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## Watts Bar 2 – Quarterly Performance Indicators

### 3Q/2017 Performance Indicators

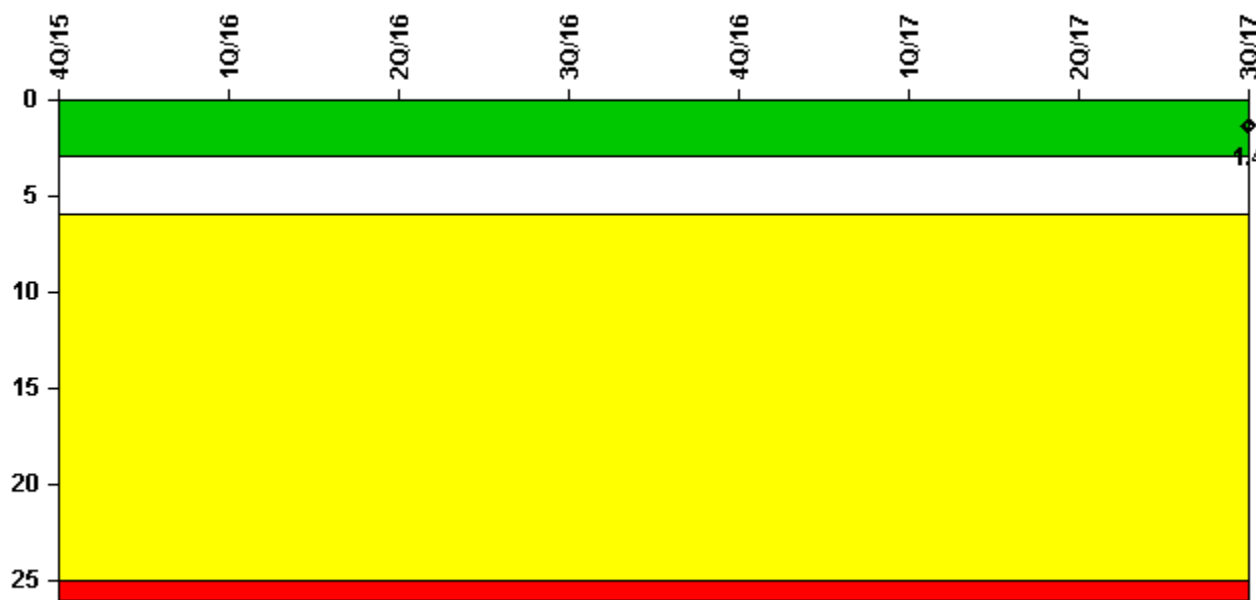
The solid trend line represents the current reporting period.

Licensee's General Comments: none

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- Unplanned Scrams with Complications (IE04)
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- High Pressure Injection Systems (MS07)
- Heat Removal Systems (MS08)
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- Cooling Water Systems (MS10)
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- Protected Area Equipment (PP01)

### Unplanned Scrams per 7000 Critical Hrs



Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

#### Notes

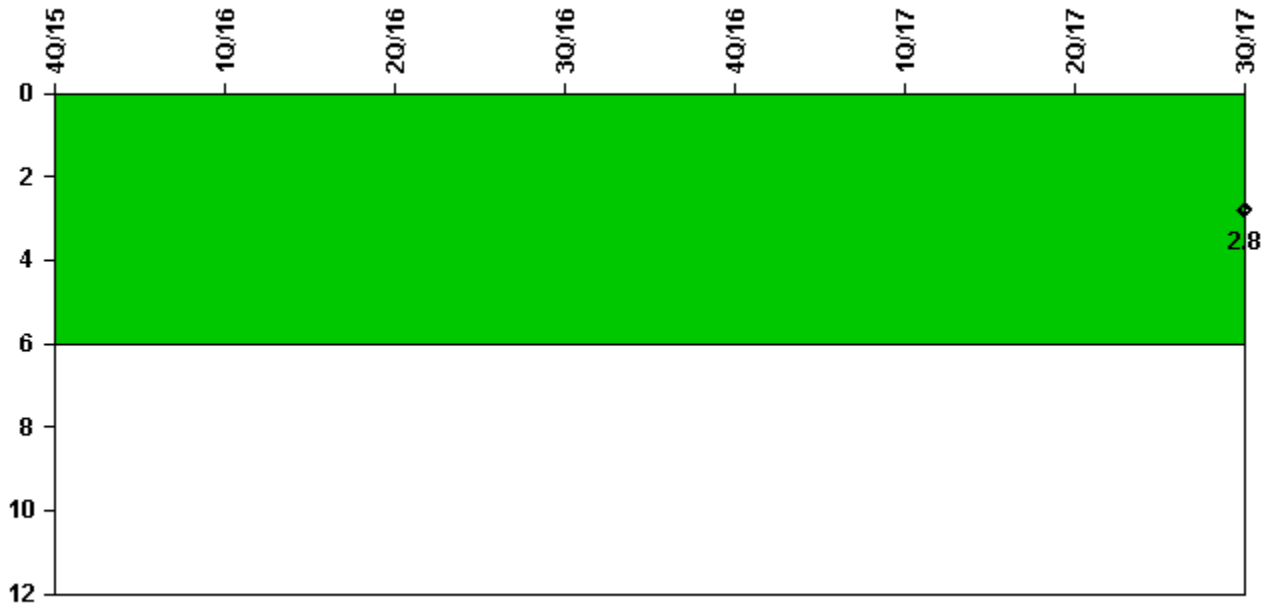
Unplanned Scrams per 7000 Critical Hrs	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17	3Q/17
Unplanned scrams		0	1.0	0	0	0	0	0
Critical hours		1612.7	1894.1	0	1496.9			

**Indicator value** **1.4**

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Licensee Comments: none

### Unplanned Power Changes per 7000 Critical Hrs



Thresholds: White > 6.0

#### Notes

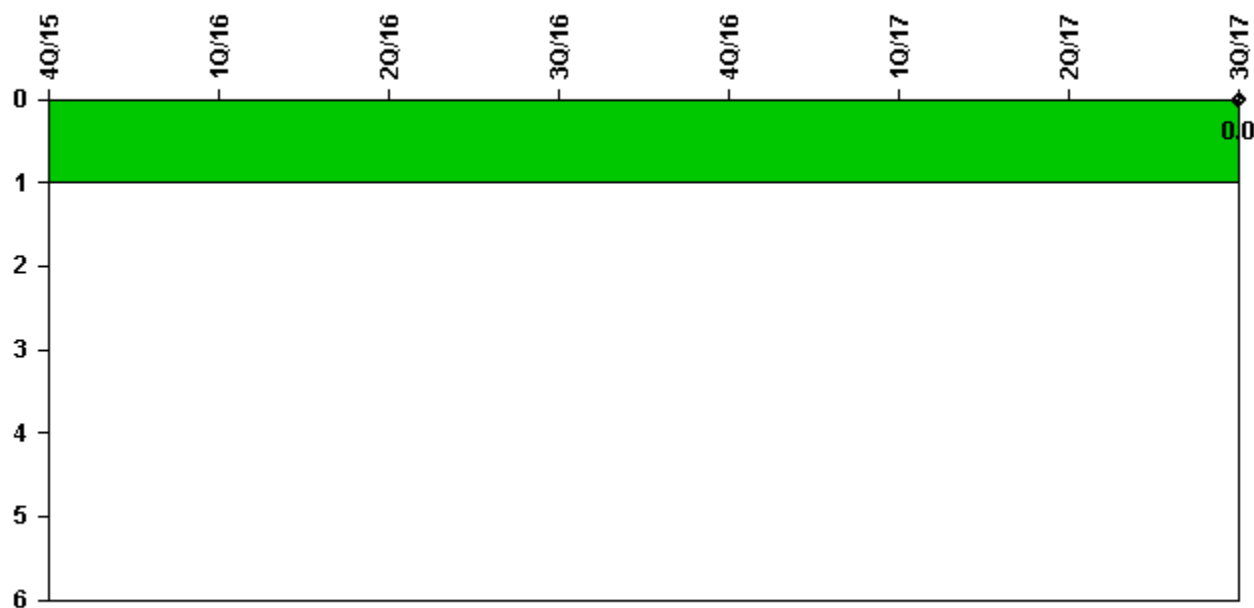
Unplanned Power Changes per 7000 Critical Hrs	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17	3Q/17
Unplanned power changes					1.0	0	0	1.0
Critical hours					1612.7	1894.1	0	1496.9

**Indicator value** **2.8**

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Licensee Comments: none

### Unplanned Scrams with Complications



Thresholds: White > 1.0

#### Notes

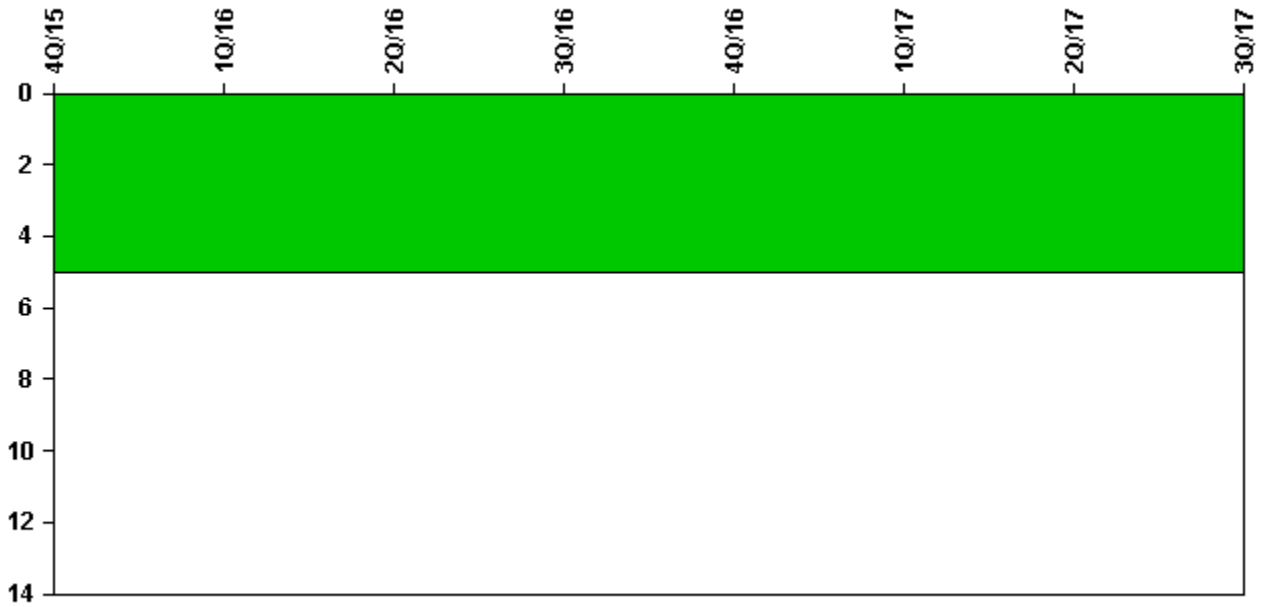
Unplanned Scrams with Complications	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17	3Q/17
Scrams with complications	0	0	0	0	0	0	0	0

**Indicator value** **0.0**

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Licensee Comments: none

### Safety System Functional Failures (PWR)



Thresholds: White > 5.0

#### Notes

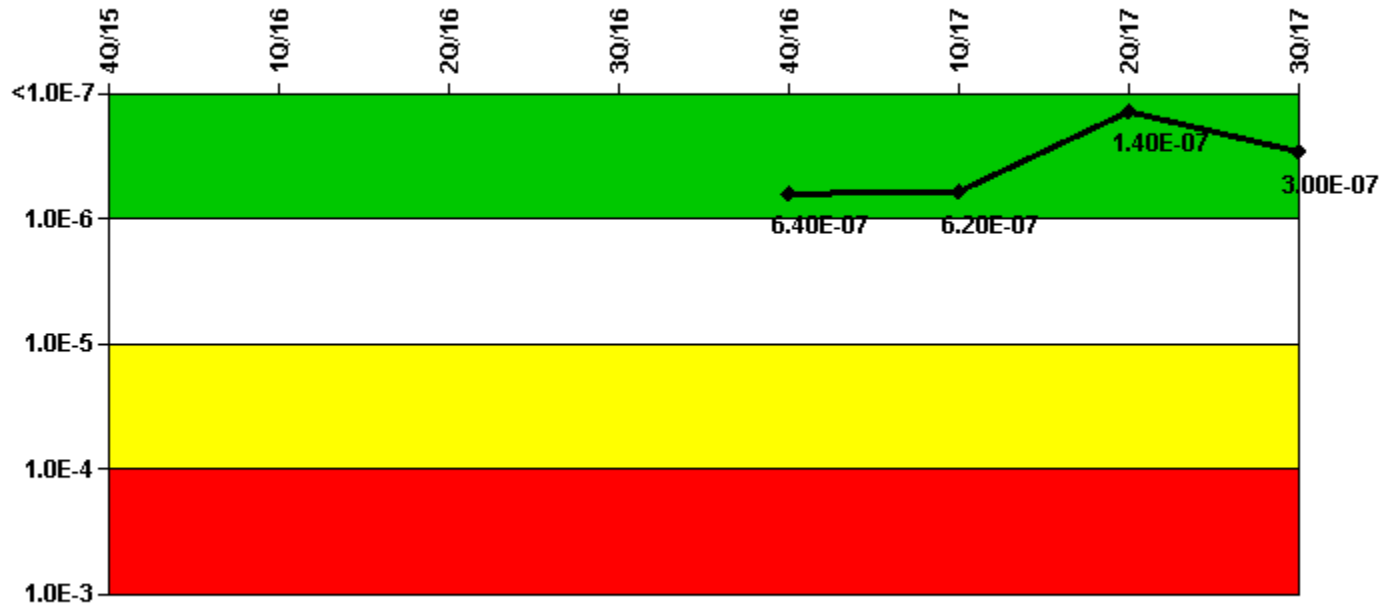
Safety System Functional Failures (PWR) 4Q/15 1Q/16 2Q/16 3Q/16 4Q/16 1Q/17 2Q/17 3Q/17  
 Safety System Functional Failures 0 0 0

#### Indicator value

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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**

	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17	3Q/17
UAI (ΔCDF)					1.14E-07	9.45E-08	4.05E-08	1.86E-07
URI (ΔCDF)					5.23E-07	5.23E-07	9.66E-08	1.10E-07
PLE					NO	NO	NO	NO
<b>Indicator value</b>					<b>6.40E-07</b>	<b>6.20E-07</b>	<b>1.40E-07</b>	<b>3.00E-07</b>

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Licensee Comments:

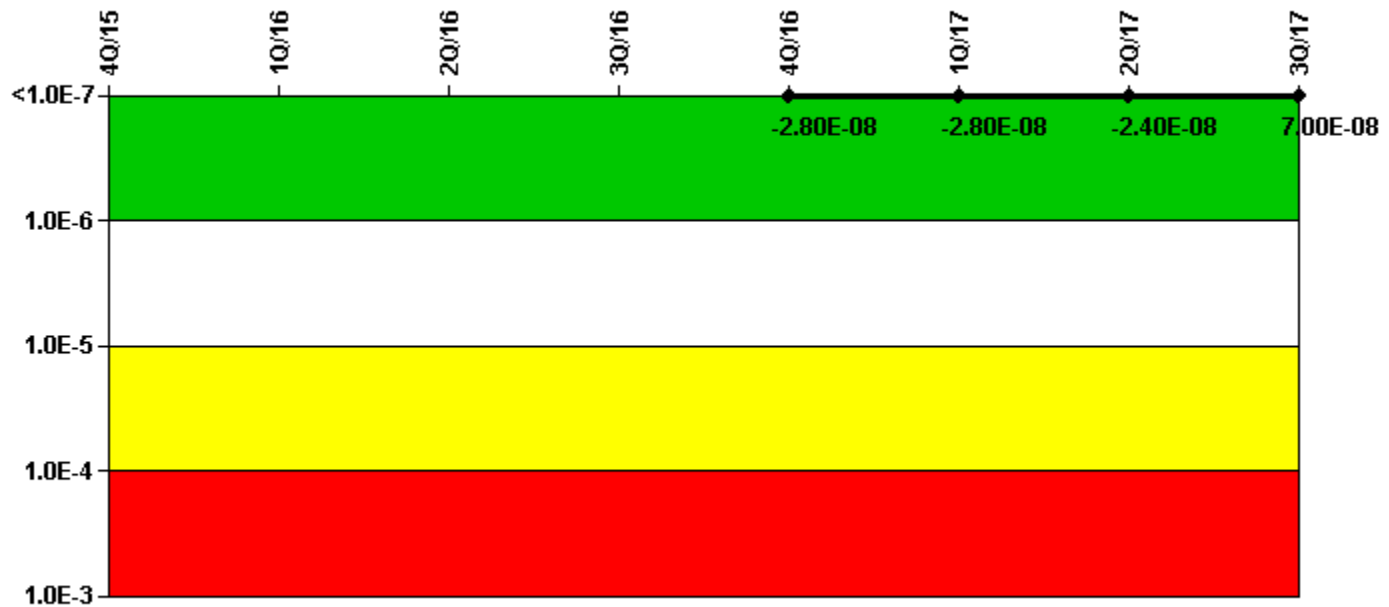
2Q/17: Changed PRA Parameter(s).

1Q/17: Risk Cap Invoked.

4Q/16: Risk Cap Invoked. Changed PRA Parameter(s).

4Q/16: Changed PRA Parameter(s).

### 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/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17	3Q/17
UAI ( $\Delta$ CDF)					-2.78E-08	-2.72E-08	-2.36E-08	7.07E-08
URI ( $\Delta$ CDF)					0.00E+00	-5.79E-10	-6.96E-10	-9.18E-10
PLE					NO	NO	NO	NO
<b>Indicator value</b>					<b>-2.80E-08</b>	<b>-2.80E-08</b>	<b>-2.40E-08</b>	<b>7.00E-08</b>

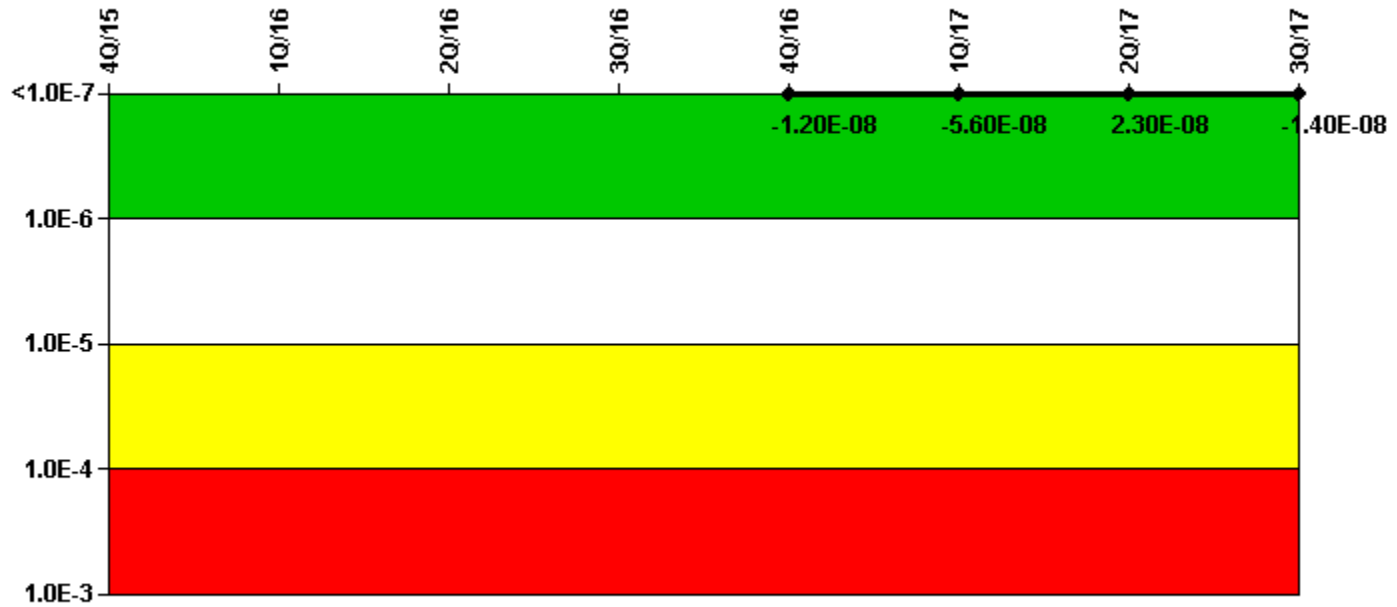
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#### Licensee Comments:

2Q/17: Changed PRA Parameter(s).

4Q/16: Changed PRA Parameter(s).

### 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/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17	3Q/17
UAI ( $\Delta$ CDF)					-1.23E-08	5.82E-08	6.41E-08	4.10E-08
URI ( $\Delta$ CDF)					0.00E+00	-1.14E-07	-4.13E-08	-5.48E-08
PLE					NO	NO	NO	NO
Indicator value					-1.20E-08	-5.60E-08	2.30E-08	-1.40E-08

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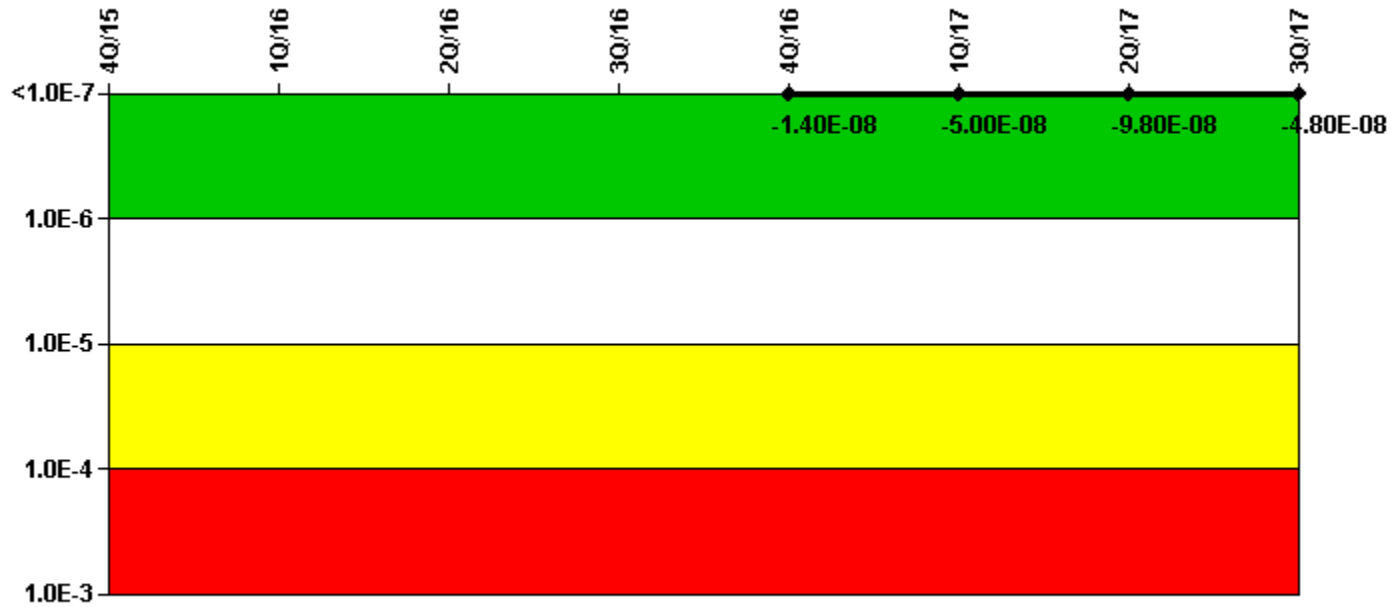
#### Licensee Comments:

2Q/17: Changed PRA Parameter(s).

4Q/16: Changed PRA Parameter(s).



### 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/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17	3Q/17
UAI (ΔCDF)					-1.42E-08	-1.42E-08	-1.38E-08	5.55E-08
URI (ΔCDF)					0.00E+00	-3.62E-08	-8.44E-08	-1.04E-07
PLE					NO	NO	NO	NO
<b>Indicator value</b>					<b>-1.40E-08</b>	<b>-5.00E-08</b>	<b>-9.80E-08</b>	<b>-4.80E-08</b>

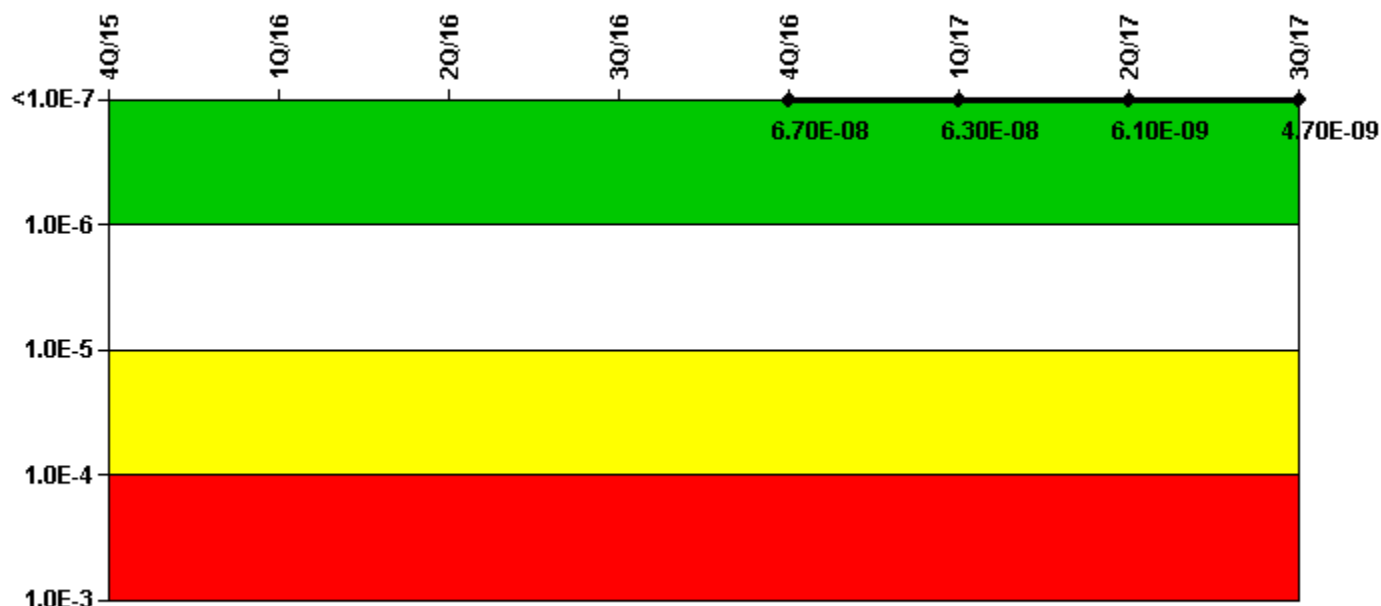
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Licensee Comments:

2Q/17: Changed PRA Parameter(s).

4Q/16: Changed PRA Parameter(s).

### 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/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17	3Q/17
UAI (ΔCDF)					0.00E+00	0.00E+00	0.00E+00	0.00E+00
URI (ΔCDF)					6.67E-08	6.26E-08	6.07E-09	4.71E-09
PLE					NO	NO	NO	NO
<b>Indicator value</b>					<b>6.70E-08</b>	<b>6.30E-08</b>	<b>6.10E-09</b>	<b>4.70E-09</b>

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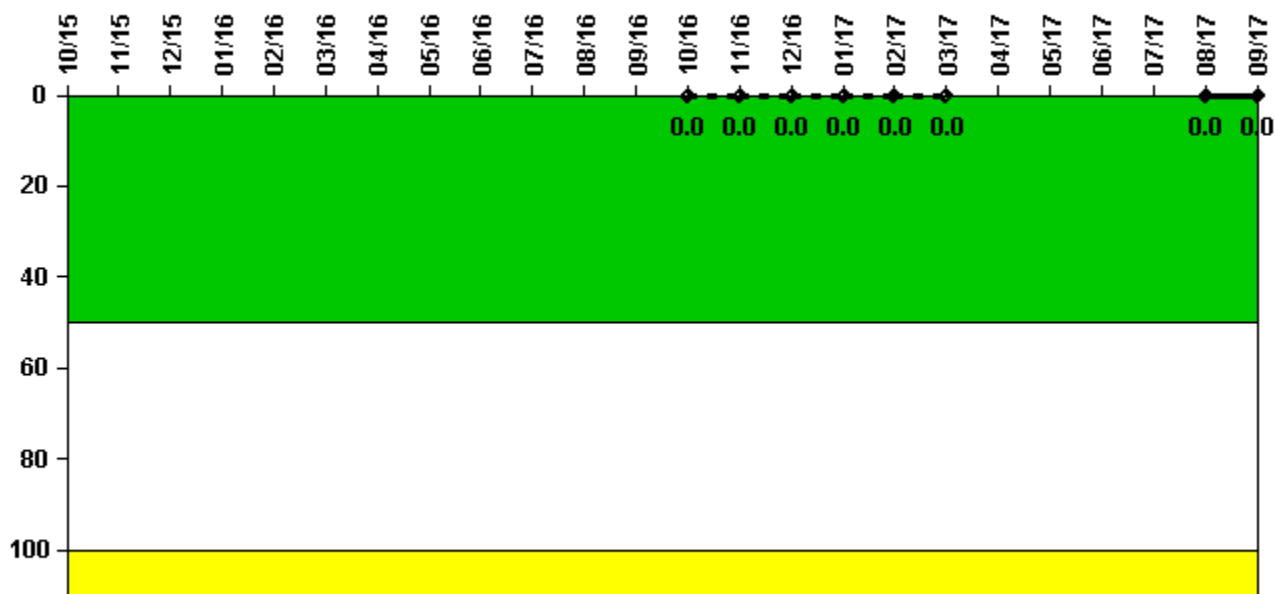
#### Licensee Comments:

2Q/17: Changed PRA Parameter(s).

4Q/16: Changed PRA Parameter(s).

4Q/16: Changed PRA Parameter(s).

### Reactor Coolant System Activity



Thresholds: White > 50.0 Yellow > 100.0

#### Notes

Reactor Coolant System Activity 10/15 11/15 12/15 1/16 2/16 3/16 4/16 5/16 6/16 7/16 8/16 9/16 10/16 11/16 12/16 1/17 2/17 3/17 4/17 5/17 6/17 7/17 8/17 9/17

Maximum activity

Technical specification limit

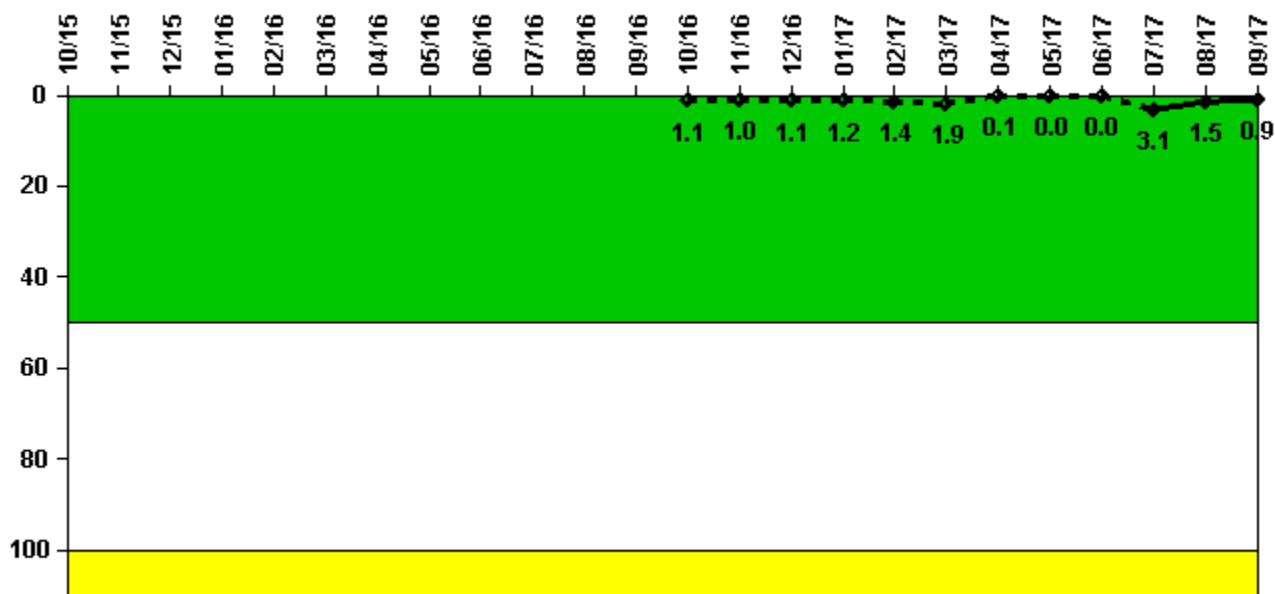
#### Indicator value

Reactor Coolant System Activity	10/16	11/16	12/16	1/17	2/17	3/17	4/17	5/17	6/17	7/17	8/17	9/17
Maximum activity	0.000036	0.000050	0.000064	0.000066	0.000080	0.000075	N/A	N/A	N/A	N/A	0.000077	0.000083
Technical specification limit	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Indicator value	0	0	0	0	0	0	N/A	N/A	N/A	N/A	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** 10/15 11/15 12/15 1/16 2/16 3/16 4/16 5/16 6/16 7/16 8/16 9/16

Maximum leakage

Technical specification limit

#### Indicator value

**Reactor Coolant System Leakage** 10/16 11/16 12/16 1/17 2/17 3/17 4/17 5/17 6/17 7/17 8/17 9/17

Maximum leakage 0.110 0.100 0.110 0.120 0.140 0.190 0.010 0 0 0.310 0.150 0.090

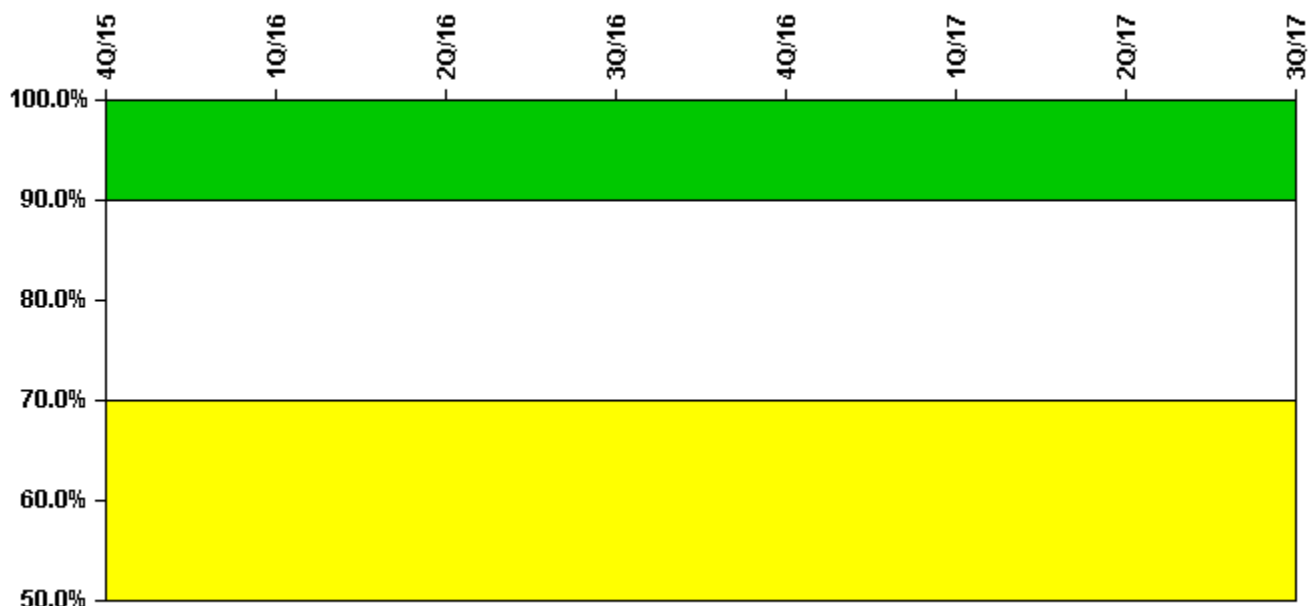
Technical specification limit 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0

**Indicator value** 1.1 1.0 1.1 1.2 1.4 1.9 0.1 0 0 3.1 1.5 0.9

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Licensee Comments: none

### Drill/Exercise Performance



Thresholds: White < 90.0% Yellow < 70.0%

#### Notes

#### Drill/Exercise Performance 4Q/15 1Q/16 2Q/16 3Q/16 4Q/16 1Q/17 2Q/17 3Q/17

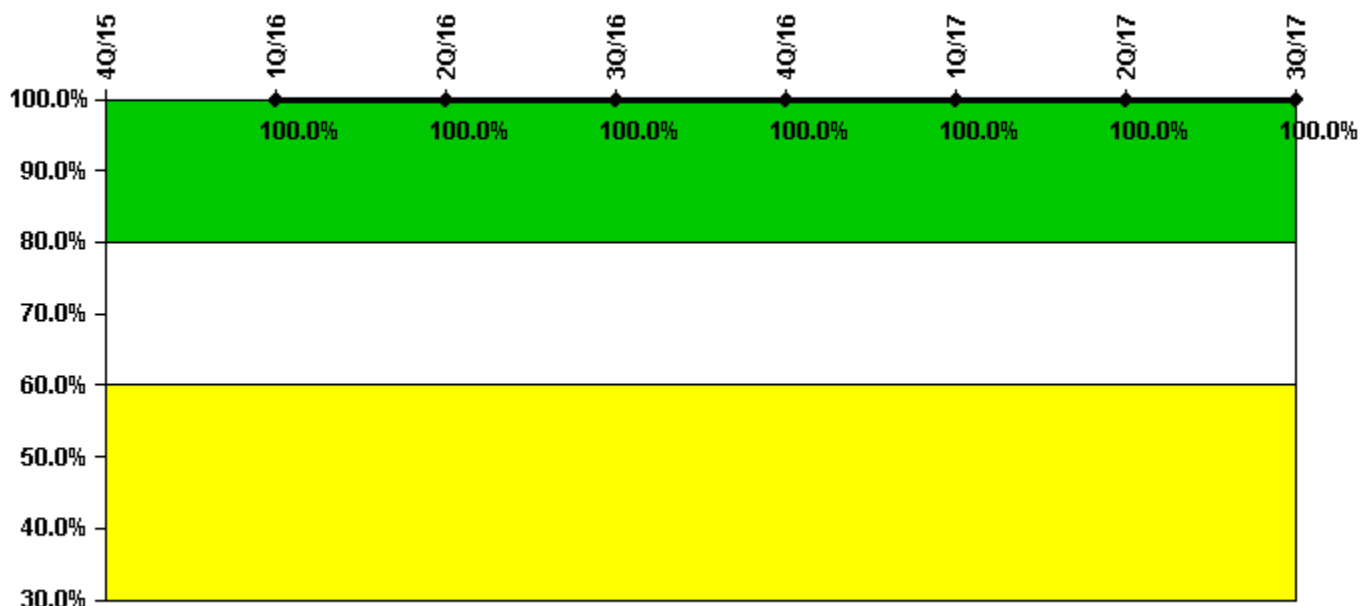
Successful opportunities	34.0	52.0	14.0	42.0	32.0	24.0	85.0
Total opportunities	36.0	52.0	14.0	44.0	32.0	24.0	89.0

#### Indicator value

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Licensee Comments: none

### ERO Drill Participation



Thresholds: White < 80.0% Yellow < 60.0%

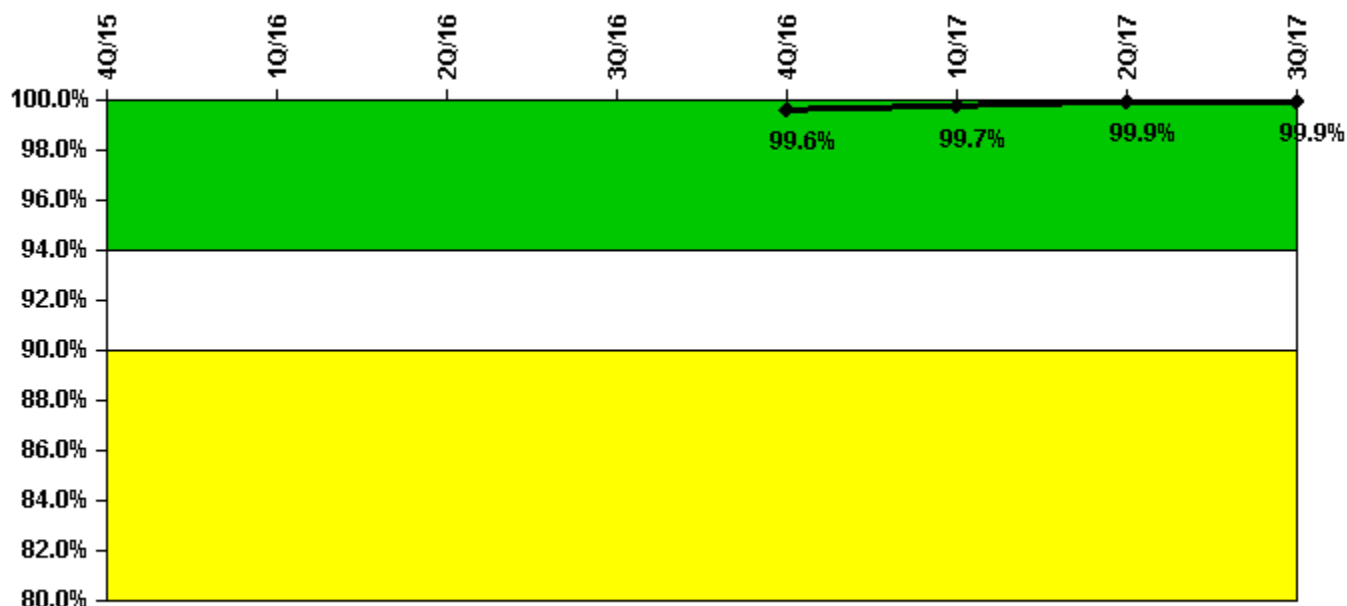
#### Notes

ERO Drill Participation	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17	3Q/17
Participating Key personnel	74.0	76.0	82.0	81.0	77.0	77.0	80.0	
Total Key personnel	74.0	76.0	82.0	81.0	77.0	77.0	80.0	
<b>Indicator value</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>

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Licensee Comments: none

### Alert & Notification System



Thresholds: White < 94.0% Yellow < 90.0%

#### Notes

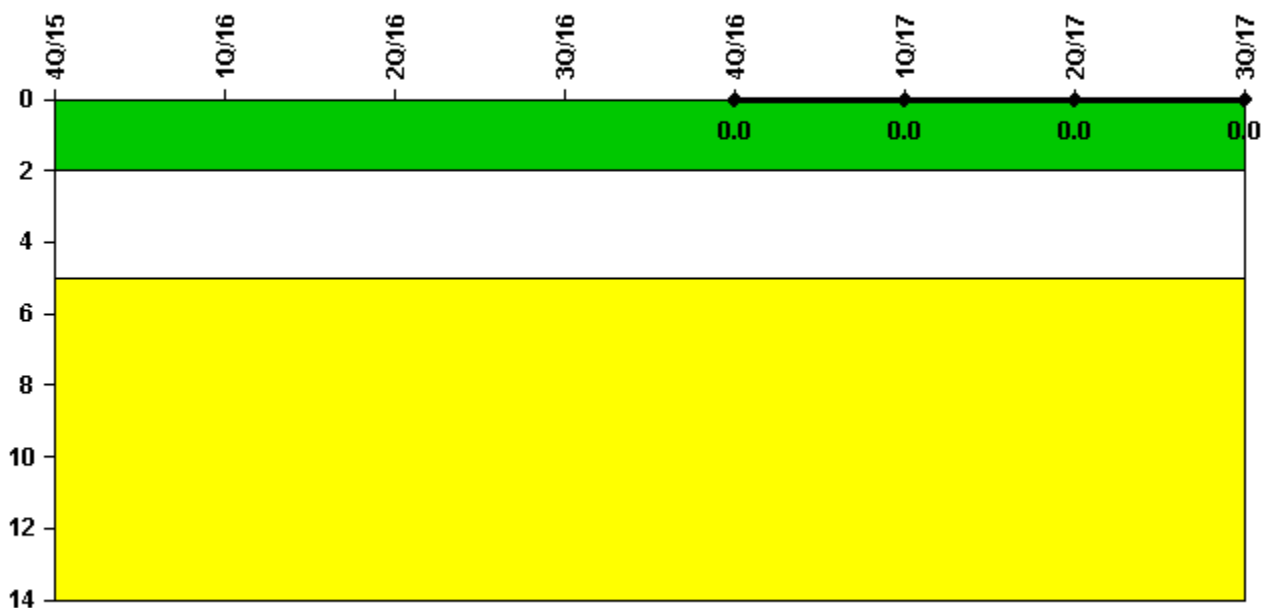
Alert & Notification System	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17	3Q/17
Successful siren-tests		906	699	805	808	909	807	807
Total sirens-tests		909	707	808	808	909	808	808

Indicator value **99.6% 99.7% 99.9% 99.9%**

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Licensee Comments: none

### Occupational Exposure Control Effectiveness



Thresholds: White > 2.0 Yellow > 5.0

#### Notes

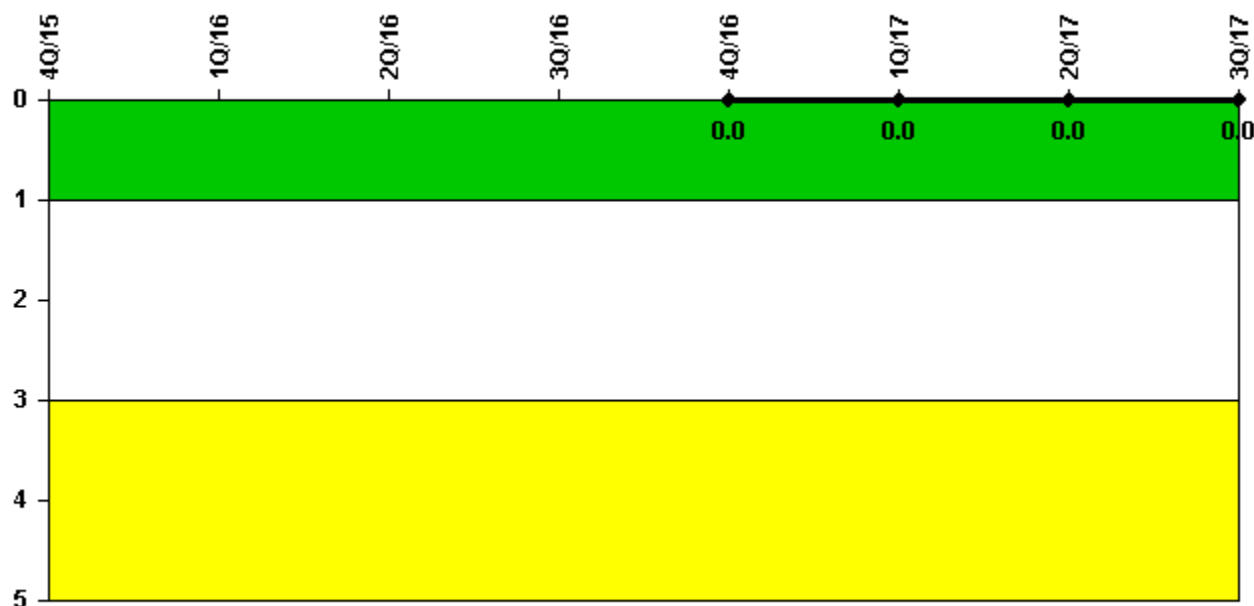
Occupational Exposure Control Effectiveness	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17	3Q/17
High radiation area occurrences	0	0	0	0	0	0	0	0
Very high radiation area occurrences	0	0	0	0	0	0	0	0
Unintended exposure occurrences	0	0	0	0	0	0	0	0
<b>Indicator value</b>					<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

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Licensee Comments: none



### RETS/ODCM Radiological Effluent



Thresholds: White > 1.0 Yellow > 3.0

#### Notes

RETS/ODCM Radiological Effluent 4Q/15 1Q/16 2Q/16 3Q/16 4Q/16 1Q/17 2Q/17 3Q/17

RETS/ODCM occurrences 0 0 0 0 0 0 0 0

Indicator value 0 0 0 0

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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.

*Current data as of: October 31, 2017*

*Page Last Reviewed/Updated Monday, November 06, 2017*