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## Robinson 2 – Quarterly Performance Indicators

### 2Q/2017 Performance Indicators

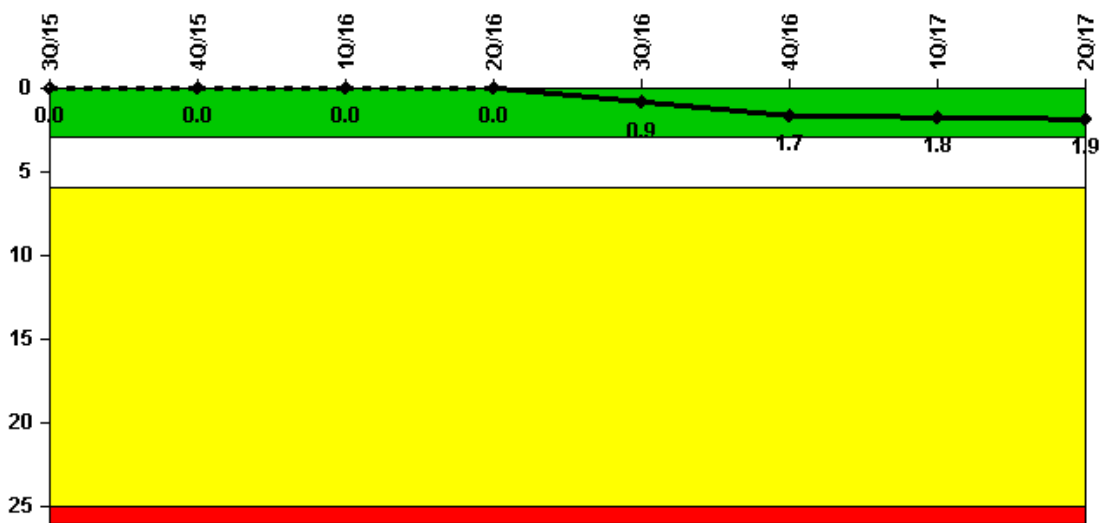
The solid trend line represents the current reporting period.

Licensee's General Comments: none

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- Unplanned Power Changes per 7000 Critical Hours (IE03)
- Unplanned Scrams with Complications (IE04)
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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

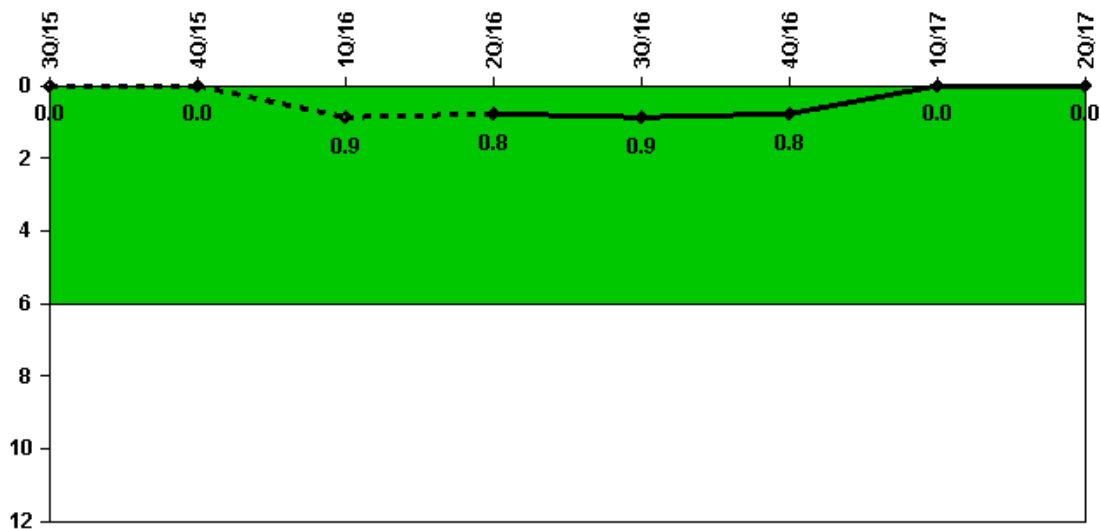
Unplanned Scrams per 7000 Critical Hrs	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17
Unplanned scrams	0	0	0	0	1.0	1.0	0	0
Critical hours	2208.0	1931.5	2183.0	2184.0	1929.6	2162.2	1324.2	2065.9

Indicator value	0	0	0	0	0.9	1.7	1.8	1.9
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Licensee Comments: none

### Unplanned Power Changes per 7000 Critical Hrs



Thresholds: White > 6.0

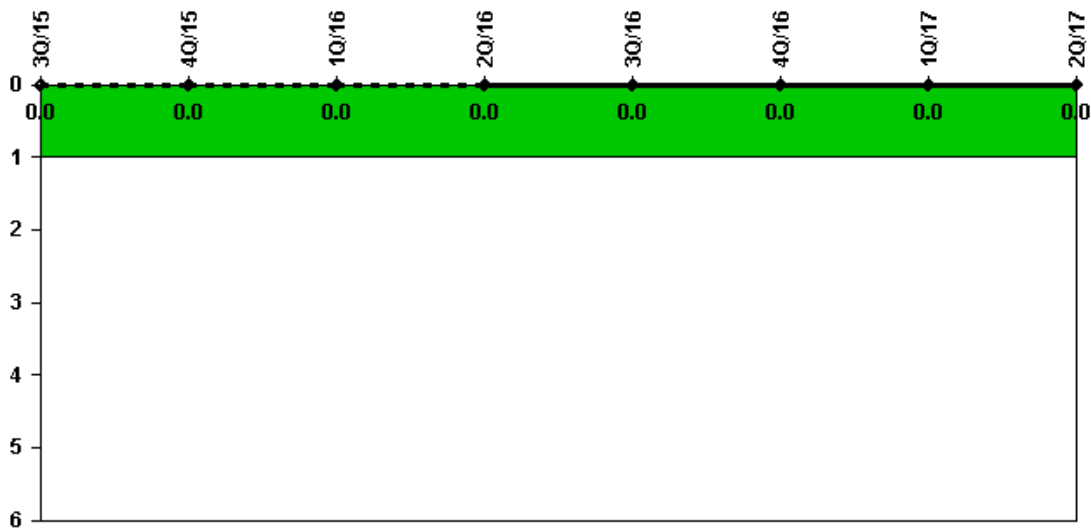
**Notes**

Unplanned Power Changes per 7000 Critical Hrs	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17
Unplanned power changes	0	0	1.0	0	0	0	0	0
Critical hours	2208.0	1931.5	2183.0	2184.0	1929.6	2162.2	1324.2	2065.9
<b>Indicator value</b>	<b>0</b>	<b>0</b>	<b>0.9</b>	<b>0.8</b>	<b>0.9</b>	<b>0.8</b>	<b>0</b>	<b>0</b>

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Licensee Comments: none

**Unplanned Scrams with Complications**



Thresholds: White > 1.0

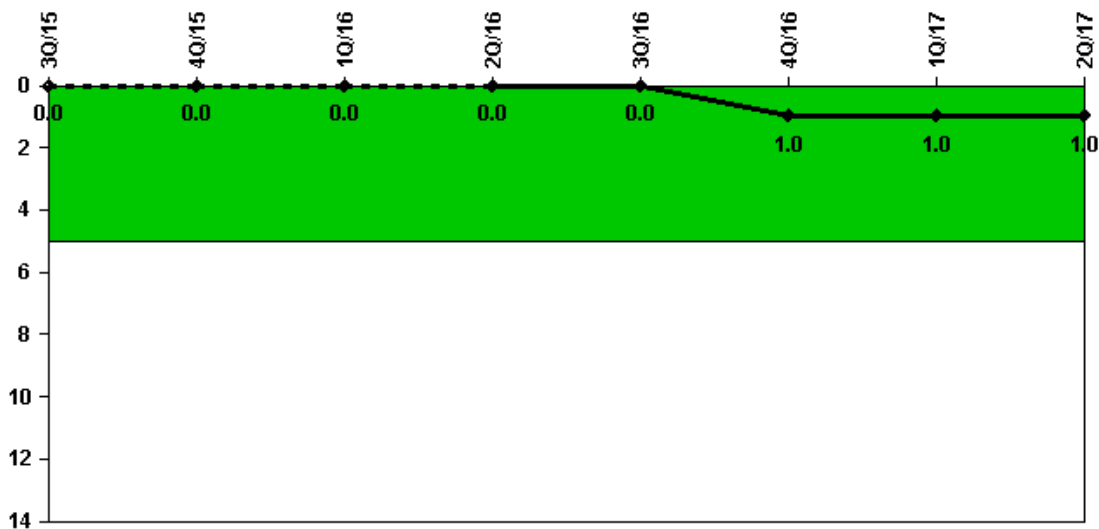
**Notes**

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

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Licensee Comments: none

### Safety System Functional Failures (PWR)



Thresholds: White > 5.0

#### Notes

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

Safety System Functional Failures                    0   0   0   0   0   1   0   0

**Indicator value**    0   0   0   0   0   1   1   1

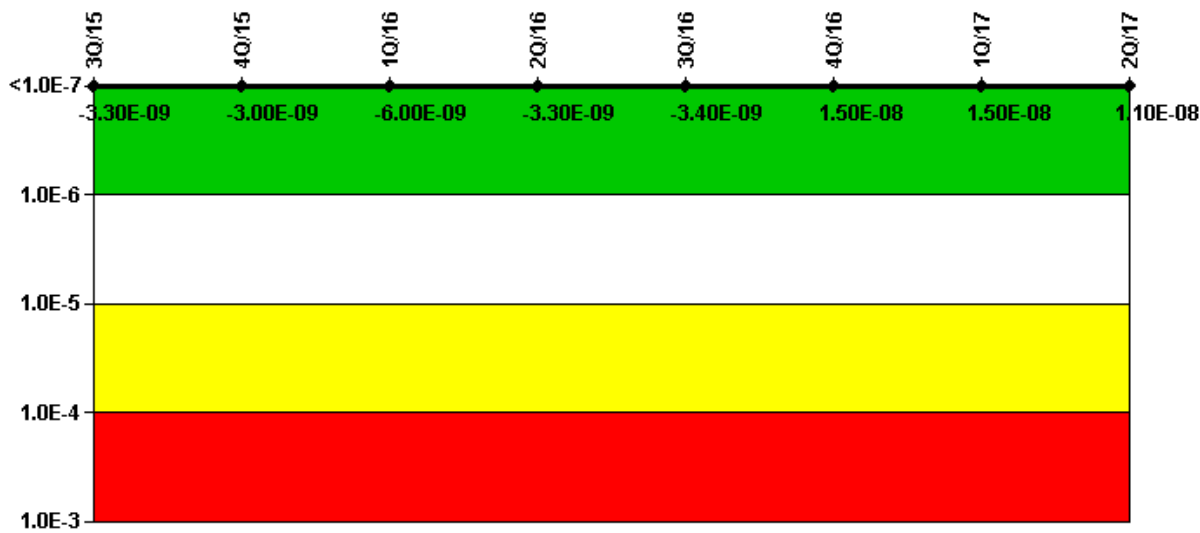
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#### Licensee Comments:

4Q/16: One SSFF f4th Qtr. 2016 SSFF: LER 2016-003 filed 10/10/2016 for cascading effect of PMP DBE-induced flooding that results in the SSFF loss of the safety function of the EDGs. The involved indicator regarding this SSFF remained GREEN.

4Q/16: One SSFF f4th Qtr. 2016 SSFF: LER 2016-003 filed 10/10/2016 for cascading effect of PMP DBE-induced flooding that results in the SSFF loss of the safety function of the EDGs.

### 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/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17
UAI ( $\Delta$ CDF)	4.16E-09	4.40E-09	1.42E-09	4.09E-09	4.06E-09	7.95E-09	7.97E-09	4.17E-09
URI ( $\Delta$ CDF)	-7.42E-09	-7.42E-09	-7.42E-09	-7.42E-09	-7.42E-09	7.27E-09	7.27E-09	7.27E-09
PLE	NO	NO	NO	NO	NO	NO	NO	NO
<b>Indicator value</b>	<b>-3.30E-09</b>	<b>-3.00E-09</b>	<b>-6.00E-09</b>	<b>-3.30E-09</b>	<b>-3.40E-09</b>	<b>1.50E-08</b>	<b>1.50E-08</b>	<b>1.10E-08</b>

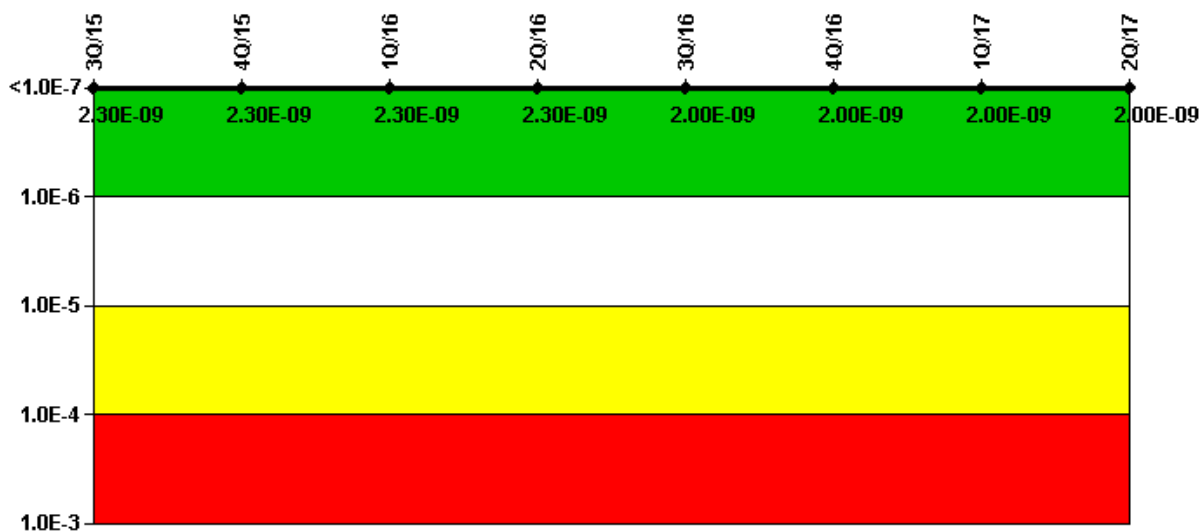
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Licensee Comments:

4Q/15: Changed PRA Parameter(s).

3Q/15: 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**

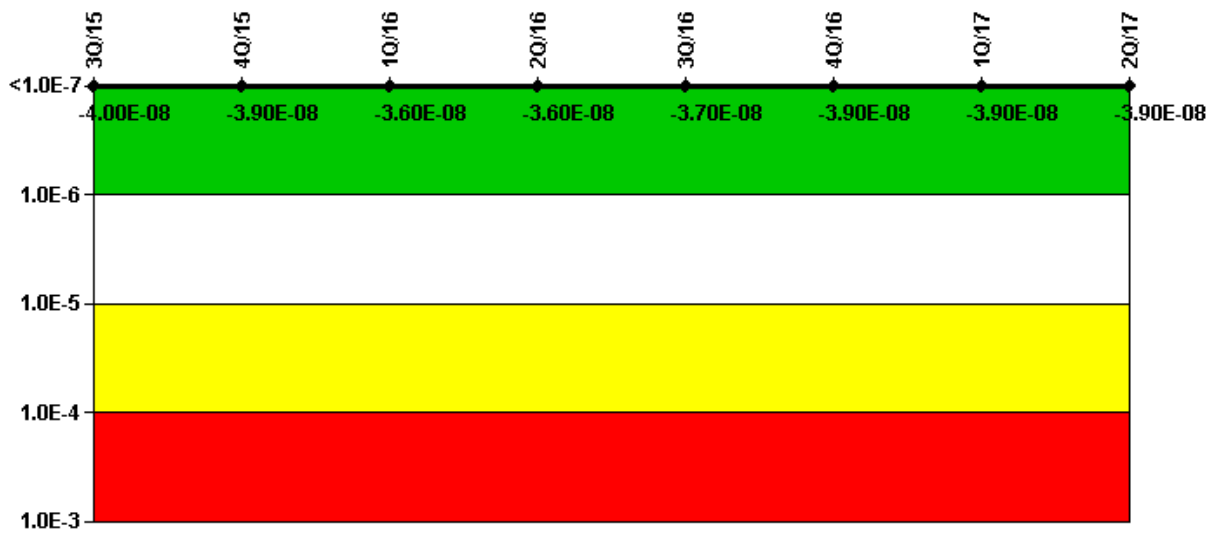
	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17
UAI ( $\Delta$ CDF)	-7.99E-10	-7.96E-10	-7.97E-10	-7.97E-10	-1.04E-09	-1.04E-09	-1.04E-09	-1.04E-09
URI ( $\Delta$ CDF)	3.08E-09	3.08E-09	3.08E-09	3.08E-09	3.08E-09	3.08E-09	3.08E-09	3.08E-09
PLE	NO	NO	NO	NO	NO	NO	NO	NO
<b>Indicator value</b>	<b>2.30E-09</b>	<b>2.30E-09</b>	<b>2.30E-09</b>	<b>2.30E-09</b>	<b>2.00E-09</b>	<b>2.00E-09</b>	<b>2.00E-09</b>	<b>2.00E-09</b>

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Licensee Comments:

4Q/15: Changed PRA Parameter(s).  
 3Q/15: 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**

	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17
UAI ( $\Delta$ CDF)	-5.57E-09	-5.07E-09	-2.27E-09	-2.34E-09	-2.65E-09	-5.01E-09	-4.94E-09	-5.19E-09
URI ( $\Delta$ CDF)	-3.39E-08	-3.39E-08	-3.39E-08	-3.39E-08	-3.39E-08	-3.42E-08	-3.39E-08	-3.39E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
<b>Indicator value</b>	<b>-4.00E-08</b>	<b>-3.90E-08</b>	<b>-3.60E-08</b>	<b>-3.60E-08</b>	<b>-3.70E-08</b>	<b>-3.90E-08</b>	<b>-3.90E-08</b>	<b>-3.90E-08</b>

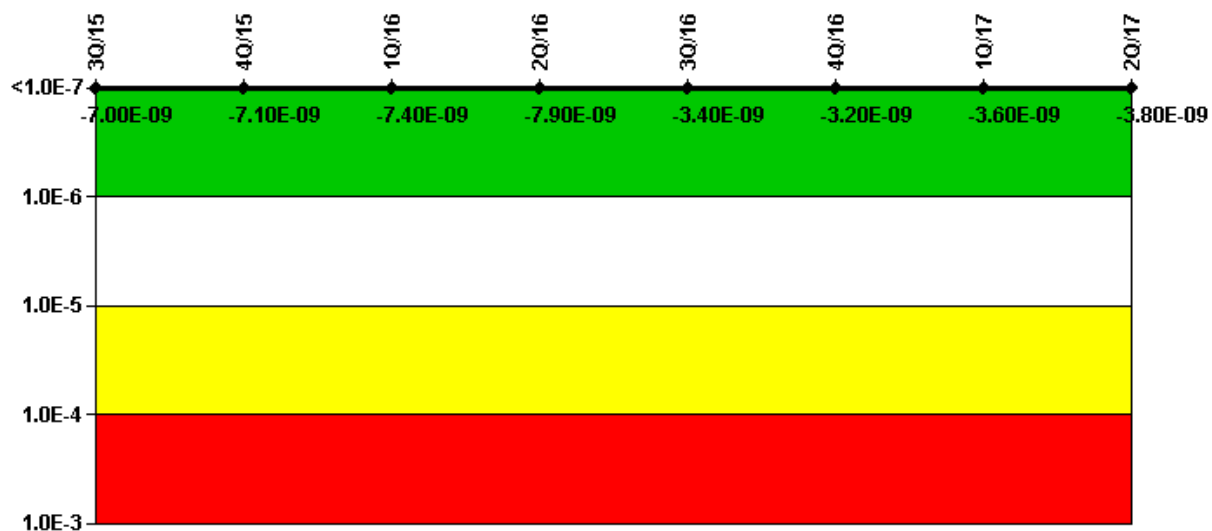
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Licensee Comments:

4Q/15: Changed PRA Parameter(s).

3Q/15: 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**

	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17
UAI (ΔCDF)	5.38E-09	5.22E-09	4.91E-09	4.48E-09	8.91E-09	9.14E-09	8.72E-09	8.57E-09
URI (ΔCDF)	-1.23E-08	-1.23E-08	-1.23E-08	-1.23E-08	-1.23E-08	-1.23E-08	-1.23E-08	-1.23E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
<b>Indicator value</b>	<b>-7.00E-09</b>	<b>-7.10E-09</b>	<b>-7.40E-09</b>	<b>-7.90E-09</b>	<b>-3.40E-09</b>	<b>-3.20E-09</b>	<b>-3.60E-09</b>	<b>-3.80E-09</b>

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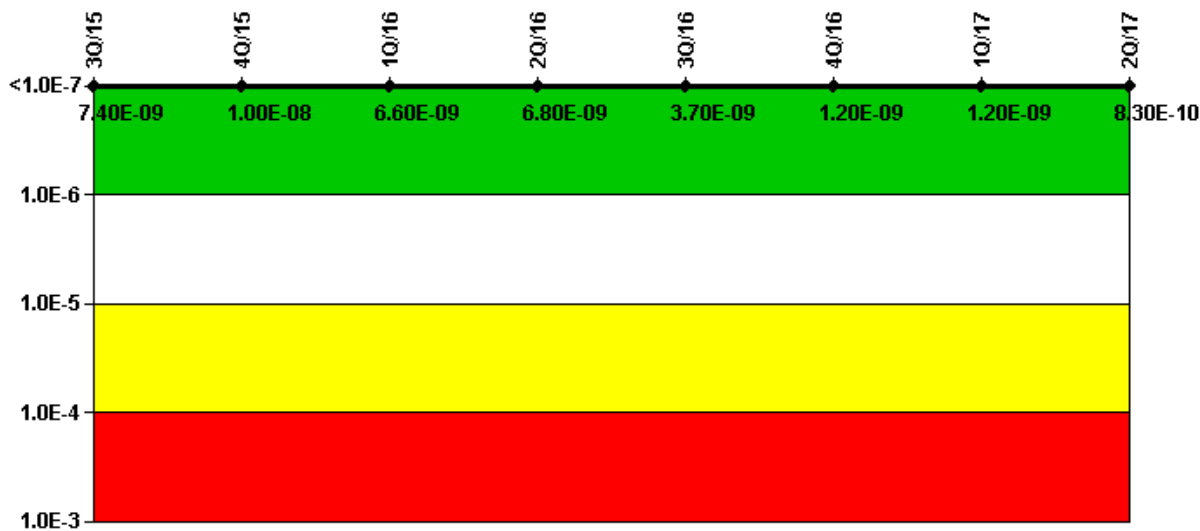
Licensee Comments:

4Q/15: Changed PRA Parameter(s).

3Q/15: 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**

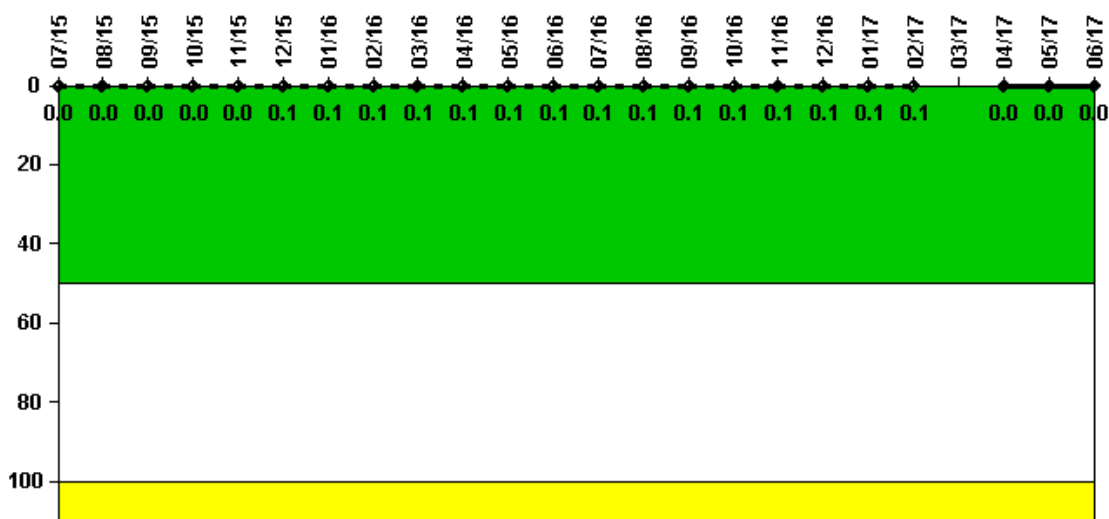
	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17
UAI ( $\Delta$ CDF)	8.95E-09	1.17E-08	8.11E-09	8.37E-09	5.22E-09	4.86E-09	4.89E-09	4.53E-09
URI ( $\Delta$ CDF)	-1.55E-09	-1.55E-09	-1.55E-09	-1.55E-09	-1.55E-09	-3.70E-09	-3.70E-09	-3.70E-09
PLE	NO	NO	NO	NO	NO	NO	NO	NO
<b>Indicator value</b>	<b>7.40E-09</b>	<b>1.00E-08</b>	<b>6.60E-09</b>	<b>6.80E-09</b>	<b>3.70E-09</b>	<b>1.20E-09</b>	<b>1.20E-09</b>	<b>8.30E-10</b>

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Licensee Comments:

4Q/15: Changed PRA Parameter(s).  
 3Q/15: Changed PRA Parameter(s).

### Reactor Coolant System Activity



Thresholds: White > 50.0 Yellow > 100.0

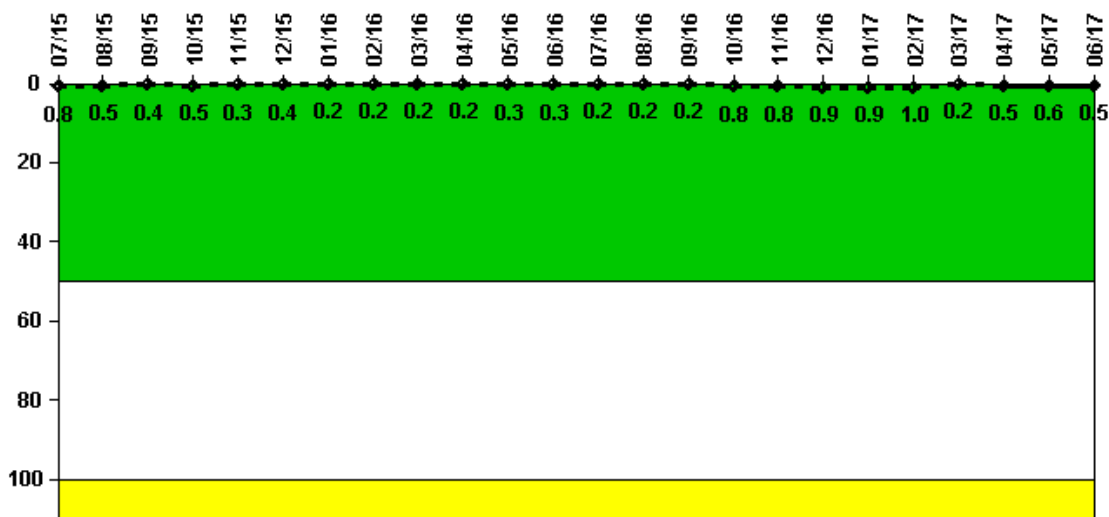
**Notes**

Reactor Coolant System Activity	7/15	8/15	9/15	10/15	11/15	12/15	1/16	2/16	3/16	4/16	5/16	6/16
Maximum activity	0.000093	0.000108	0.000115	0.000116	0.000123	0.000126	0.000128	0.000149	0.000142	0.000145	0.000146	0.000151
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	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Reactor Coolant System Activity	7/16	8/16	9/16	10/16	11/16	12/16	1/17	2/17	3/17	4/17	5/17	6/17
Maximum activity	0.000161	0.000159	0.000160	0.000168	0.000183	0.000188	0.000191	0.000220	N/A	0.000064	0.000069	0.000072
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	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	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	7/15	8/15	9/15	10/15	11/15	12/15	1/16	2/16	3/16	4/16	5/16	6/16
Maximum leakage	0.080	0.050	0.040	0.050	0.030	0.040	0.020	0.020	0.020	0.020	0.030	0.030
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

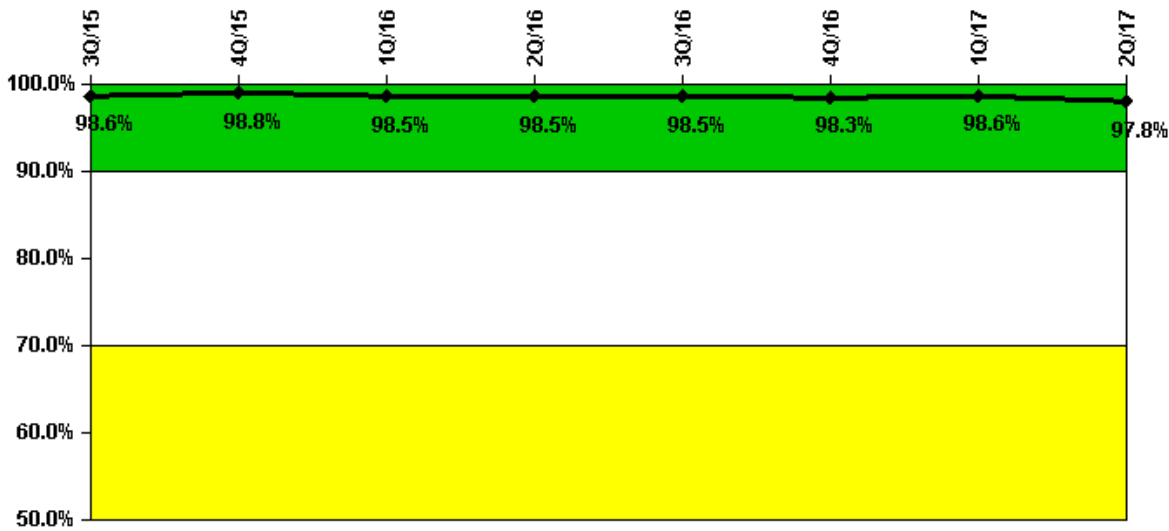
<b>Indicator value</b>	<b>0.8</b>	<b>0.5</b>	<b>0.4</b>	<b>0.5</b>	<b>0.3</b>	<b>0.4</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.3</b>	<b>0.3</b>
Reactor Coolant System Leakage	7/16	8/16	9/16	10/16	11/16	12/16	1/17	2/17	3/17	4/17	5/17	6/17
Maximum leakage	0.020	0.020	0.020	0.080	0.080	0.090	0.090	0.100	0.020	0.050	0.060	0.050
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>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.8</b>	<b>0.8</b>	<b>0.9</b>	<b>0.9</b>	<b>1.0</b>	<b>0.2</b>	<b>0.5</b>	<b>0.6</b>	<b>0.5</b>
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Licensee Comments: none

### Drill/Exercise Performance



Thresholds: White < 90.0% Yellow < 70.0%

#### Notes

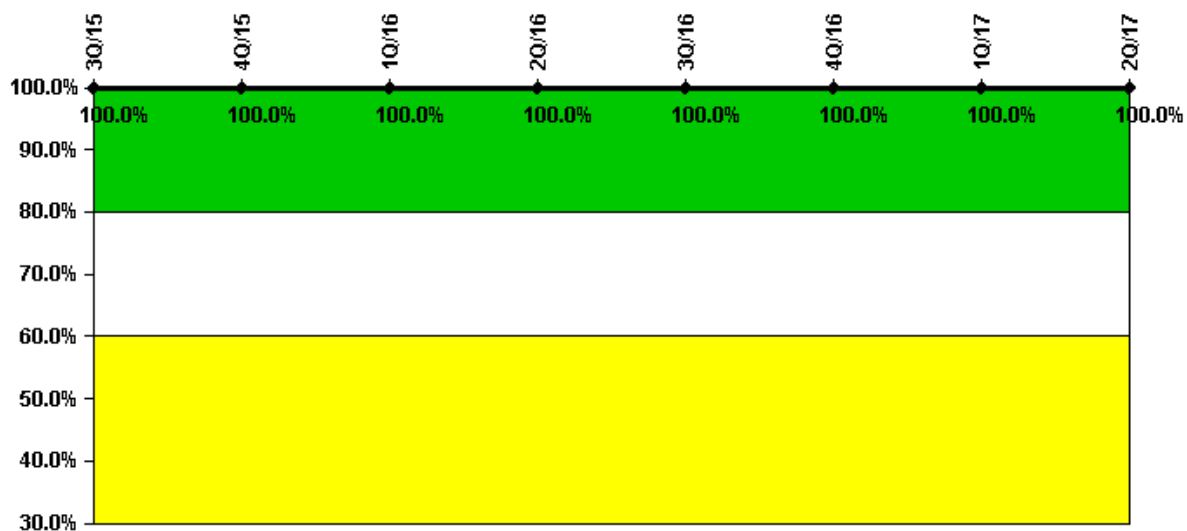
Drill/Exercise Performance	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17
Successful opportunities	23.0	9.0	47.0	51.0	39.0	24.0	14.0	15.0
Total opportunities	24.0	10.0	48.0	51.0	39.0	24.0	14.0	17.0

**Indicator value**                    **98.6% 98.8% 98.5% 98.5% 98.5% 98.3% 98.6% 97.8%**

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Licensee Comments: none

### ERO Drill Participation



Thresholds: White < 80.0% Yellow < 60.0%

#### Notes

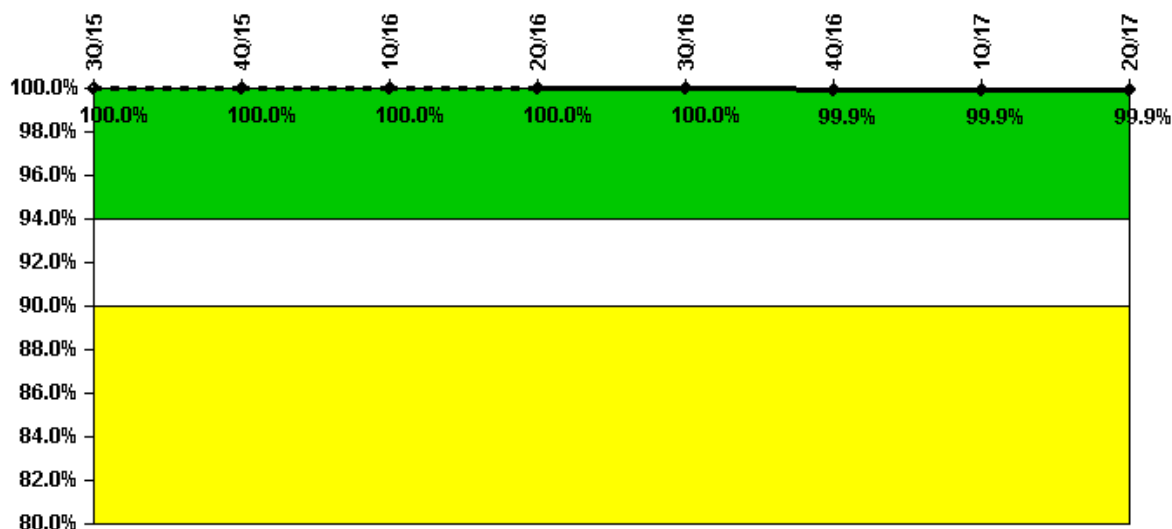
ERO Drill Participation	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17
Participating Key personnel	56.0	56.0	55.0	57.0	58.0	56.0	57.0	59.0
Total Key personnel	56.0	56.0	55.0	57.0	58.0	56.0	57.0	59.0

**Indicator value**                    **100.0% 100.0% 100.0% 100.0% 100.0% 100.0% 100.0% 100.0%**

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Licensee Comments: none

### Alert & Notification System



Thresholds: White < 94.0% Yellow < 90.0%

#### Notes

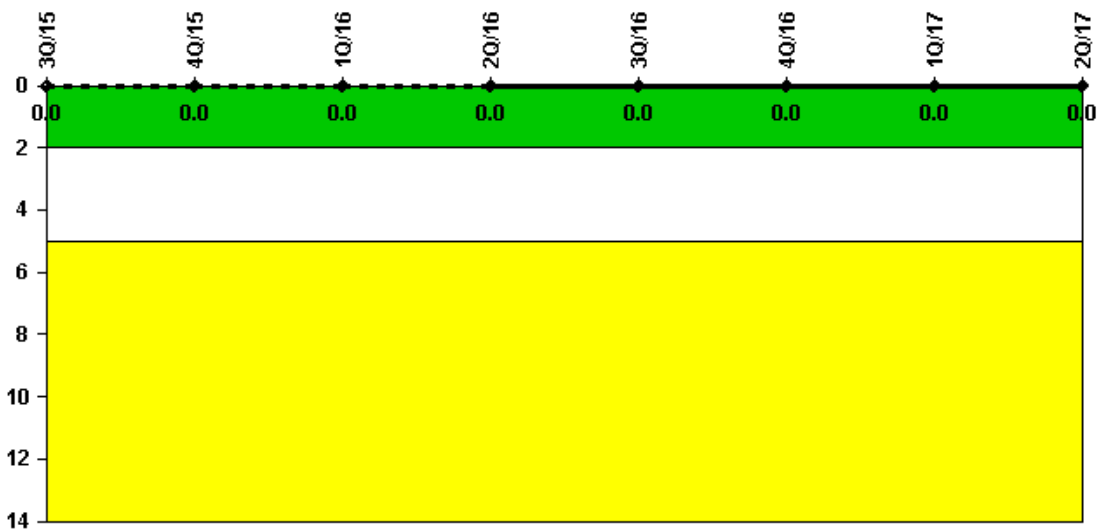
Alert & Notification System	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17
Successful siren-tests	826	885	826	826	826	883	824	825
Total sirens-tests	826	885	826	826	826	885	824	826

**Indicator value**                    **100.0% 100.0% 100.0% 100.0% 100.0% 99.9% 99.9% 99.9%**

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Licensee Comments: none

### Occupational Exposure Control Effectiveness



Thresholds: White > 2.0 Yellow > 5.0

**Notes**

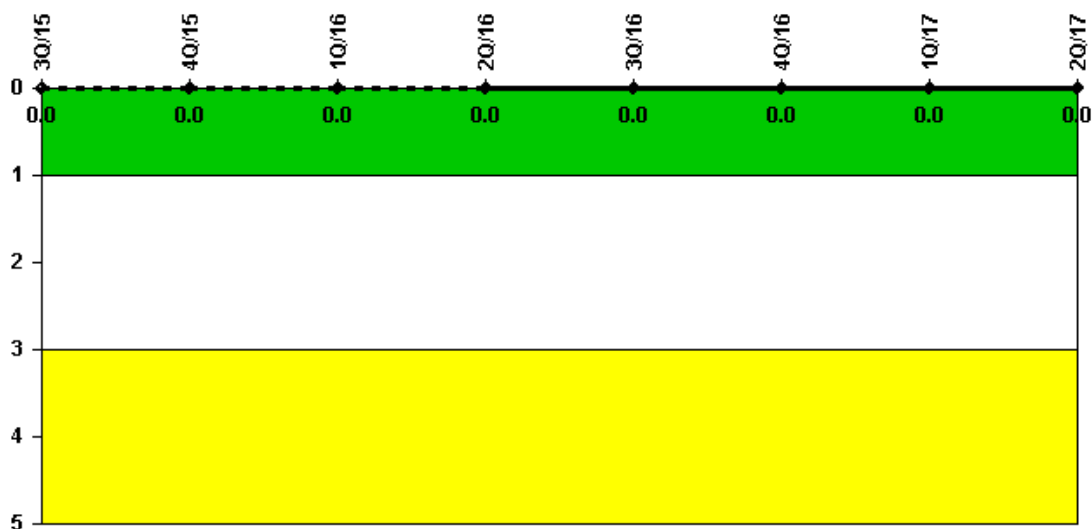
**Occupational Exposure Control Effectiveness** 3Q/15 4Q/15 1Q/16 2Q/16 3Q/16 4Q/16 1Q/17 2Q/17

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>	<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 3Q/15 4Q/15 1Q/16 2Q/16 3Q/16 4Q/16 1Q/17 2Q/17

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

**Indicator value**                            0    0    0    0    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: July 26, 2017*

*Page Last Reviewed/Updated Wednesday, June 07, 2017*