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South Texas 2 – Quarterly Performance Indicators

4Q/2017 Performance Indicators

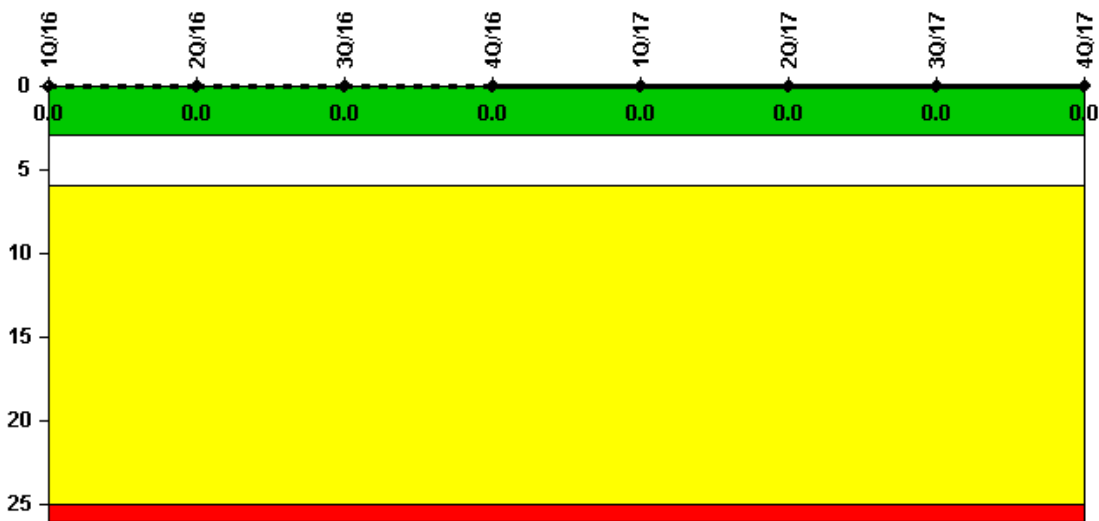
The solid trend line represents the current reporting period.

Licensee's General Comments: none

On this page:

- Unplanned Scrams (IE01)
- Unplanned Power Changes per 7000 Critical Hours (IE03)
- Unplanned Scrams with Complications (IE04)
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- Emergency AC Power Systems (MS06)
- High Pressure Injection Systems (MS07)
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- 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

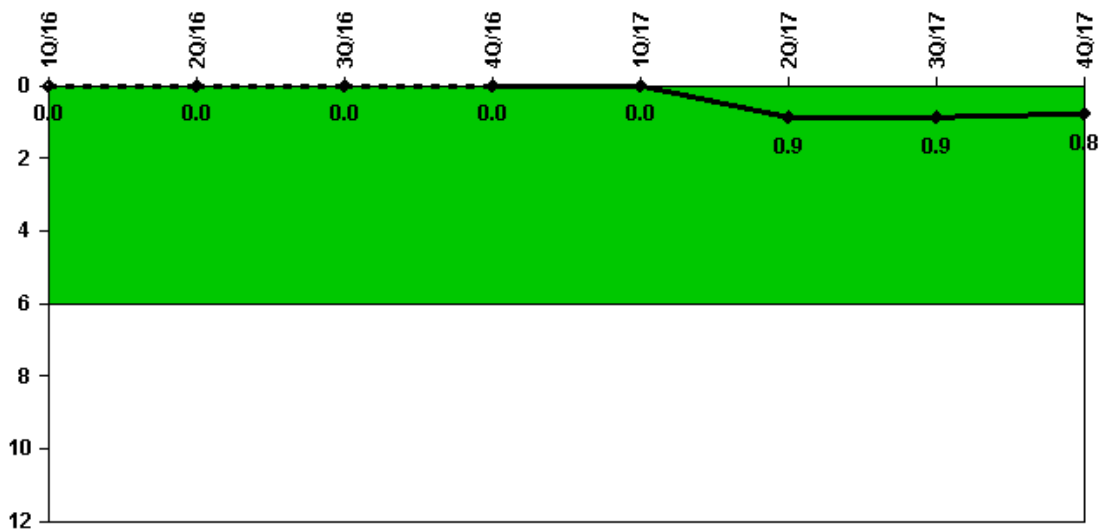
Unplanned Scrams per 7000 Critical Hrs	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17	3Q/17	4Q/17
Unplanned scrams	0	0	0	0	0	0	0	0
Critical hours	2183.0	2184.0	2208.0	1471.3	2159.0	2184.0	2208.0	2209.0

Indicator value	0	0	0	0	0	0	0	0
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Licensee Comments: none

Unplanned Power Changes per 7000 Critical Hrs



Thresholds: White > 6.0

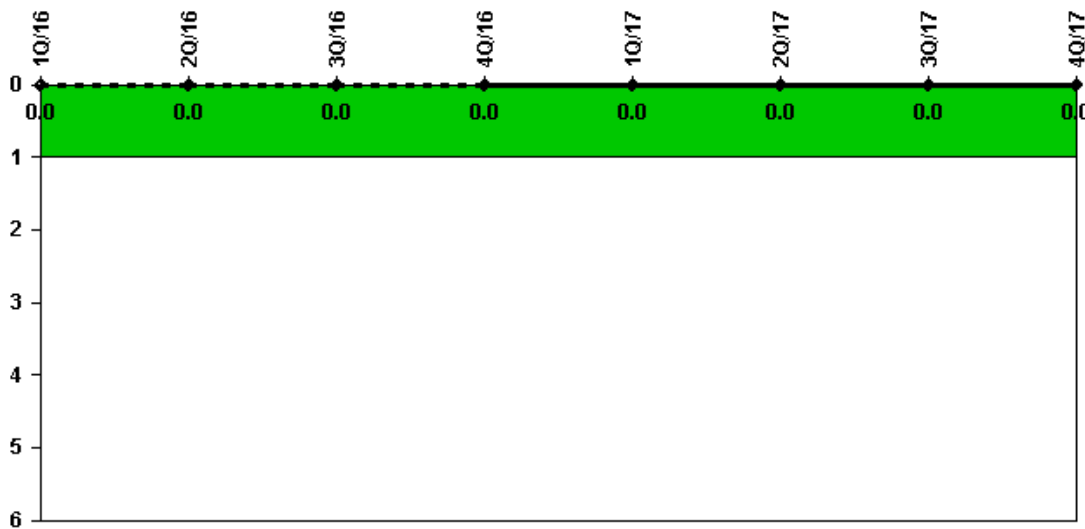
Notes

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	0	0	0	0	0	1.0	0	0
Critical hours	2183.0	2184.0	2208.0	1471.3	2159.0	2184.0	2208.0	2209.0
Indicator value	0	0	0	0	0	0.9	0.9	0.8

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Licensee Comments: none

Unplanned Scrams with Complications



Thresholds: White > 1.0

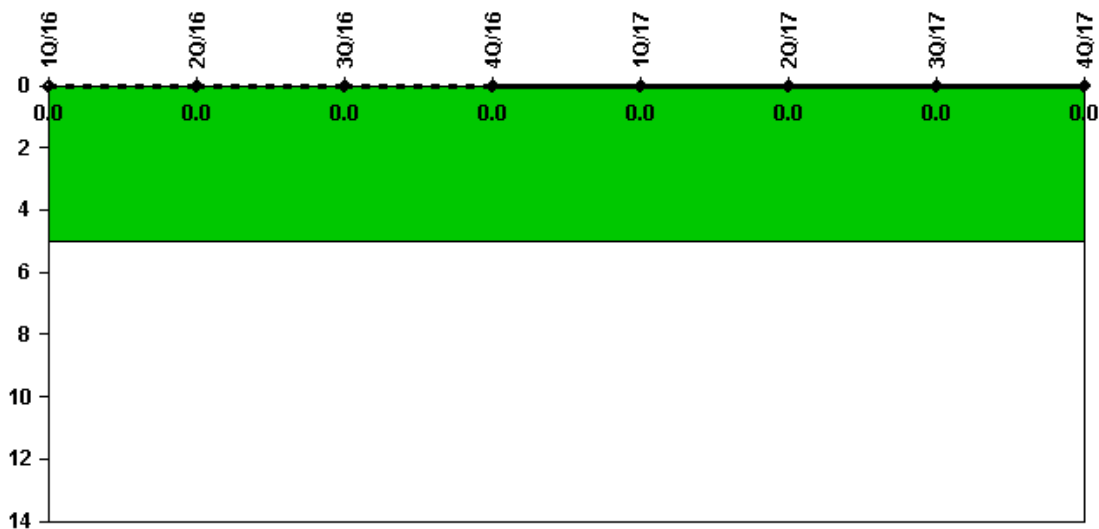
Notes

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
Indicator value	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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Licensee Comments: none

Safety System Functional Failures (PWR)



Thresholds: White > 5.0

Notes

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

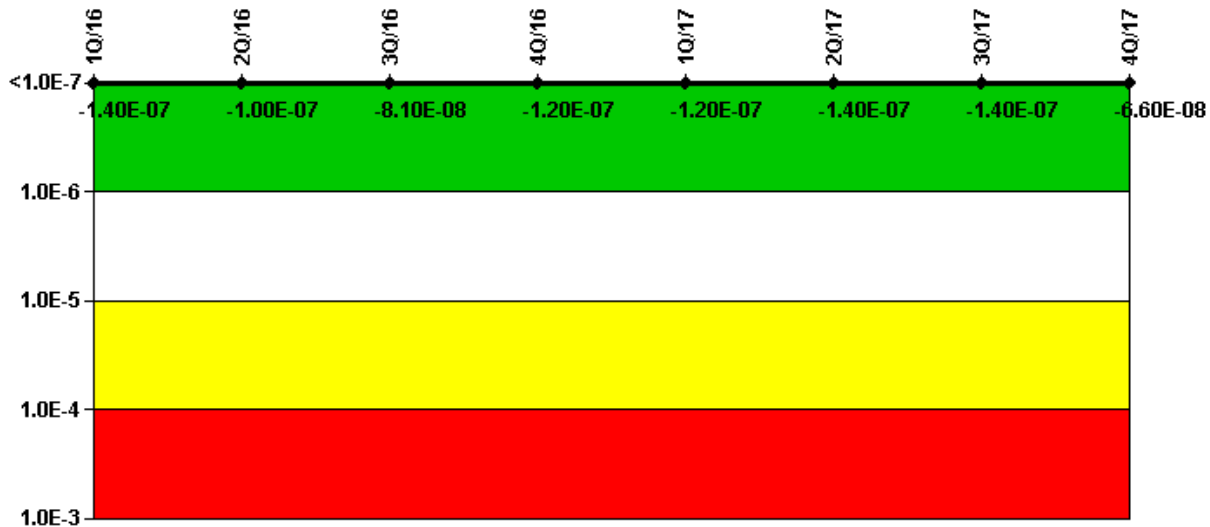
Safety System Functional Failures 0 0 0 0 0 0 0 0

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

	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17	3Q/17	4Q/17
UAI (ΔCDF)	2.63E-08	5.75E-08	8.12E-08	4.43E-08	4.01E-08	2.61E-08	2.17E-08	9.65E-08
URI (ΔCDF)	-1.62E-07	-1.62E-07	-1.62E-07	-1.62E-07	-1.62E-07	-1.62E-07	-1.62E-07	-1.62E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-1.40E-07	-1.00E-07	-8.10E-08	-1.20E-07	-1.20E-07	-1.40E-07	-1.40E-07	-6.60E-08

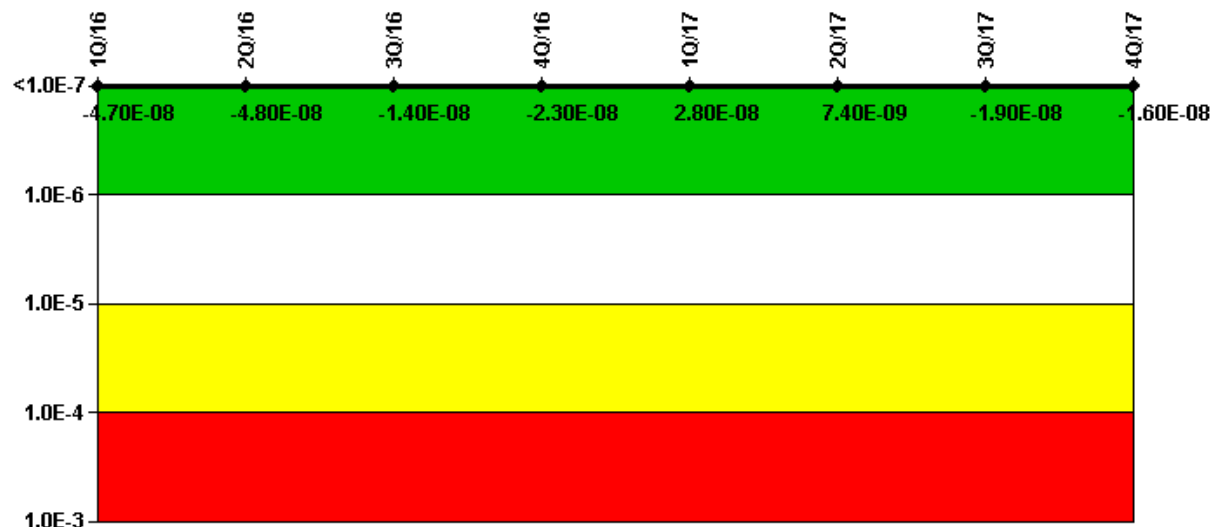
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Licensee Comments:

4Q/17: The Planned UA Baseline coefficient for Unit 2 EDG A (DG 21) was revised to remove 144 planned UA baseline hours related to 5 maintenance that was performed 1Q15. This change will be effective 1Q18. The MSPI Bases Document was revised to reflect this change. (Reference CR 14-12028-31)

1Q/16: Changed PRA Parameter(s). Approved PRA Model Rev 8.1 and updated coefficients effective 1Q16.

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 (ΔCDF)	-2.56E-08	-2.62E-08	7.38E-09	-1.17E-09	4.93E-08	2.87E-08	2.41E-09	4.94E-09
URI (ΔCDF)	-2.13E-08	-2.13E-08	-2.13E-08	-2.13E-08	-2.13E-08	-2.13E-08	-2.13E-08	-2.13E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO

Indicator value

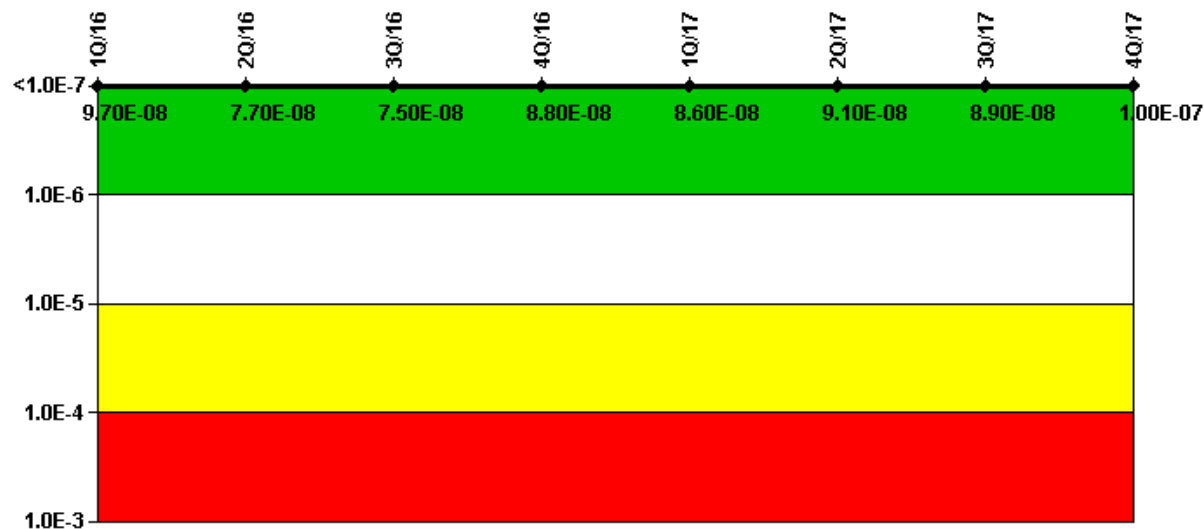
-4.70E-08 -4.80E-08 -1.40E-08 -2.30E-08 2.80E-08 7.40E-09 -1.90E-08 -1.60E-08

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Licensee Comments:

1Q/16: Changed PRA Parameter(s). Approved PRA Model Rev 8.1 and updated coefficients effective 1Q16.

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

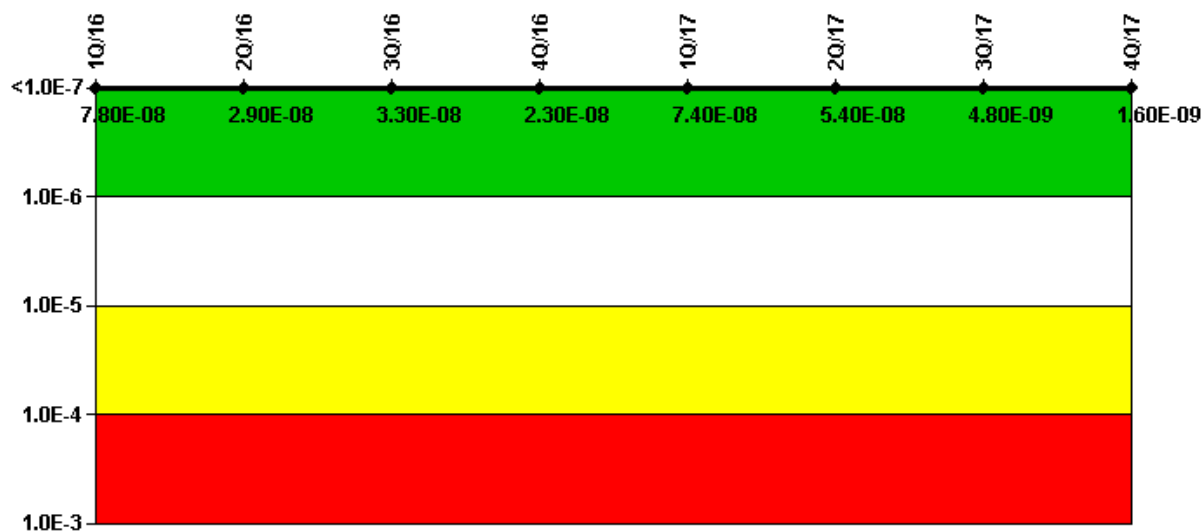
	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17	3Q/17	4Q/17
UAI (ΔCDF)	3.88E-08	1.82E-08	1.64E-08	2.97E-08	2.70E-08	3.27E-08	3.00E-08	4.14E-08
URI (ΔCDF)	5.85E-08	5.85E-08	5.85E-08	5.85E-08	5.85E-08	5.85E-08	5.85E-08	5.85E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	9.70E-08	7.70E-08	7.50E-08	8.80E-08	8.60E-08	9.10E-08	8.90E-08	1.00E-07

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Licensee Comments:

1Q/16: Changed PRA Parameter(s). Approved PRA Model Rev 8.1 and updated coefficients effective 1Q16.

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

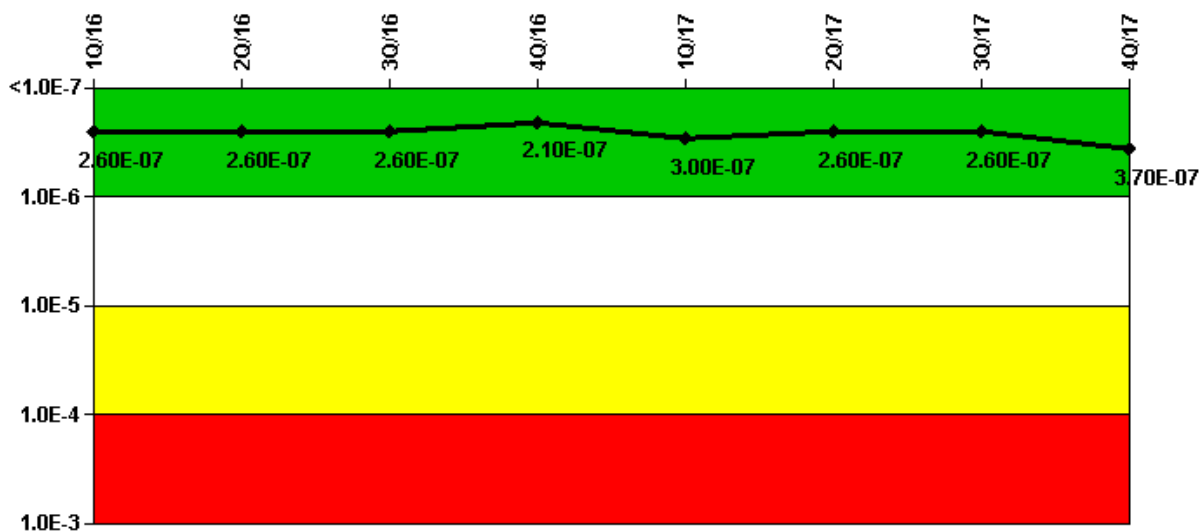
	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17	3Q/17	4Q/17
UAI (ΔCDF)	8.88E-08	4.04E-08	4.44E-08	3.46E-08	8.49E-08	6.56E-08	1.59E-08	1.27E-08
URI (ΔCDF)	-1.11E-08	-1.11E-08	-1.11E-08	-1.11E-08	-1.11E-08	-1.11E-08	-1.11E-08	-1.11E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	7.80E-08	2.90E-08	3.30E-08	2.30E-08	7.40E-08	5.40E-08	4.80E-09	1.60E-09

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Licensee Comments:

1Q/16: Changed PRA Parameter(s). Approved PRA Model Rev 8.1 and updated coefficients effective 1Q16.

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

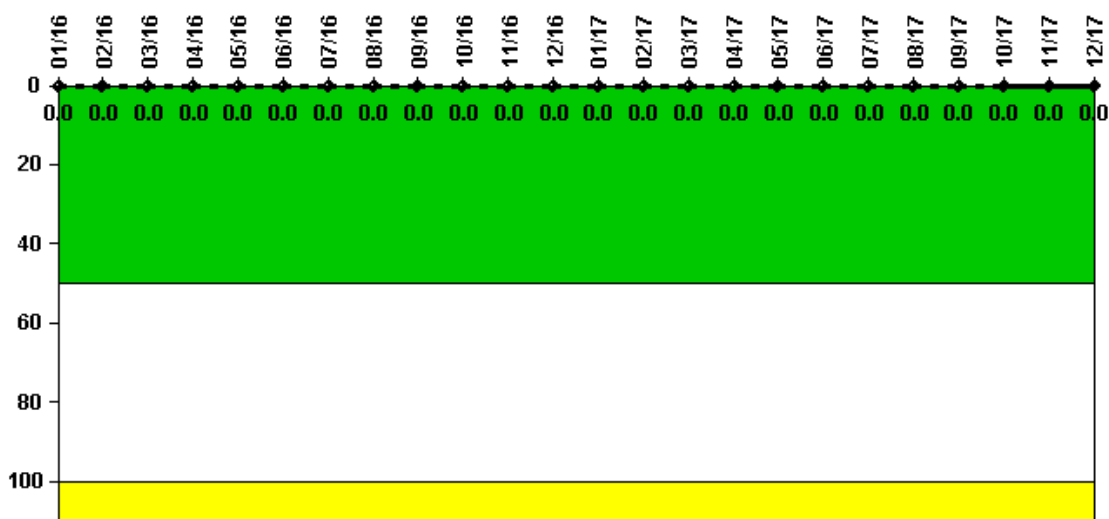
	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17	3Q/17	4Q/17
UAI (ΔCDF)	2.87E-07	2.91E-07	2.88E-07	2.38E-07	2.36E-07	1.93E-07	1.92E-07	3.03E-07
URI (ΔCDF)	-2.85E-08	-2.85E-08	-2.85E-08	-2.85E-08	6.53E-08	6.53E-08	6.53E-08	6.53E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	2.60E-07	2.60E-07	2.60E-07	2.10E-07	3.00E-07	2.60E-07	2.60E-07	3.70E-07

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Licensee Comments:

1Q/16: Changed PRA Parameter(s). Approved PRA Model Rev 8.1 and updated coefficients effective 1Q16.

Reactor Coolant System Activity



Thresholds: White > 50.0 Yellow > 100.0

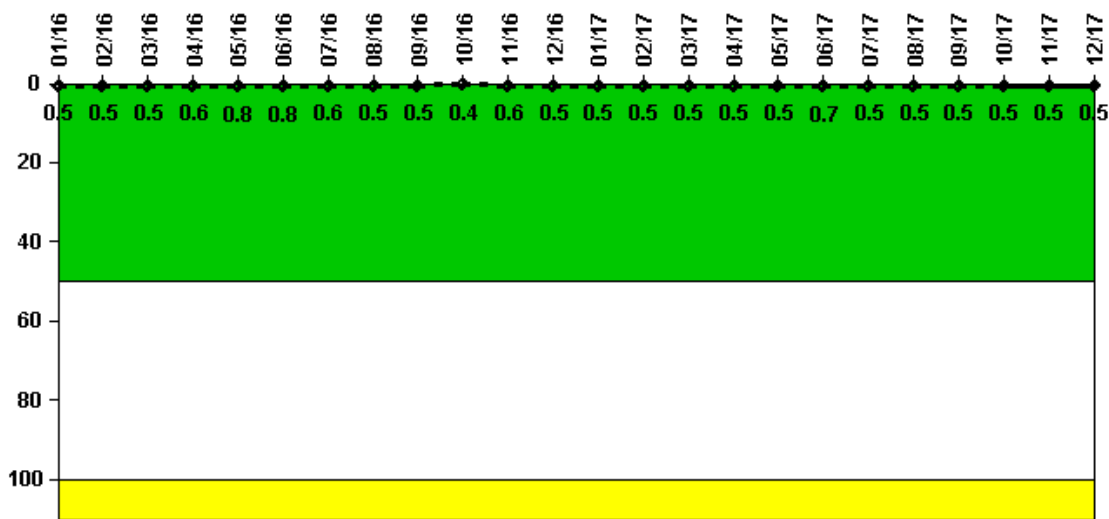
Notes

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	0.000035	0.000036	0.000040	0.000034	0.000035	0.000037	0.000036	0.000055	0.000037	0.000019	0.000023	0.000029
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	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	0.000029	0.000028	0.000032	0.000029	0.000028	0.000026	0.000027	0.000029	0.000029	0.000029	0.000031	0.000032
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

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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	0.053	0.054	0.046	0.062	0.076	0.079	0.064	0.054	0.050	0.037	0.061	0.045
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

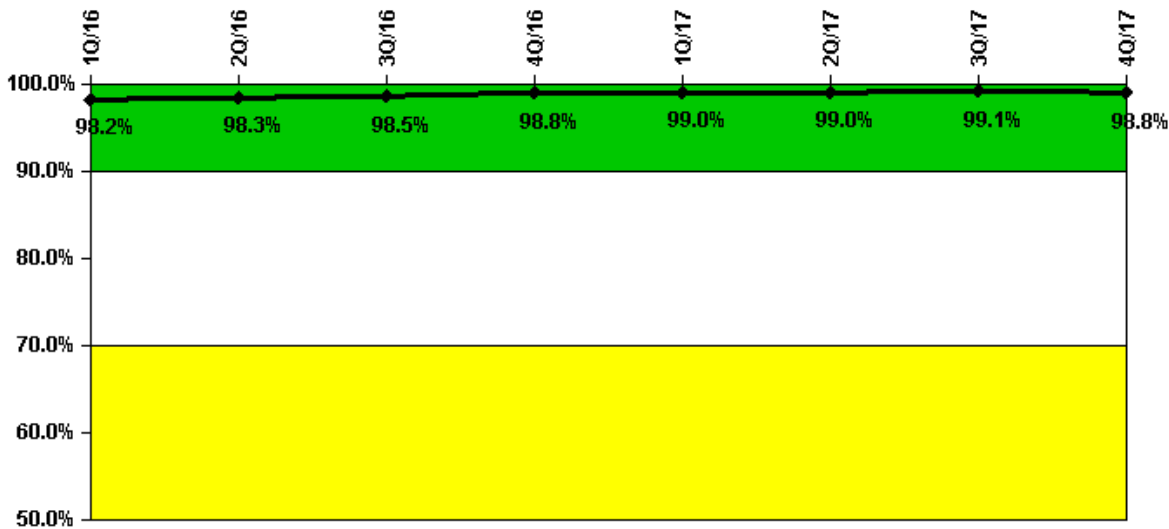
Indicator value	0.5	0.5	0.5	0.6	0.8	0.8	0.6	0.5	0.5	0.4	0.6	0.5
Reactor Coolant System Leakage	1/17	2/17	3/17	4/17	5/17	6/17	7/17	8/17	9/17	10/17	11/17	12/17
Maximum leakage	0.050	0.049	0.047	0.046	0.047	0.072	0.053	0.054	0.048	0.045	0.053	0.049
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0

Indicator value	0.5	0.5	0.5	0.5	0.5	0.7	0.5	0.5	0.5	0.5	0.5	0.5
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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	10.0	126.0	85.0	10.0	8.0	85.0	15.0	67.0
Total opportunities	10.0	129.0	85.0	10.0	8.0	85.0	15.0	69.0

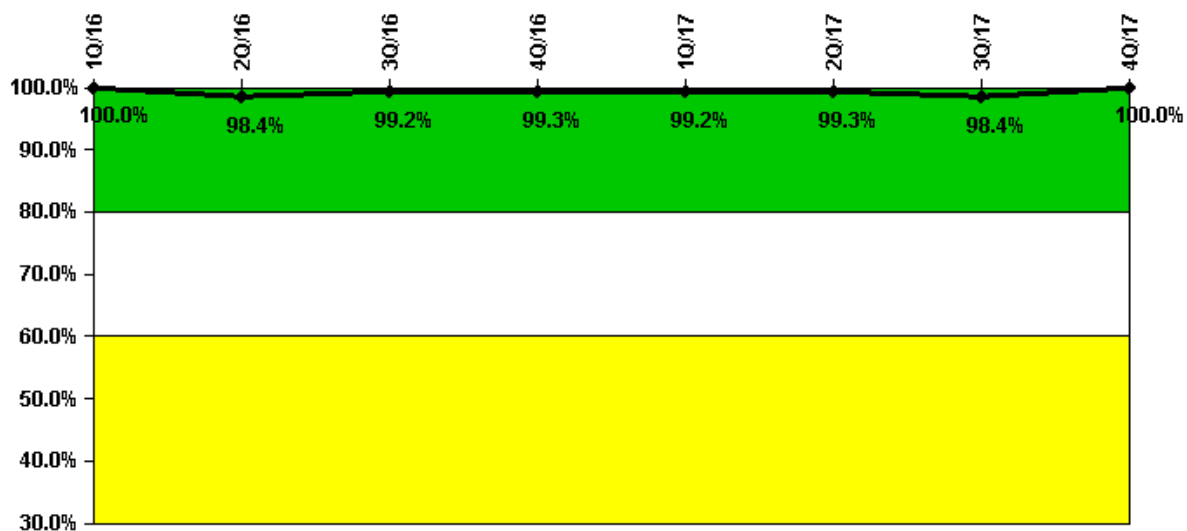
Indicator value **98.2% 98.3% 98.5% 98.8% 99.0% 99.0% 99.1% 98.8%**

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Licensee Comments:

- 3Q/17: Corrected Drill and Exercise Performance for 2Q17 to add 1 successful opportunity. This change did not affect the color of the indicator. (Ref. CR 17-19408)
- 2Q/17: Corrected Drill and Exercise Performance for 1Q17 to add 2 successful opportunities. This change did not affect the color of the indicator. (Ref. CR 17-15939)
- 2Q/17: Corrected Drill and Exercise Performance for 1Q17 to add 2 successful opportunities. This change did not affect the color of the indicator. (Ref. CR 17-15939)

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	113.0	120.0	123.0	133.0	132.0	134.0	127.0	130.0
Total Key personnel	113.0	122.0	124.0	134.0	133.0	135.0	129.0	130.0

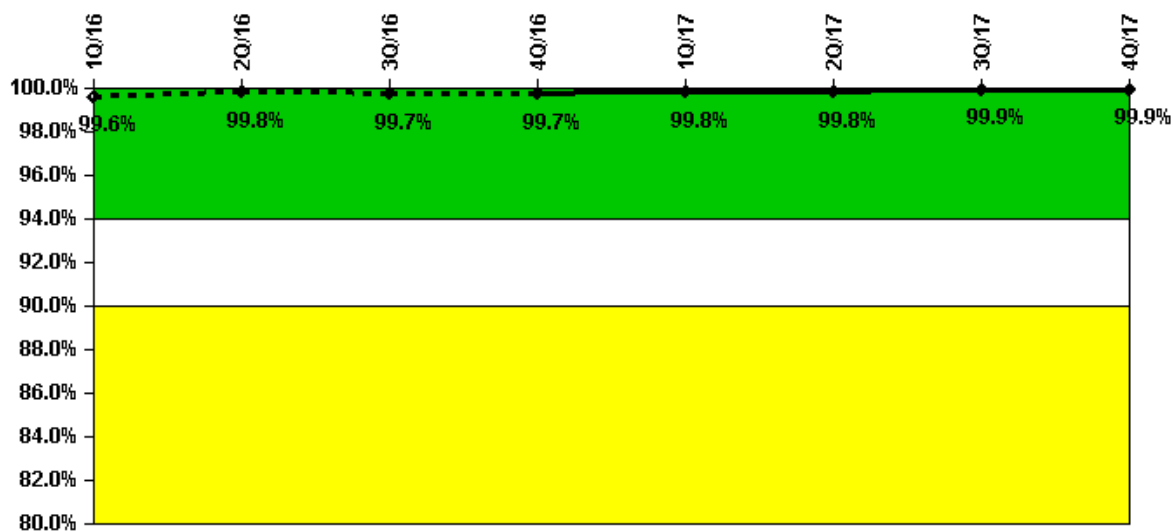
Indicator value **100.0% 98.4% 99.2% 99.3% 99.2% 99.3% 98.4% 100.0%**

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Licensee Comments:

2Q/17: Corrected Participating Key Personnel data for 2Q16, 3Q16, 4Q16, 1Q17. Key Personnel incorrectly credited. (Ref. CR 17-14845). This change did not affect the color of the indicator.

Alert & Notification System



Thresholds: White < 94.0% Yellow < 90.0%

Notes

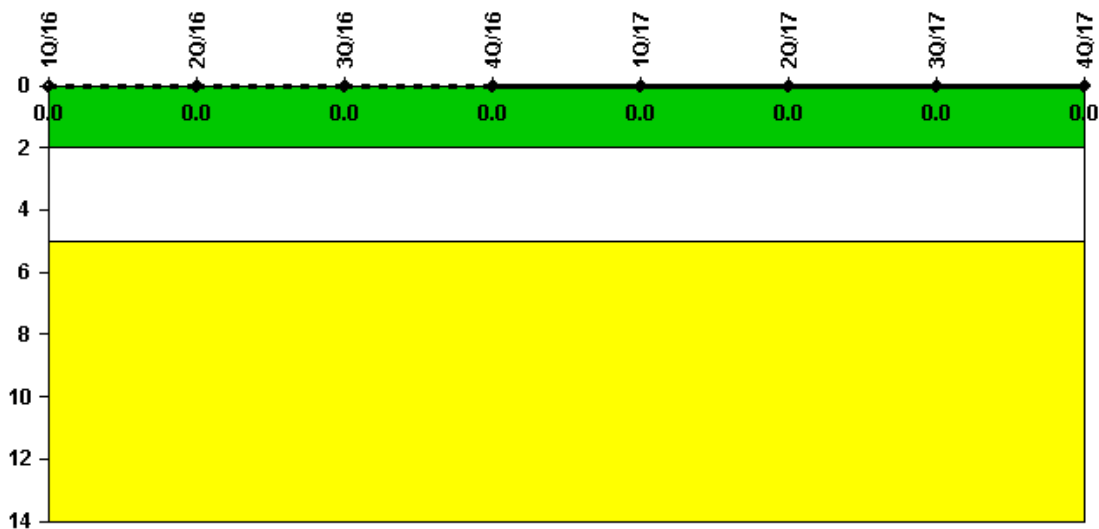
Alert & Notification System	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17	3Q/17	4Q/17
Successful siren-tests	254	256	223	256	255	256	224	224
Total sirens-tests	256	256	224	256	256	256	224	224

Indicator value **99.6% 99.8% 99.7% 99.7% 99.8% 99.8% 99.9% 99.9%**

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Licensee Comments: none

Occupational Exposure Control Effectiveness



Thresholds: White > 2.0 Yellow > 5.0

Notes

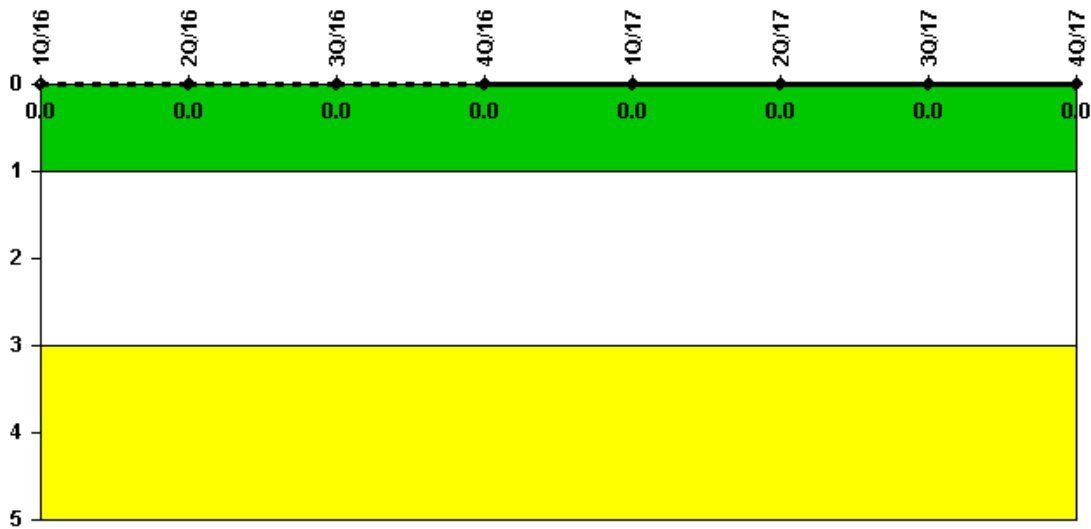
Occupational Exposure Control Effectiveness 1Q/16 2Q/16 3Q/16 4Q/16 1Q/17 2Q/17 3Q/17 4Q/17

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
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 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