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South Texas 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

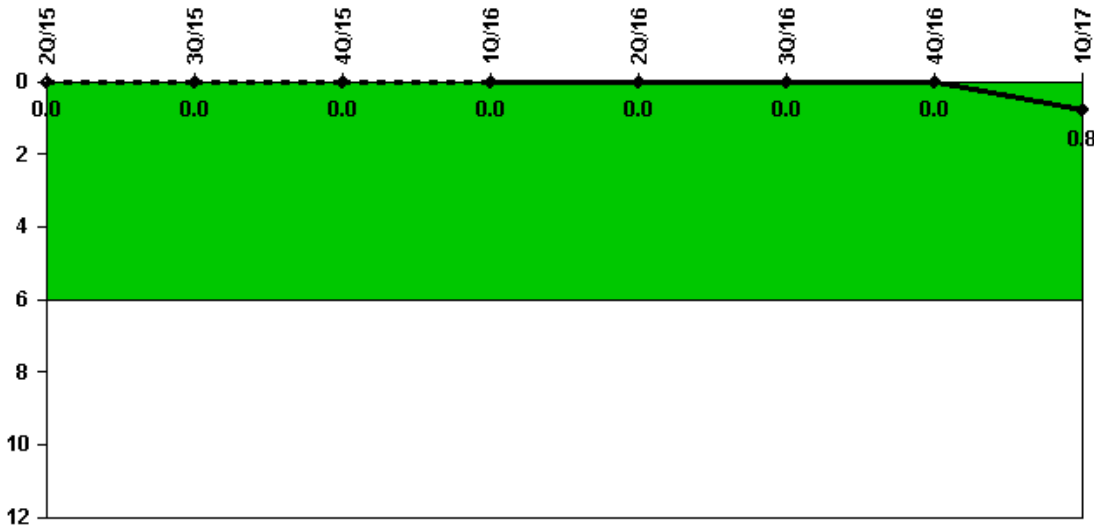
Unplanned Scrams per 7000 Critical Hrs	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17
Unplanned scrams	0	0	1.0	1.0	1.0	0	0	0
Critical hours	2184.0	2208.0	627.1	2111.7	2091.7	2208.0	2209.0	1808.0

Indicator value	0	0	1.0	2.0	3.0	3.0	1.6	0.8
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Licensee Comments: none

Unplanned Power Changes per 7000 Critical Hrs



Thresholds: White > 6.0

Notes

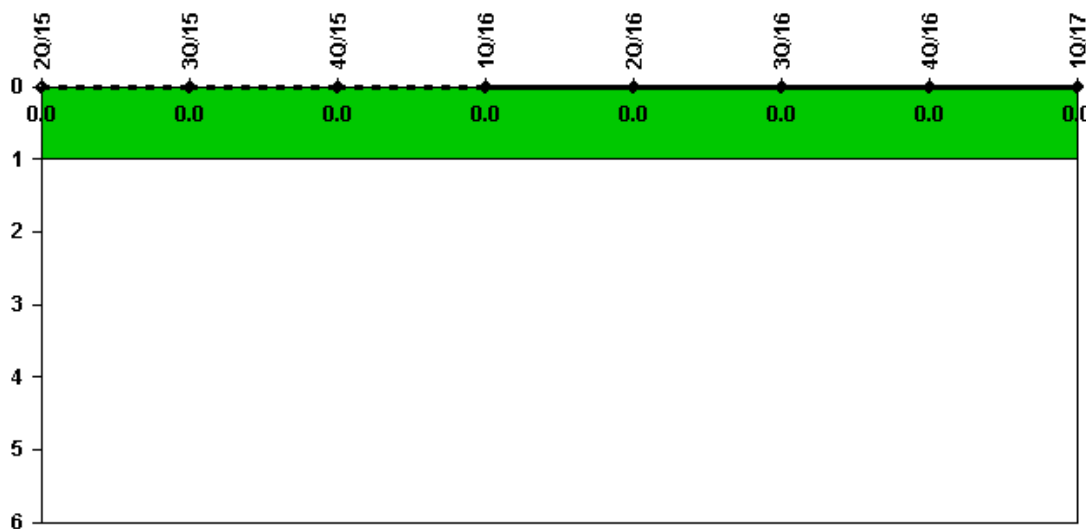
Unplanned Power Changes per 7000 Critical Hrs	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17
Unplanned power changes	0	0	0	0	0	0	0	1.0
Critical hours	2184.0	2208.0	627.1	2111.7	2091.7	2208.0	2209.0	1808.0

Indicator value 0 0 0 0 0 0 0 0 0.8

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Licensee Comments: none

Unplanned Scrams with Complications



Thresholds: White > 1.0

Notes

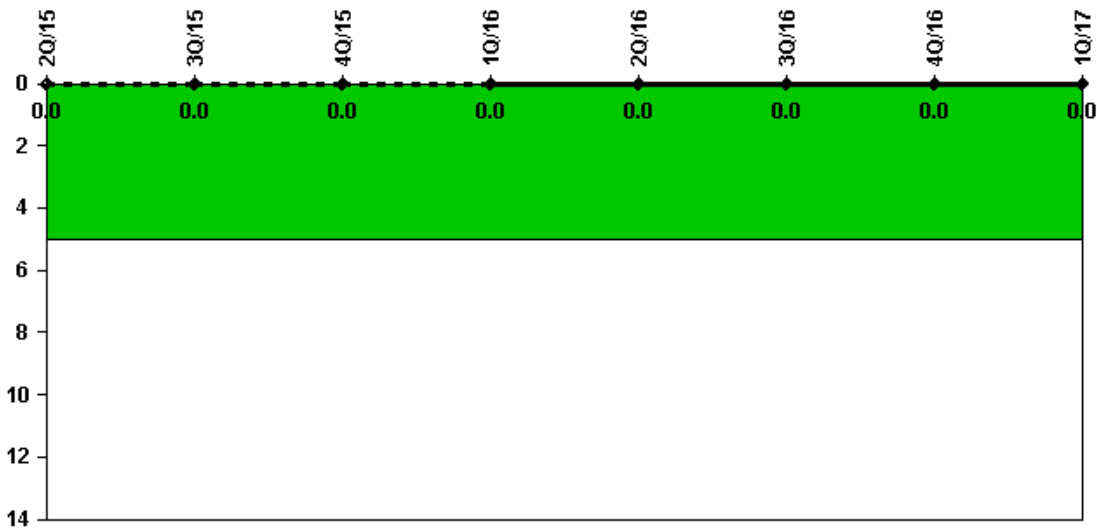
Unplanned Scrams with Complications	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17
Scrams with complications	0	0	0	0	0	0	0	0

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

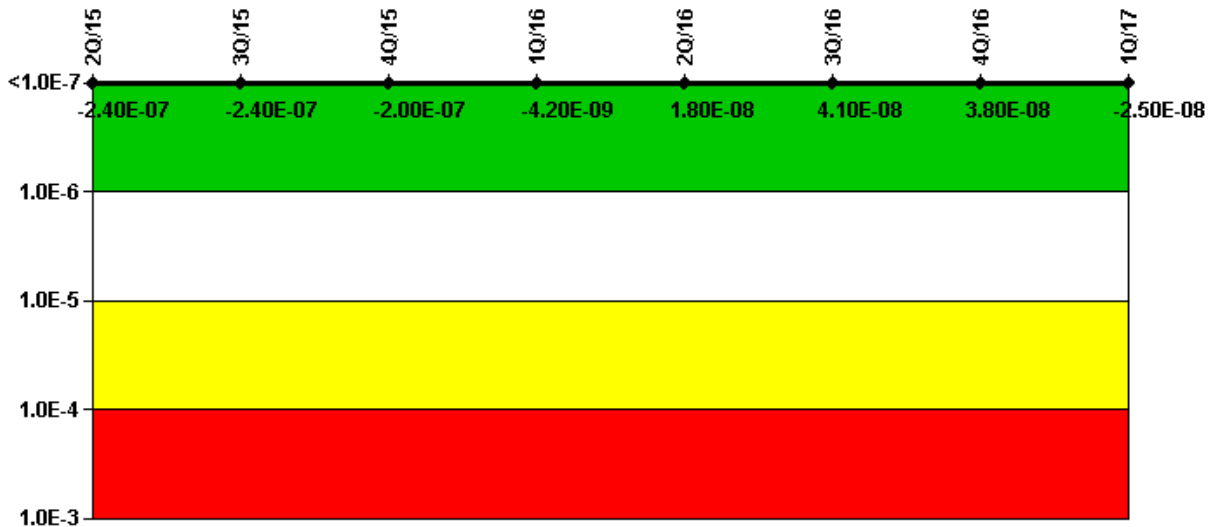
Safety System Functional Failures (PWR) 2Q/15 3Q/15 4Q/15 1Q/16 2Q/16 3Q/16 4Q/16 1Q/17
 Safety System Functional Failures 0 0 0 0 0 0 0 0

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

	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17
UAI (ΔCDF)	7.99E-08	7.70E-08	1.24E-07	7.88E-08	1.01E-07	1.24E-07	1.21E-07	9.20E-08
URI (ΔCDF)	-3.20E-07	-3.20E-07	-3.20E-07	-8.30E-08	-8.30E-08	-8.30E-08	-8.30E-08	-1.17E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-2.40E-07	-2.40E-07	-2.00E-07	-4.20E-09	1.80E-08	4.10E-08	3.80E-08	-2.50E-08

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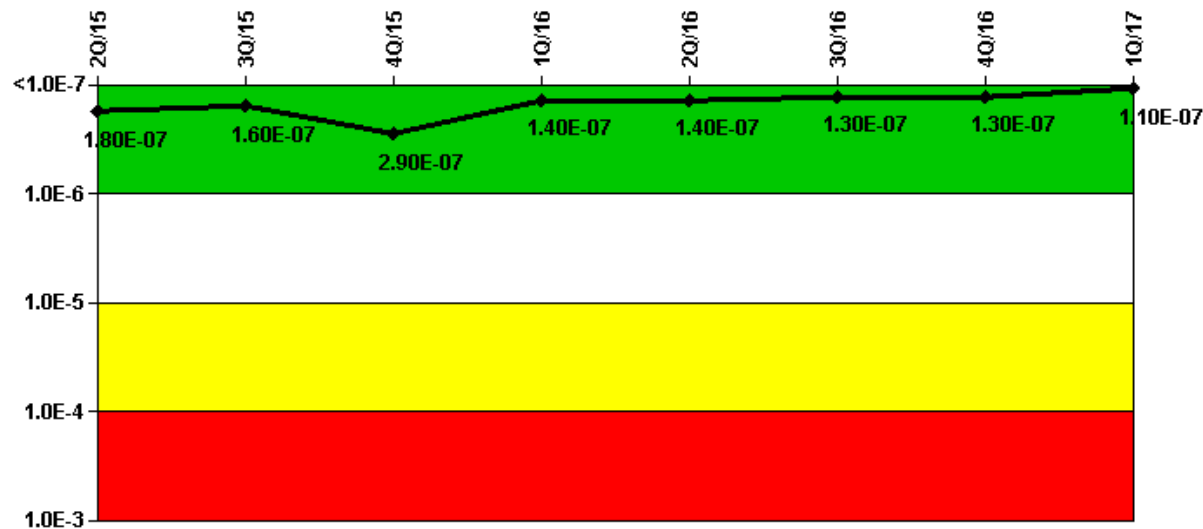
Licensee Comments:

1Q/17: The Planned UA Baseline coefficient for Unit 1 EDG A (DG 13) was revised to remove 144 planned UA baseline hours related to 5 year surveillance that was performed in June 2014. This change will be effective 2Q17. The MSPI Bases Document was revised to reflect this change. (Reference CR 13-3103-11)

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

4Q/15: Changed PRA Parameter(s). The Planned UA Baseline coefficient for Unit 1 EDG B (DG 12) was revised to remove the planned UA baseline hours related to 15 year preventive maintenance from January 2013. This change will be effective 1Q16 (Reference CR 13-3103-4). The MSPI Bases Document was revised to the change in EDG B UA coefficient and to incorporate FAQ-14-01 regarding MSPI PRA Technical Adequacy (Reference CR 14-12028- 34).

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)	2.07E-07	1.84E-07	3.11E-07	1.63E-07	1.61E-07	1.48E-07	1.47E-07	1.33E-07
URI (ΔCDF)	-2.53E-08	-2.53E-08	-2.53E-08	-2.13E-08	-2.13E-08	-2.13E-08	-2.13E-08	-2.13E-08

NRC: South Texas 1 – Quarterly Quarterly Performance Indicators

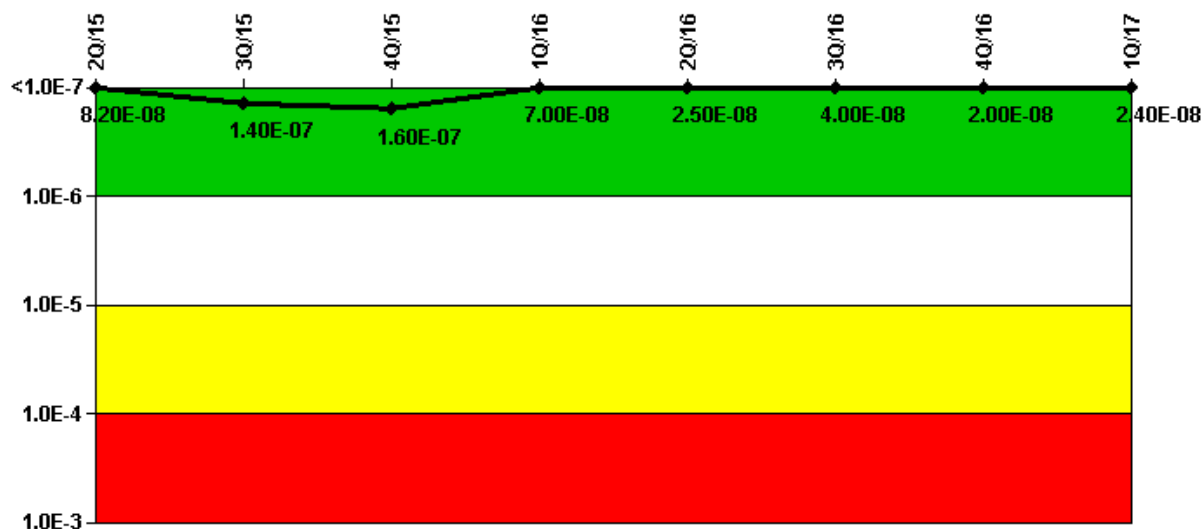
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	1.80E-07	1.60E-07	2.90E-07	1.40E-07	1.40E-07	1.30E-07	1.30E-07	1.10E-07

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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, 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 (ΔCDF)	1.38E-07	1.93E-07	2.21E-07	1.43E-07	9.92E-08	1.14E-07	9.41E-08	9.78E-08
URI (ΔCDF)	-5.58E-08	-5.58E-08	-5.68E-08	-7.28E-08	-7.40E-08	-7.40E-08	-7.40E-08	-7.40E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	8.20E-08	1.40E-07	1.60E-07	7.00E-08	2.50E-08	4.00E-08	2.00E-08	2.40E-08

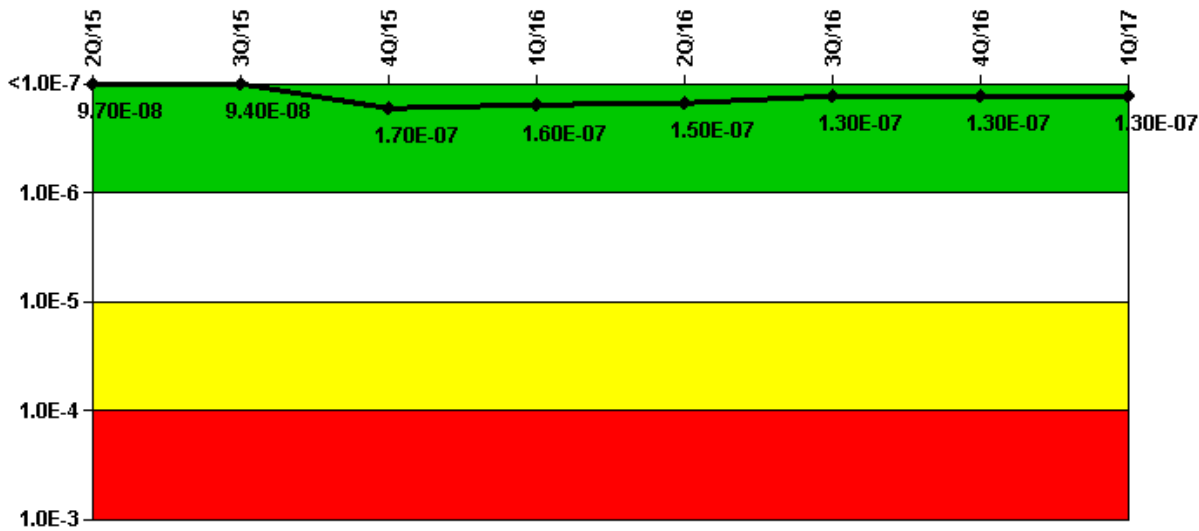
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Licensee Comments:

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

3Q/15: Engineering is evaluating whether AFW-B degraded condition reported in CR 15-21784 in September 2015 impacted an MSPI monitored function.

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

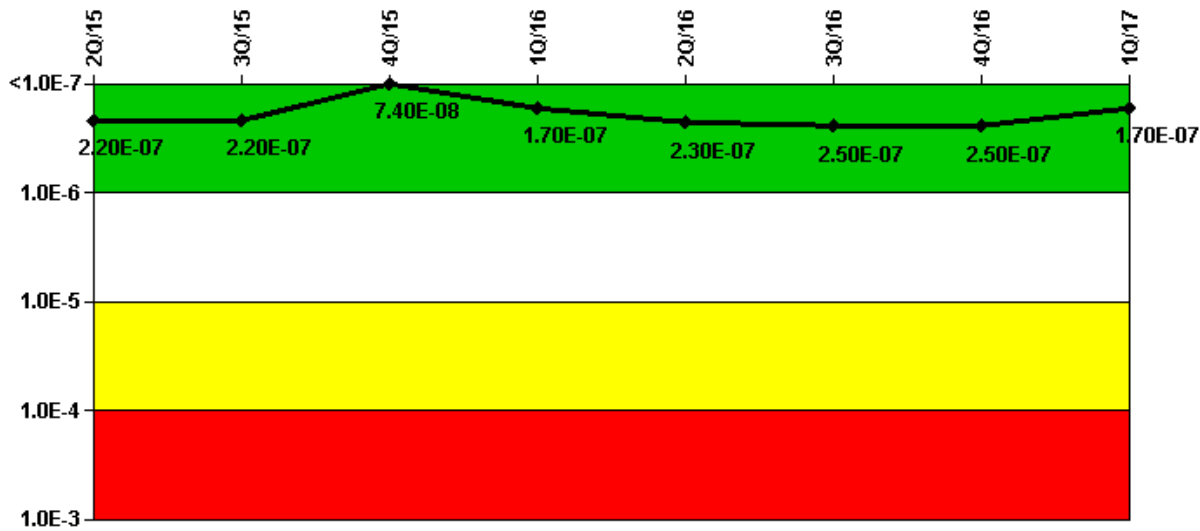
	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17
UAI (ΔCDF)	1.08E-07	1.06E-07	1.85E-07	1.72E-07	1.63E-07	1.46E-07	1.38E-07	1.40E-07
URI (ΔCDF)	-1.14E-08	-1.14E-08	-1.14E-08	-1.11E-08	-1.11E-08	-1.11E-08	-1.11E-08	-1.11E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	9.70E-08	9.40E-08	1.70E-07	1.60E-07	1.50E-07	1.30E-07	1.30E-07	1.30E-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, Cooling Water Systems



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

Notes

Mitigating Systems Performance Index, Cooling Water Systems

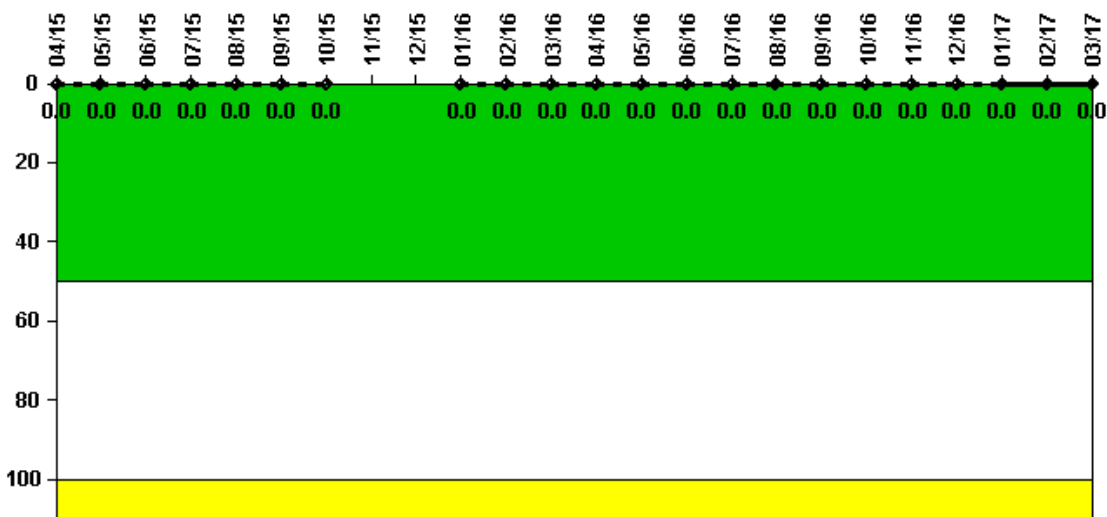
	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17
UAI (ΔCDF)	1.16E-07	1.14E-07	1.12E-07	1.96E-07	2.59E-07	2.78E-07	2.77E-07	1.98E-07
URI (ΔCDF)	1.06E-07	1.06E-07	-3.81E-08	-2.85E-08	-2.85E-08	-2.85E-08	-2.85E-08	-2.85E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	2.20E-07	2.20E-07	7.40E-08	1.70E-07	2.30E-07	2.50E-07	2.50E-07	1.70E-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

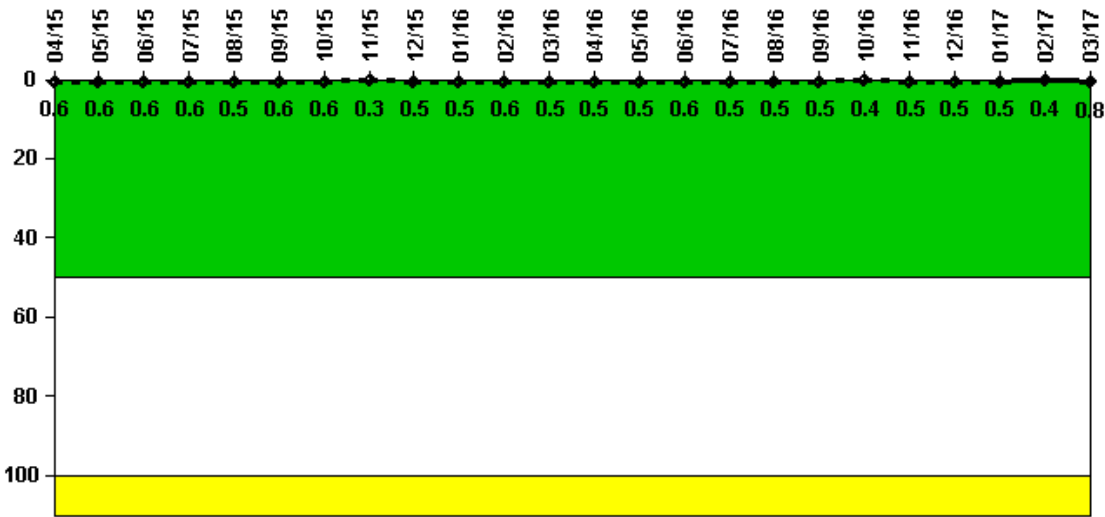
Reactor Coolant System Activity	4/15	5/15	6/15	7/15	8/15	9/15	10/15	11/15	12/15	1/16	2/16	3/16
Maximum activity	0.000031	0.000033	0.000031	0.000032	0.000032	0.000035	0.000031	N/A	N/A	0.000018	0.000018	0.000014
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	0	0	0	0	0	0	0	N/A	N/A	0	0	0

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	0.000028	0.000018	0.000022	0.000023	0.000025	0.000027	0.000027	0.000027	0.000028	0.000026	0.000029	0.000030
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:
 12/15: No steady state data in November or December 2015. Unit 1 Refueling Outage 1RE19.

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	0.060	0.056	0.060	0.058	0.050	0.059	0.061	0.034	0.050	0.046	0.060	0.052
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

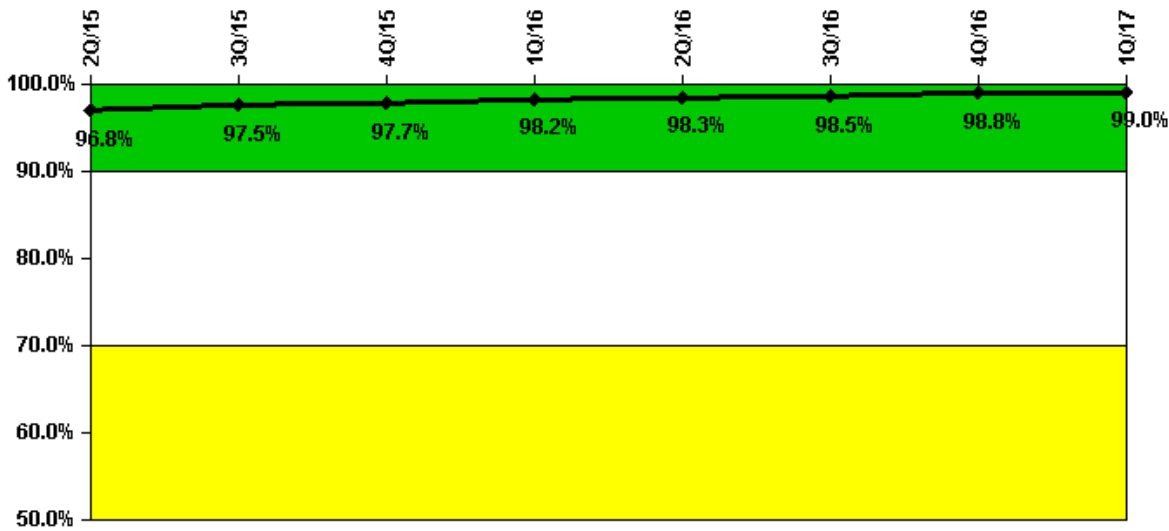
Indicator value	0.6	0.6	0.6	0.6	0.5	0.6	0.6	0.3	0.5	0.5	0.6	0.5
Reactor Coolant System Leakage	4/16	5/16	6/16	7/16	8/16	9/16	10/16	11/16	12/16	1/17	2/17	3/17
Maximum leakage	0.052	0.051	0.058	0.048	0.046	0.045	0.037	0.045	0.050	0.045	0.043	0.082
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0

Indicator value	0.5	0.5	0.6	0.5	0.5	0.5	0.4	0.5	0.5	0.5	0.4	0.8
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Licensee Comments: none

Drill/Exercise Performance



Thresholds: White < 90.0% Yellow < 70.0%

Notes

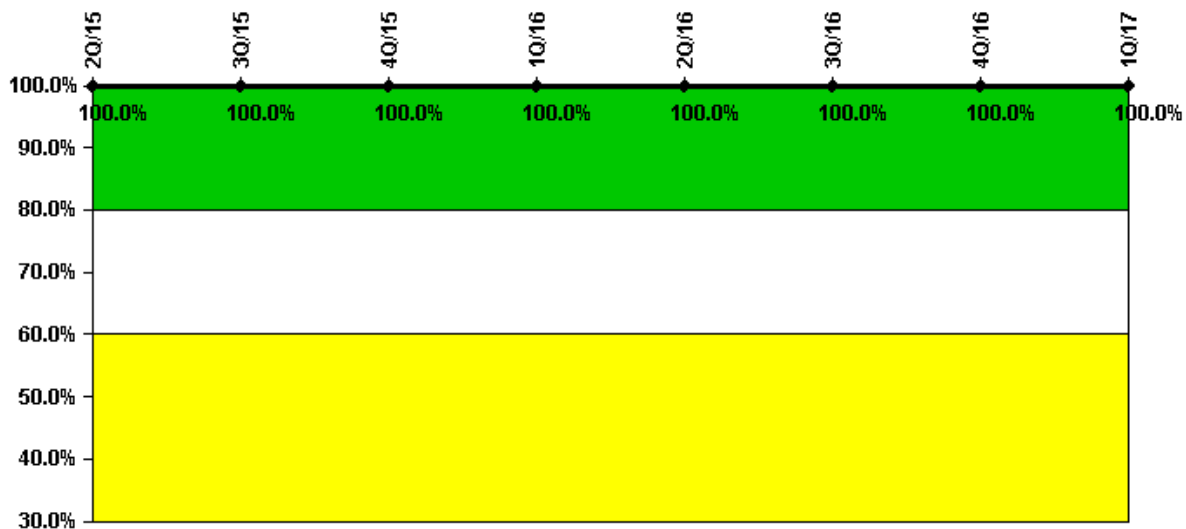
Drill/Exercise Performance	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17
Successful opportunities	91.0	60.0	2.0	10.0	126.0	85.0	10.0	6.0
Total opportunities	91.0	61.0	2.0	10.0	129.0	85.0	10.0	6.0

Indicator value 96.8% 97.5% 97.7% 98.2% 98.3% 98.5% 98.8% 99.0%

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Licensee Comments: none

ERO Drill Participation



Thresholds: White < 80.0% Yellow < 60.0%

Notes

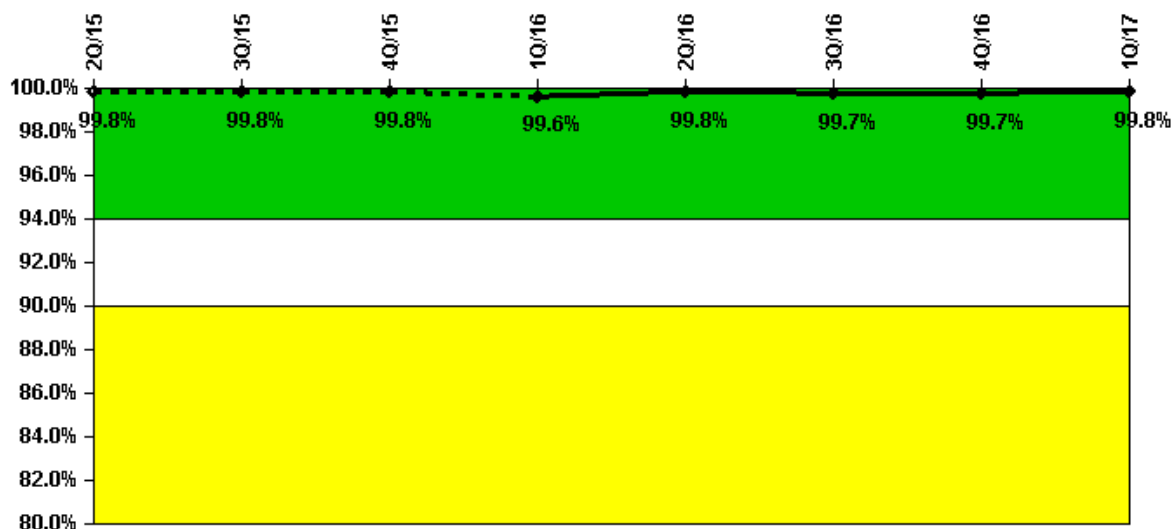
ERO Drill Participation	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17
Participating Key personnel	127.0	128.0	125.0	113.0	122.0	124.0	134.0	133.0
Total Key personnel	127.0	128.0	125.0	113.0	122.0	124.0	134.0	133.0

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

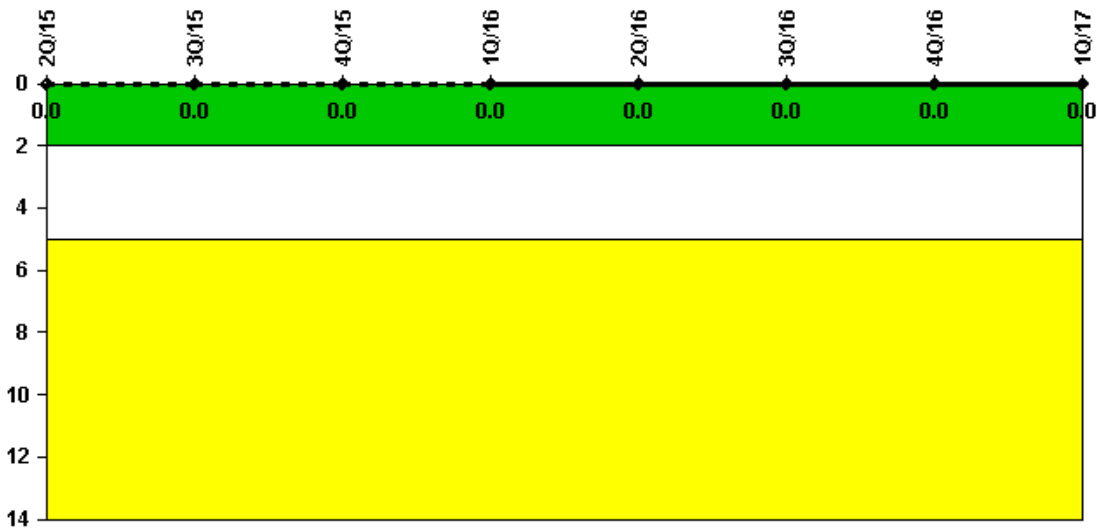
Alert & Notification System	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17
Successful siren-tests	222	256	256	254	256	223	256	255
Total sirens-tests	224	256	256	256	256	224	256	256

Indicator value 99.8% 99.8% 99.8% 99.6% 99.8% 99.7% 99.7% 99.8%

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Licensee Comments: none

Occupational Exposure Control Effectiveness



Thresholds: White > 2.0 Yellow > 5.0

Notes

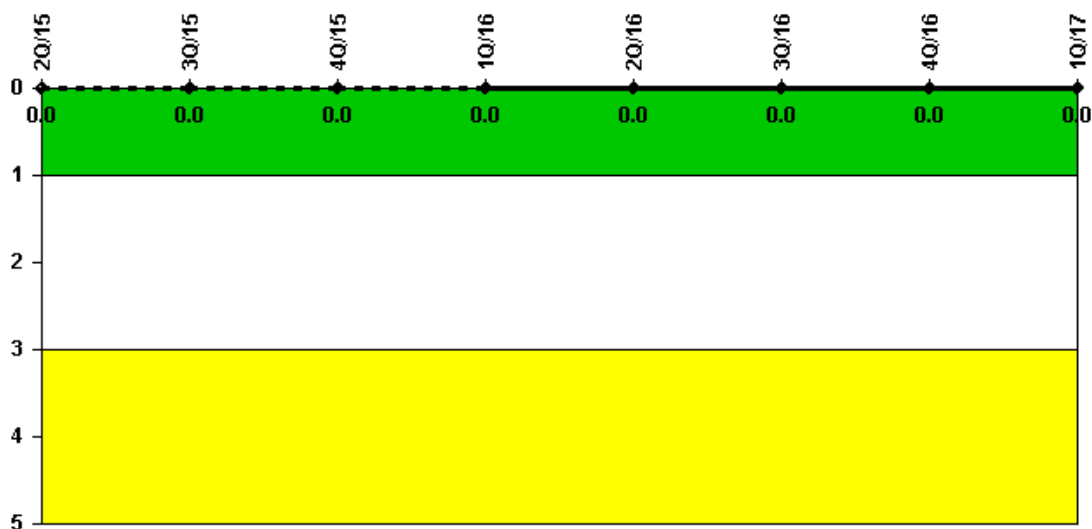
Occupational Exposure Control Effectiveness 2Q/15 3Q/15 4Q/15 1Q/16 2Q/16 3Q/16 4Q/16 1Q/17

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