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## Pilgrim 1 – Quarterly Performance Indicators

### 4Q/2017 Performance Indicators

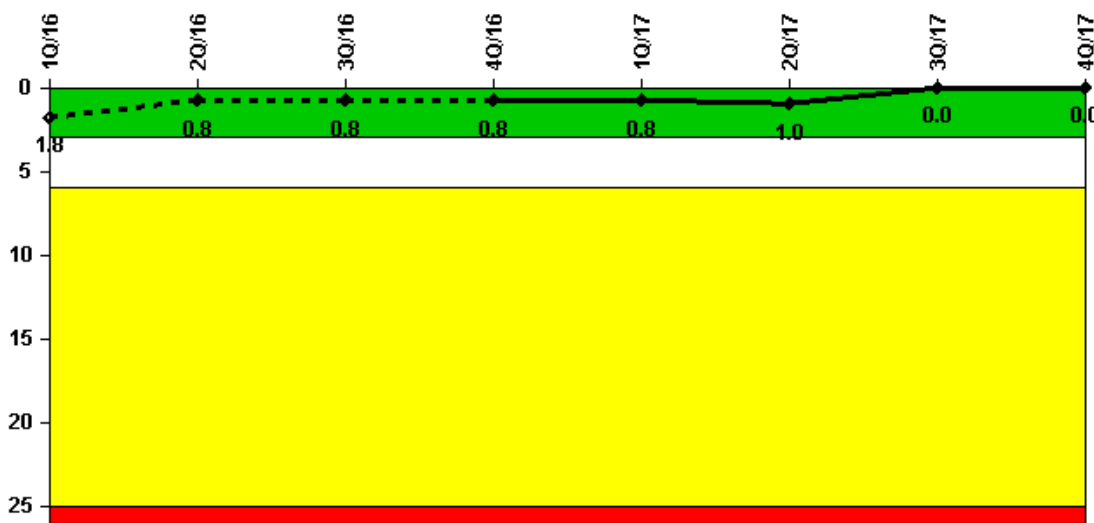
The solid trend line represents the current reporting period.

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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- Heat Removal Systems (MS08)
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- Cooling Water Systems (MS10)
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### Unplanned Scrams per 7000 Critical Hrs



Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

#### Notes

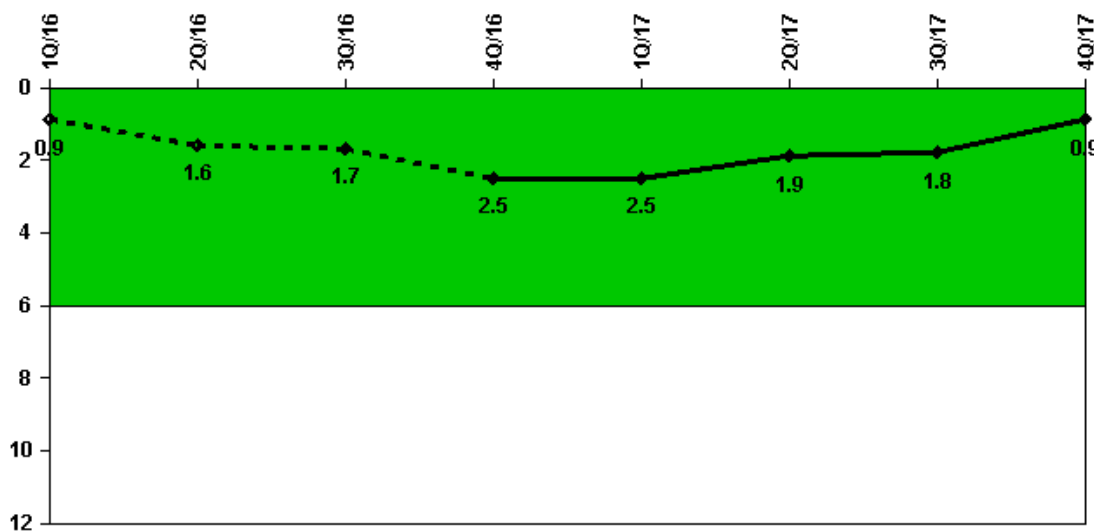
Unplanned Scrams per 7000 Critical Hrs	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17	3Q/17	4Q/17
Unplanned scrams	0	0	1.0	0	0	0	0	0
Critical hours	2137.9	2184.0	1918.2	2080.2	2098.0	1209.1	2208.0	2209.0

Indicator value	1.8	0.8	0.8	0.8	0.8	1.0	0	0
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Licensee Comments: none

### Unplanned Power Changes per 7000 Critical Hrs



Thresholds: White > 6.0

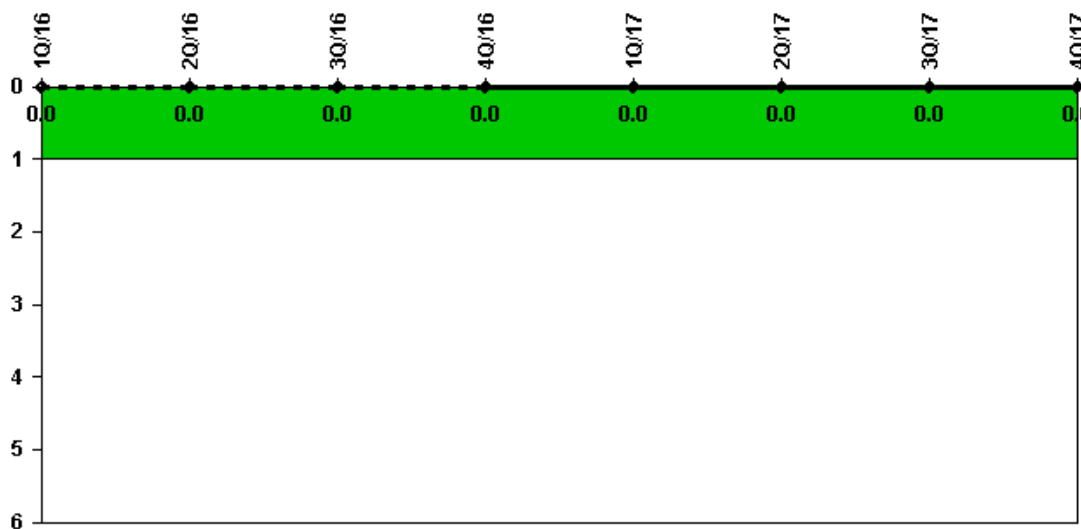
**Notes**

Unplanned Power Changes per 7000 Critical Hrs	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17	3Q/17	4Q/17
Unplanned power changes	1.0	1.0	0	1.0	1.0	0	0	0
Critical hours	2137.9	2184.0	1918.2	2080.2	2098.0	1209.1	2208.0	2209.0
<b>Indicator value</b>	<b>0.9</b>	<b>1.6</b>	<b>1.7</b>	<b>2.5</b>	<b>2.5</b>	<b>1.9</b>	<b>1.8</b>	<b>0.9</b>

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Licensee Comments: none

**Unplanned Scrams with Complications**



Thresholds: White > 1.0

**Notes**

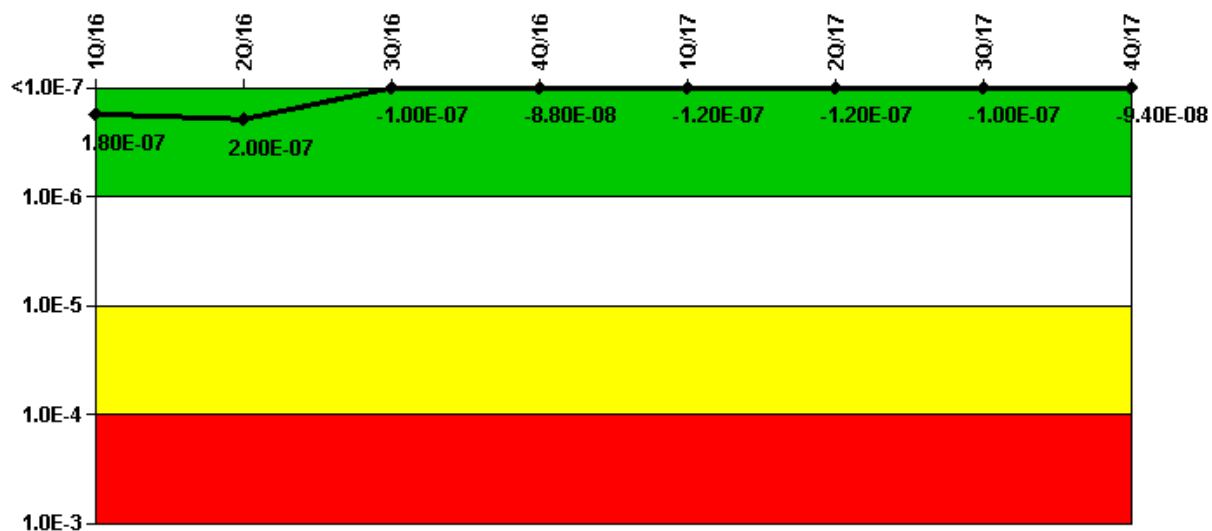
Unplanned Scrams with Complications	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17	3Q/17	4Q/17
Scrams with complications	0	0	0	0	0	0	0	0
<b>Indicator value</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>

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Licensee Comments: none



### 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**

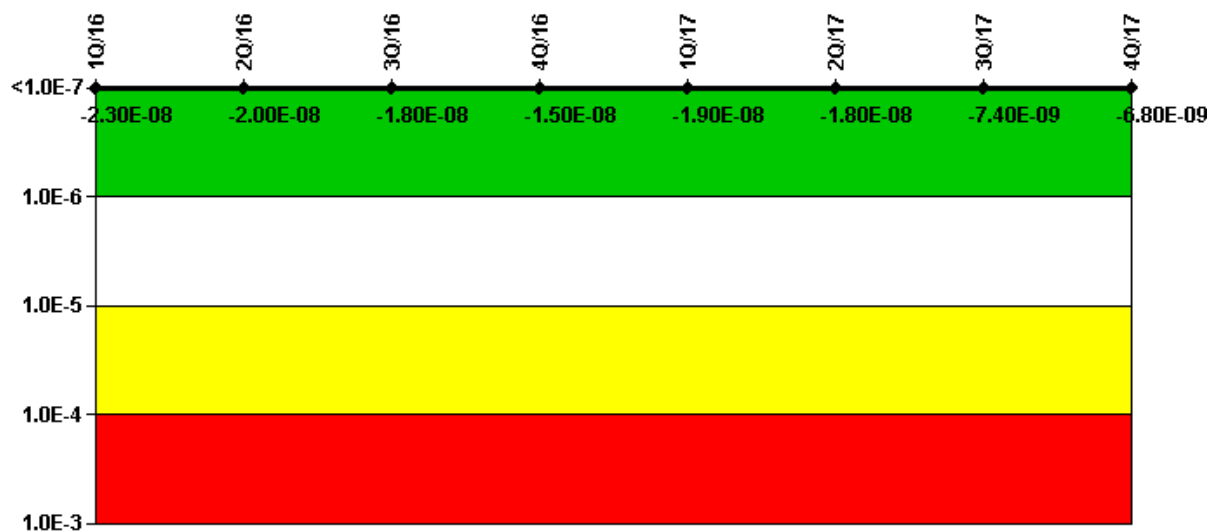
	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17	3Q/17	4Q/17
UAI (ΔCDF)	1.68E-08	3.72E-08	3.79E-08	3.96E-08	1.36E-08	1.48E-08	3.66E-08	4.43E-08
URI (ΔCDF)	1.64E-07	1.66E-07	-1.39E-07	-1.28E-07	-1.36E-07	-1.38E-07	-1.38E-07	-1.38E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
<b>Indicator value</b>	<b>1.80E-07</b>	<b>2.00E-07</b>	<b>-1.00E-07</b>	<b>-8.80E-08</b>	<b>-1.20E-07</b>	<b>-1.20E-07</b>	<b>-1.00E-07</b>	<b>-9.40E-08</b>

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Licensee Comments:

3Q/16: Removed 3rd quarter EDG A radiator gearbox MSPI failure.

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



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

**Notes**

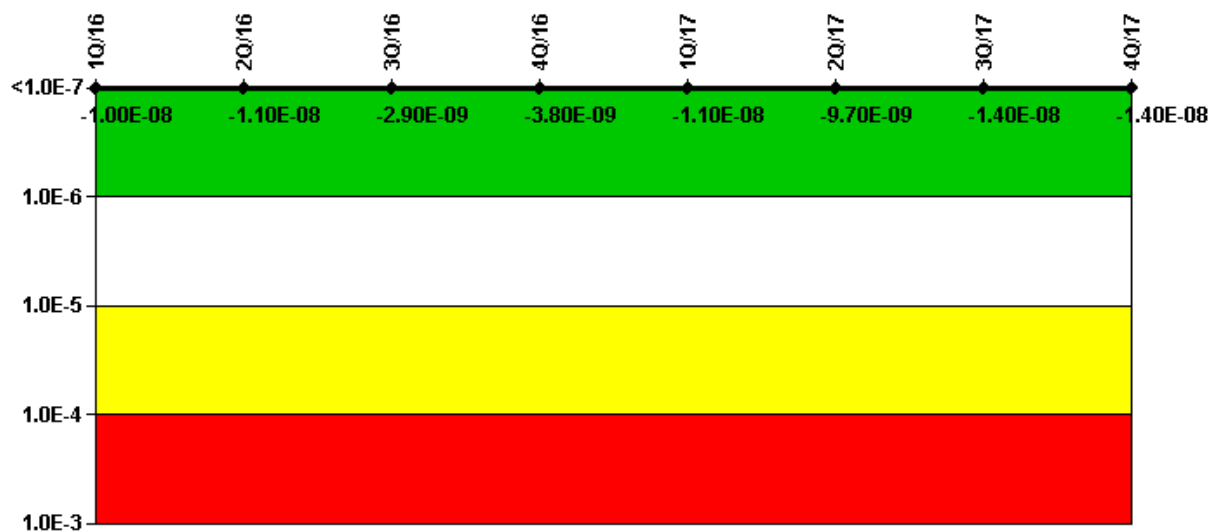
**Mitigating Systems Performance Index, High Pressure Injection System**

	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17	3Q/17	4Q/17
UAI ( $\Delta$ CDF)	-3.45E-09	-2.25E-09	-7.87E-10	2.60E-09	-1.32E-09	8.35E-10	1.19E-08	1.26E-08
URI ( $\Delta$ CDF)	-1.95E-08	-1.77E-08	-1.68E-08	-1.75E-08	-1.79E-08	-1.87E-08	-1.94E-08	-1.94E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
<b>Indicator value</b>	<b>-2.30E-08</b>	<b>-2.00E-08</b>	<b>-1.80E-08</b>	<b>-1.50E-08</b>	<b>-1.90E-08</b>	<b>-1.80E-08</b>	<b>-7.40E-09</b>	<b>-6.80E-09</b>

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Licensee Comments: none

### Mitigating Systems Performance Index, Heat Removal System



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

**Notes**

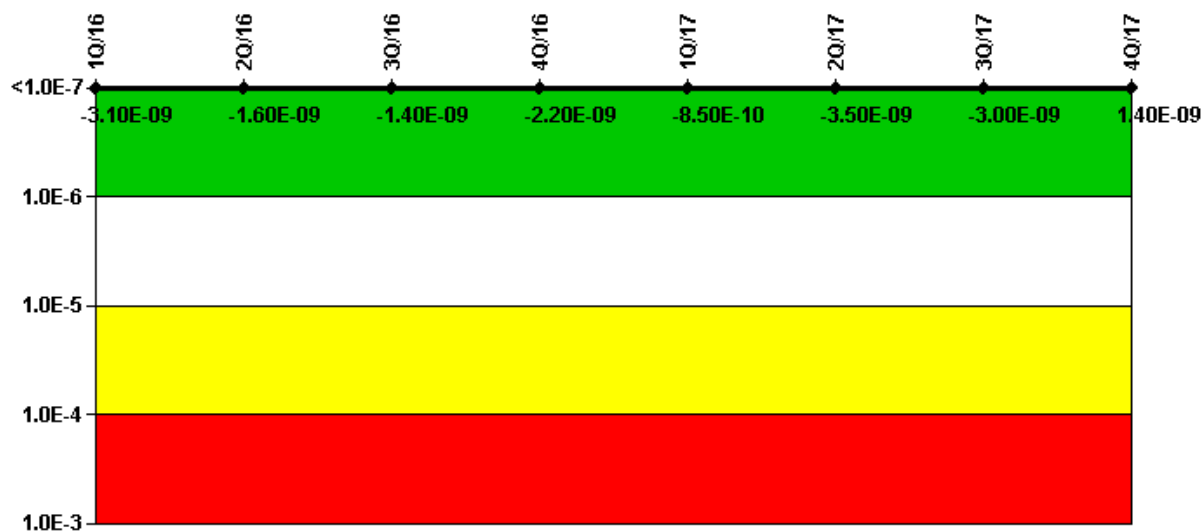
**Mitigating Systems Performance Index, Heat Removal System**

	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17	3Q/17	4Q/17
UAI ( $\Delta$ CDF)	4.90E-09	3.66E-09	1.03E-08	8.69E-09	1.69E-09	3.41E-09	-1.34E-09	-7.57E-10
URI ( $\Delta$ CDF)	-1.52E-08	-1.46E-08	-1.31E-08	-1.25E-08	-1.23E-08	-1.31E-08	-1.29E-08	-1.31E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
<b>Indicator value</b>	<b>-1.00E-08</b>	<b>-1.10E-08</b>	<b>-2.90E-09</b>	<b>-3.80E-09</b>	<b>-1.10E-08</b>	<b>-9.70E-09</b>	<b>-1.40E-08</b>	<b>-1.40E-08</b>

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Licensee Comments: none

### 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**

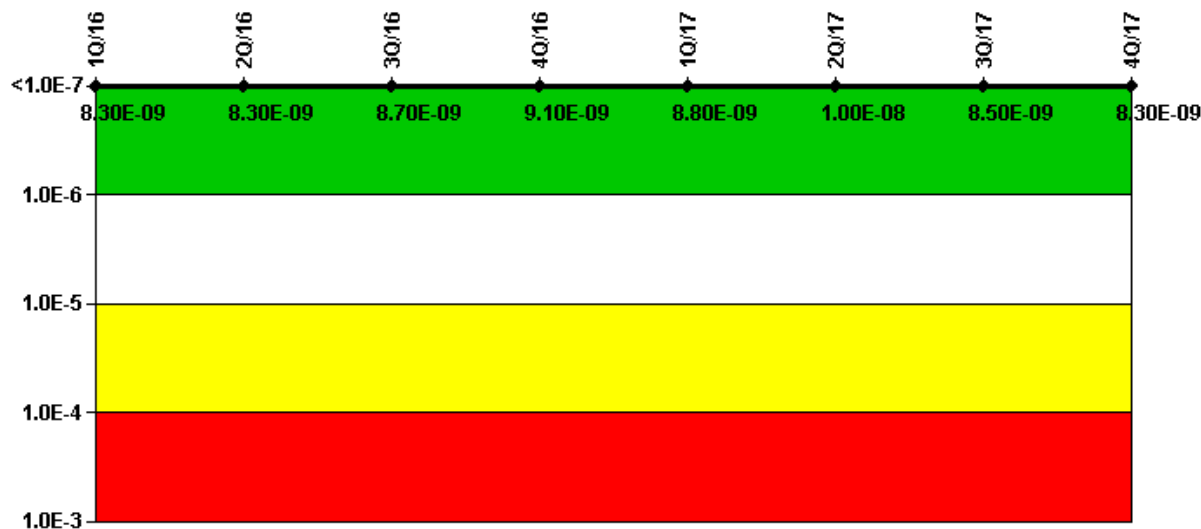
	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17	3Q/17	4Q/17
UAI (ΔCDF)	9.94E-10	2.36E-09	2.61E-09	1.83E-09	3.32E-09	9.33E-10	1.37E-09	5.80E-09
URI (ΔCDF)	-4.14E-09	-3.92E-09	-4.00E-09	-4.01E-09	-4.17E-09	-4.41E-09	-4.40E-09	-4.42E-09
PLE	NO	NO	NO	NO	NO	NO	NO	NO
<b>Indicator value</b>	<b>-3.10E-09</b>	<b>-1.60E-09</b>	<b>-1.40E-09</b>	<b>-2.20E-09</b>	<b>-8.50E-10</b>	<b>-3.50E-09</b>	<b>-3.00E-09</b>	<b>1.40E-09</b>

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Licensee Comments: none



### 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**

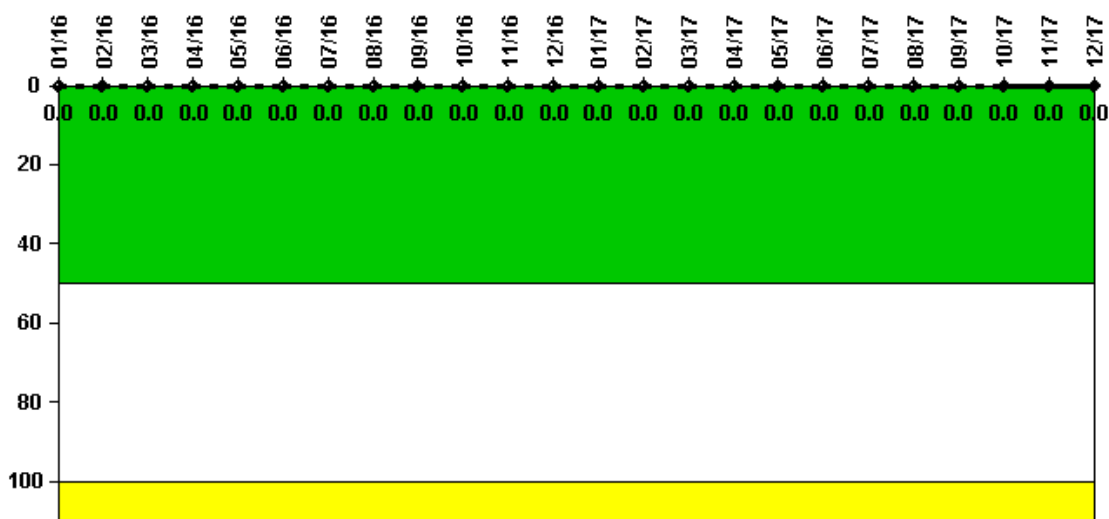
	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17	3Q/17	4Q/17
UAI ( $\Delta$ CDF)	9.24E-09	9.10E-09	9.52E-09	9.98E-09	9.69E-09	1.08E-08	9.03E-09	8.84E-09
URI ( $\Delta$ CDF)	-9.74E-10	-8.46E-10	-8.38E-10	-8.44E-10	-8.47E-10	-7.05E-10	-5.57E-10	-5.45E-10
PLE	NO	NO	NO	NO	NO	NO	NO	NO

**Indicator value** 8.30E-09 8.30E-09 8.70E-09 9.10E-09 8.80E-09 1.00E-08 8.50E-09 8.30E-09

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Licensee Comments: none

### Reactor Coolant System Activity



Thresholds: White > 50.0 Yellow > 100.0

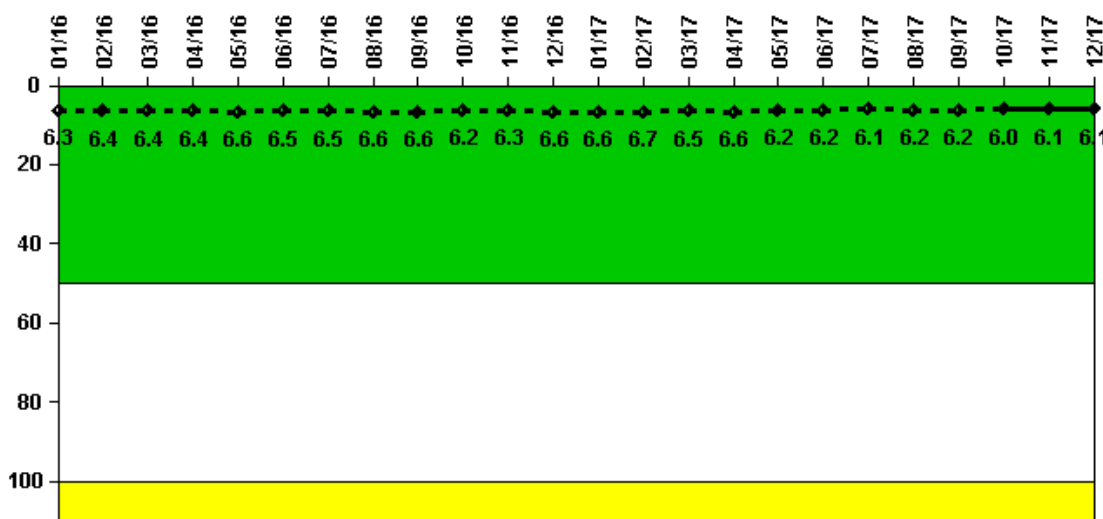
**Notes**

Reactor Coolant System Activity	1/16	2/16	3/16	4/16	5/16	6/16	7/16	8/16	9/16	10/16	11/16	12/16
Maximum activity	0.000122	0.000118	0.000113	0.000111	0.000162	0.000143	0.000151	0.000198	0.000214	0.000137	0.000171	0.000174
Technical specification limit	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
<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>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Reactor Coolant System Activity	1/17	2/17	3/17	4/17	5/17	6/17	7/17	8/17	9/17	10/17	11/17	12/17
Maximum activity	0.000185	0.000240	0.000143	0.000131	0.000074	0.000113	0.000113	0.000109	0.000233	0.000173	0.000190	0.000190
Technical specification limit	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
<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>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

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Licensee Comments: none

### Reactor Coolant System Leakage



Thresholds: White > 50.0 Yellow > 100.0

**Notes**

Reactor Coolant System Leakage	1/16	2/16	3/16	4/16	5/16	6/16	7/16	8/16	9/16	10/16	11/16	12/16
Maximum leakage	1.570	1.590	1.590	1.600	1.650	1.630	1.620	1.660	1.660	1.550	1.580	1.650
Technical specification limit	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0

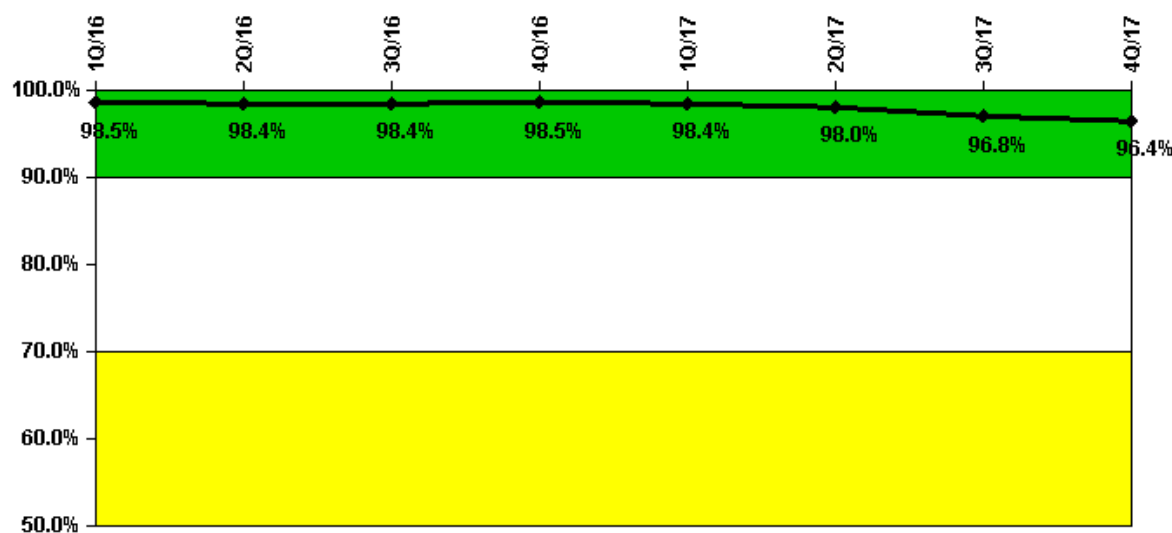
Indicator value	6.3	6.4	6.4	6.4	6.6	6.5	6.5	6.6	6.6	6.2	6.3	6.6
Reactor Coolant System Leakage	1/17	2/17	3/17	4/17	5/17	6/17	7/17	8/17	9/17	10/17	11/17	12/17
Maximum leakage	1.640	1.670	1.620	1.640	1.540	1.540	1.530	1.550	1.550	1.510	1.530	1.530
Technical specification limit	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0

Indicator value	6.6	6.7	6.5	6.6	6.2	6.2	6.1	6.2	6.2	6.0	6.1	6.1
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Licensee Comments: none

### Drill/Exercise Performance



Thresholds: White < 90.0% Yellow < 70.0%

#### Notes

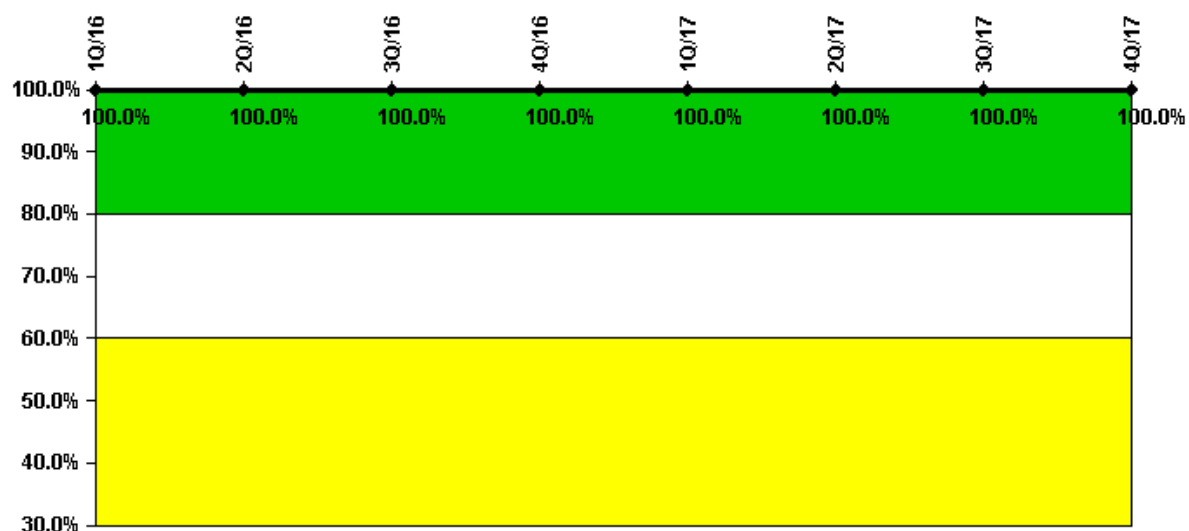
Drill/Exercise Performance	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17	3Q/17	4Q/17
Successful opportunities	22.0	40.0	46.0	38.0	21.0	20.0	47.0	37.0
Total opportunities	22.0	41.0	48.0	39.0	21.0	22.0	49.0	39.0

**Indicator value**                    **98.5% 98.4% 98.4% 98.5% 98.4% 98.0% 96.8% 96.4%**

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Licensee Comments: none

### ERO Drill Participation



Thresholds: White < 80.0% Yellow < 60.0%

**Notes**

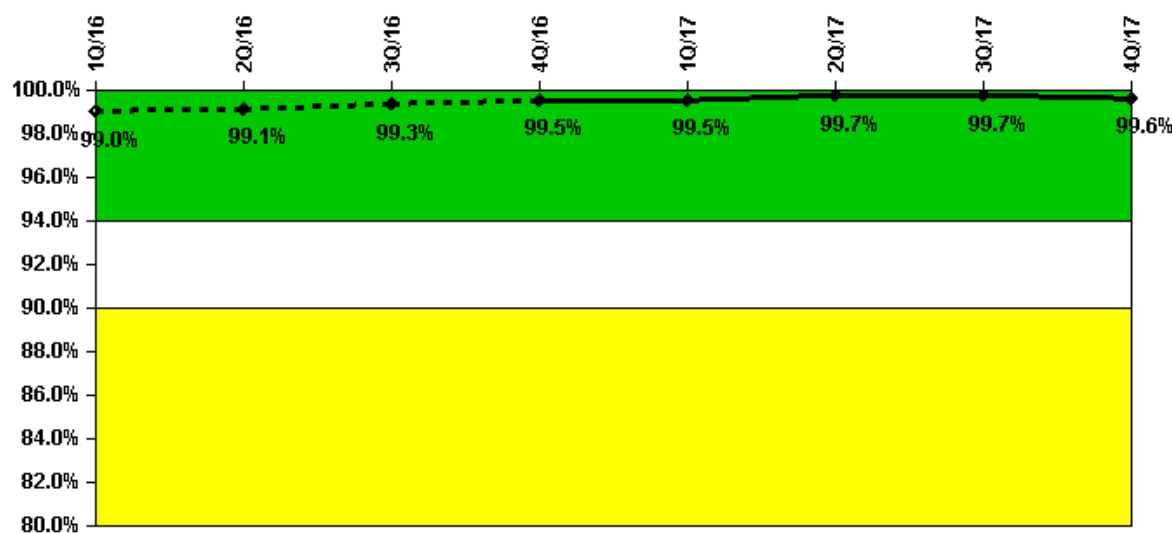
ERO Drill Participation	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17	3Q/17	4Q/17
Participating Key personnel	74.0	77.0	77.0	78.0	78.0	76.0	80.0	75.0
Total Key personnel	74.0	77.0	77.0	78.0	78.0	76.0	80.0	75.0

**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

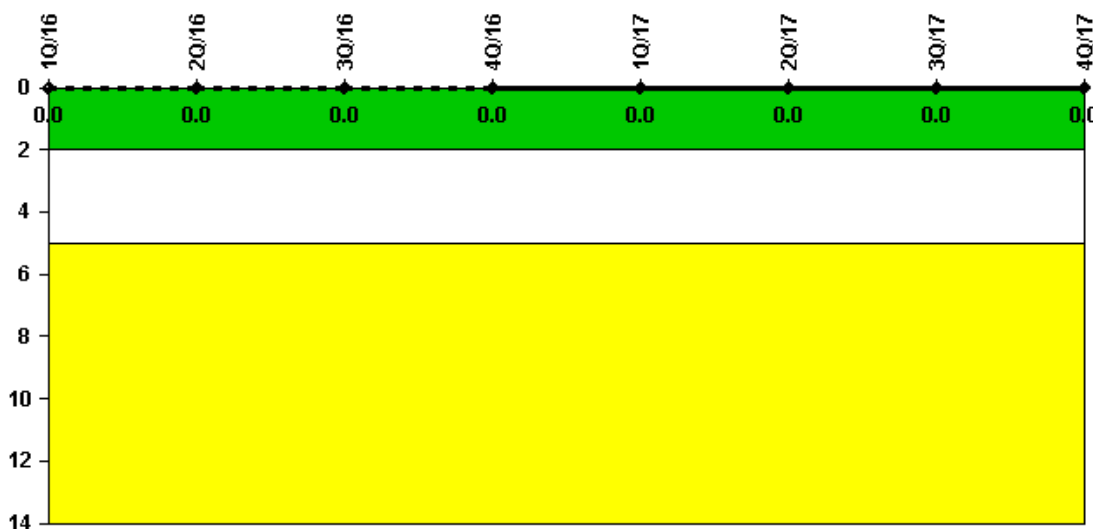
Alert & Notification System	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17	3Q/17	4Q/17
Successful siren-tests	336	336	337	452	337	338	337	451
Total sirens-tests	339	339	339	452	339	339	339	452

Indicator value                    99.0% 99.1% 99.3% 99.5% 99.5% 99.7% 99.7% 99.6%

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Licensee Comments: none

### Occupational Exposure Control Effectiveness



Thresholds: White > 2.0 Yellow > 5.0

**Notes**

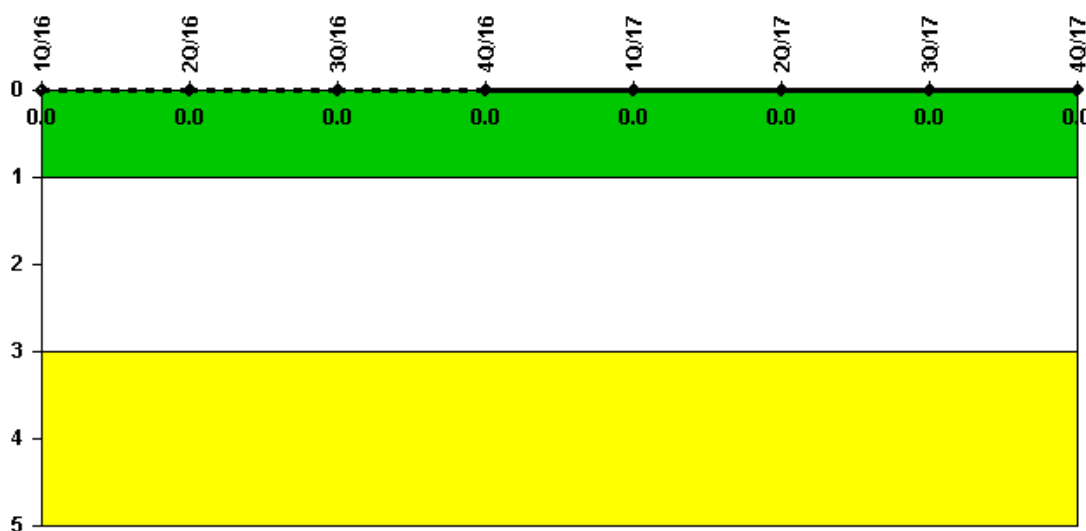
**Occupational Exposure Control Effectiveness** 1Q/16 2Q/16 3Q/16 4Q/16 1Q/17 2Q/17 3Q/17 4Q/17

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** 1Q/16 2Q/16 3Q/16 4Q/16 1Q/17 2Q/17 3Q/17 4Q/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: February 1, 2018

Page Last Reviewed/Updated Monday, November 06, 2017