

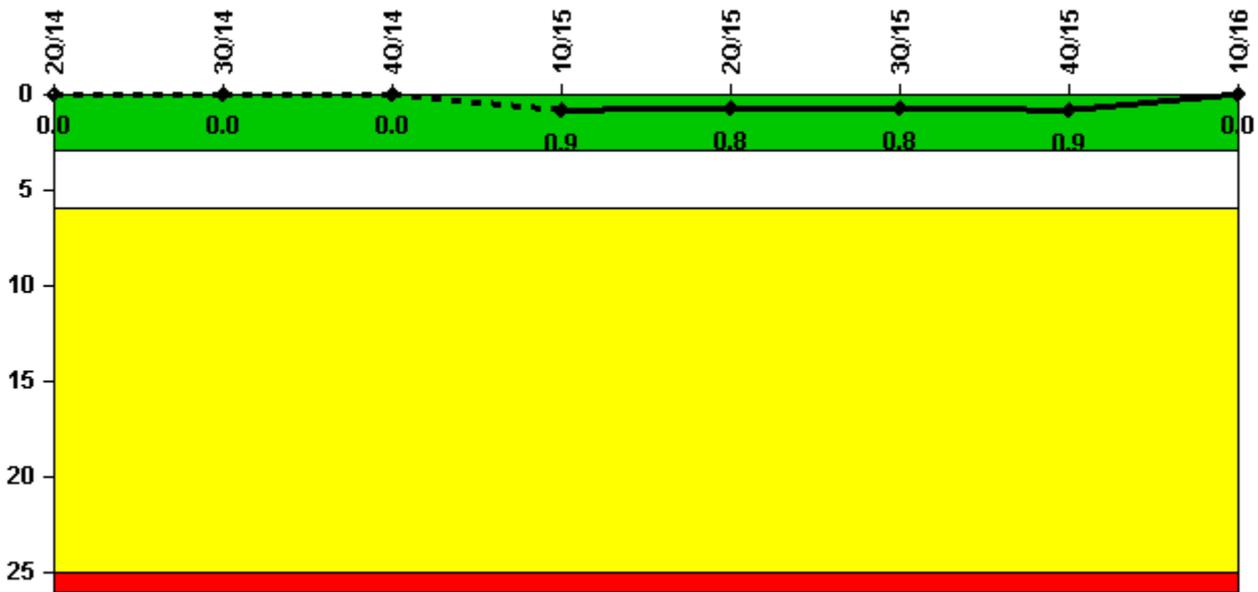
# Sequoyah 2

## 1Q/2016 Performance Indicators

The solid trend line represents the current reporting period.

Licensee's General Comments: The inadvertent steam supply swap on the Unit 2 Terry Turbine going into the U2R20 refueling outage was determined to be a functional failure. Unit 2 heat removal indicator was updated for November 2015.

### Unplanned Scrams per 7000 Critical Hrs



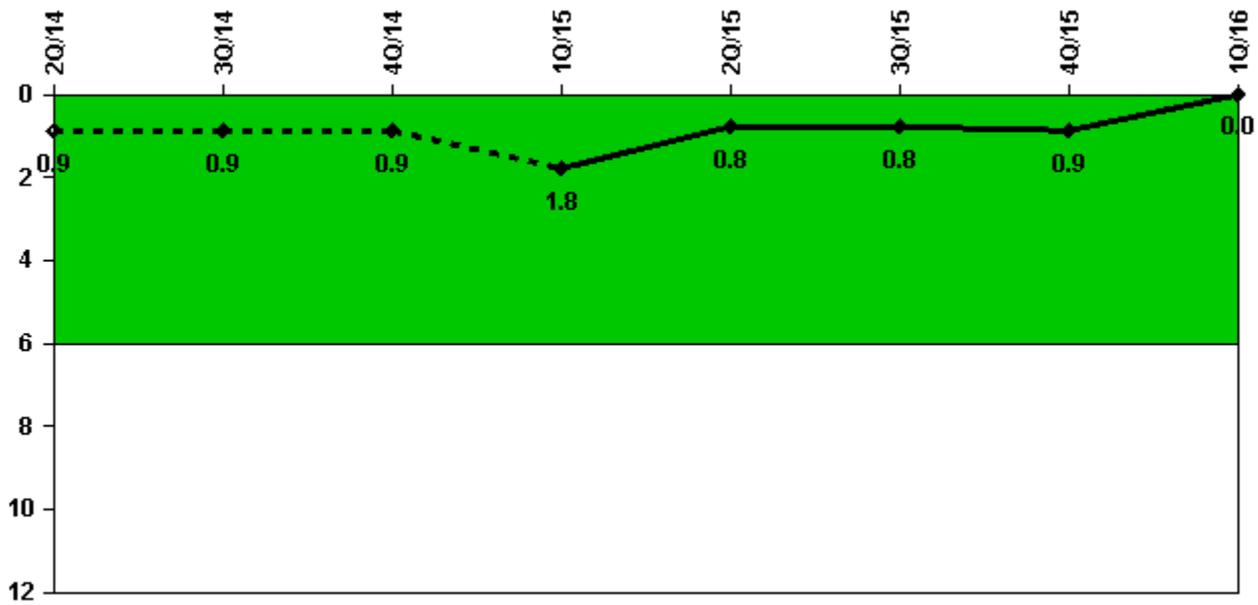
Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

### Notes

Unplanned Scrams per 7000 Critical Hrs	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16
Unplanned scrams	0	0	0	1.0	0	0	0	0
Critical hours	1399.0	2208.0	2209.0	2043.0	2184.0	2208.0	1498.6	2183.0
Indicator value	0	0	0	0.9	0.8	0.8	0.9	0

Licensee Comments: none

### Unplanned Power Changes per 7000 Critical Hrs



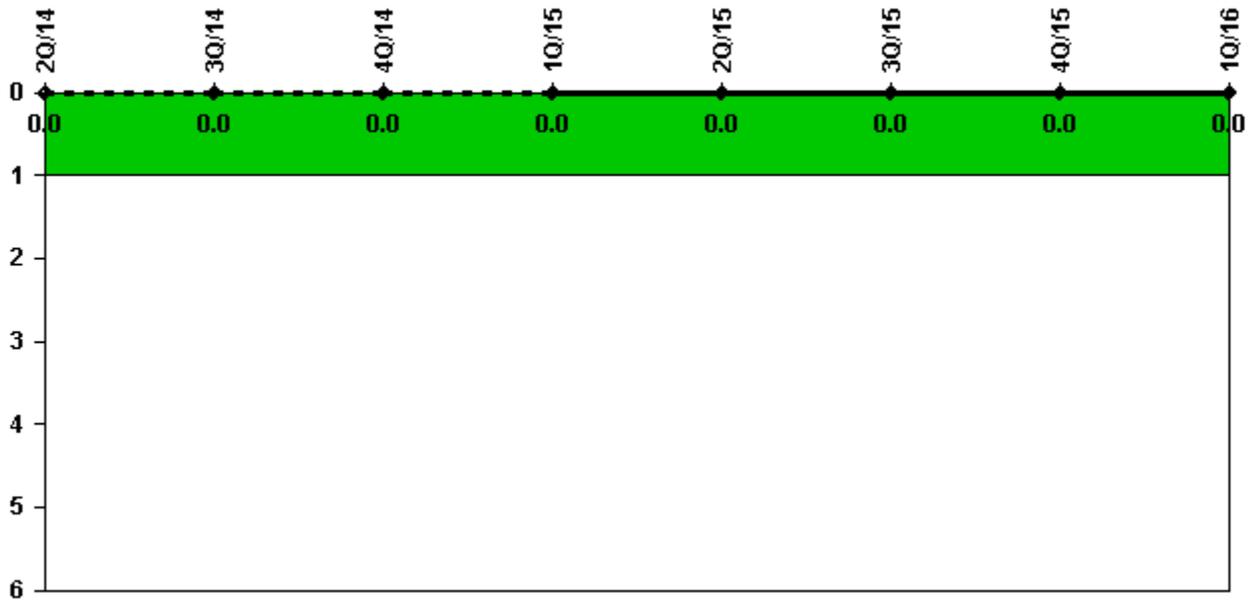
Thresholds: White > 6.0

#### Notes

Unplanned Power Changes per 7000 Critical Hrs	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16
Unplanned power changes	1.0	0	0	1.0	0	0	0	0
Critical hours	1399.0	2208.0	2209.0	2043.0	2184.0	2208.0	1498.6	2183.0
<b>Indicator value</b>	<b>0.9</b>	<b>0.9</b>	<b>0.9</b>	<b>1.8</b>	<b>0.8</b>	<b>0.8</b>	<b>0.9</b>	<b>0</b>

Licensee Comments: none

### Unplanned Scrams with Complications



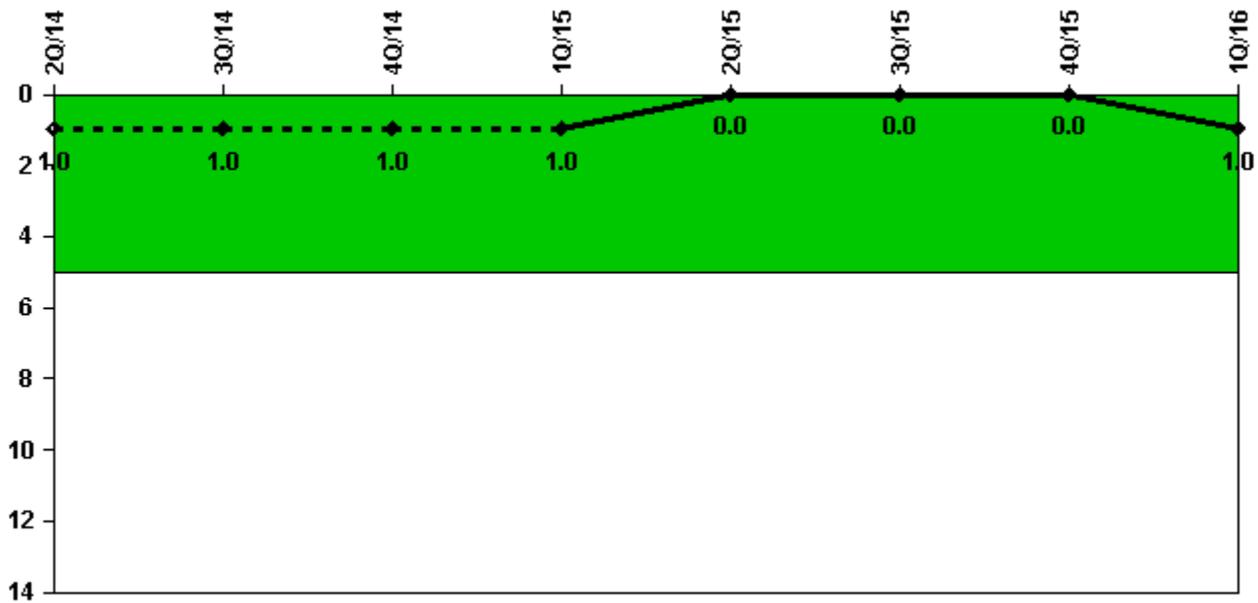
Thresholds: White > 1.0

#### Notes

Unplanned Scrams with Complications	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16
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

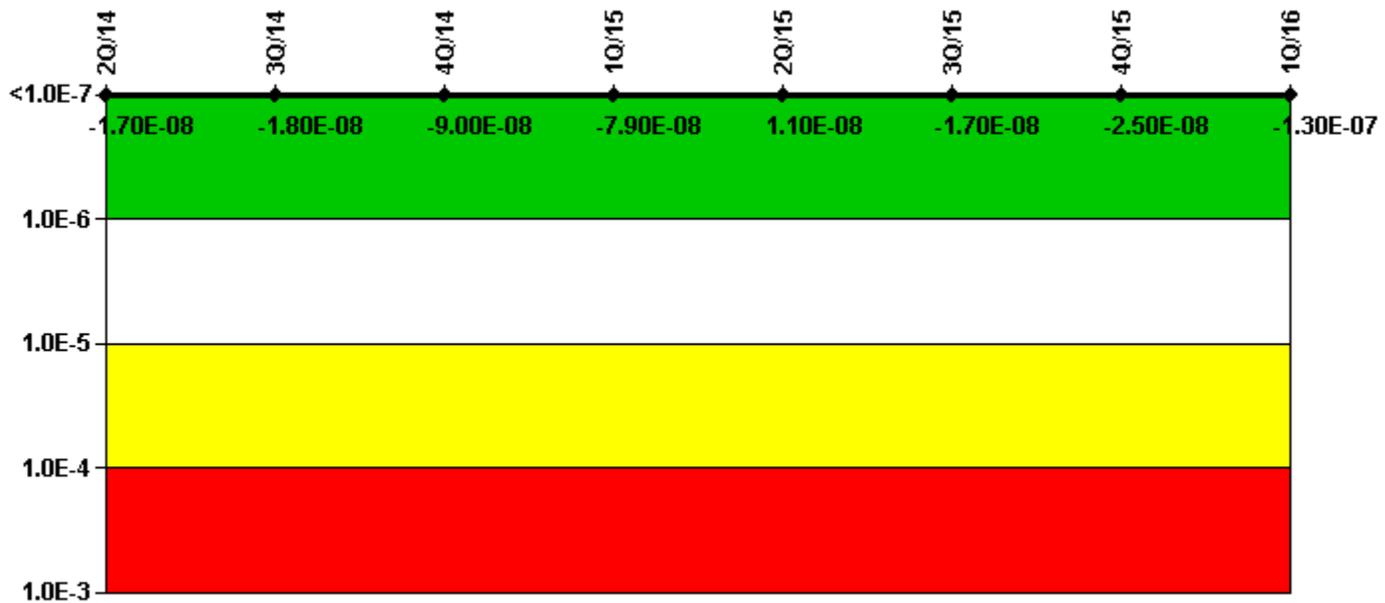
Safety System Functional Failures (PWR)	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16
Safety System Functional Failures	1	0	0	0	0	0	0	1
<b>Indicator value</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>

Licensee Comments:

1Q/16: Licensee Event Report 328/2015-002 - Unanalyzed Condition due to Inoperable Containment Recirculation Drains.

2Q/14: LER 50-328/2014-001 - Misalignment of Containment Purge Radiation Monitors Results in Condition Prohibited by Technical Specifications

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



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

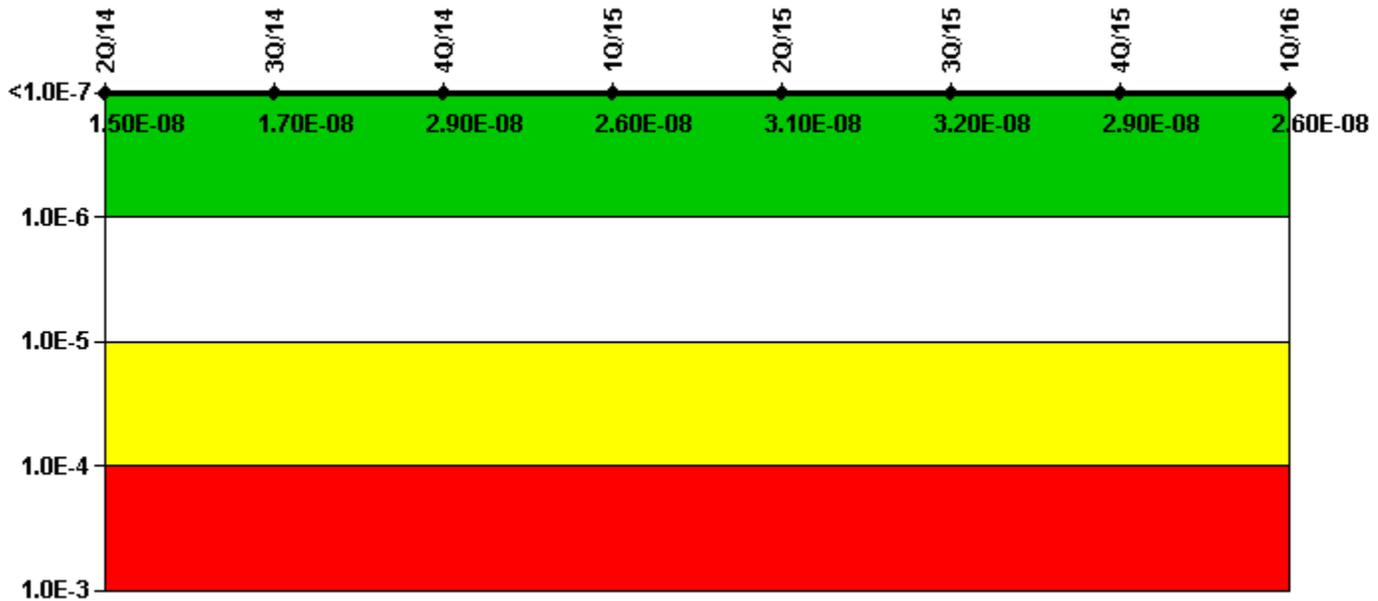
#### Notes

Mitigating Systems Performance Index, Emergency AC Power System	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16
UAI ( $\Delta$ CDF)	2.29E-08	2.31E-08	3.83E-09	1.40E-08	4.84E-08	3.69E-08	2.95E-08	1.46E-08
URI ( $\Delta$ CDF)	-3.98E-08	-4.11E-08	-9.34E-08	-9.29E-08	-3.73E-08	-5.36E-08	-5.49E-08	-1.46E-07
PLE	NO							
Indicator value	-1.70E-08	-1.80E-08	-9.00E-08	-7.90E-08	1.10E-08	-1.70E-08	-2.50E-08	-1.30E-07

#### 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

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



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

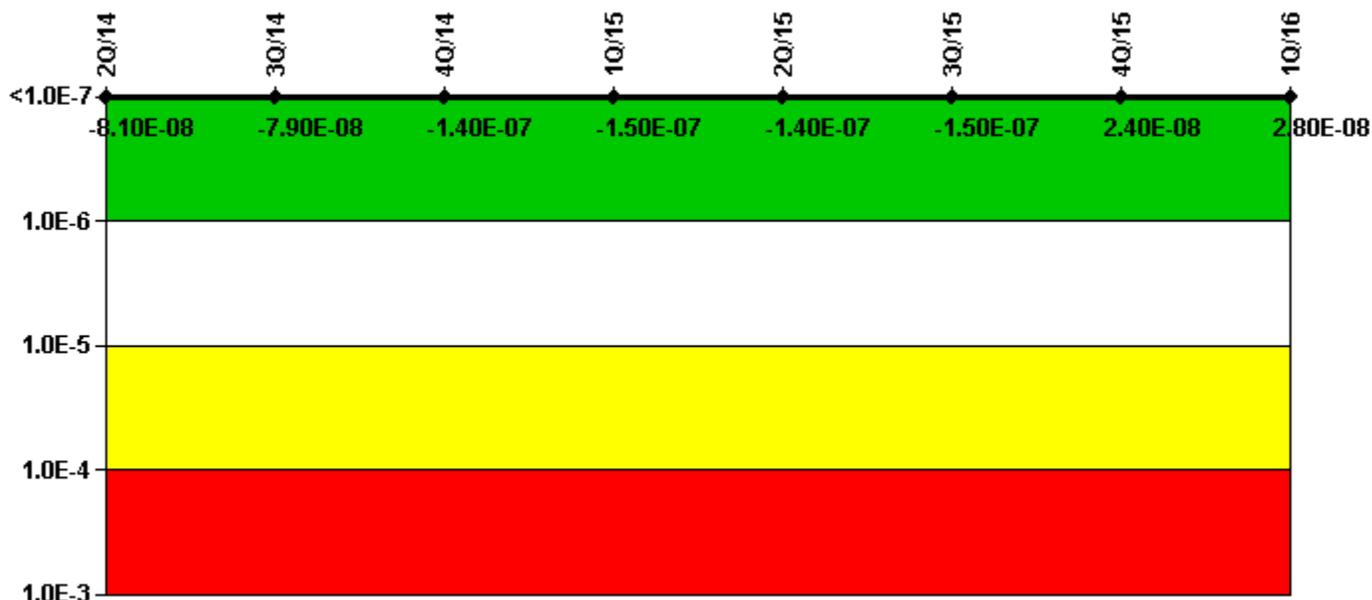
#### Notes

Mitigating Systems Performance Index, High Pressure Injection System	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16
UAI ( $\Delta$ CDF)	1.58E-08	1.83E-08	3.17E-08	2.86E-08	3.32E-08	3.39E-08	3.14E-08	2.78E-08
URI ( $\Delta$ CDF)	-1.03E-09	-1.03E-09	-2.25E-09	-2.25E-09	-2.25E-09	-2.25E-09	-2.25E-09	-2.25E-09
PLE	NO							
Indicator value	1.50E-08	1.70E-08	2.90E-08	2.60E-08	3.10E-08	3.20E-08	2.90E-08	2.60E-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

### Mitigating Systems Performance Index, Heat Removal System



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

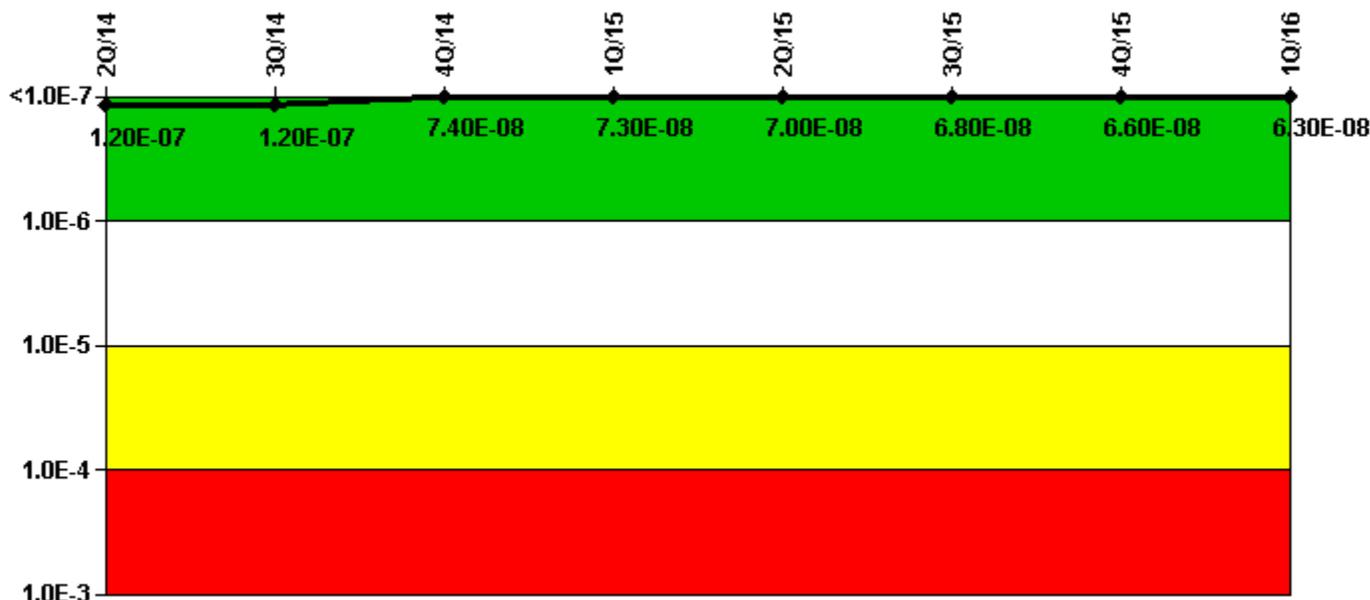
#### Notes

Mitigating Systems Performance Index, Heat Removal System	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16
UAI ( $\Delta$ CDF)	1.03E-08	1.27E-08	2.23E-08	1.69E-08	2.34E-08	1.59E-08	-2.59E-09	-3.07E-09
URI ( $\Delta$ CDF)	-9.13E-08	-9.13E-08	-1.63E-07	-1.66E-07	-1.66E-07	-1.64E-07	2.67E-08	3.14E-08
PLE	NO							
Indicator value	-8.10E-08	-7.90E-08	-1.40E-07	-1.50E-07	-1.40E-07	-1.50E-07	2.40E-08	2.80E-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

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



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

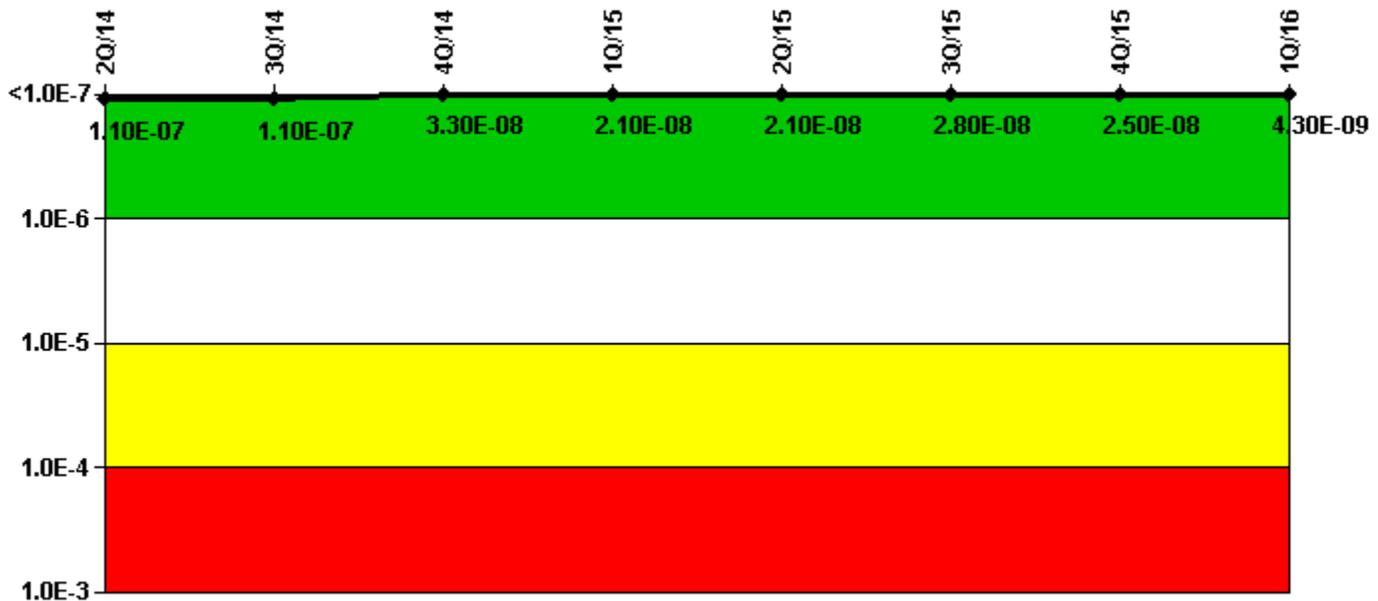
#### Notes

Mitigating Systems Performance Index, Residual Heat Removal System	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16
UAI (ΔCDF)	1.62E-08	2.06E-08	1.55E-08	1.54E-08	1.33E-08	1.32E-08	1.04E-08	8.21E-09
URI (ΔCDF)	1.03E-07	1.01E-07	5.83E-08	5.72E-08	5.62E-08	5.52E-08	5.52E-08	5.52E-08
PLE	NO							
Indicator value	1.20E-07	1.20E-07	7.40E-08	7.30E-08	7.00E-08	6.80E-08	6.60E-08	6.30E-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. 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.

### 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/14	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16
UAI ( $\Delta$ CDF)	1.37E-07	1.31E-07	4.57E-08	3.44E-08	3.41E-08	4.10E-08	3.82E-08	1.73E-08
URI ( $\Delta$ CDF)	-2.62E-08	-2.62E-08	-1.30E-08	-1.30E-08	-1.30E-08	-1.30E-08	-1.30E-08	-1.30E-08
PLE	NO							
Indicator value	1.10E-07	1.10E-07	3.30E-08	2.10E-08	2.10E-08	2.80E-08	2.50E-08	4.30E-09

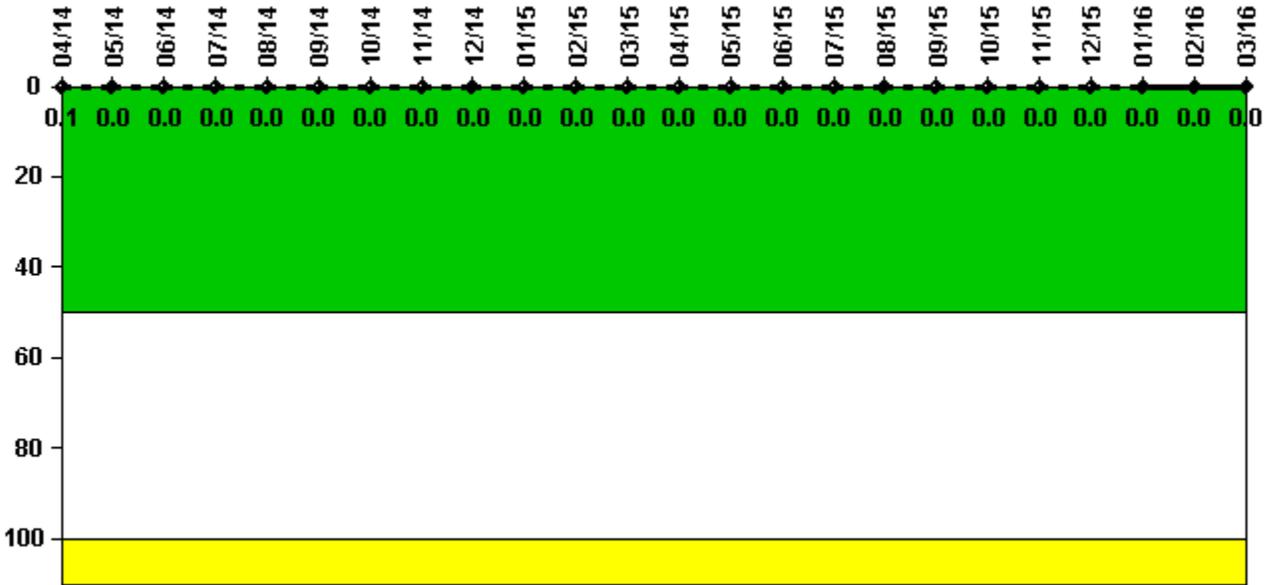
#### Licensee Comments:

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.

### Reactor Coolant System Activity



Thresholds: White > 50.0 Yellow > 100.0

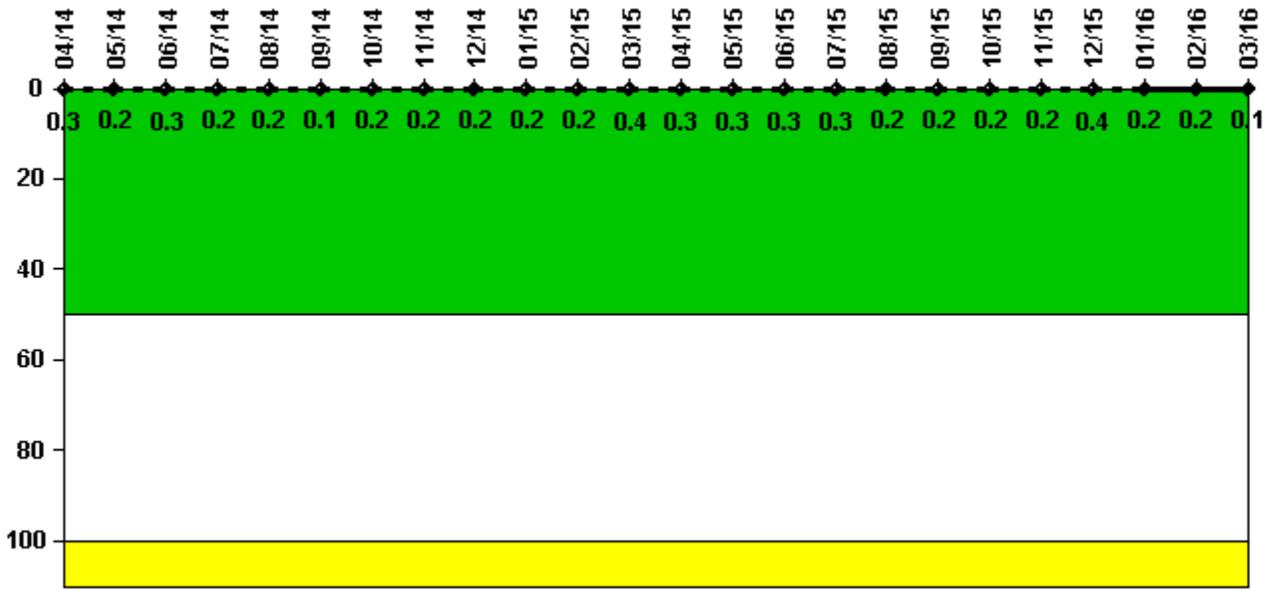
**Notes**

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	0.000293	0.000129	0.000076	0.000068	0.000089	0.000070	0.000085	0.000075	0.000084	0.000078	0.000091	0.000114
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	0	0	0	0	0	0	0	0	0	0
Reactor Coolant System Activity	4/15	5/15	6/15	7/15	8/15	9/15	10/15	11/15	12/15	1/16	2/16	3/16
Maximum activity	0.000089	0.000118	0.000089	0.000094	0.000101	0.000090	0.000138	0.000068	0.000055	0.000050	0.000095	0.000050
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	0	0	0	0	0	0	0	0	0	0	0
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Licensee Comments: none

### Reactor Coolant System Leakage



Thresholds: White > 50.0 Yellow > 100.0

### Notes

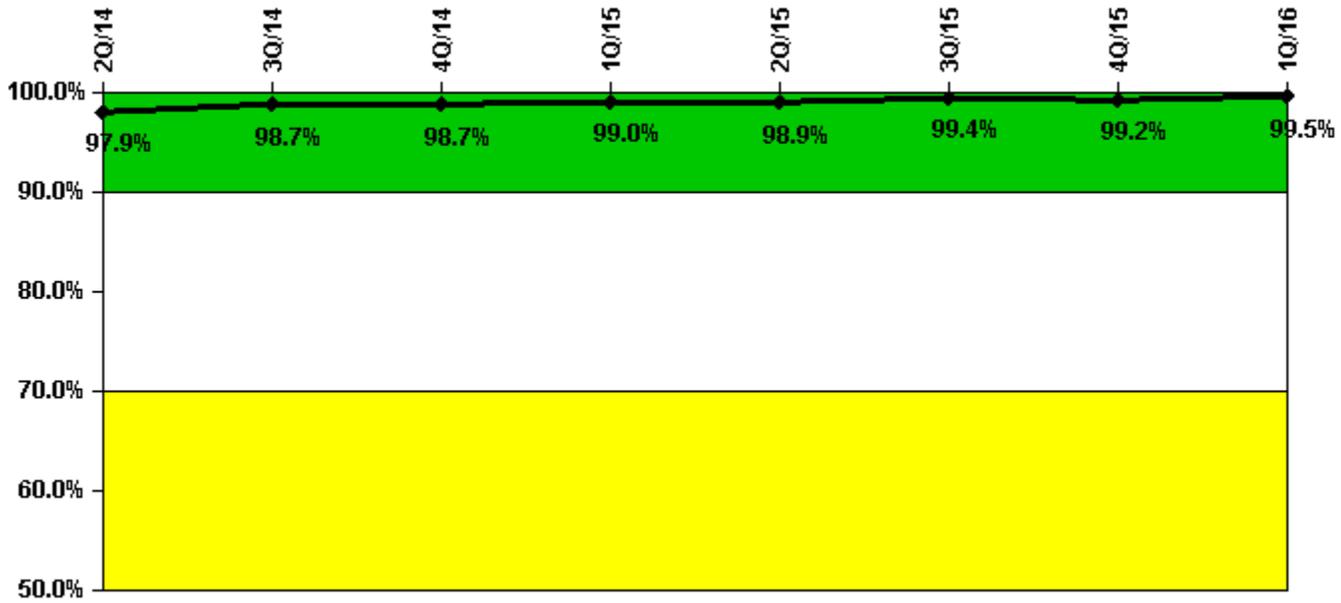
Reactor Coolant System Leakage	4/14	5/14	6/14	7/14	8/14	9/14	10/14	11/14	12/14	1/15	2/15	3/15
Maximum leakage	0.030	0.020	0.030	0.020	0.020	0.010	0.020	0.020	0.020	0.020	0.020	0.040
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	0.3	0.2	0.3	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.4

Reactor Coolant System Leakage	4/15	5/15	6/15	7/15	8/15	9/15	10/15	11/15	12/15	1/16	2/16	3/16
Maximum leakage	0.030	0.030	0.030	0.030	0.020	0.020	0.020	0.020	0.040	0.020	0.020	0.010
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	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.4	0.2	0.2	0.1

Licensee Comments: none

### Drill/Exercise Performance



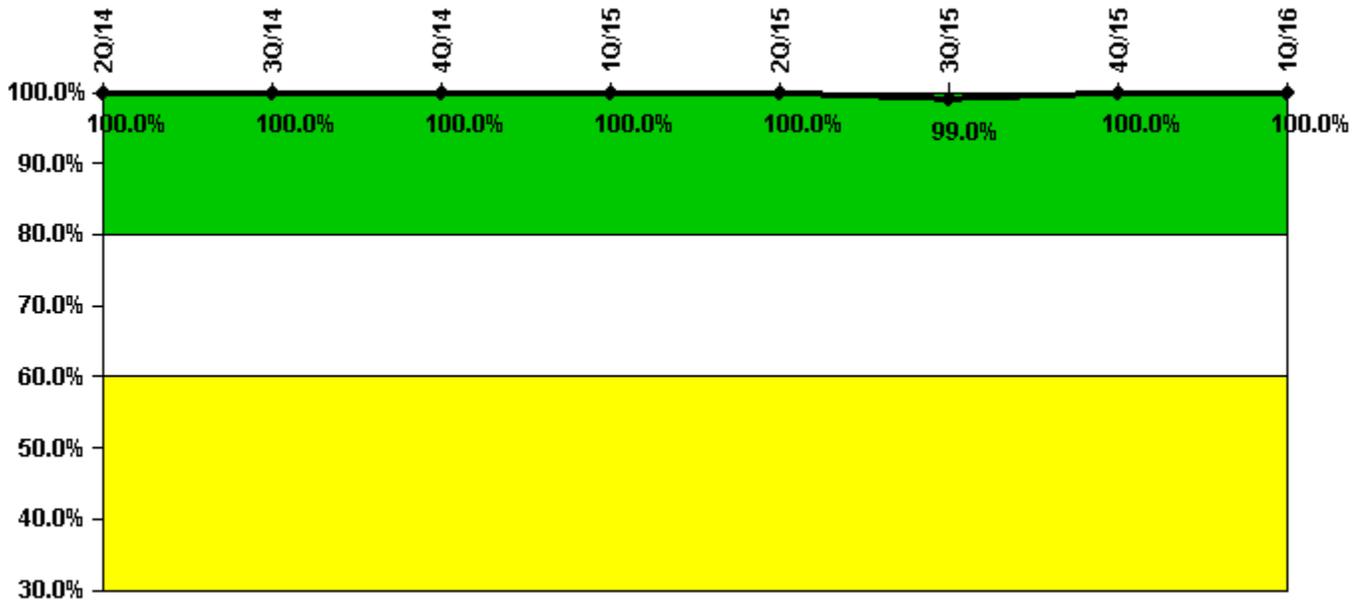
Thresholds: White < 90.0% Yellow < 70.0%

### Notes

Drill/Exercise Performance	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16
Successful opportunities	18.0	52.0	85.0	58.0	10.0	58.0	63.0	84.0
Total opportunities	18.0	52.0	86.0	58.0	10.0	58.0	64.0	84.0
<b>Indicator value</b>	<b>97.9%</b>	<b>98.7%</b>	<b>98.7%</b>	<b>99.0%</b>	<b>98.9%</b>	<b>99.4%</b>	<b>99.2%</b>	<b>99.5%</b>

Licensee Comments: none

### ERO Drill Participation



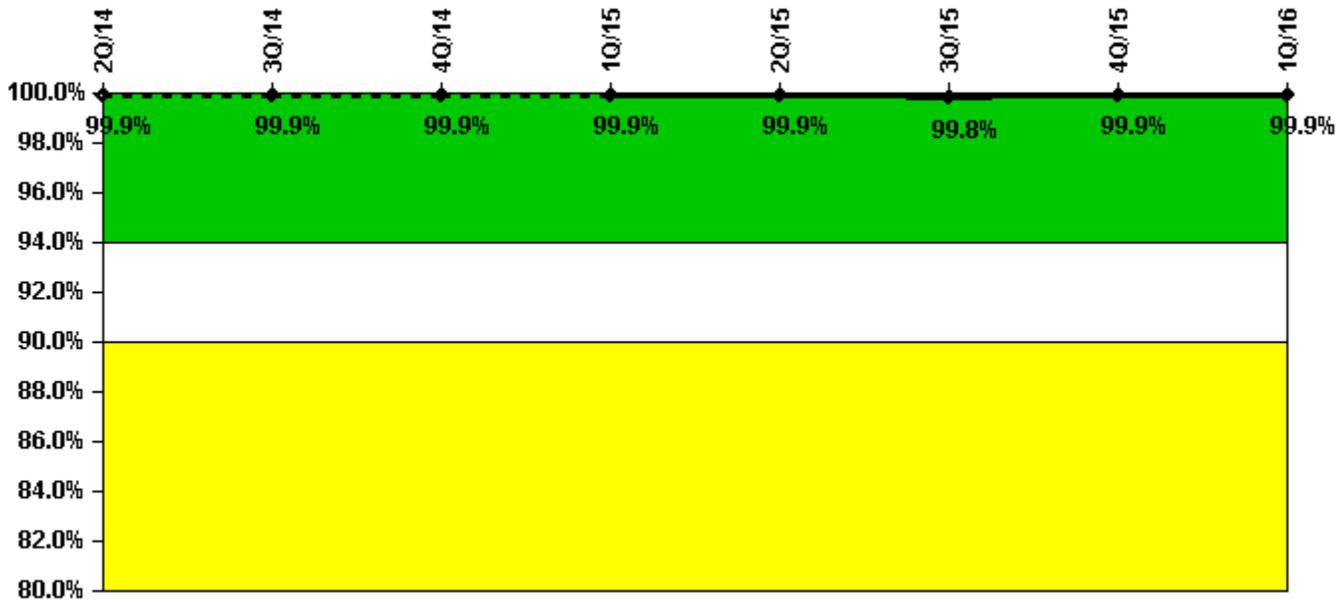
Thresholds: White < 80.0% Yellow < 60.0%

#### Notes

ERO Drill Participation	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16
Participating Key personnel	101.0	89.0	92.0	95.0	96.0	95.0	99.0	96.0
Total Key personnel	101.0	89.0	92.0	95.0	96.0	96.0	99.0	96.0
Indicator value	100.0%	100.0%	100.0%	100.0%	100.0%	99.0%	100.0%	100.0%

Licensee Comments: none

### Alert & Notification System



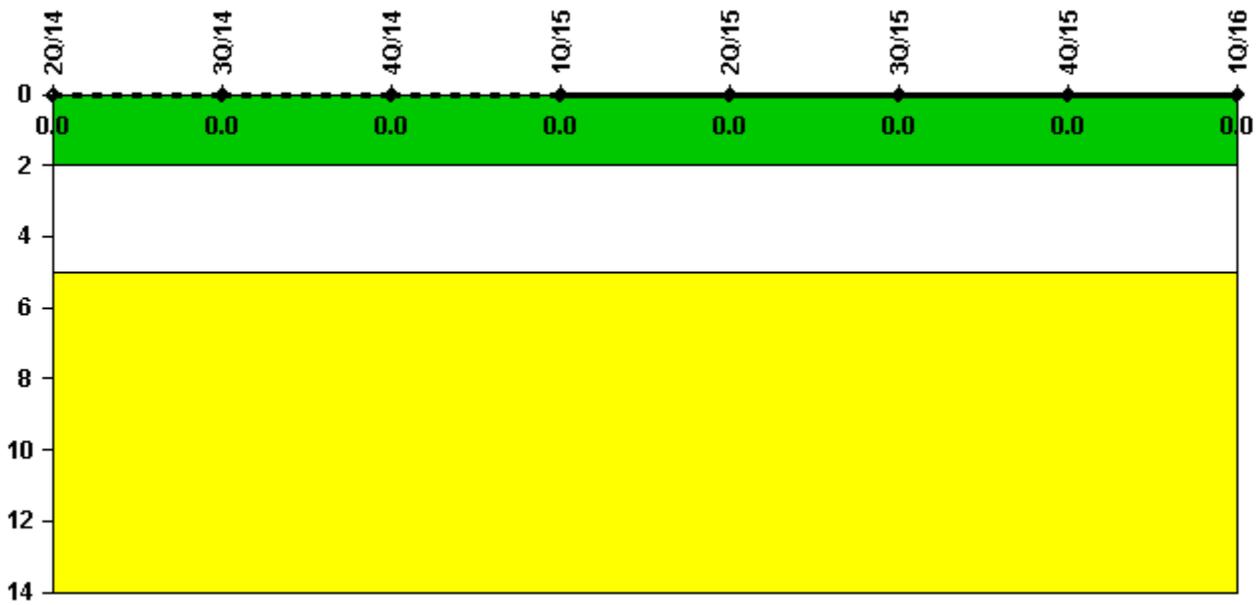
Thresholds: White < 94.0% Yellow < 90.0%

#### Notes

Alert & Notification System	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16
Successful siren-tests	791	1016	903	1017	791	1012	791	1017
Total sirens-tests	791	1017	904	1017	791	1017	791	1017
Indicator value	99.9%	99.9%	99.9%	99.9%	99.9%	99.8%	99.9%	99.9%

Licensee Comments: none

### Occupational Exposure Control Effectiveness



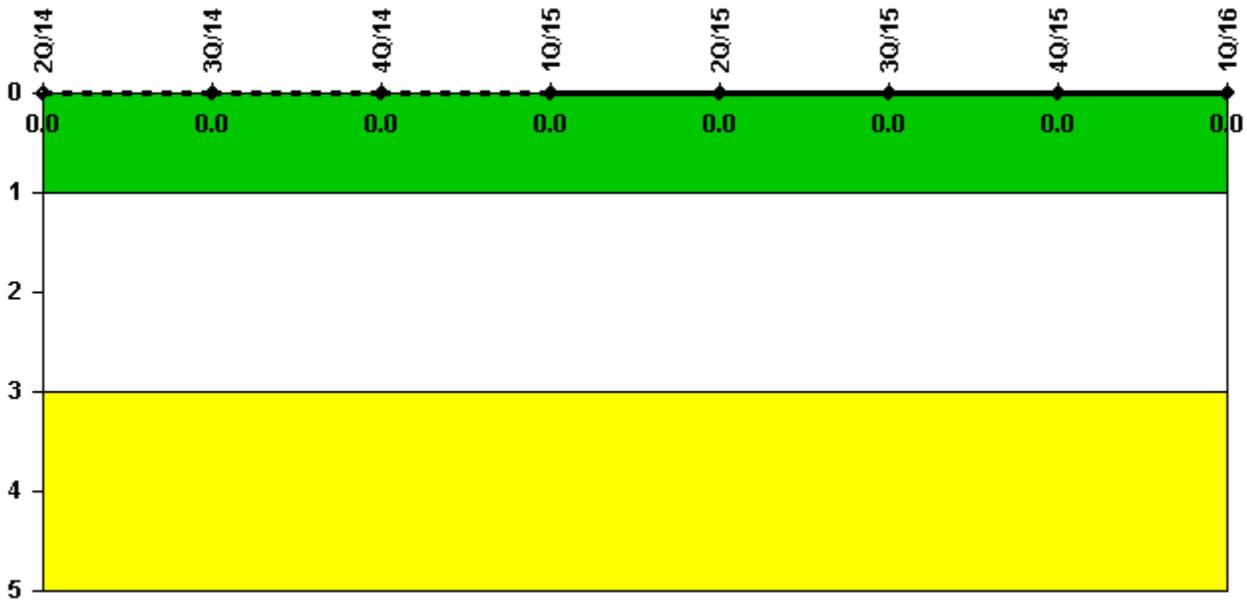
Thresholds: White > 2.0 Yellow > 5.0

#### Notes

Occupational Exposure Control Effectiveness	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16
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	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16
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: April 23, 2016*