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Saint Lucie 1 – 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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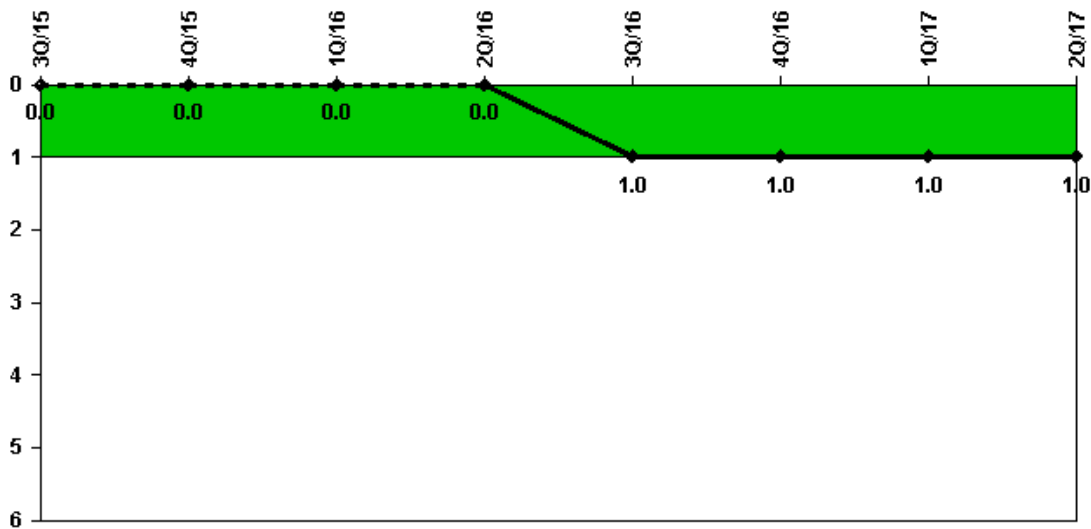
Notes

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	1.0	1.0	0	0	0	0	0
Critical hours	2160.6	2209.0	2183.0	2184.0	1511.8	1291.1	1989.9	2184.0
Indicator value	0	0.9	1.7	1.6	1.7	1.0	0	0

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Licensee Comments: none

Unplanned Scrams with Complications



Thresholds: White > 1.0

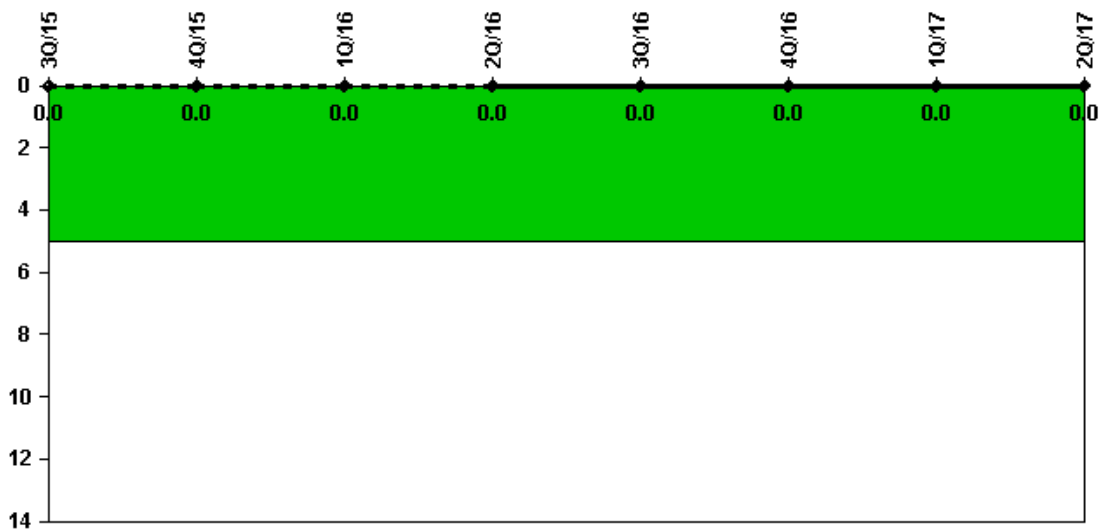
Notes

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	1.0	0	0	0
Indicator value	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0

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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

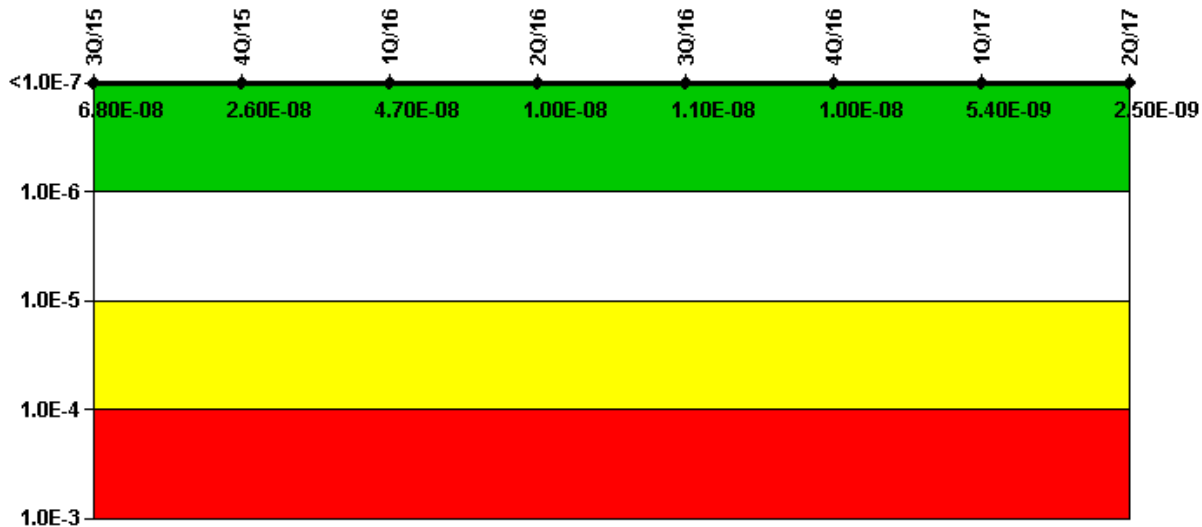
Safety System Functional Failures 0 0 0 0 0 0 0 0

Indicator value 0 0 0 0 0 0 0 0

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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

	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17
UAI (ΔCDF)	4.36E-08	3.80E-08	5.86E-08	1.94E-08	1.99E-08	1.96E-08	1.45E-08	1.16E-08
URI (ΔCDF)	2.40E-08	-1.19E-08	-1.19E-08	-8.88E-09	-9.17E-09	-9.07E-09	-9.07E-09	-9.07E-09
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	6.80E-08	2.60E-08	4.70E-08	1.00E-08	1.10E-08	1.00E-08	5.40E-09	2.50E-09

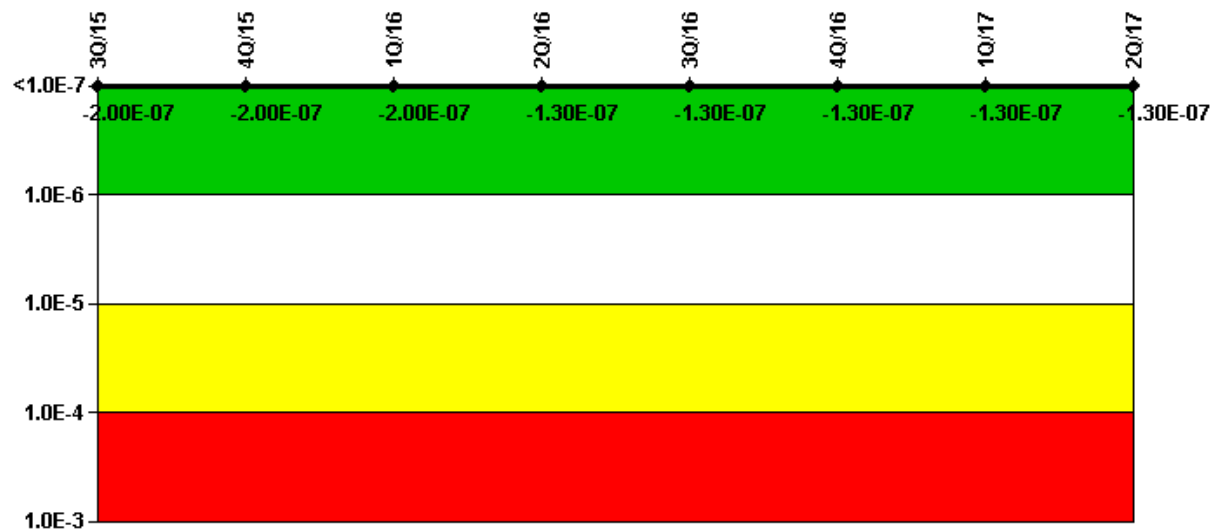
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Licensee Comments:

3Q/16: Changed PRA Parameter(s).

2Q/16: Changed PRA Parameter(s). PRA coefficients and CDF were changed due to updated PRA model

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)	-3.36E-08	-3.36E-08	-3.36E-08	-3.00E-08	-3.00E-08	-3.00E-08	-3.00E-08	-3.00E-08
URI (ΔCDF)	-1.63E-07	-1.63E-07	-1.63E-07	-9.53E-08	-9.53E-08	-9.53E-08	-9.53E-08	-9.53E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-2.00E-07	-2.00E-07	-2.00E-07	-1.30E-07	-1.30E-07	-1.30E-07	-1.30E-07	-1.30E-07

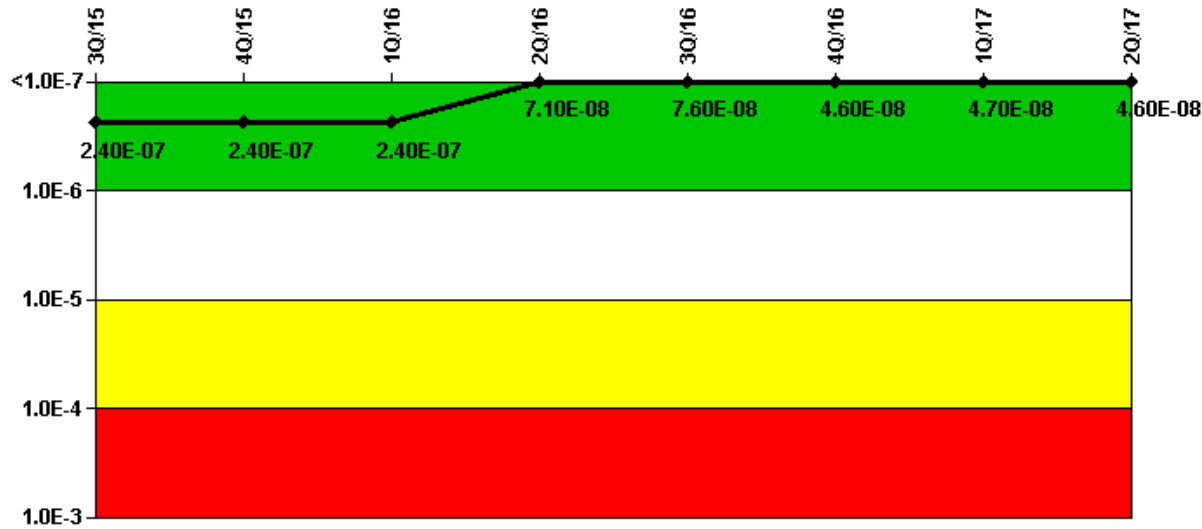
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Licensee Comments:

3Q/16: Changed PRA Parameter(s).

2Q/16: Changed PRA Parameter(s). PRA coefficients and CDF were changed due to updated PRA model

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 (ΔCDF)	1.11E-08	1.08E-08	1.13E-08	1.56E-08	2.16E-08	1.58E-08	1.74E-08	1.77E-08
URI (ΔCDF)	2.25E-07	2.25E-07	2.25E-07	5.56E-08	5.39E-08	3.00E-08	2.91E-08	2.83E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	2.40E-07	2.40E-07	2.40E-07	7.10E-08	7.60E-08	4.60E-08	4.70E-08	4.60E-08

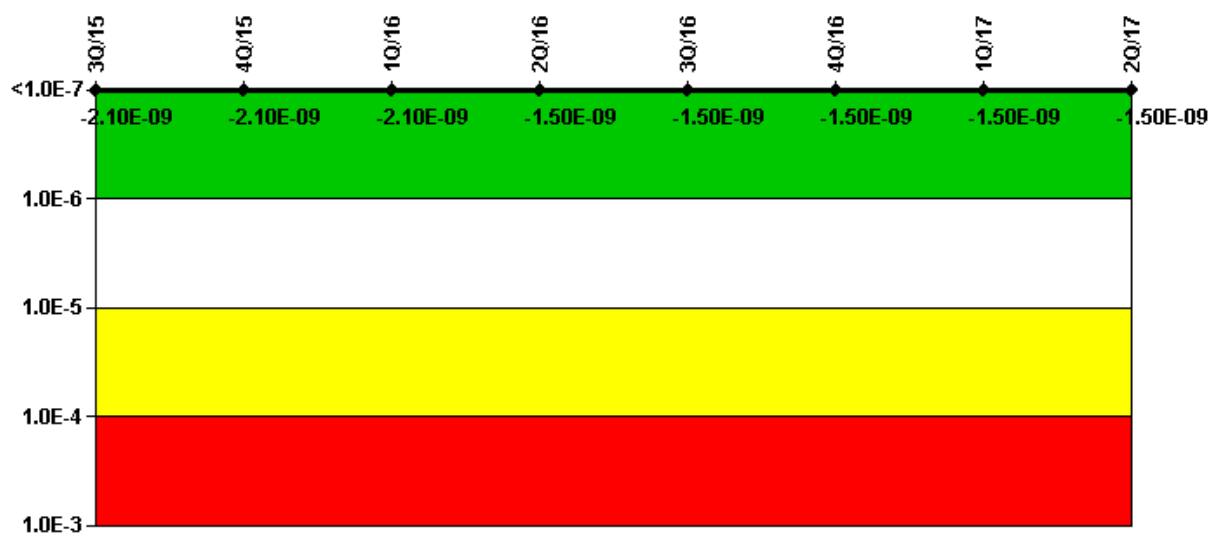
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Licensee Comments:

3Q/16: Changed PRA Parameter(s).

2Q/16: Changed PRA Parameter(s). PRA coefficients and CDF were changed due to updated PRA model

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 (Δ CDF)	-1.41E-10	-1.41E-10	-1.41E-10	-8.27E-11	-6.63E-11	-6.64E-11	-6.63E-11	-6.63E-11
URI (Δ CDF)	-1.96E-09	-1.96E-09	-1.96E-09	-1.40E-09	-1.40E-09	-1.40E-09	-1.40E-09	-1.40E-09
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-2.10E-09	-2.10E-09	-2.10E-09	-1.50E-09	-1.50E-09	-1.50E-09	-1.50E-09	-1.50E-09

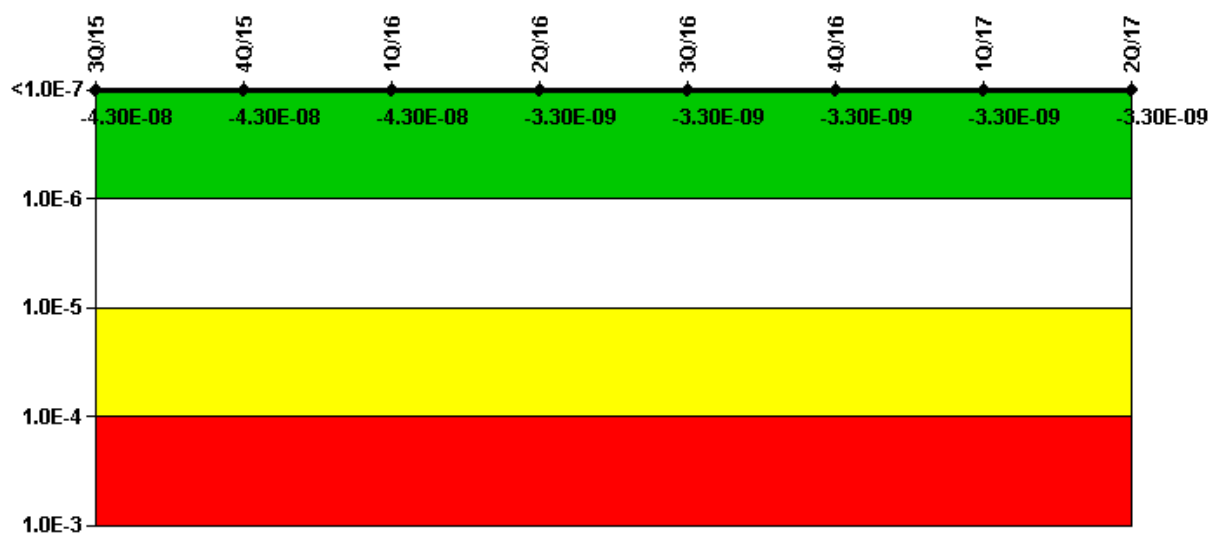
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Licensee Comments:

3Q/16: Changed PRA Parameter(s).

2Q/16: Changed PRA Parameter(s). PRA coefficients and CDF were changed due to updated PRA model

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 (Δ CDF)	-3.11E-08	-3.11E-08	-3.11E-08	-2.93E-09	-2.92E-09	-2.92E-09	-2.92E-09	-2.92E-09
URI (Δ CDF)	-1.20E-08	-1.20E-08	-1.20E-08	-3.38E-10	-3.38E-10	-3.38E-10	-3.38E-10	-3.38E-10
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-4.30E-08	-4.30E-08	-4.30E-08	-3.30E-09	-3.30E-09	-3.30E-09	-3.30E-09	-3.30E-09

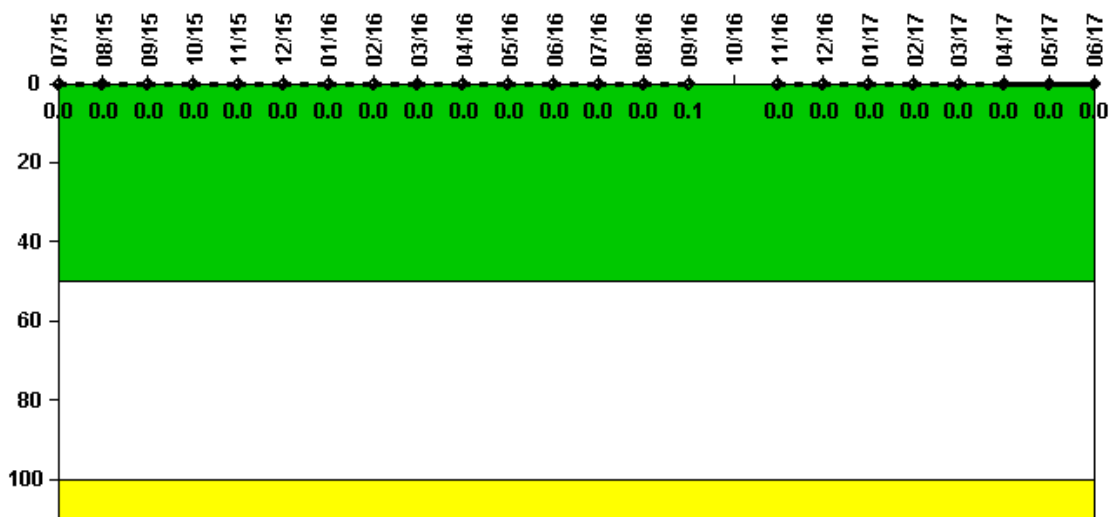
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Licensee Comments:

3Q/16: Changed PRA Parameter(s).

2Q/16: Changed PRA Parameter(s). PRA coefficients and CDF were changed due to updated PRA model

Reactor Coolant System Activity



Thresholds: White > 50.0 Yellow > 100.0

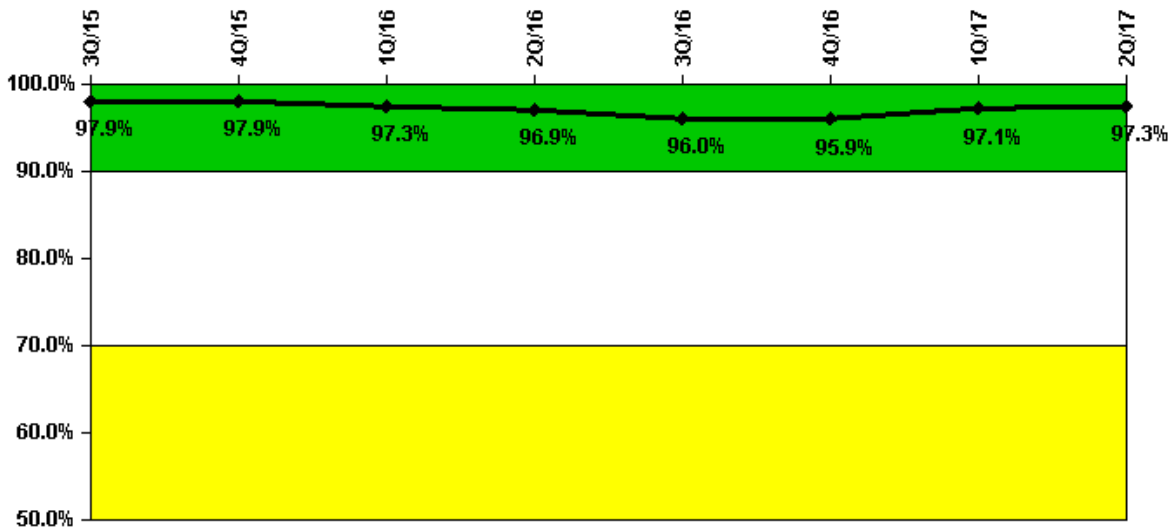
Notes

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	0.000286	0.000257	0.000342	0.000351	0.000319	0.000354	0.000357	0.000360	0.000373	0.000364	0.000390	0.000381
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	0	0	0	0	0	0	0	0	0	0	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	0.000420	0.000357	0.000529	N/A	0.000214	0.000228	0.000248	0.000258	0.000258	0.000277	0.000374	0.000291
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	0	0	0.1	N/A	0	0	0	0	0	0	0	0

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Licensee Comments:
6/16: U1 April 2016 data corrected.

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	20.0	24.0	17.0	17.0	25.0	24.0	44.0	46.0
Total opportunities	22.0	25.0	18.0	17.0	27.0	24.0	44.0	46.0

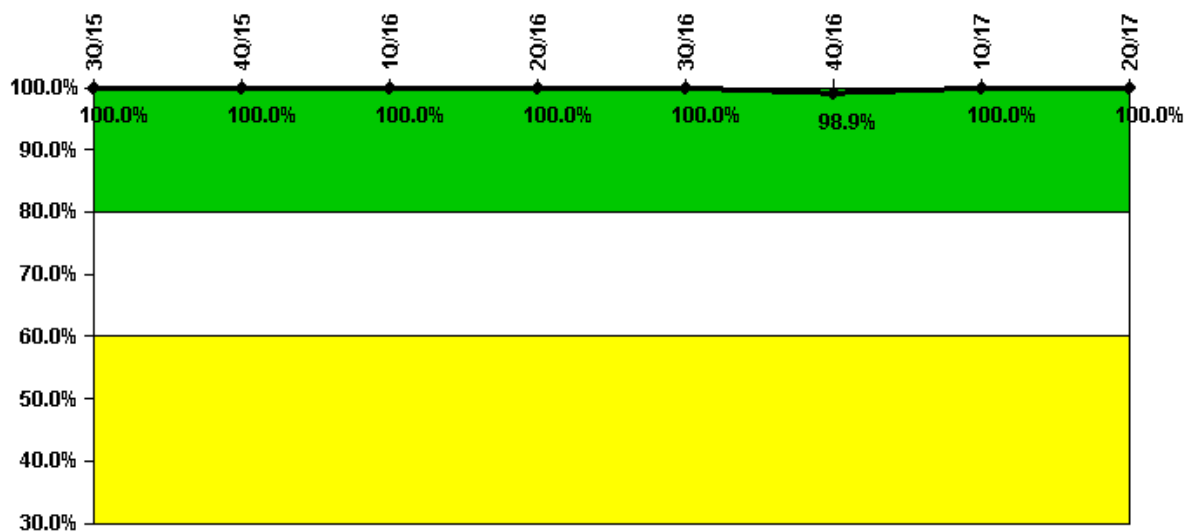
Indicator value **97.9% 97.9% 97.3% 96.9% 96.0% 95.9% 97.1% 97.3%**

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Licensee Comments:

3Q/16: One drill/exercise opportunity currently under evaluation but conservatively reported as a failed opportunity. Pending final resolution this PI may change.

ERO Drill Participation



Thresholds: White < 80.0% Yellow < 60.0%

Notes

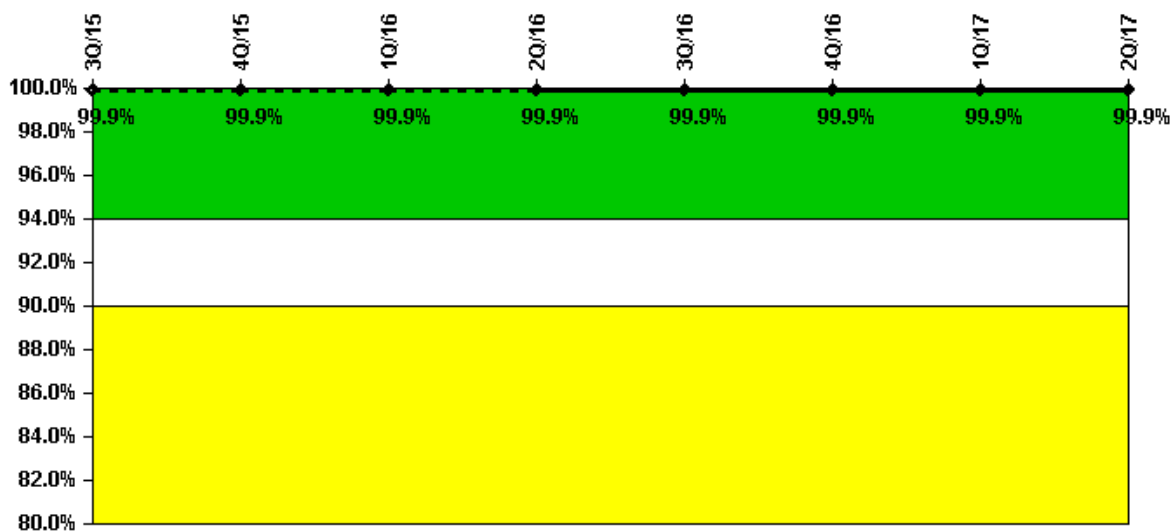
ERO Drill Participation	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17
Participating Key personnel	76.0	76.0	83.0	83.0	79.0	86.0	86.0	84.0
Total Key personnel	76.0	76.0	83.0	83.0	79.0	87.0	86.0	84.0

Indicator value **100.0% 100.0% 100.0% 100.0% 100.0% 98.9% 100.0% 100.0%**

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Licensee Comments: none

Alert & Notification System



Thresholds: White < 94.0% Yellow < 90.0%

Notes

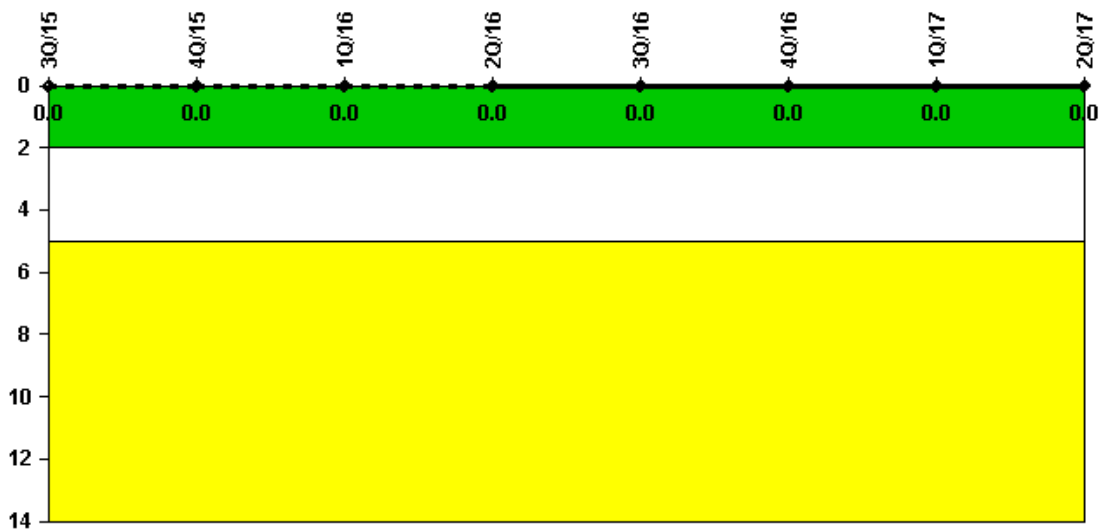
Alert & Notification System	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17
Successful siren-tests	719	629	630	629	720	629	629	720
Total sirens-tests	720	630	630	630	720	630	630	720

Indicator value 99.9% 99.9% 99.9% 99.9% 99.9% 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

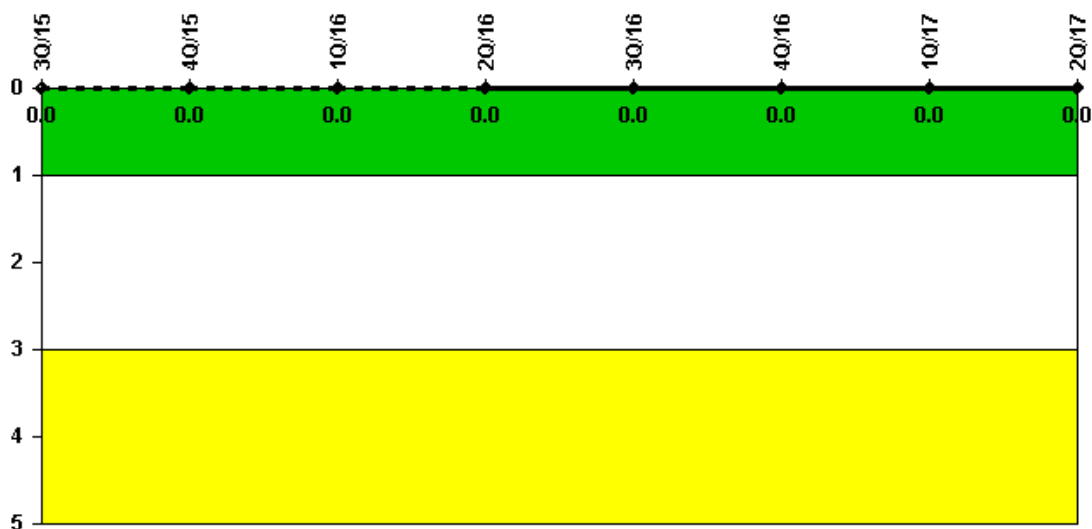
Occupational Exposure Control Effectiveness 3Q/15 4Q/15 1Q/16 2Q/16 3Q/16 4Q/16 1Q/17 2Q/17

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
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 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