



Home > Nuclear Reactors > Operating Reactors > Reactor Oversight Process > Plant Summaries> Three Mile Island 1 > Quarterly Performance Indicators

## Three Mile Island 1 – Quarterly Performance Indicators

### 2Q/2017 Performance Indicators

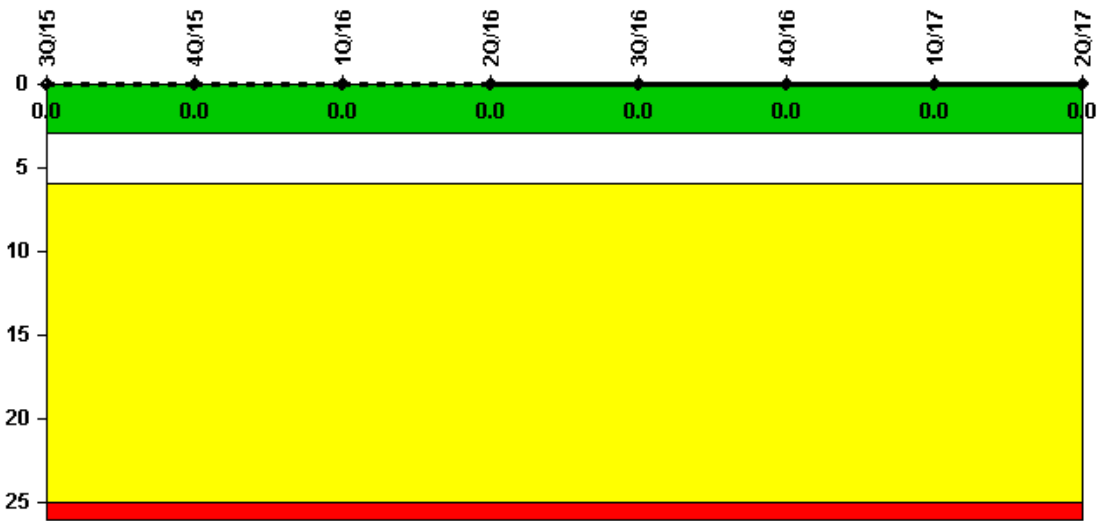
The solid trend line represents the current reporting period.

Licensee's General Comments: none

On this page:

- Unplanned Scrams (IE01)
- Unplanned Power Changes per 7000 Critical Hours (IE03)
- Unplanned Scrams with Complications (IE04)
- Safety System Functional Failures (MS05)
- Emergency AC Power Systems (MS06)
- High Pressure Injection Systems (MS07)
- Heat Removal Systems (MS08)
- Residual Heat Removal Systems (MS09)
- Cooling Water Systems (MS10)
- Reactor Coolant System Activity (BI01)
- Reactor Coolant System Leakage (BI02)
- Drill/Exercise Performance (EP01)
- Emergency Response Organization Drill Participation (EP02)
- Alert and Notification System Reliability (EP03)
- Occupational Exposure Control Effectiveness (OR01)
- RETS/OCDM Radiological Effluent Occurrence (PR01)
- Protected Area Equipment (PP01)

### Unplanned Scrams per 7000 Critical Hrs



Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

#### Notes

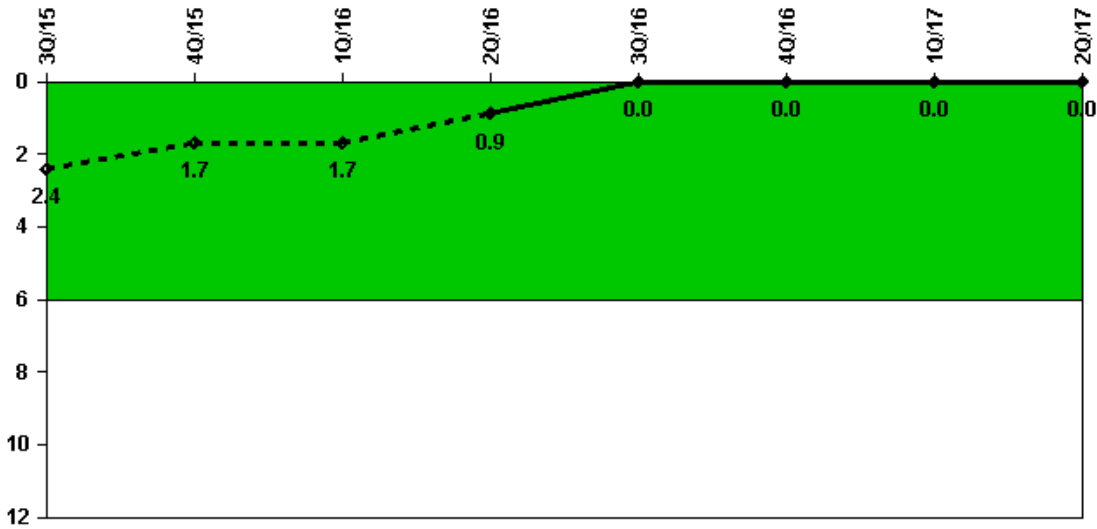
Unplanned Scrams per 7000 Critical Hrs	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17
Unplanned scrams	0	0	0	0	0	0	0	0
Critical hours	2208.0	1586.9	2183.0	2184.0	2208.0	1944.0	2159.0	2184.0

Indicator value	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17
	0	0	0	0	0	0	0	0

▲ TOP

Licensee Comments: none

### Unplanned Power Changes per 7000 Critical Hrs



Thresholds: White > 6.0

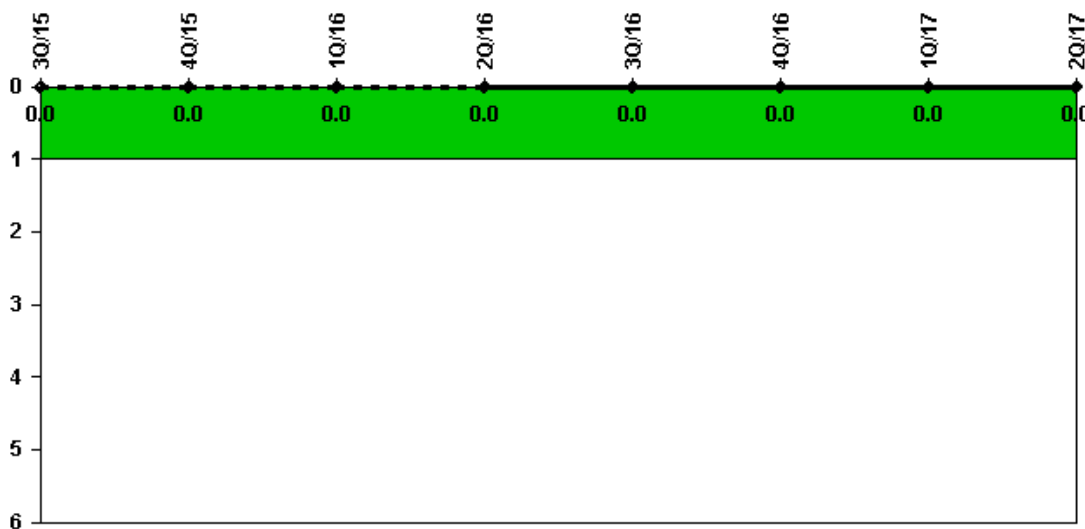
**Notes**

<b>Unplanned Power Changes per 7000 Critical Hrs</b>	<b>3Q/15</b>	<b>4Q/15</b>	<b>1Q/16</b>	<b>2Q/16</b>	<b>3Q/16</b>	<b>4Q/16</b>	<b>1Q/17</b>	<b>2Q/17</b>
Unplanned power changes	1.0	0	0	0	0	0	0	0
Critical hours	2208.0	1586.9	2183.0	2184.0	2208.0	1944.0	2159.0	2184.0
<b>Indicator value</b>	<b>2.4</b>	<b>1.7</b>	<b>1.7</b>	<b>0.9</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

▲ TOP

Licensee Comments: none

**Unplanned Scrams with Complications**



Thresholds: White > 1.0

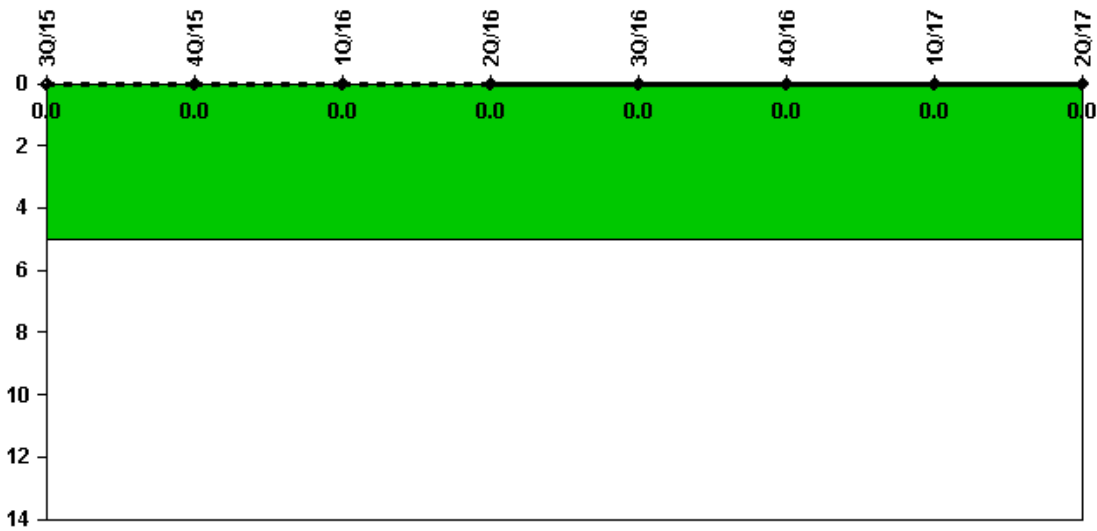
**Notes**

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

▲ TOP

Licensee Comments: none

### Safety System Functional Failures (PWR)



Thresholds: White > 5.0

#### Notes

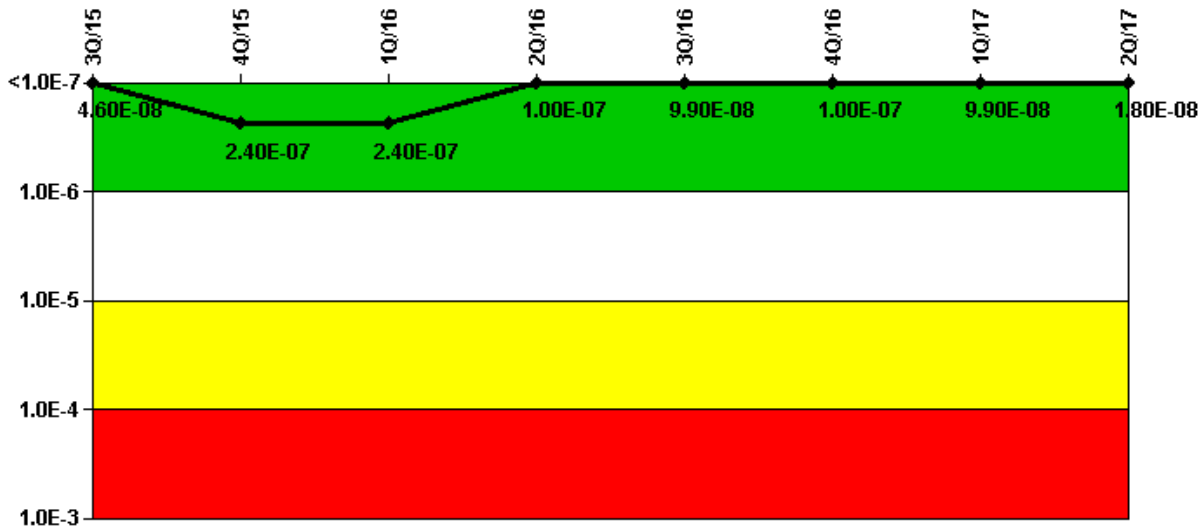
Safety System Functional Failures (PWR) 3Q/15 4Q/15 1Q/16 2Q/16 3Q/16 4Q/16 1Q/17 2Q/17  
 Safety System Functional Failures 0 0 0 0 0 0 0 0

Indicator value 0 0 0 0 0 0 0 0

▲ TOP

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**

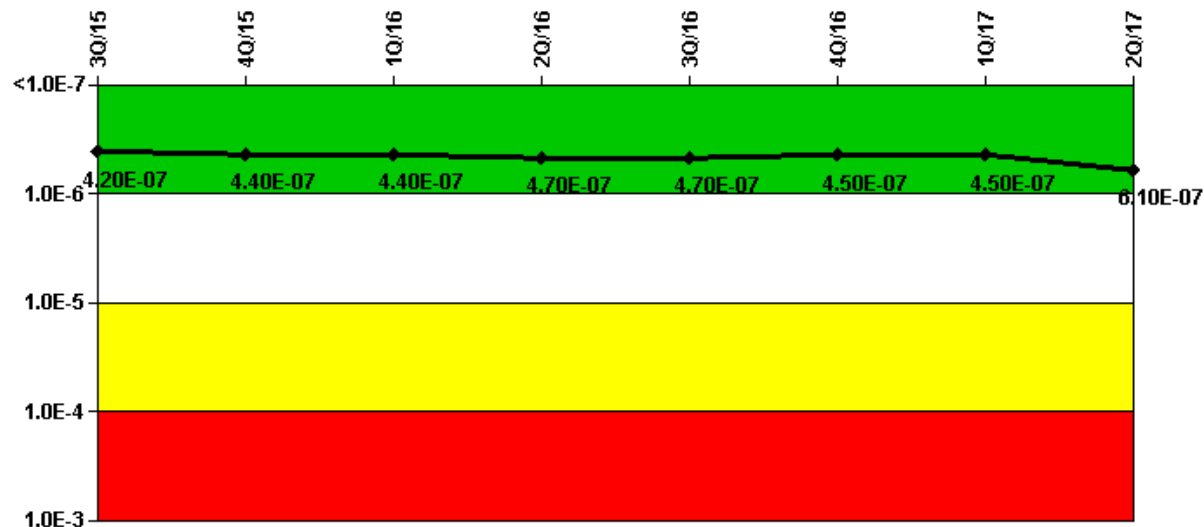
**Mitigating Systems Performance Index, Emergency AC Power System**

	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17
UAI (ΔCDF)	-2.18E-08	-1.68E-08	-1.68E-08	-6.80E-09	-6.80E-09	-6.84E-09	-6.84E-09	-2.82E-09
URI (ΔCDF)	6.82E-08	2.61E-07	2.61E-07	1.06E-07	1.06E-07	1.09E-07	1.05E-07	2.09E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
<b>Indicator value</b>	<b>4.60E-08</b>	<b>2.40E-07</b>	<b>2.40E-07</b>	<b>1.00E-07</b>	<b>9.90E-08</b>	<b>1.00E-07</b>	<b>9.90E-08</b>	<b>1.80E-08</b>

▲ TOP

Licensee Comments: none

**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 (ΔCDF)	4.71E-07	4.88E-07	4.93E-07	5.06E-07	5.06E-07	4.91E-07	4.88E-07	6.49E-07
URI (ΔCDF)	-5.10E-08	-5.10E-08	-5.10E-08	-4.05E-08	-4.05E-08	-4.05E-08	-4.05E-08	-4.05E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
<b>Indicator value</b>	<b>4.20E-07</b>	<b>4.40E-07</b>	<b>4.40E-07</b>	<b>4.70E-07</b>	<b>4.70E-07</b>	<b>4.50E-07</b>	<b>4.50E-07</b>	<b>6.10E-07</b>

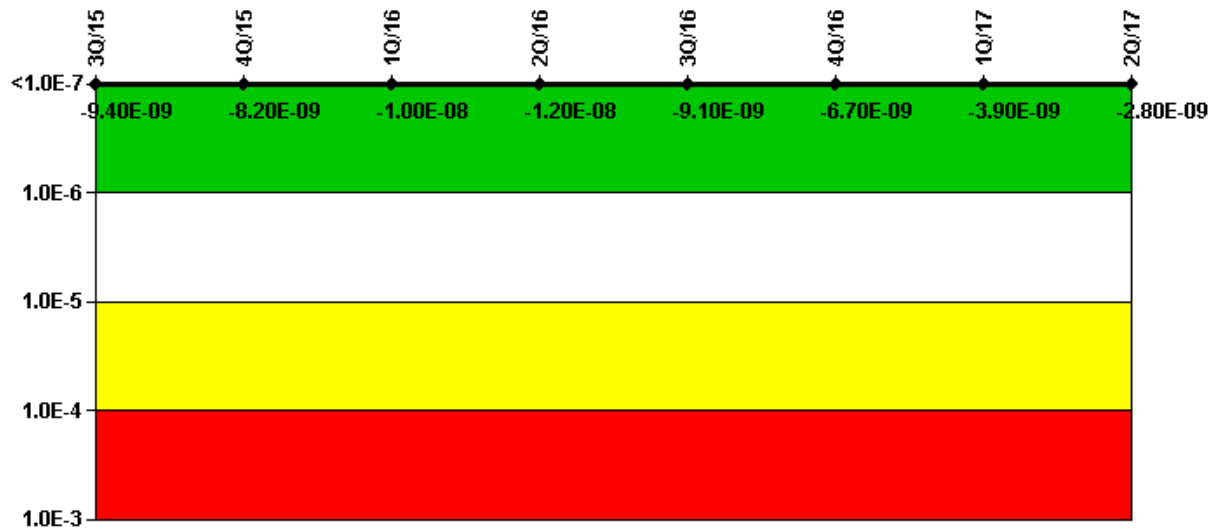
▲ TOP

Licensee Comments:

2Q/16: On 9/30/16 Unlocked MSPI to revise Unplanned UA and remove 12.4 hrs from MU-V-16AB and 0.9 hr from MU-V-16CD for

June 2016. Further engineering analysis determined that as-found void size was insufficient to cause HPI to be unable to fulfill its monitored functions.-SWD-9/30/16

### Mitigating Systems Performance Index, Heat Removal System



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

#### Notes

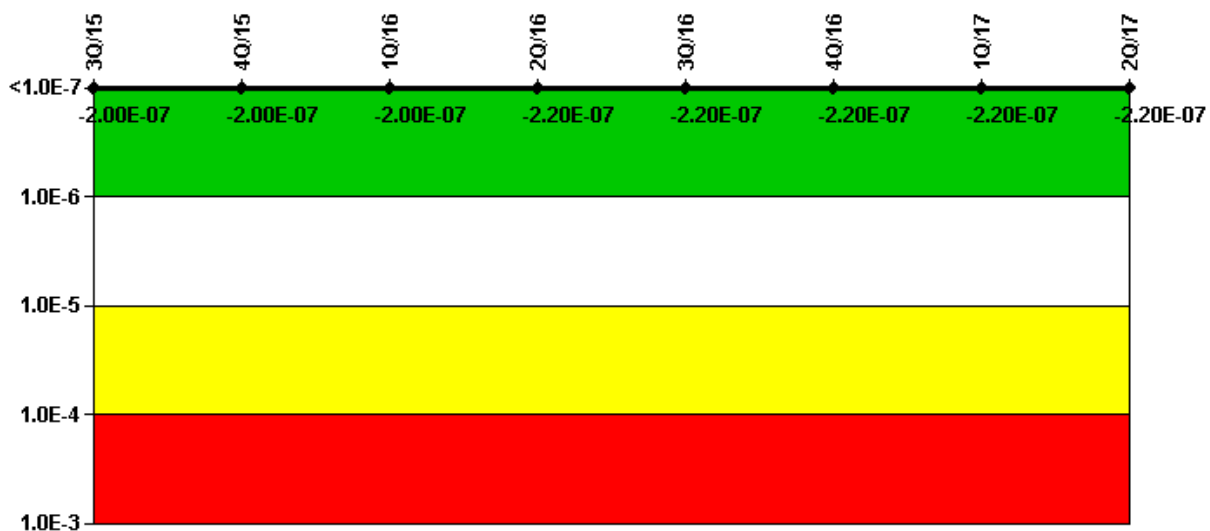
#### Mitigating Systems Performance Index, Heat Removal System

	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17
UAI ( $\Delta$ CDF)	4.19E-10	1.66E-09	-1.12E-10	-3.78E-10	2.90E-09	5.38E-09	8.15E-09	9.29E-09
URI ( $\Delta$ CDF)	-9.84E-09	-9.84E-09	-9.84E-09	-1.20E-08	-1.20E-08	-1.20E-08	-1.20E-08	-1.20E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
<b>Indicator value</b>	<b>-9.40E-09</b>	<b>-8.20E-09</b>	<b>-1.00E-08</b>	<b>-1.20E-08</b>	<b>-9.10E-09</b>	<b>-6.70E-09</b>	<b>-3.90E-09</b>	<b>-2.80E-09</b>

TOP

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**

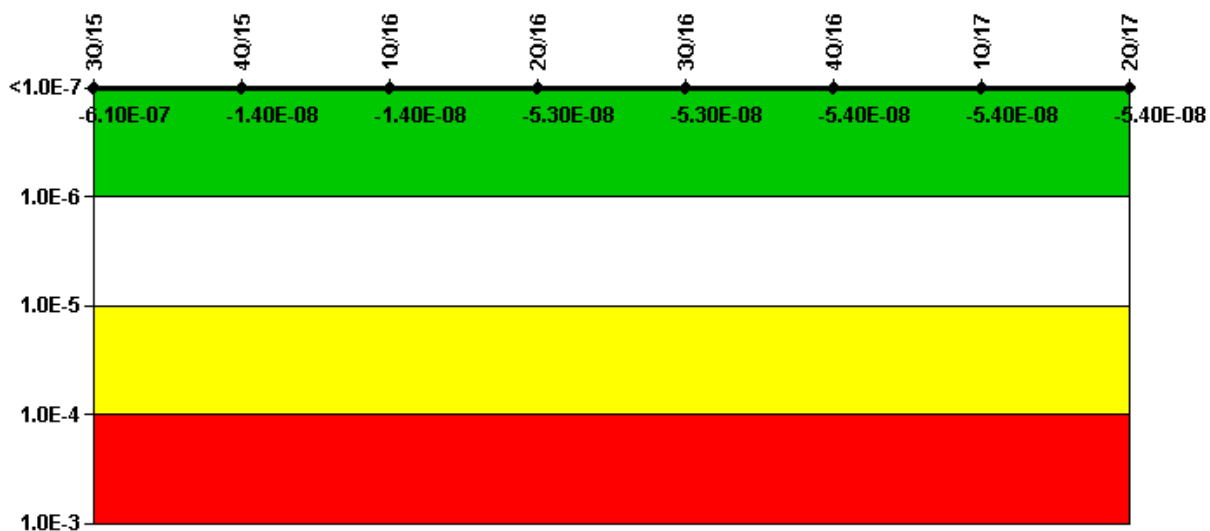
**Mitigating Systems Performance Index, Residual Heat Removal System**

	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17
UAI ( $\Delta$ CDF)	-3.22E-08	-3.22E-08	-3.22E-08	-3.78E-08	-3.78E-08	-3.78E-08	-3.78E-08	-3.78E-08
URI ( $\Delta$ CDF)	-1.63E-07	-1.63E-07	-1.63E-07	-1.80E-07	-1.80E-07	-1.80E-07	-1.80E-07	-1.80E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
<b>Indicator value</b>	<b>-2.00E-07</b>	<b>-2.00E-07</b>	<b>-2.00E-07</b>	<b>-2.20E-07</b>	<b>-2.20E-07</b>	<b>-2.20E-07</b>	<b>-2.20E-07</b>	<b>-2.20E-07</b>

▲ TOP

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**

	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17
UAI (ΔCDF)	-1.29E-08	7.54E-08	7.54E-08	6.14E-08	6.14E-08	6.01E-08	6.01E-08	6.02E-08
URI (ΔCDF)	-5.97E-07	-8.90E-08	-8.90E-08	-1.14E-07	-1.14E-07	-1.14E-07	-1.14E-07	-1.14E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
<b>Indicator value</b>	<b>-6.10E-07</b>	<b>-1.40E-08</b>	<b>-1.40E-08</b>	<b>-5.30E-08</b>	<b>-5.30E-08</b>	<b>-5.40E-08</b>	<b>-5.40E-08</b>	<b>-5.40E-08</b>

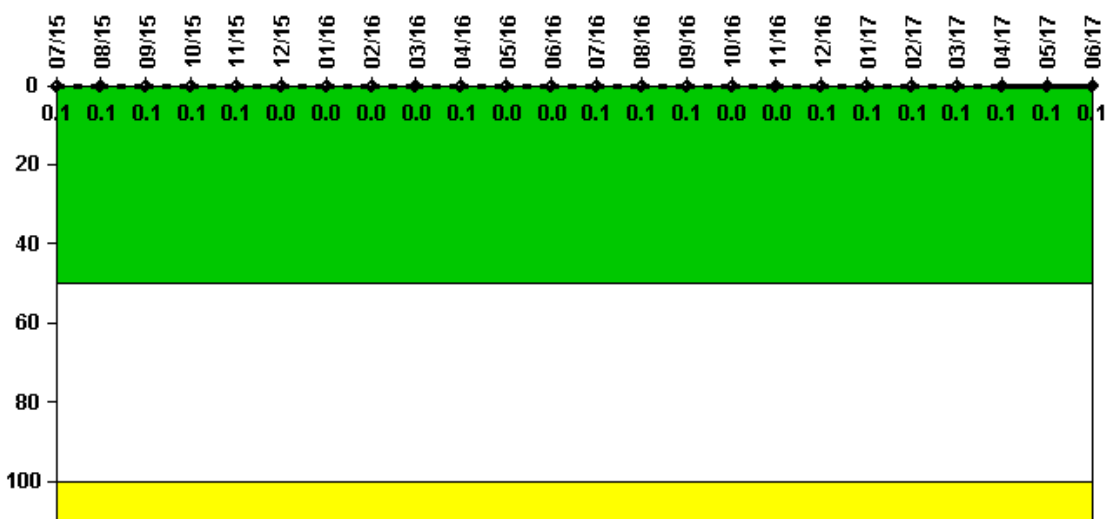
▲ TOP

Licensee Comments:

1Q/16: 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	0.000177	0.000195	0.000219	0.000189	0.000412	0.000139	0.000110	0.000135	0.000125	0.000178	0.000128	0.000144
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	0.1	0.1	0.1	0.1	0	0	0	0	0.1	0	0

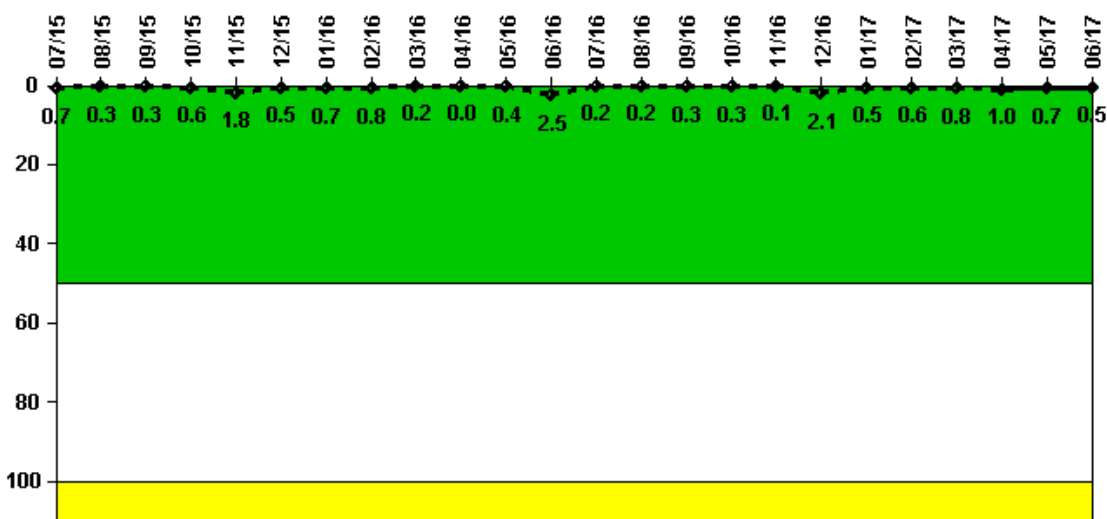
  

Reactor Coolant System Activity	7/16	8/16	9/16	10/16	11/16	12/16	1/17	2/17	3/17	4/17	5/17	6/17
Maximum activity	0.000304	0.000289	0.000304	0.000156	0.000140	0.000175	0.000176	0.000210	0.000199	0.000205	0.000195	0.000187
Technical specification limit	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Indicator value	0.1	0.1	0.1	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1

▲ TOP

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	0.071	0.025	0.025	0.056	0.182	0.052	0.068	0.078	0.017	0.002	0.037	0.254
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

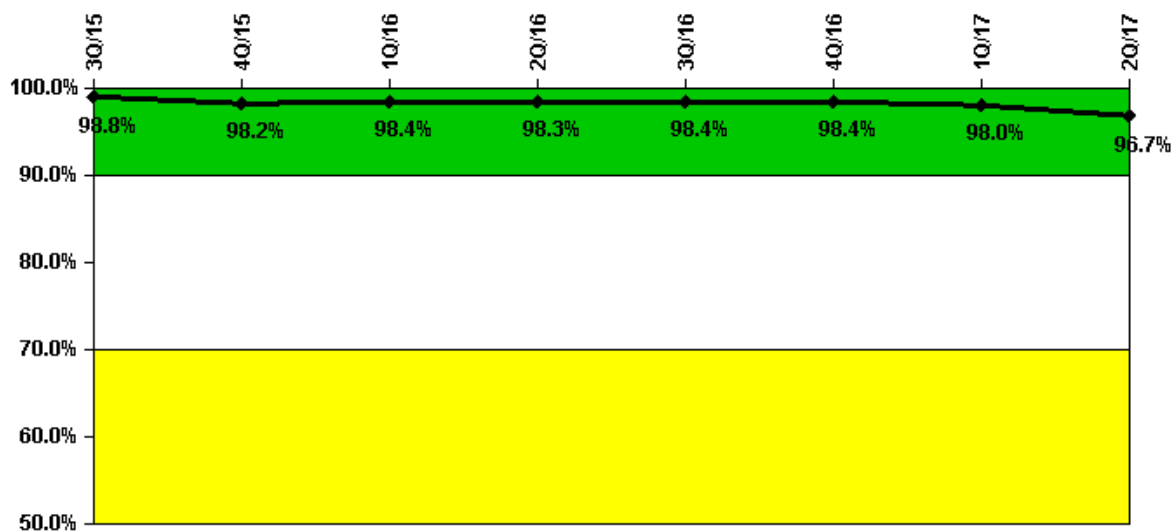
Indicator value	0.7	0.3	0.3	0.6	1.8	0.5	0.7	0.8	0.2	0	0.4	2.5
Reactor Coolant System Leakage	7/16	8/16	9/16	10/16	11/16	12/16	1/17	2/17	3/17	4/17	5/17	6/17
Maximum leakage	0.024	0.020	0.031	0.028	0.013	0.207	0.052	0.060	0.084	0.102	0.066	0.050
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0

Indicator value	0.2	0.2	0.3	0.3	0.1	2.1	0.5	0.6	0.8	1.0	0.7	0.5
-----------------	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

▲ TOP

Licensee Comments: none

### Drill/Exercise Performance



Thresholds: White < 90.0% Yellow < 70.0%

#### Notes

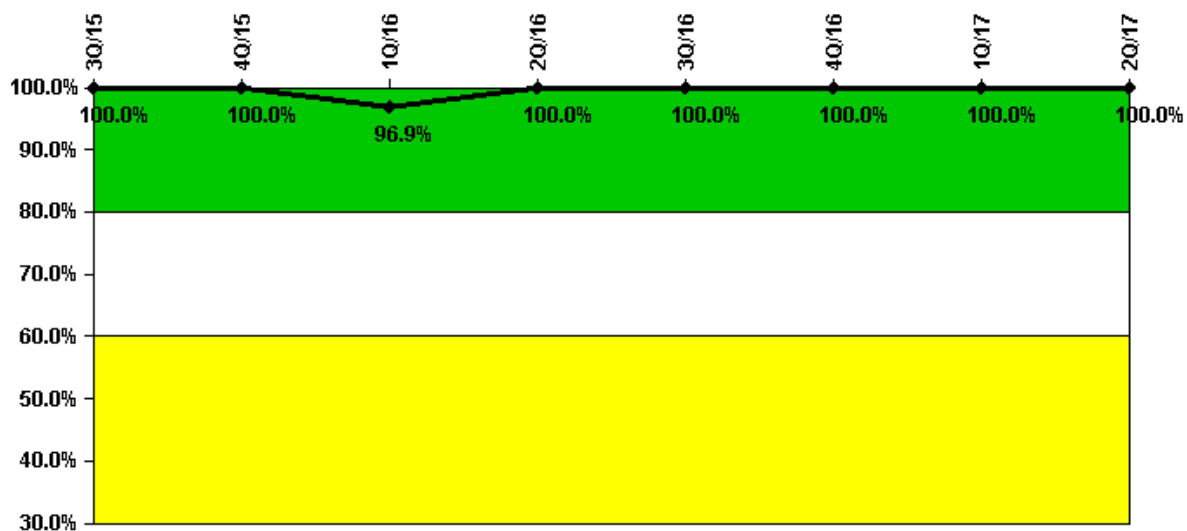
Drill/Exercise Performance	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17
Successful opportunities	24.0	19.0	62.0	59.0	13.0	18.0	55.0	44.0
Total opportunities	24.0	21.0	62.0	61.0	14.0	18.0	56.0	48.0

**Indicator value**                    **98.8% 98.2% 98.4% 98.3% 98.4% 98.4% 98.0% 96.7%**

▲ TOP

Licensee Comments: none

### ERO Drill Participation



Thresholds: White < 80.0% Yellow < 60.0%

#### Notes

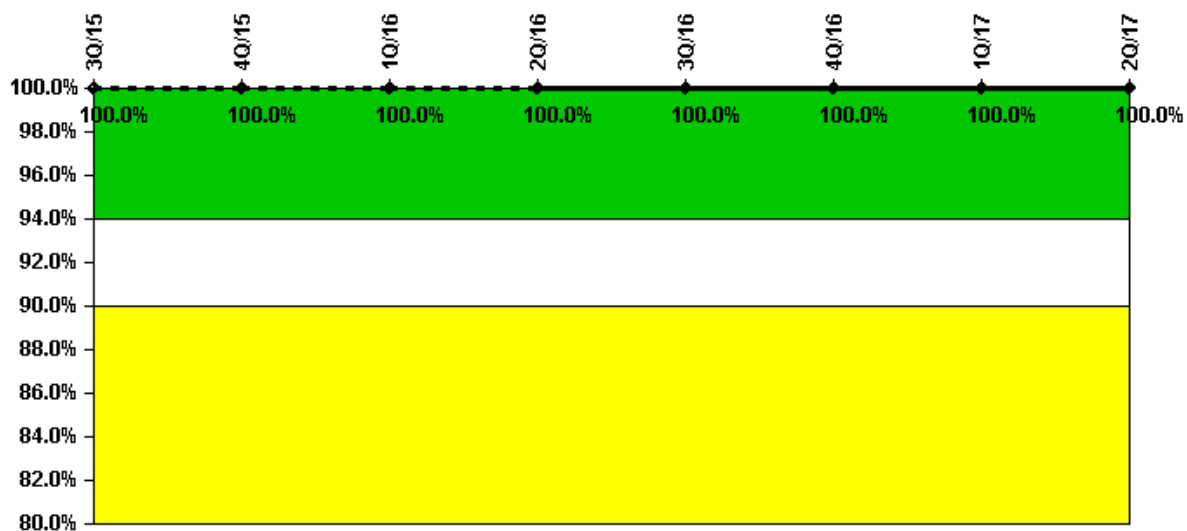
ERO Drill Participation	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17
Participating Key personnel	59.0	60.0	62.0	65.0	67.0	67.0	65.0	70.0
Total Key personnel	59.0	60.0	64.0	65.0	67.0	67.0	65.0	70.0

**Indicator value**                    **100.0% 100.0% 96.9% 100.0% 100.0% 100.0% 100.0% 100.0%**

▲ TOP

Licensee Comments: none

### Alert & Notification System



Thresholds: White < 94.0% Yellow < 90.0%

#### Notes

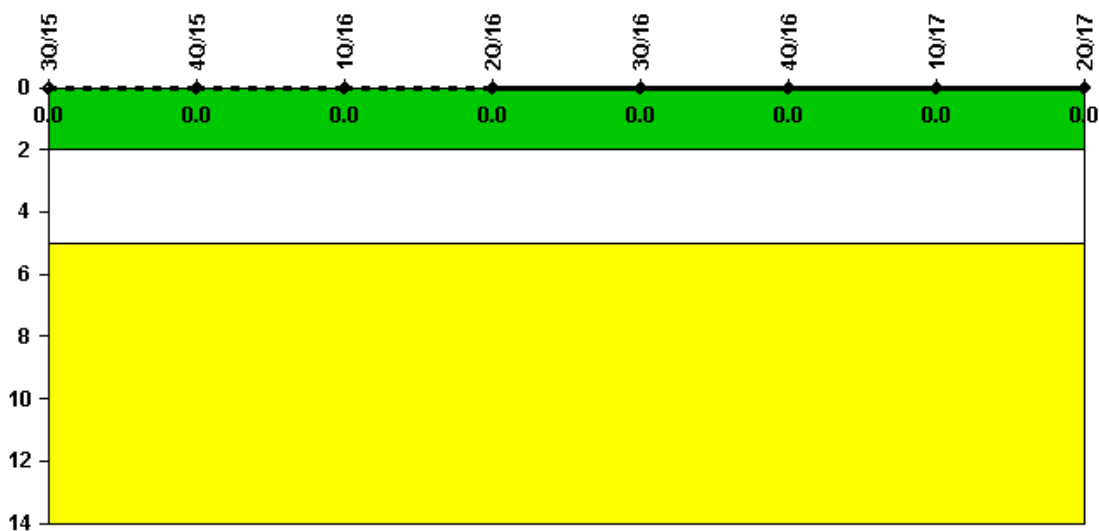
Alert & Notification System	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17
Successful siren-tests	1247	1344	1248	1248	1248	1247	1248	1247
Total sirens-tests	1248	1344	1248	1248	1248	1248	1248	1248

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

▲ TOP

Licensee Comments: none

### Occupational Exposure Control Effectiveness



Thresholds: White > 2.0 Yellow > 5.0

**Notes**

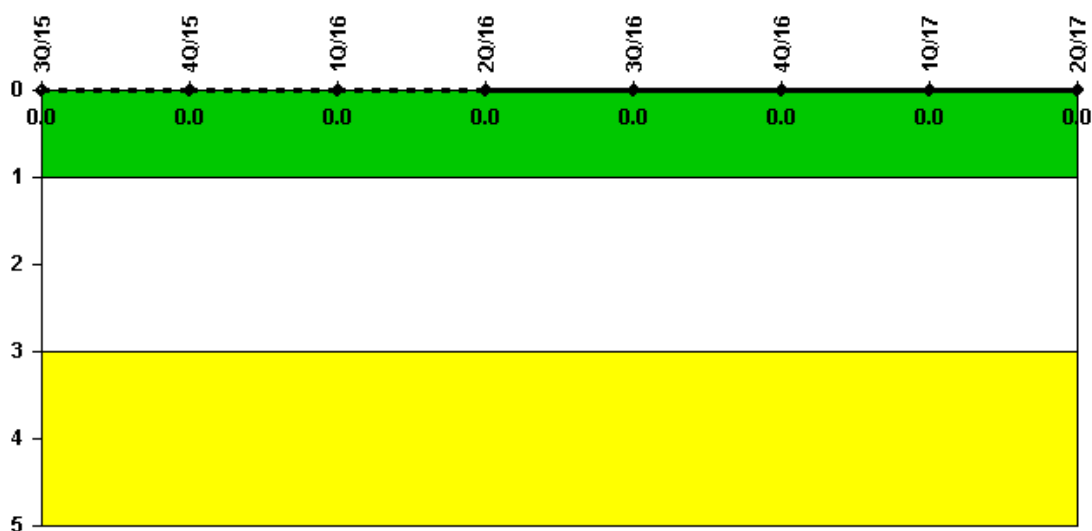
**Occupational Exposure Control Effectiveness** 3Q/15 4Q/15 1Q/16 2Q/16 3Q/16 4Q/16 1Q/17 2Q/17

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>

▲ TOP

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

[TOP](#)

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