEI 99-02. As a result of the PRA model change, the CDF, Fussel-Vesely and Basic Event Probabilities for all monitored trains and components were revised.

4Q/13: Changed PRA Parameter(s).

3Q/13: The planned unavailability baselines for all ERCW pumps were adjusted as needed to reflect past and current planned maintenance not performed every 3 years or less as specified by NEI 99-02.

3Q/13: Changed PRA Parameter(s). The planned unavailability baselines for all ERCW pumps were adjusted as needed to reflect past and current planned maintenance not performed every 3 years or less as specified by NEI 99-02.

### Reactor Coolant System Activity



Thresholds: White > 50.0 Yellow > 100.0

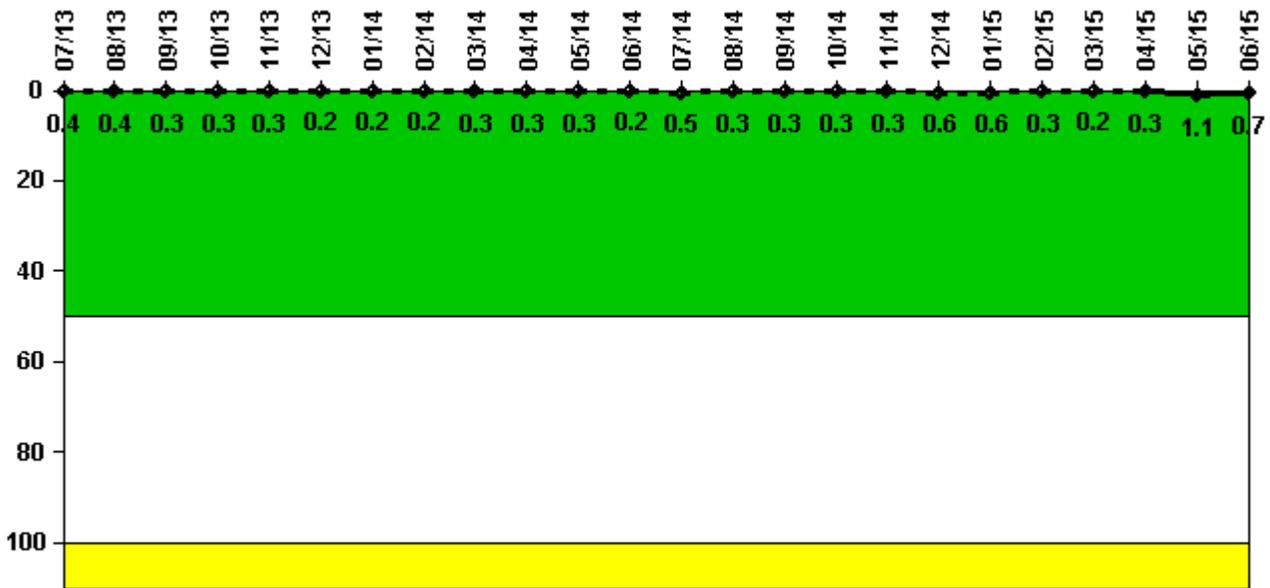
### Notes

Reactor Coolant System Activity	7/13	8/13	9/13	10/13	11/13	12/13	1/14	2/14	3/14	4/14	5/14	6/14
Maximum activity	0.000510	0.000566	0.000504	0.000405	0.000187	0.000232	0.000252	0.000277	0.000289	0.000315	0.000305	0.000343
Technical specification limit	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Indicator												

value	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
<b>Reactor Coolant System Activity</b>	<b>7/14</b>	<b>8/14</b>	<b>9/14</b>	<b>10/14</b>	<b>11/14</b>	<b>12/14</b>	<b>1/15</b>	<b>2/15</b>	<b>3/15</b>	<b>4/15</b>	<b>5/15</b>	<b>6/15</b>
Maximum activity	0.000346	0.000365	0.000372	0.000398	0.000391	0.000455	0.000418	0.000460	0.001078	0.000331	0.000181	0.000193
Technical specification limit	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
<b>Indicator value</b>	<b>0.1</b>	<b>0.1</b>	<b>0.1</b>	<b>0.1</b>	<b>0.1</b>	<b>0.1</b>	<b>0.1</b>	<b>0.1</b>	<b>0.3</b>	<b>0.1</b>	<b>0.1</b>	<b>0.1</b>

Licensee Comments: none

### Reactor Coolant System Leakage



Thresholds: White > 50.0 Yellow > 100.0

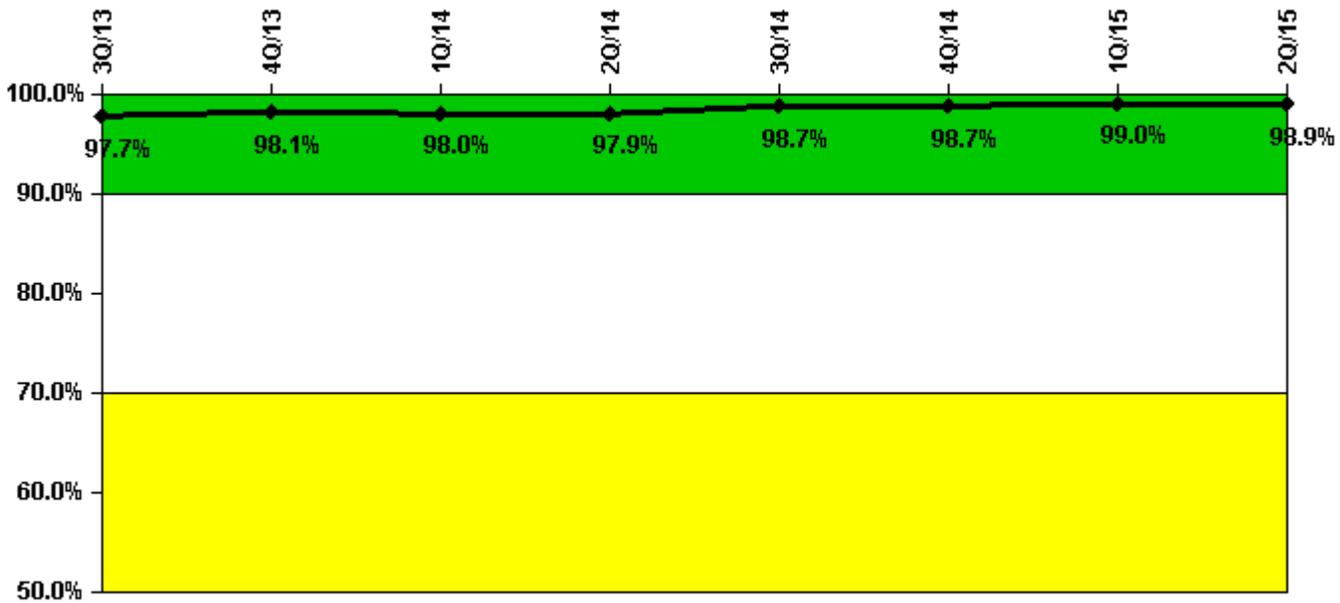
### Notes

Reactor Coolant System Leakage	7/13	8/13	9/13	10/13	11/13	12/13	1/14	2/14	3/14	4/14	5/14	6/14
Maximum leakage	0.040	0.040	0.030	0.030	0.030	0.020	0.020	0.020	0.030	0.030	0.030	0.020
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>0.4</b>	<b>0.4</b>	<b>0.3</b>	<b>0.3</b>	<b>0.3</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.3</b>	<b>0.3</b>	<b>0.3</b>	<b>0.2</b>

Reactor Coolant System Leakage	7/14	8/14	9/14	10/14	11/14	12/14	1/15	2/15	3/15	4/15	5/15	6/15
Maximum leakage	0.050	0.030	0.030	0.030	0.030	0.060	0.060	0.030	0.020	0.030	0.110	0.070
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
Indicator value	0.5	0.3	0.3	0.3	0.3	0.6	0.6	0.3	0.2	0.3	1.1	0.7

Licensee Comments: none

### Drill/Exercise Performance



Thresholds: White < 90.0% Yellow < 70.0%

### Notes

Drill/Exercise Performance	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15
Successful opportunities	84.0	0	41.0	18.0	52.0	85.0	58.0	10.0
Total opportunities	86.0	0	42.0	18.0	52.0	86.0	58.0	10.0
Indicator value	97.7%	98.1%	98.0%	97.9%	98.7%	98.7%	99.0%	98.9%

Licensee Comments:

3Q/13: During the Nov 2014 HAB inspection it was noted that the August 2013 Notifications and classifications count for the month had an error. This was found by the NRC inspector. Data has been changed to accurately reflect the appropriate count. PER 959227

### ERO Drill Participation



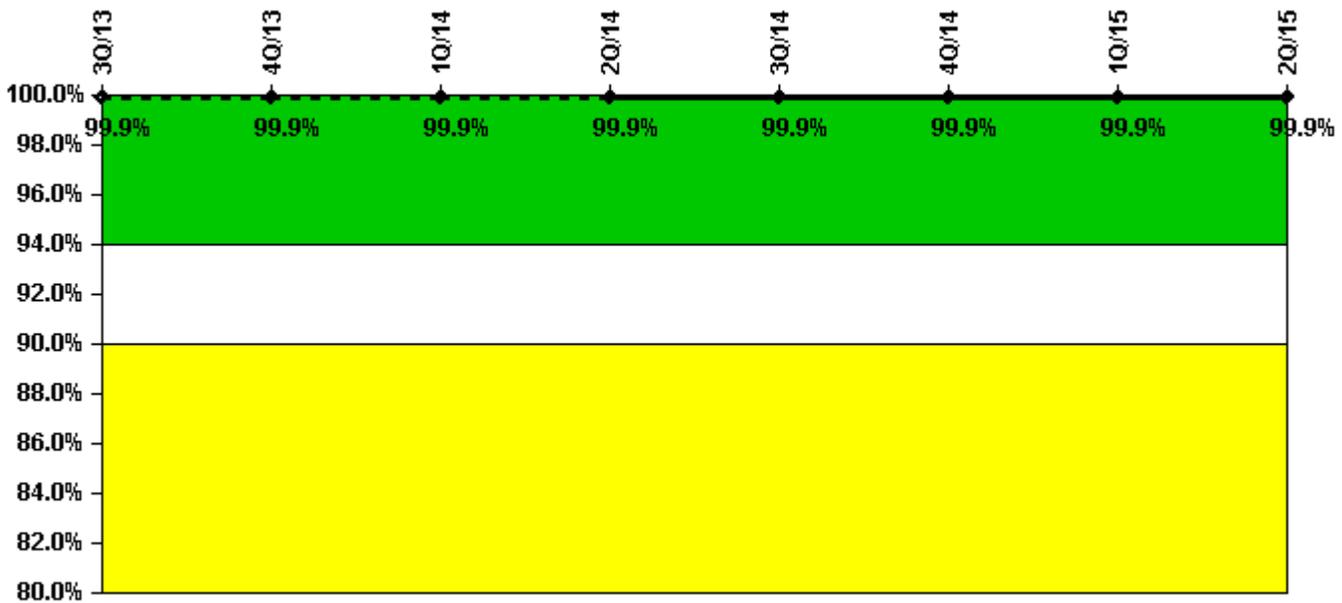
Thresholds: White < 80.0% Yellow < 60.0%

#### Notes

ERO Drill Participation	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15
Participating Key personnel	97.0	92.0	89.0	101.0	89.0	92.0	95.0	96.0
Total Key personnel	97.0	92.0	89.0	101.0	89.0	92.0	95.0	96.0
Indicator value	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Licensee Comments: none

### Alert & Notification System



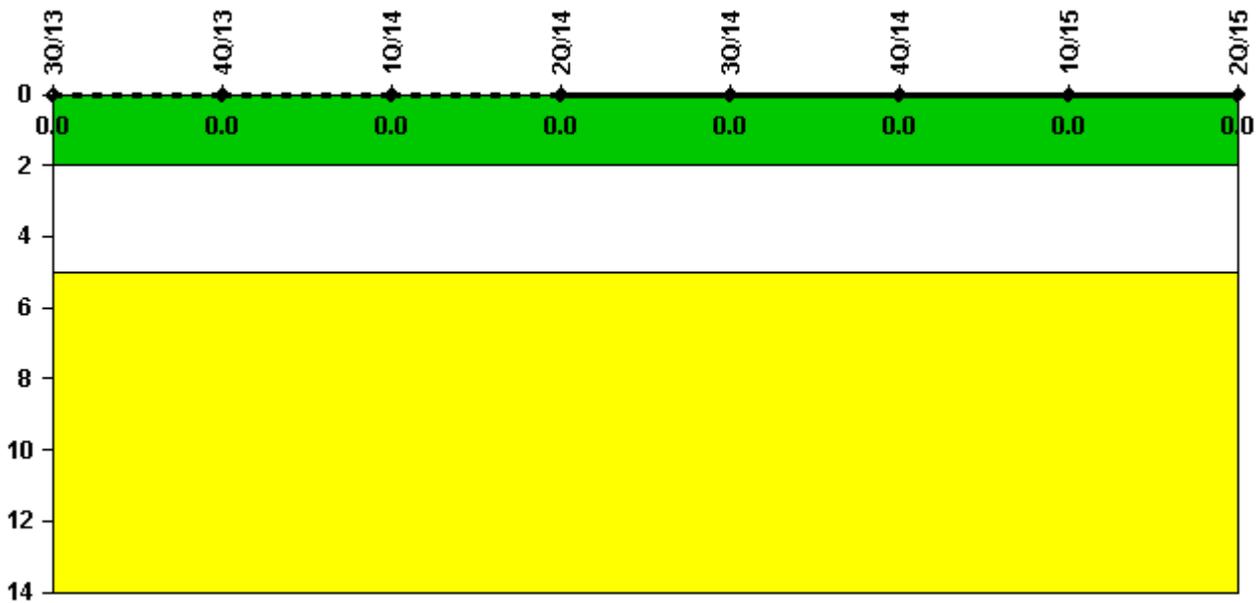
Thresholds: White < 94.0% Yellow < 90.0%

#### Notes

Alert & Notification System	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15
Successful siren-tests	1014	790	1017	791	1016	903	1017	791
Total sirens-tests	1016	791	1017	791	1017	904	1017	791
Indicator value	99.9%	99.9%	99.9%	99.9%	99.9%	99.9%	99.9%	99.9%

Licensee Comments: none

### Occupational Exposure Control Effectiveness



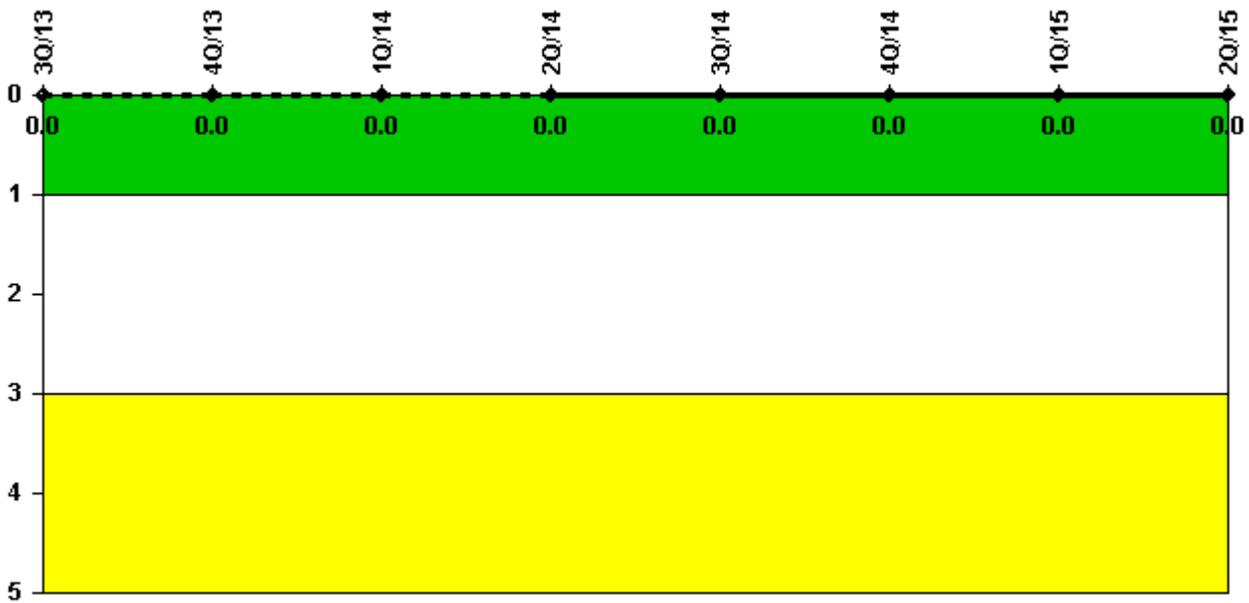
Thresholds: White > 2.0 Yellow > 5.0

#### Notes

Occupational Exposure Control Effectiveness	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/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	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/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: July 24, 2015*