



Home > Nuclear Reactors > Operating Reactors > Reactor Oversight Process > Plant Summaries > Grand Gulf 1 > Quarterly Performance Indicators

Grand Gulf 1 – Quarterly Performance Indicators

1Q/2017 Performance Indicators

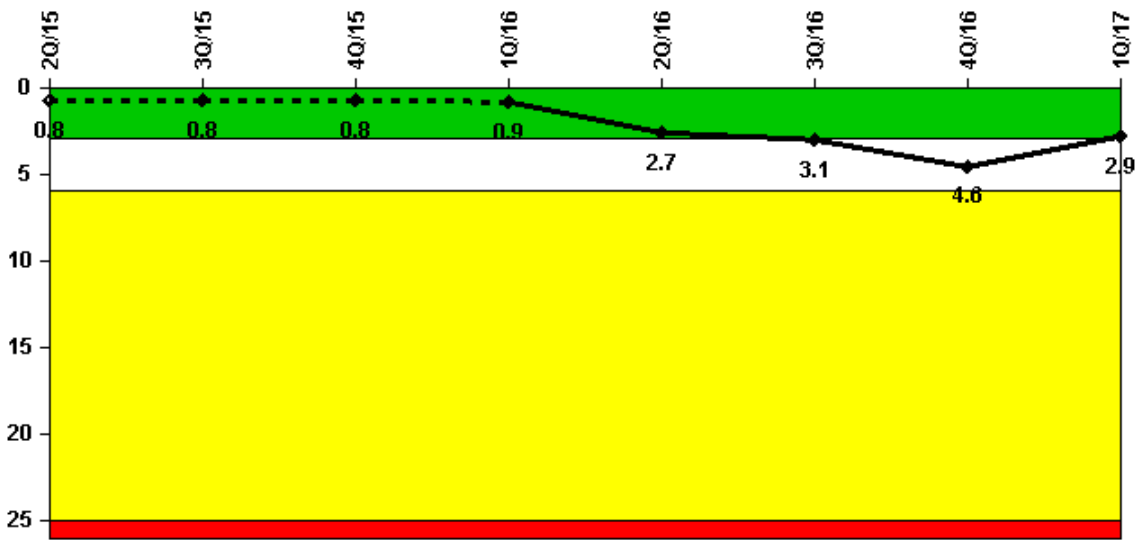
The solid trend line represents the current reporting period.

Licensee's General Comments: none

On this page:

- 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

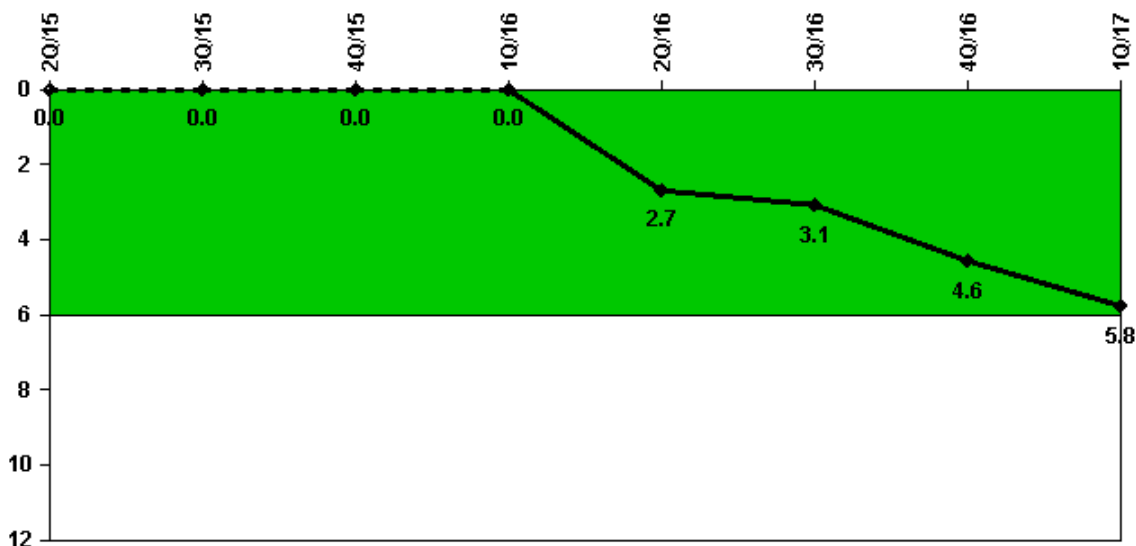
Notes

Unplanned Scrams per 7000 Critical Hrs	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17
Unplanned scrams	0	0	0	1.0	2.0	0	0	0
Critical hours	2184.0	2208.0	2209.0	1315.9	2010.2	1276.3	0	1516.3
Indicator value	0.8	0.8	0.8	0.9	2.7	3.1	4.6	2.9

▲ TOP

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	3.0	0	0	1.0
Critical hours	2184.0	2208.0	2209.0	1315.9	2010.2	1276.3	0	1516.3

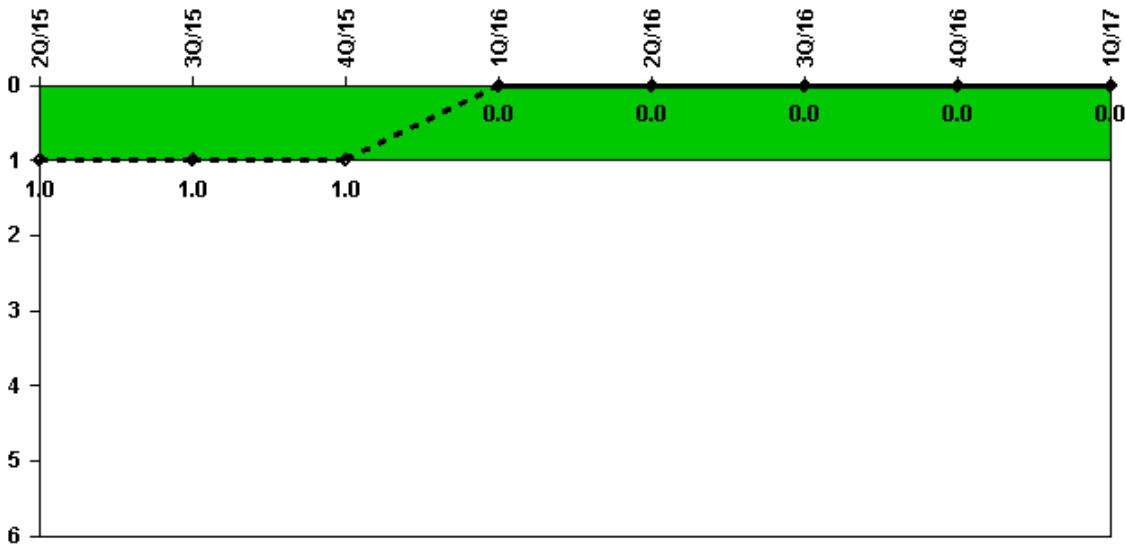
Indicator value	0	0	0	0	2.7	3.1	4.6	5.8
-----------------	---	---	---	---	-----	-----	-----	-----

▲ TOP

Licensee Comments:

4Q/16: Entergy submitted an FAQ to document it's position on the June 17, 2016 power oscillation and SCRAM.
 3Q/16: Entergy will submit a FAQ to document it's position on the June 17, 2016 power oscillation and SCRAM.
 3Q/16: Entergy will submit a FAQ to document it's position on the June 17, 2016 power oscillation and SCRAM.
 2Q/16: Entered 3 power changes upon resolution of FAQ-17-02 for June 17, 2016 power oscillation event. Entered after FAQ resolution on 5/18/2017.

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

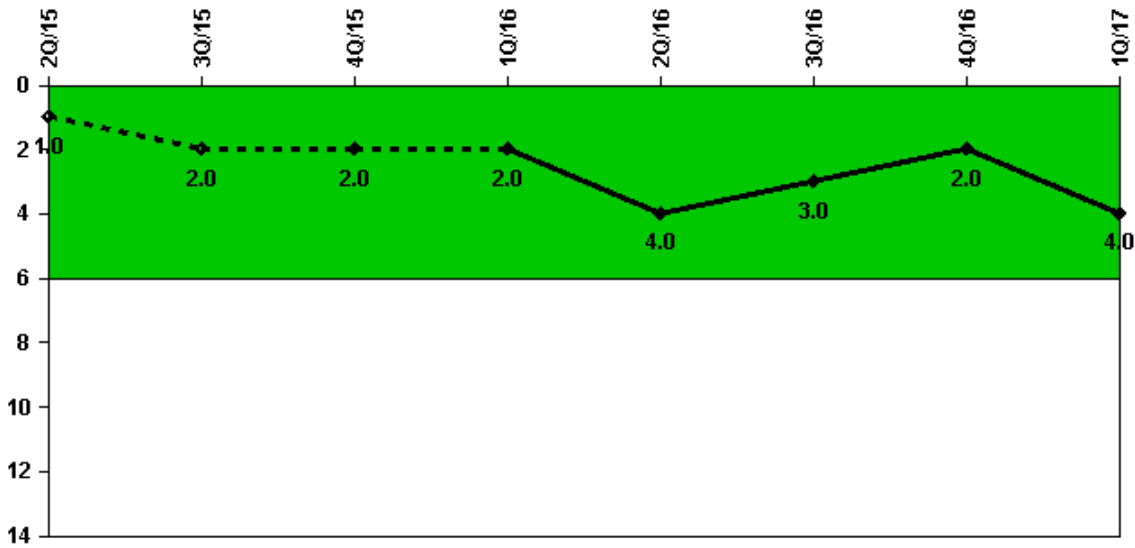
Scrams with complications 0 0 0 0 0 0 0 0

Indicator value 1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0

▲ TOP

Licensee Comments: none

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 1 0 2 0 0 2

Indicator value 1 2 2 2 4 3 2 4

TOP

Licensee Comments:

1Q/17: LER 2016-009-00, OPRM Upscale Settings incorrectly set

3Q/16: Changed comments in 4Q15 PI comments to correct typographical error

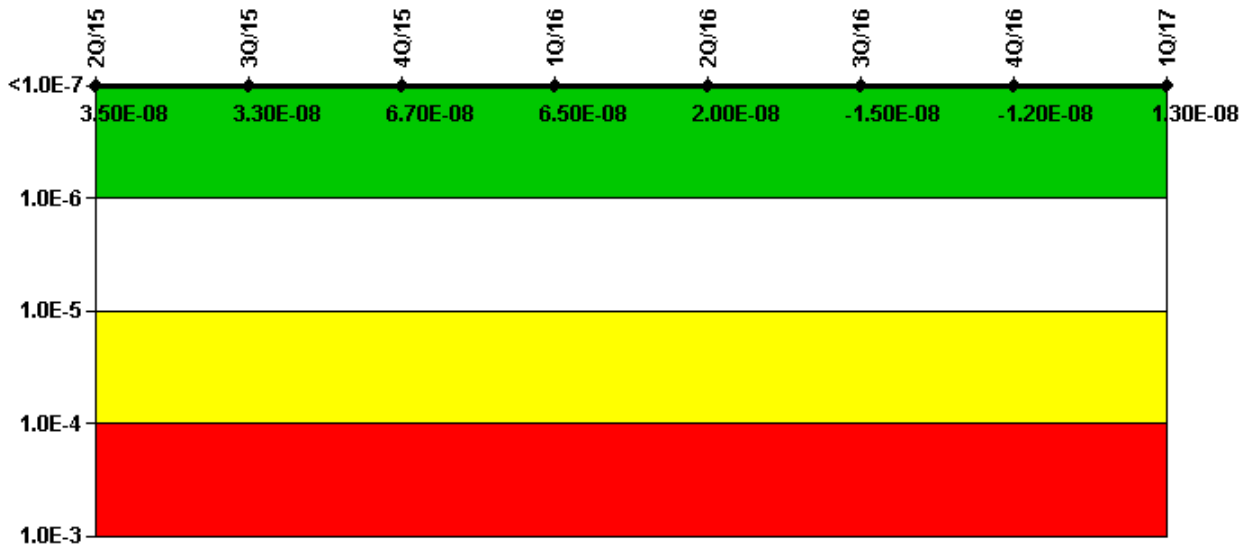
2Q/16: Reference LERs 2016-001-00 & 2016-003-00

4Q/15: LER 2015-002-00 Documents 4 SSFF failures one in 2Q14, one in 4Q14, one in 3Q14 and one in 4Q14

4Q/15: LER 2015-002-00 Documents 4 SSFF failures one in 2Q14, one in 4Q14, one in 3Q15 and one in 4Q15. Correction of typographical errors (3Q15 & 4Q15)

3Q/15: LER 2015-002-00 Documents one safety system functional failure in August 2015.

Mitigating Systems Performance Index, Emergency AC Power System



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

Notes

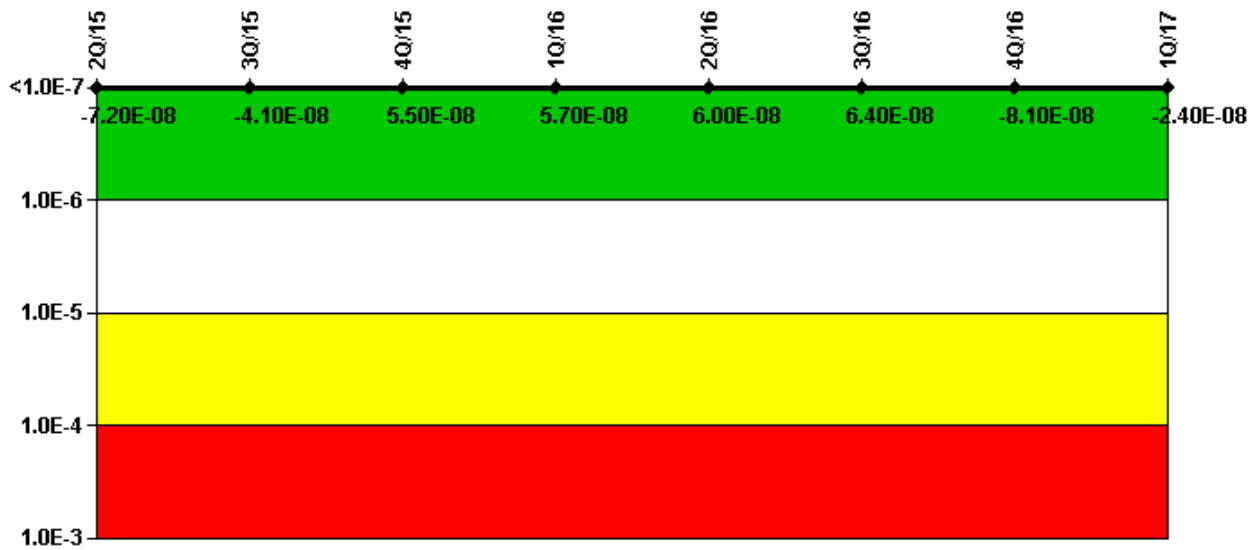
Mitigating Systems Performance Index, Emergency AC Power System

	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17
UAI (Δ CDF)	1.41E-08	1.33E-08	1.31E-08	1.44E-08	1.57E-09	-4.28E-10	2.24E-09	2.55E-08
URI (Δ CDF)	2.07E-08	1.94E-08	5.39E-08	5.01E-08	1.87E-08	-1.42E-08	-1.39E-08	-1.21E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	3.50E-08	3.30E-08	6.70E-08	6.50E-08	2.00E-08	-1.50E-08	-1.20E-08	1.30E-08

▲ 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

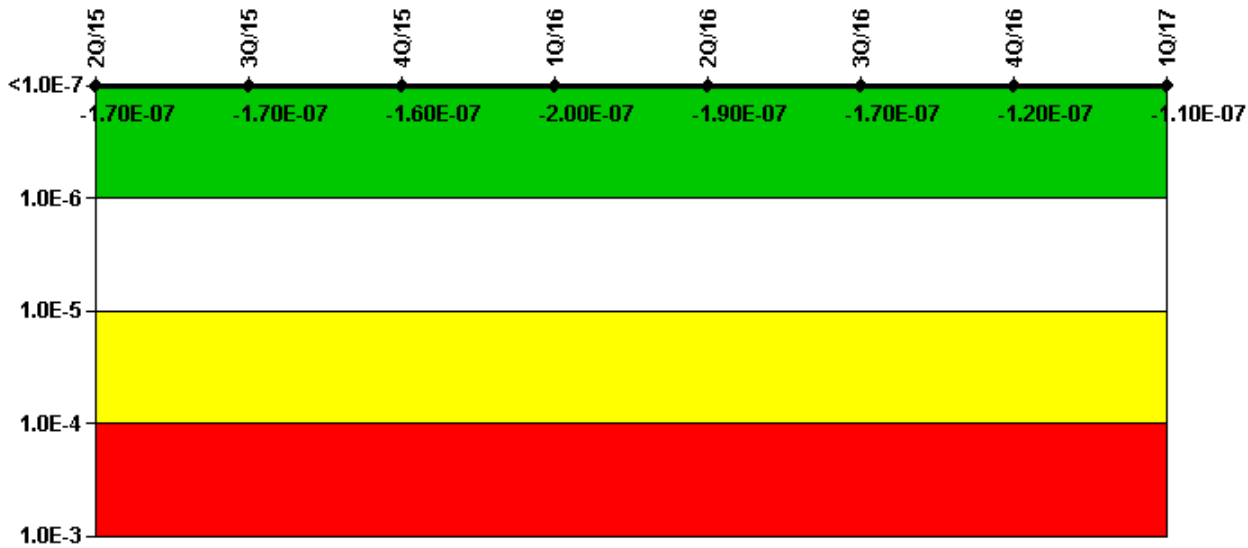
Mitigating Systems Performance Index, High Pressure Injection System

	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17
UAI (Δ CDF)	$3.12E-08$	$3.69E-08$	$1.36E-07$	$1.33E-07$	$1.36E-07$	$1.35E-07$	$-1.30E-08$	$4.63E-08$
URI (Δ CDF)	$-1.03E-07$	$-7.84E-08$	$-8.09E-08$	$-7.69E-08$	$-7.59E-08$	$-7.04E-08$	$-6.83E-08$	$-7.04E-08$
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	$-7.20E-08$	$-4.10E-08$	$5.50E-08$	$5.70E-08$	$6.00E-08$	$6.40E-08$	$-8.10E-08$	$-2.40E-08$

▲ TOP

Licensee Comments: none

Mitigating Systems Performance Index, Heat Removal System



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

Notes

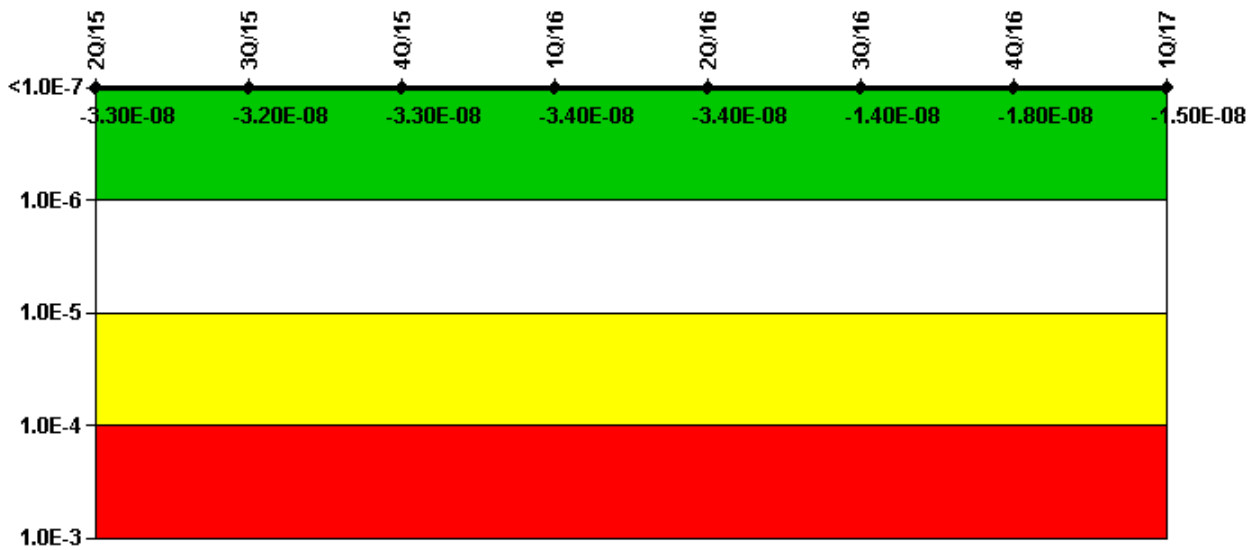
Mitigating Systems Performance Index, Heat Removal System

	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17
UAI (Δ CDF)	2.80E-08	2.80E-08	2.73E-08	-1.47E-08	-8.76E-09	5.45E-10	3.07E-08	2.42E-08
URI (Δ CDF)	-1.99E-07	-1.96E-07	-1.90E-07	-1.85E-07	-1.79E-07	-1.69E-07	-1.55E-07	-1.30E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-1.70E-07	-1.70E-07	-1.60E-07	-2.00E-07	-1.90E-07	-1.70E-07	-1.20E-07	-1.10E-07

▲ 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

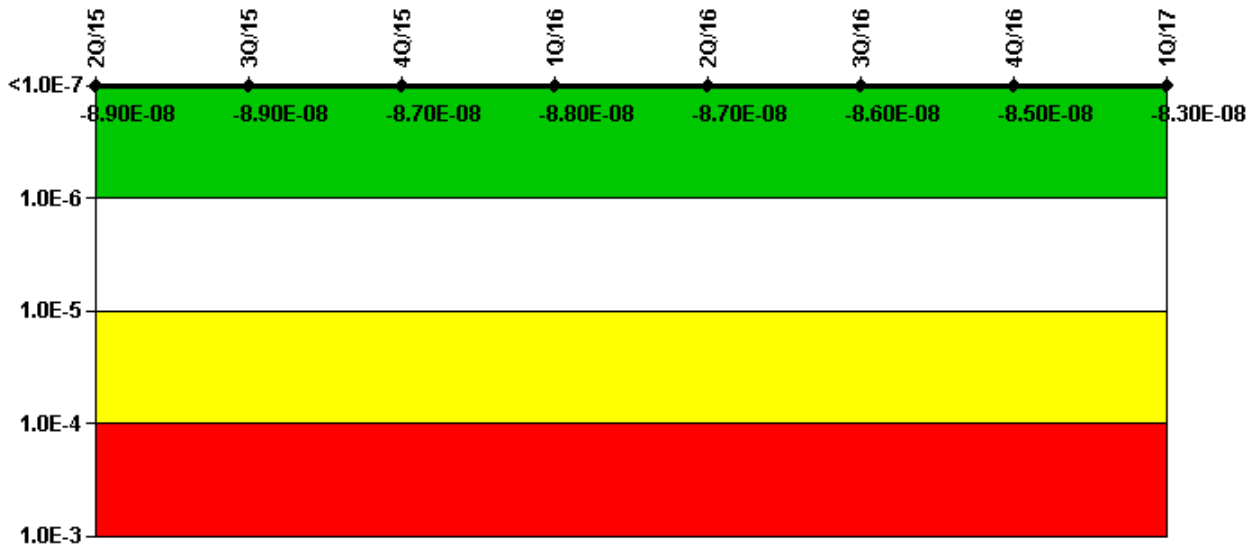
Mitigating Systems Performance Index, Residual Heat Removal System

	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17
UAI (Δ CDF)	-8.56E-09	-7.32E-09	-8.56E-09	-8.56E-09	-8.56E-09	-8.56E-09	-8.56E-09	-8.56E-09
URI (Δ CDF)	-2.41E-08	-2.44E-08	-2.42E-08	-2.57E-08	-2.55E-08	-5.16E-09	-9.11E-09	-5.98E-09
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-3.30E-08	-3.20E-08	-3.30E-08	-3.40E-08	-3.40E-08	-1.40E-08	-1.80E-08	-1.50E-08

▲ 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

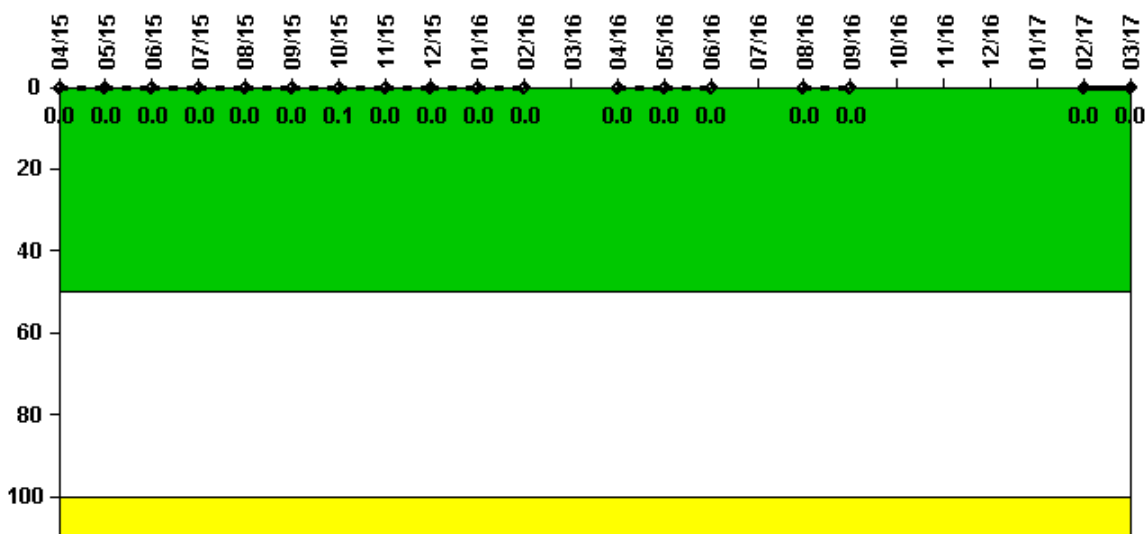
Mitigating Systems Performance Index, Cooling Water Systems

	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17
UAI (Δ CDF)	-1.71E-09	-1.71E-09	-1.71E-09	-1.71E-09	-1.71E-09	-1.71E-09	-1.71E-09	-1.71E-09
URI (Δ CDF)	-8.77E-08	-8.70E-08	-8.54E-08	-8.68E-08	-8.54E-08	-8.47E-08	-8.36E-08	-8.10E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-8.90E-08	-8.90E-08	-8.70E-08	-8.80E-08	-8.70E-08	-8.60E-08	-8.50E-08	-8.30E-08

▲ TOP

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	0.000036	0.000037	0.000039	0.000063	0.000079	0.000092	0.000116	0.000033	0.000053	0.000069	0.000053	N/A
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	0	0	0	0.1	0	0	0	0	N/A

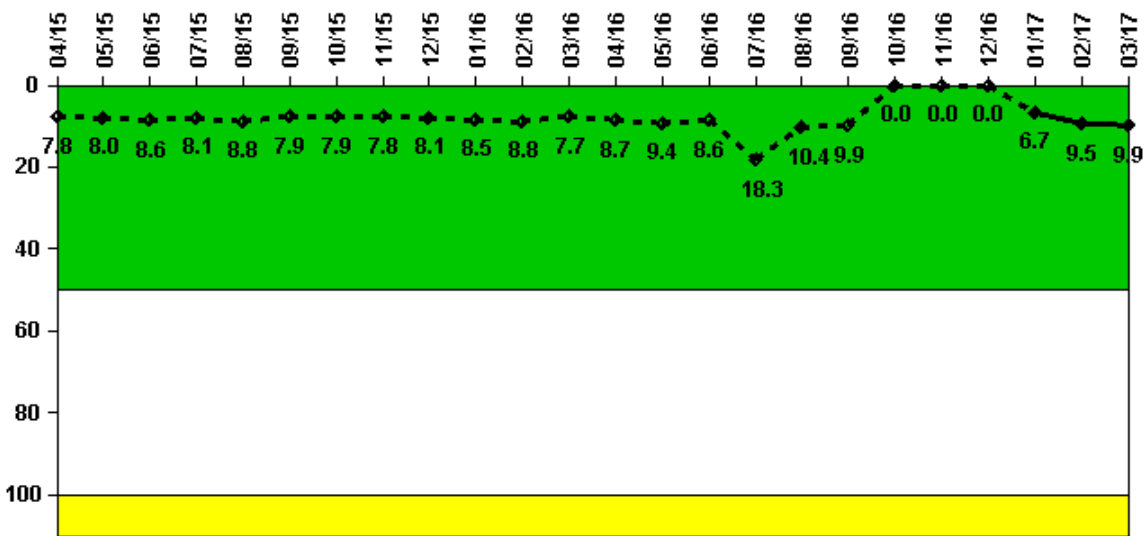
Reactor Coolant System Activity	4/16	5/16	6/16	7/16	8/16	9/16	10/16	11/16	12/16	1/17	2/17	3/17
Maximum activity	0.000013	0.000009	0.000005	N/A	0.000048	0.000020	N/A	N/A	N/A	N/A	0.000052	0.000013
Technical specification limit	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Indicator value	0	0	0	N/A	0	0	N/A	N/A	N/A	N/A	0	0

TOP

Licensee Comments:

12/16: Corrected typographical error in May Data. Changed Maximum I-131 to 9.35E-6 from 9.35E-5. CR-GGN-2016-09779.
 6/16: Corrected typographical error in may data. Changed Maximum I-131 to 9.35E-6 from 9.35E-5. CR-GGN-2016-09779
 3/16: For March 2016 the unit did not obtain a stable state power condition

Reactor Coolant System Leakage



Thresholds: White > 50.0 Yellow > 100.0

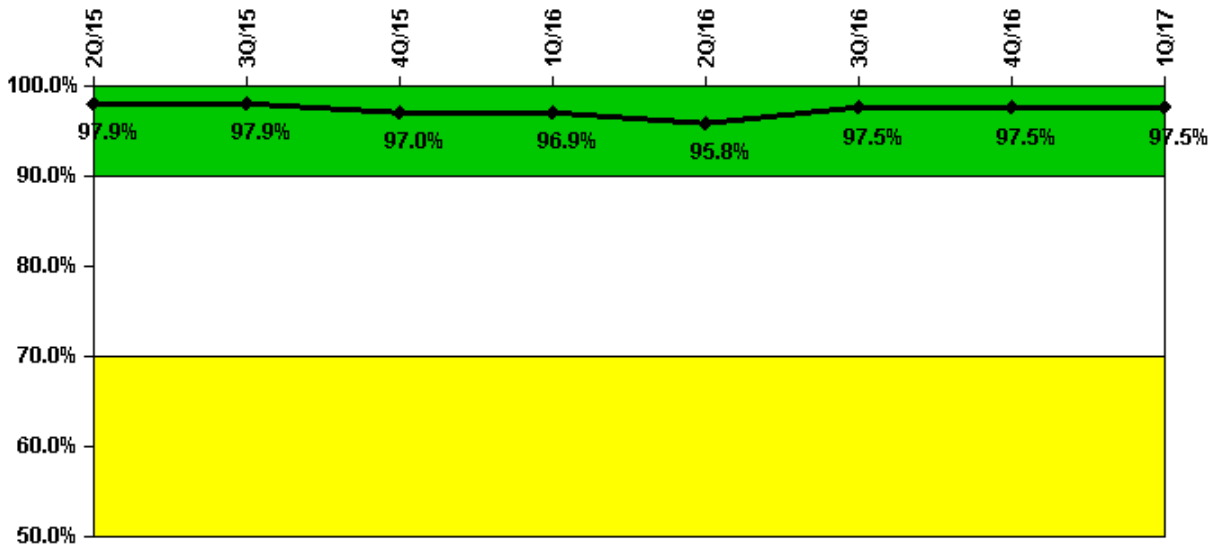
Notes

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	2.350	2.400	2.580	2.440	2.630	2.370	2.370	2.350	2.430	2.540	2.630	2.300
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	7.8	8.0	8.6	8.1	8.8	7.9	7.9	7.8	8.1	8.5	8.8	7.7
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	2.600	2.810	2.580	5.500	3.120	2.980	0	0	0	2.020	2.860	2.970
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	8.7	9.4	8.6	18.3	10.4	9.9	0	0	0	6.7	9.5	9.9

▲ TOP

Licensee Comments: none

Drill/Exercise Performance



Thresholds: White < 90.0% Yellow < 70.0%

Notes

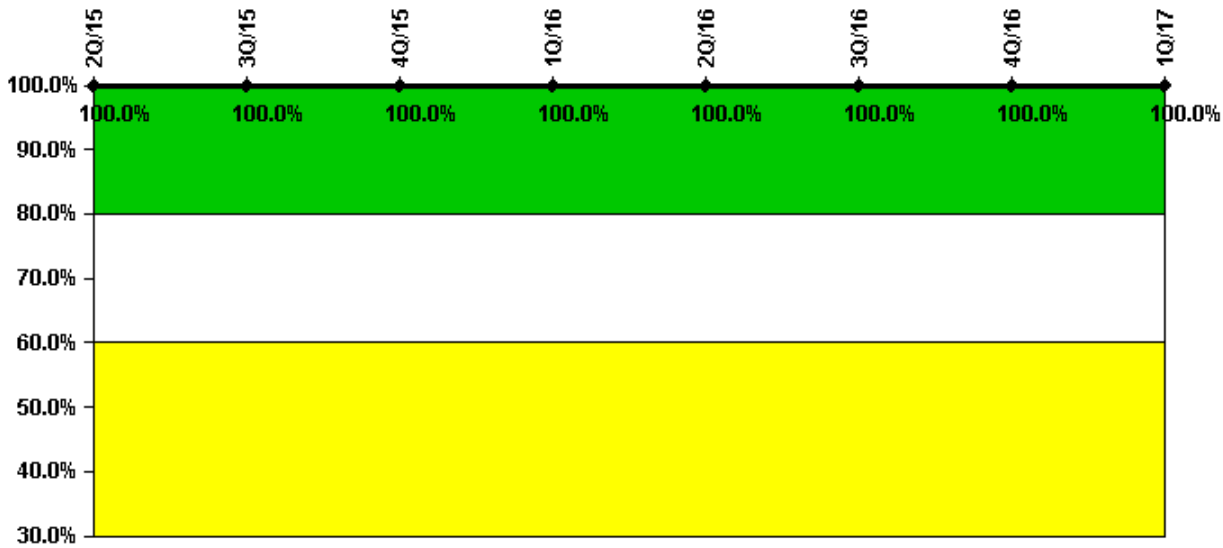
Drill/Exercise Performance	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17
Successful opportunities	31.0	17.0	51.0	0	29.0	143.0	62.0	13.0
Total opportunities	33.0	17.0	53.0	0	32.0	144.0	62.0	14.0

Indicator value 97.9% 97.9% 97.0% 96.9% 95.8% 97.5% 97.5% 97.5%

▲ TOP

Licensee Comments: none

ERO Drill Participation



Thresholds: White < 80.0% Yellow < 60.0%

Notes

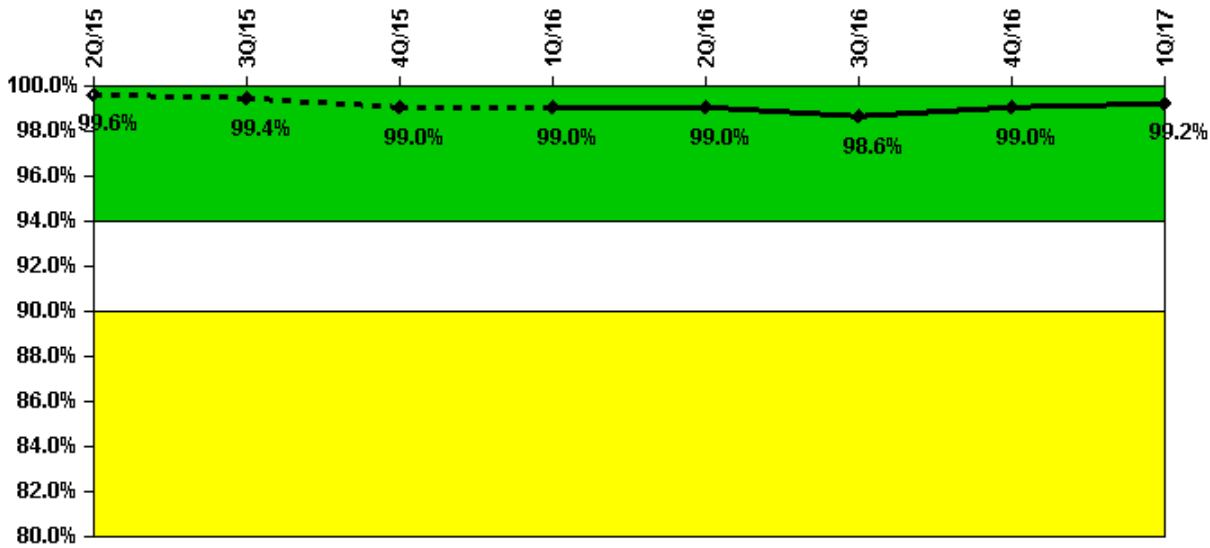
ERO Drill Participation	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17
Participating Key personnel	65.0	64.0	68.0	64.0	67.0	44.0	50.0	42.0
Total Key personnel	65.0	64.0	68.0	64.0	67.0	44.0	50.0	42.0

Indicator value 100.0% 100.0% 100.0% 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

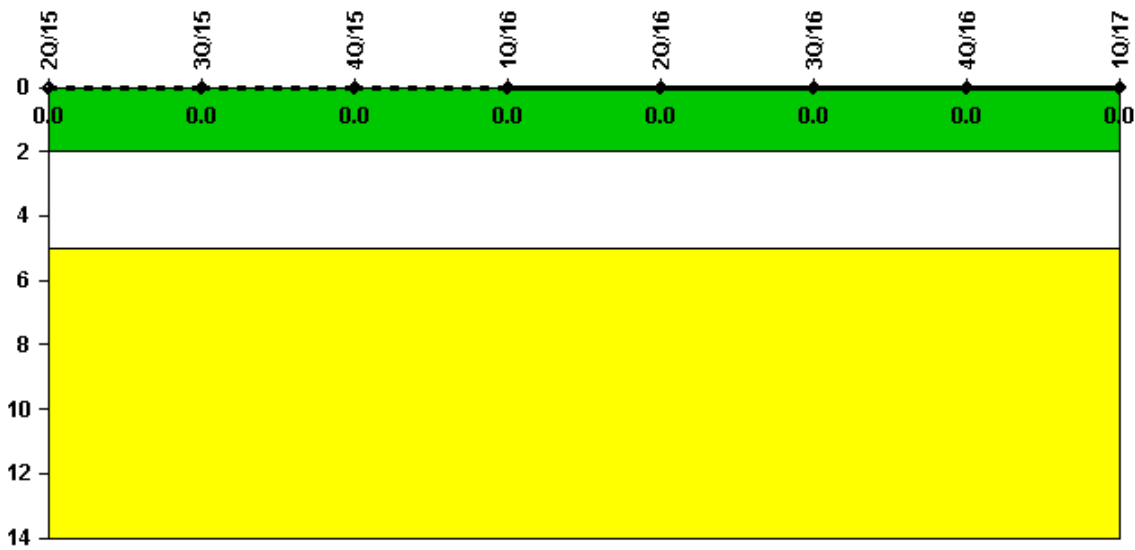
Alert & Notification System	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17
Successful siren-tests	126	126	127	127	128	126	129	129
Total sirens-tests	127	127	129	128	129	129	129	129

Indicator value 99.6% 99.4% 99.0% 99.0% 99.0% 98.6% 99.0% 99.2%

▲ TOP

Licensee Comments: none

Occupational Exposure Control Effectiveness



Thresholds: White > 2.0 Yellow > 5.0

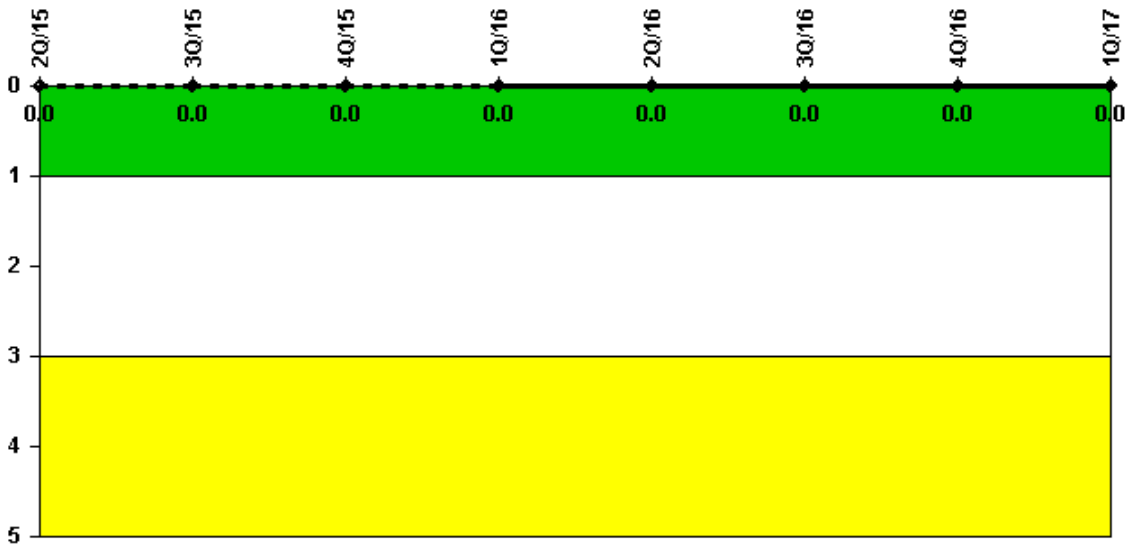
Notes

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

▲ TOP

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

[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 7, 2017

Page Last Reviewed/Updated Monday, July 10, 2017