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River Bend 1 – Quarterly Performance Indicators

1Q/2017 Performance Indicators

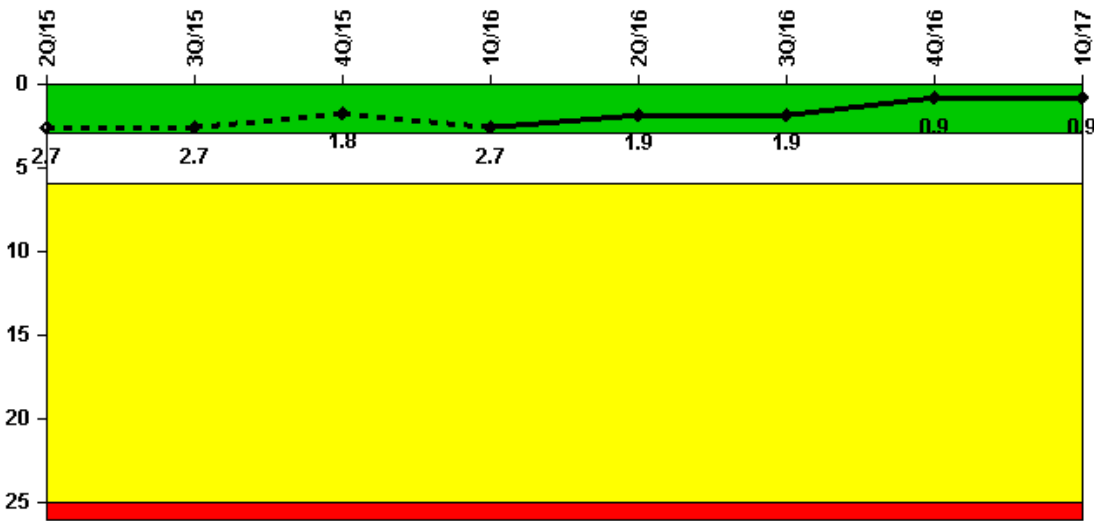
The solid trend line represents the current reporting period.

Licensee's General Comments: none

On this page:

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- Unplanned Power Changes per 7000 Critical Hours (IE03)
- Unplanned Scrams with Complications (IE04)
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- Emergency AC Power Systems (MS06)
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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

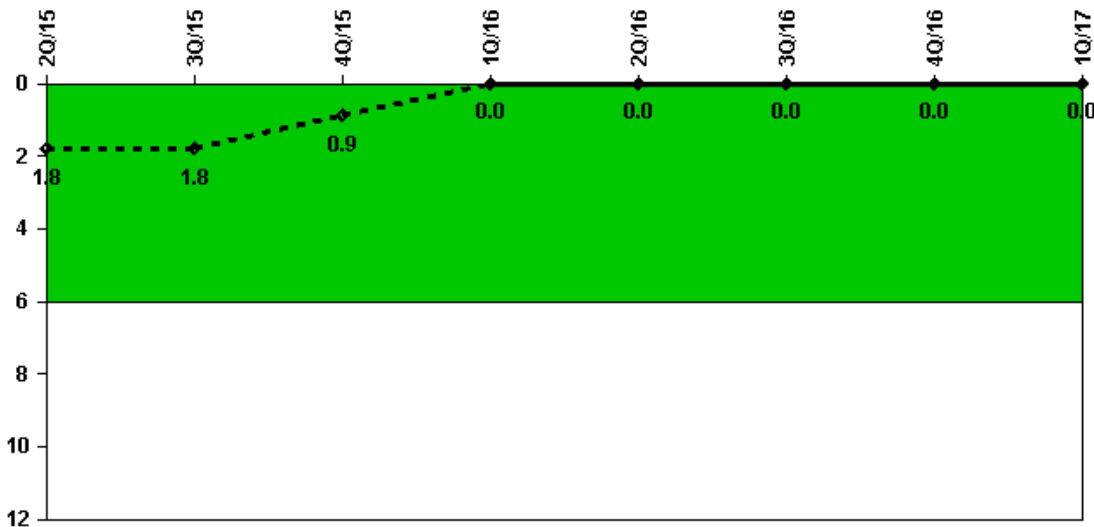
Unplanned Scrams per 7000 Critical Hrs	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17
Unplanned scrams	1.0	0	1.0	1.0	0	0	0	1.0
Critical hours	2045.7	2208.0	2086.0	1320.4	1867.5	2208.0	2209.0	1174.3

Indicator value	2.7	2.7	1.8	2.7	1.9	1.9	0.9	0.9
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Licensee Comments: none

Unplanned Power Changes per 7000 Critical Hrs



Thresholds: White > 6.0

Notes

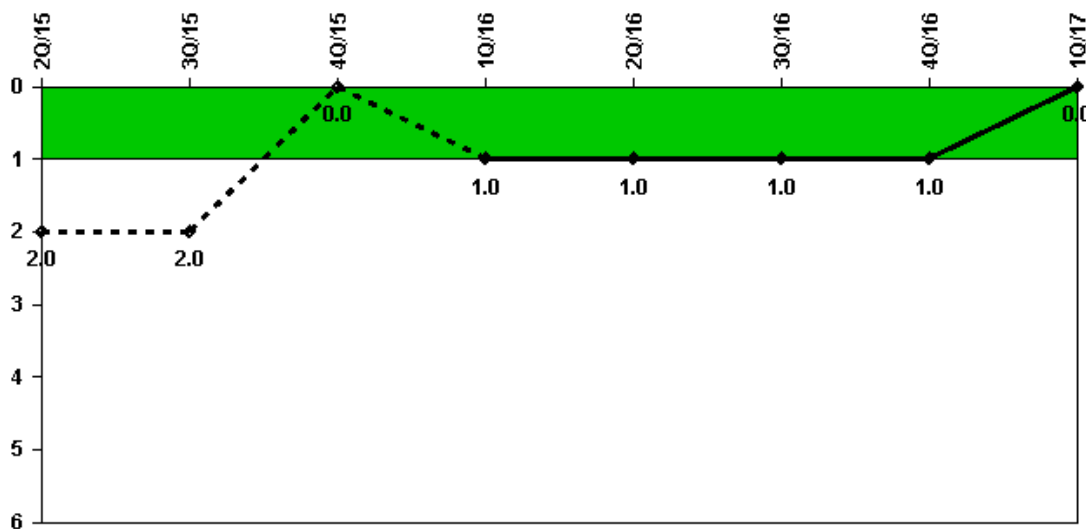
Unplanned Power Changes per 7000 Critical Hrs	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17
Unplanned power changes	0	0	0	0	0	0	0	0
Critical hours	2045.7	2208.0	2086.0	1320.4	1867.5	2208.0	2209.0	1174.3

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

Unplanned Scrams with Complications



Thresholds: White > 1.0

Notes

Unplanned Scrams with Complications	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17
Scrams with complications	0	0	0	1.0	0	0	0	0

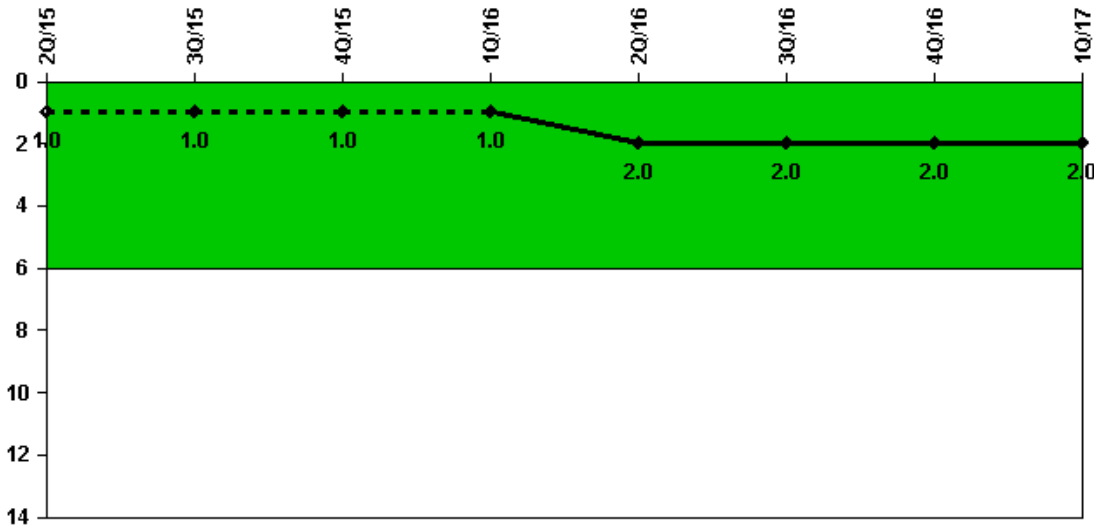
Indicator value	2.0	2.0	0.0	1.0	1.0	1.0	1.0	0.0
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Licensee Comments:

3Q/15: 4Q2014 As the result of the October and December 2014 unplanned scrams with complications, the NRC Unplanned Scrams with Complications Indicator is now in the white band at two. The green band is one scram per year.

Safety System Functional Failures (BWR)



Thresholds: White > 6.0

Notes

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

Safety System Functional Failures	0	1	0	0	1	1	0	0
Indicator value	1	1	1	1	2	2	2	2

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Licensee Comments:

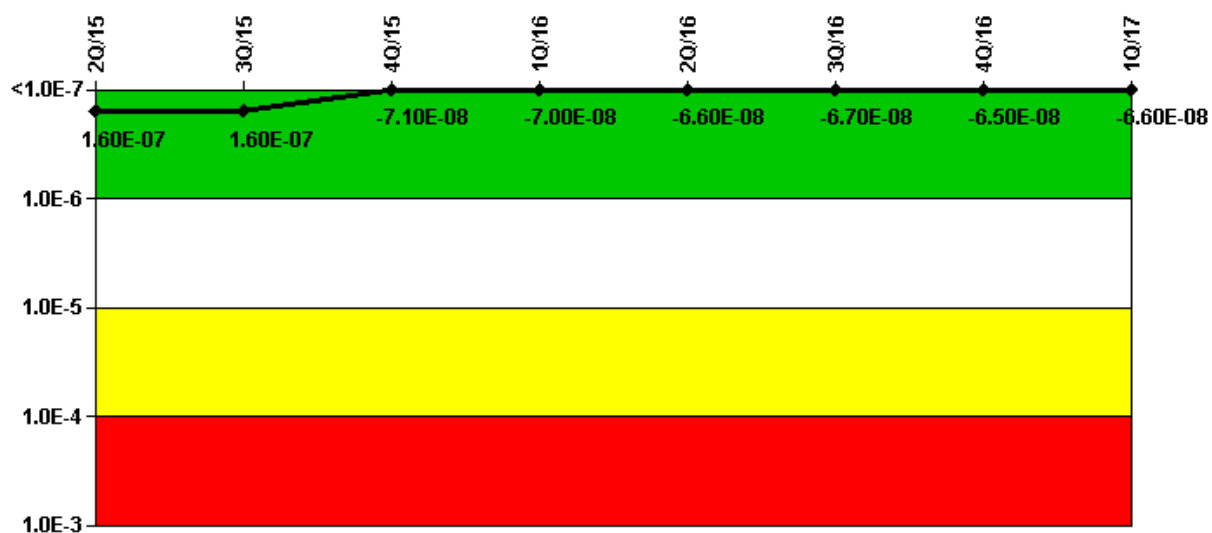
3Q/16: 3Q/16: July 2016 - Licensee Event Report 2016-006-00. Potential loss of safety function of multiple systems due to a design deficiency in 480-volt circuit breakers.

2Q/16: 2Q2016, Licensee Event Report 2016-005. A potential loss of safety function of onsite AC sources due to a Part 21 notification from the vendor for Masterpact breakers.

1Q/16: 1Q2016, Licensee Event Report 2016-001-00 Safety System Functional Failure reported in error. The initial ENS for this event reported a potential loss of the safety function of secondary containment due to the failure of the normal pressure control system of the Auxiliary building. A follow up evaluation determined that no actual loss of safety function occurred as reported in the LER.

3Q/15: 3Q2015, Licensee Event Report 2015-004, Loss of safety function of DC distribution system in postulated event involving loss of HVK chillers.

Mitigating Systems Performance Index, Emergency AC Power System



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

Notes

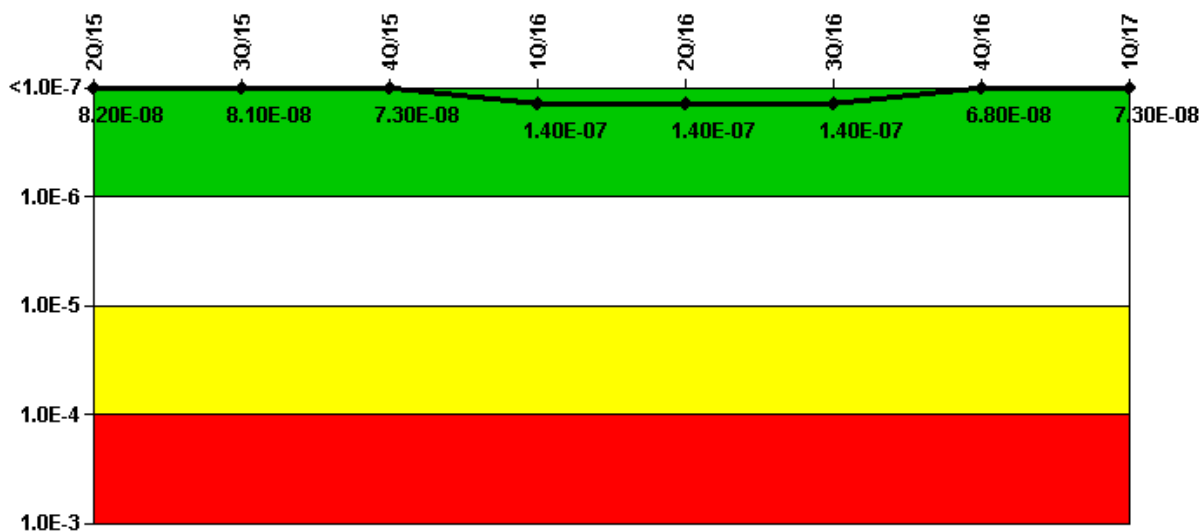
Mitigating Systems Performance Index, Emergency AC Power System

	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17
UAI (ΔCDF)	5.81E-09	5.66E-09	2.48E-09	1.47E-09	2.90E-09	1.16E-09	2.16E-09	1.43E-09
URI (ΔCDF)	1.58E-07	1.58E-07	-7.30E-08	-7.14E-08	-6.90E-08	-6.85E-08	-6.70E-08	-6.77E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	1.60E-07	1.60E-07	-7.10E-08	-7.00E-08	-6.60E-08	-6.70E-08	-6.50E-08	-6.60E-08

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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

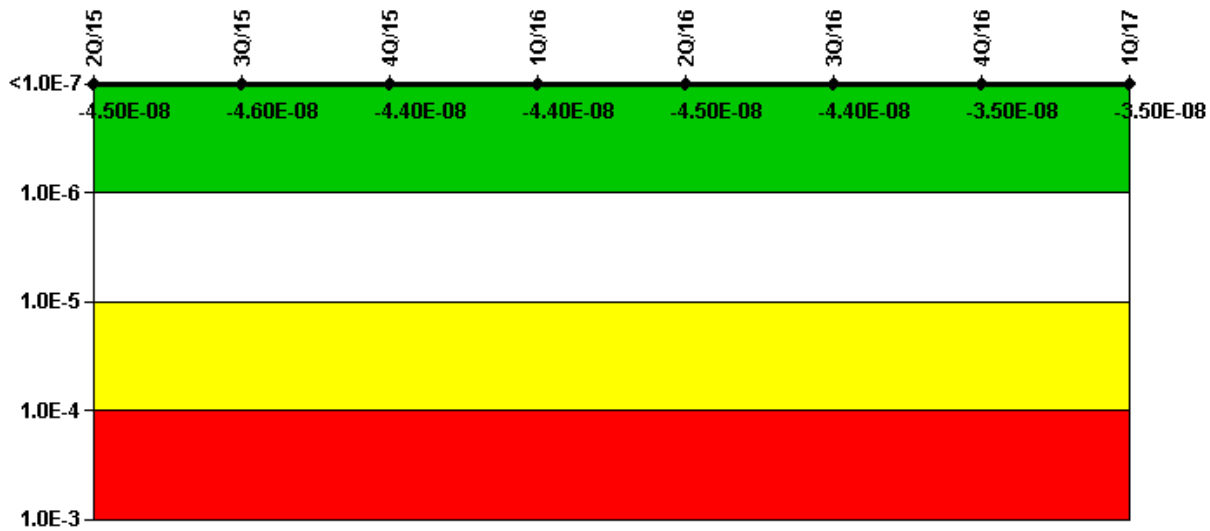
Mitigating Systems Performance Index, High Pressure Injection System

	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17
UAI (ΔCDF)	1.75E-08	1.72E-08	1.33E-08	1.34E-08	1.11E-08	8.57E-09	2.56E-09	8.18E-09
URI (ΔCDF)	6.43E-08	6.41E-08	5.99E-08	1.25E-07	1.33E-07	1.33E-07	6.56E-08	6.52E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	8.20E-08	8.10E-08	7.30E-08	1.40E-07	1.40E-07	1.40E-07	6.80E-08	7.30E-08

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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

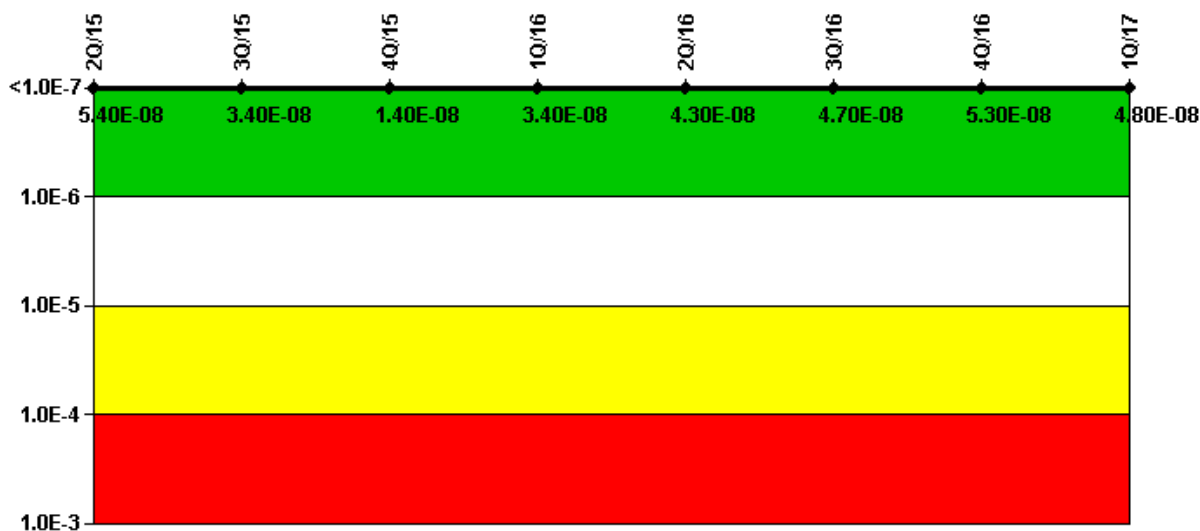
Mitigating Systems Performance Index, Heat Removal System

	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17
UAI (Δ CDF)	-8.75E-09	-8.75E-09	-8.74E-09	-1.05E-08	-1.05E-08	-1.05E-08	-1.34E-09	-4.21E-09
URI (Δ CDF)	-3.58E-08	-3.71E-08	-3.57E-08	-3.34E-08	-3.50E-08	-3.31E-08	-3.39E-08	-3.07E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-4.50E-08	-4.60E-08	-4.40E-08	-4.40E-08	-4.50E-08	-4.40E-08	-3.50E-08	-3.50E-08

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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

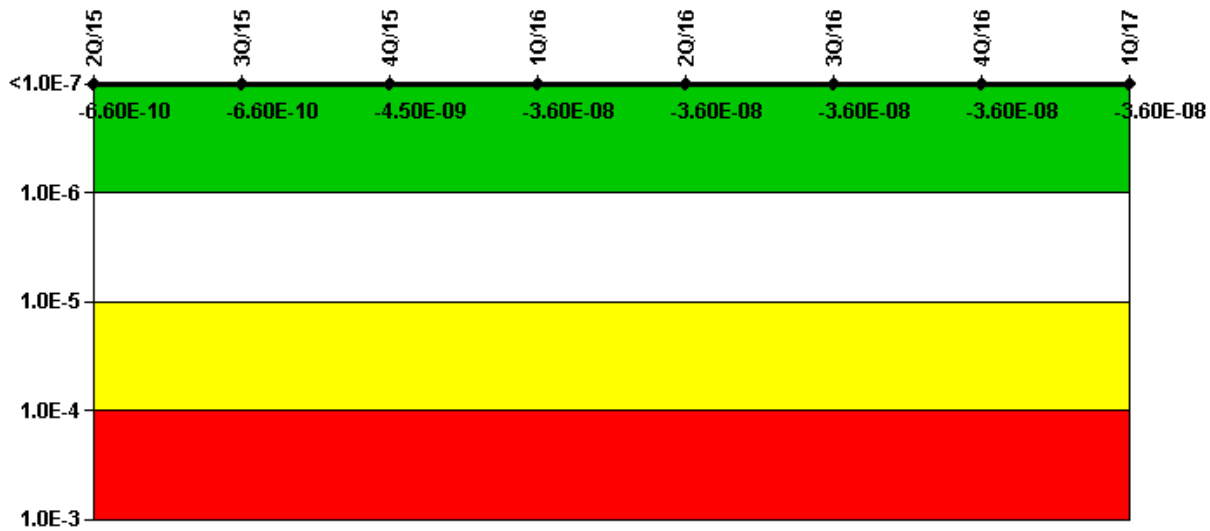
Mitigating Systems Performance Index, Residual Heat Removal System

	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17
UAI (Δ CDF)	-5.48E-09	-8.37E-09	-1.72E-08	-1.20E-08	-1.61E-09	8.05E-10	8.59E-09	1.21E-08
URI (Δ CDF)	5.99E-08	4.24E-08	3.14E-08	4.56E-08	4.41E-08	4.58E-08	4.48E-08	3.59E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	5.40E-08	3.40E-08	1.40E-08	3.40E-08	4.30E-08	4.70E-08	5.30E-08	4.80E-08

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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

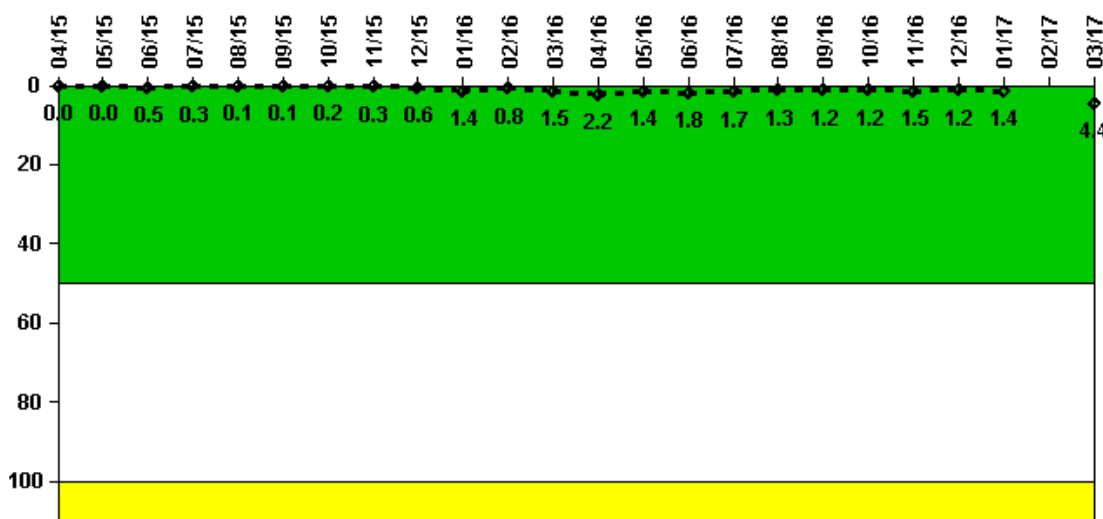
Mitigating Systems Performance Index, Cooling Water Systems

	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17
UAI (ΔCDF)	2.92E-08	2.92E-08	2.94E-08	-2.31E-09	-2.31E-09	-2.31E-09	-2.31E-09	-2.31E-09
URI (ΔCDF)	-2.99E-08	-2.99E-08	-3.39E-08	-3.39E-08	-3.39E-08	-3.39E-08	-3.39E-08	-3.39E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-6.60E-10	-6.60E-10	-4.50E-09	-3.60E-08	-3.60E-08	-3.60E-08	-3.60E-08	-3.60E-08

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Licensee Comments: none

Reactor Coolant System Activity



Thresholds: White > 50.0 Yellow > 100.0

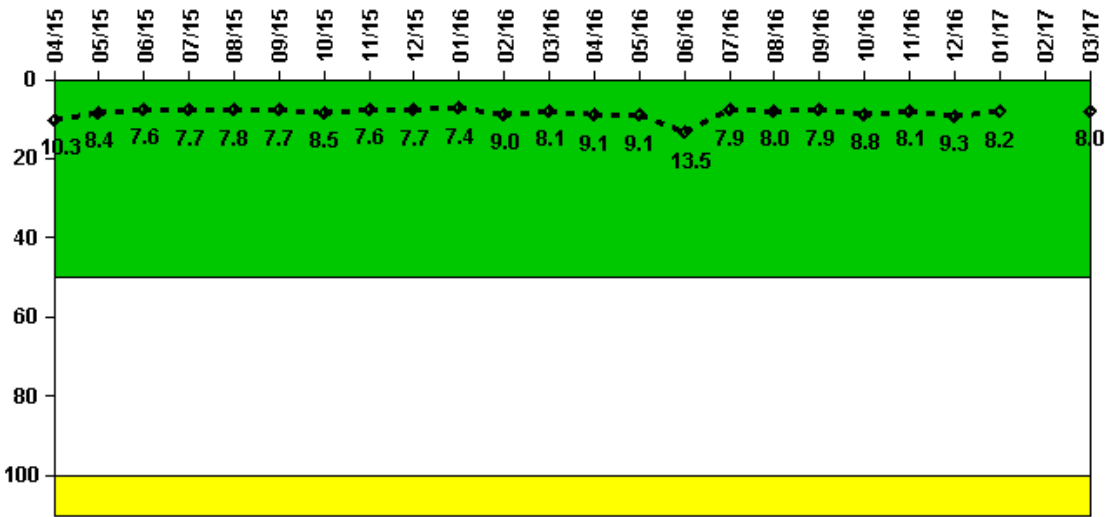
Notes

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	0.000068	0.000075	0.001076	0.000651	0.000248	0.000135	0.000496	0.000628	0.001242	0.002747	0.001582	0.002948
Technical specification limit	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Indicator value	0	0	0.5	0.3	0.1	0.1	0.2	0.3	0.6	1.4	0.8	1.5
Reactor Coolant System Activity	4/16	5/16	6/16	7/16	8/16	9/16	10/16	11/16	12/16	1/17	2/17	3/17
Maximum activity	0.004346	0.002886	0.003587	0.003331	0.002647	0.002376	0.002487	0.002930	0.002487	0.002848	N/A	0.008736
Technical specification limit	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Indicator value	2.2	1.4	1.8	1.7	1.3	1.2	1.2	1.5	1.2	1.4	N/A	4.4

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Licensee Comments: none

Reactor Coolant System Leakage



Thresholds: White > 50.0 Yellow > 100.0

Notes

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	3.090	2.510	2.270	2.310	2.330	2.320	2.550	2.280	2.300	2.230	2.700	2.420
Technical specification limit	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0

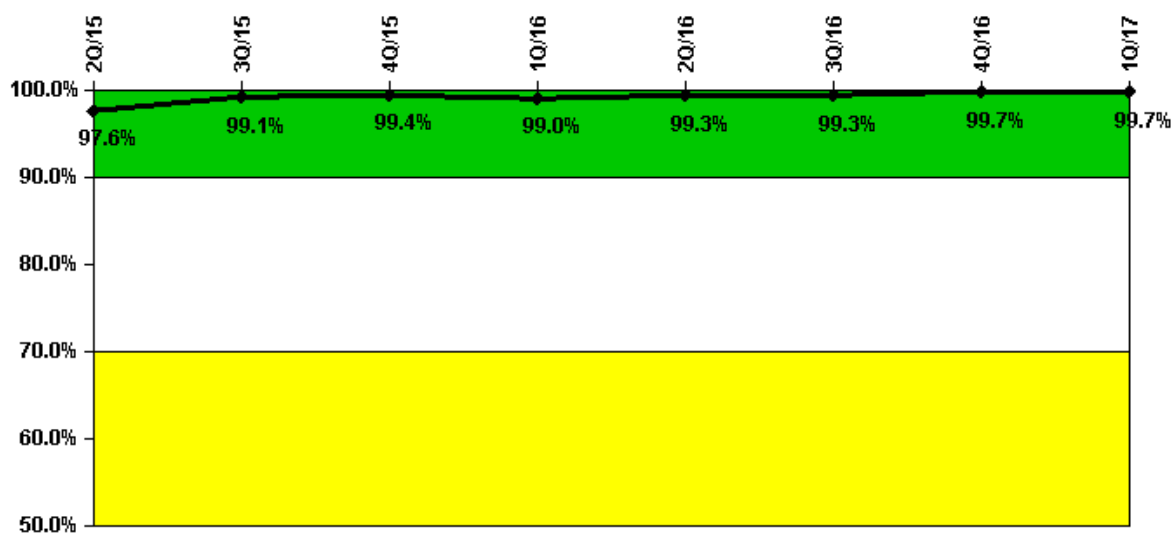
Indicator value	10.3	8.4	7.6	7.7	7.8	7.7	8.5	7.6	7.7	7.4	9.0	8.1
Reactor Coolant System Leakage	4/16	5/16	6/16	7/16	8/16	9/16	10/16	11/16	12/16	1/17	2/17	3/17
Maximum leakage	2.740	2.720	4.040	2.370	2.410	2.360	2.630	2.420	2.800	2.470	N/A	2.390
Technical specification limit	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0

Indicator value	9.1	9.1	13.5	7.9	8.0	7.9	8.8	8.1	9.3	8.2	N/A	8.0
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Licensee Comments: none

Drill/Exercise Performance



Thresholds: White < 90.0% Yellow < 70.0%

Notes

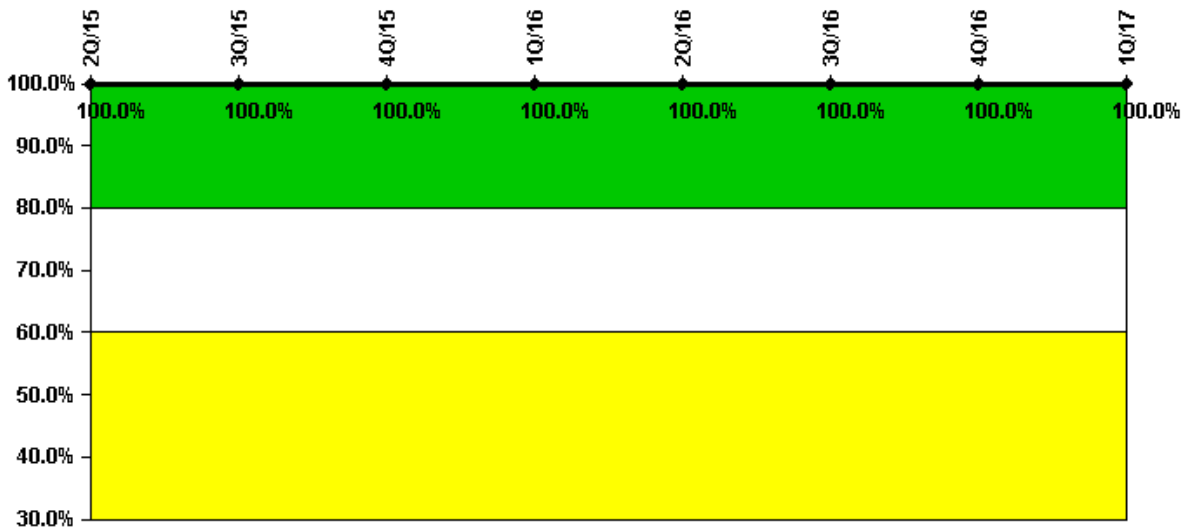
Drill/Exercise Performance	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17
Successful opportunities	40.0	40.0	58.0	12.0	34.0	39.0	45.0	32.0
Total opportunities	40.0	40.0	58.0	13.0	34.0	39.0	45.0	32.0

Indicator value 97.6% 99.1% 99.4% 99.0% 99.3% 99.3% 99.7% 99.7%

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Licensee Comments: none

ERO Drill Participation



Thresholds: White < 80.0% Yellow < 60.0%

Notes

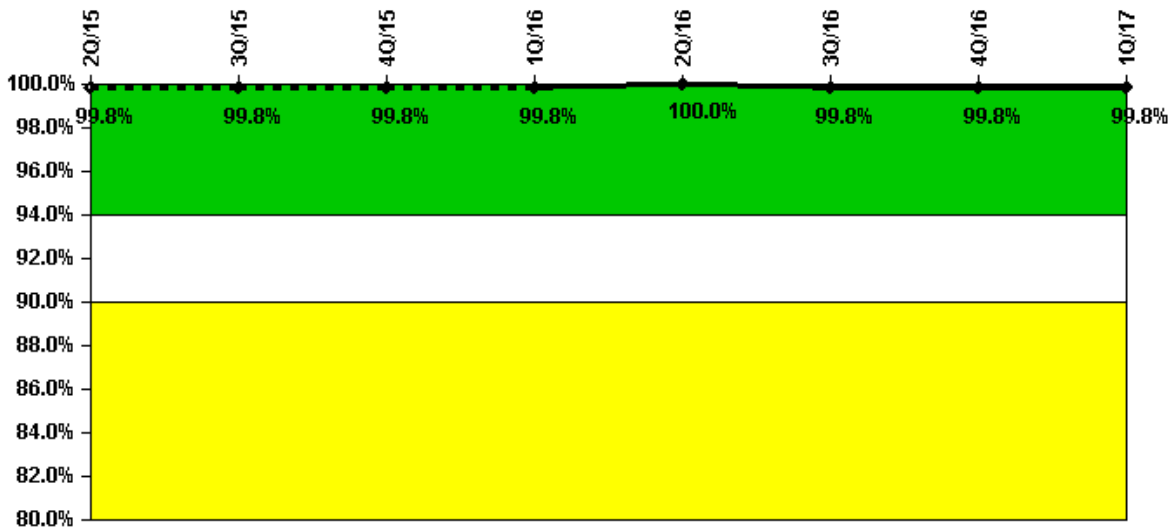
ERO Drill Participation	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17
Participating Key personnel	89.0	84.0	83.0	79.0	81.0	78.0	82.0	88.0
Total Key personnel	89.0	84.0	83.0	79.0	81.0	78.0	82.0	88.0

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

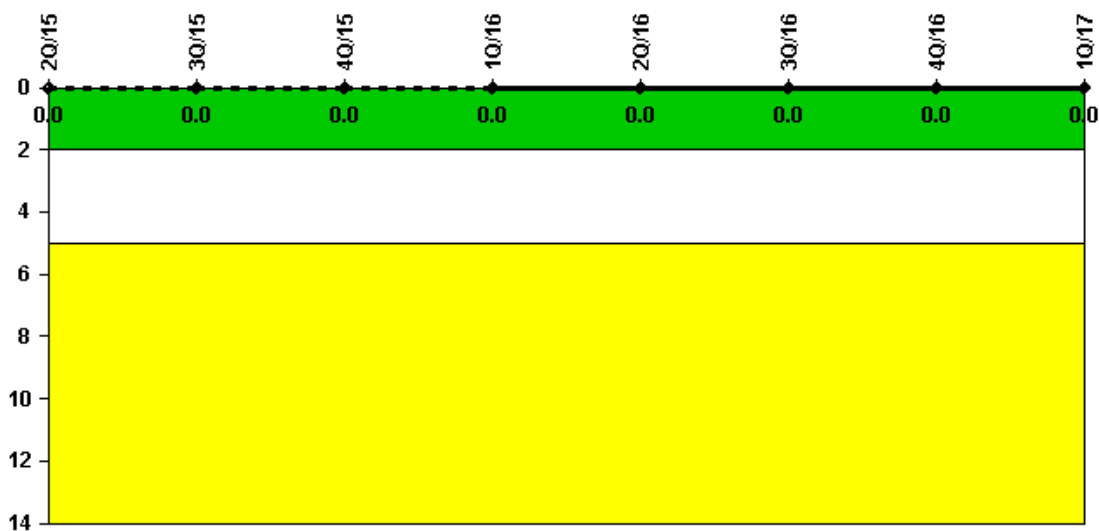
Alert & Notification System	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17
Successful siren-tests	918	922	923	911	910	916	923	923
Total sirens-tests	923	923	923	911	910	922	923	923

Indicator value **99.8% 99.8% 99.8% 99.8% 100.0% 99.8% 99.8% 99.8%**

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Licensee Comments: none

Occupational Exposure Control Effectiveness



Thresholds: White > 2.0 Yellow > 5.0

Notes

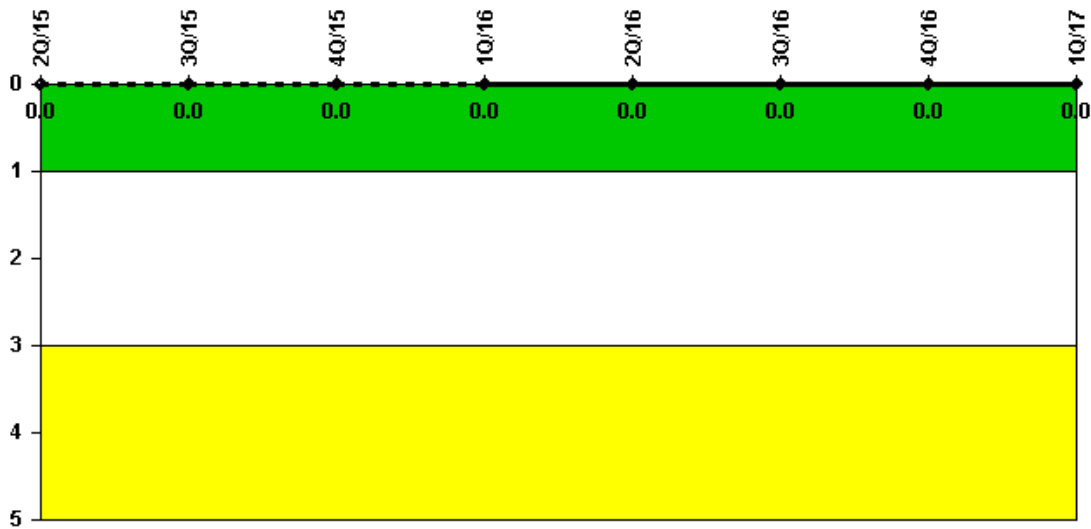
Occupational Exposure Control Effectiveness 2Q/15 3Q/15 4Q/15 1Q/16 2Q/16 3Q/16 4Q/16 1Q/17

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
Indicator value	0	0	0	0	0	0	0	0

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Licensee Comments: none

RETS/ODCM Radiological Effluent



Thresholds: White > 1.0 Yellow > 3.0

Notes

RETS/ODCM Radiological Effluent 2Q/15 3Q/15 4Q/15 1Q/16 2Q/16 3Q/16 4Q/16 1Q/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: May 5, 2017

Page Last Reviewed/Updated Wednesday, June 07, 2017