



Home > Nuclear Reactors > Operating Reactors > Reactor Oversight Process > Plant Summaries> Cooper > Quarterly Performance Indicators

Cooper – Quarterly Performance Indicators

4Q/2017 Performance Indicators

The solid trend line represents the current reporting period.

Licensee's General Comments: Updated with data from NRC license exams information that was not previously available due to exam security requirements.

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

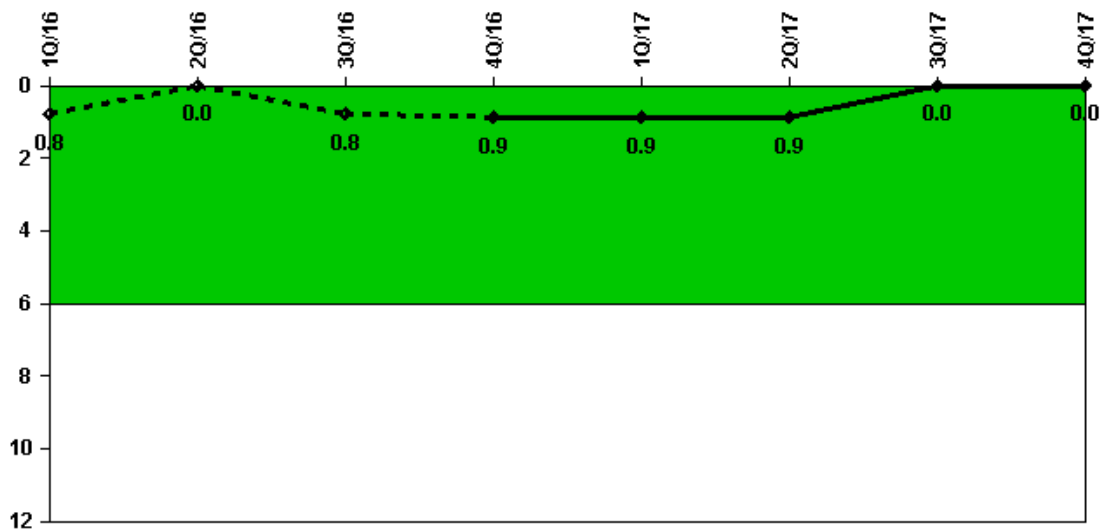
Unplanned Scrams per 7000 Critical Hrs	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17	3Q/17	4Q/17
Unplanned scrams	0	0	0	0	0	0	0	0
Critical hours	2183.0	2184.0	2060.0	1318.8	2159.0	2184.0	2208.0	2209.0

Indicator value	0	0	0	0	0	0	0	0
-----------------	---	---	---	---	---	---	---	---

TOP

Licensee Comments: none

Unplanned Power Changes per 7000 Critical Hrs



Thresholds: White > 6.0

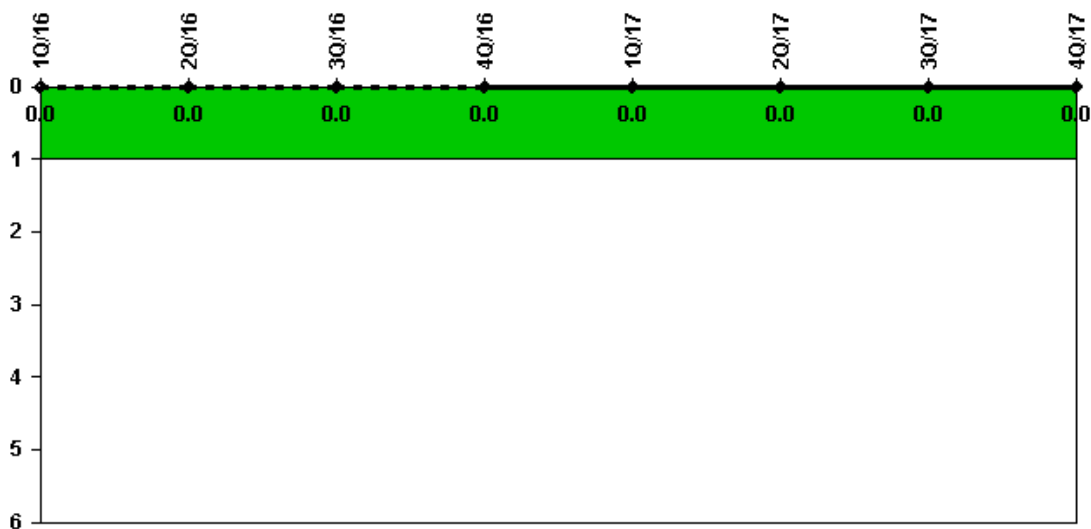
Notes

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	1.0	0	0	0	0	0
Critical hours	2183.0	2184.0	2060.0	1318.8	2159.0	2184.0	2208.0	2209.0
Indicator value	0.8	0	0.8	0.9	0.9	0.9	0	0

▲ TOP

Licensee Comments: none

Unplanned Scrams with Complications



Thresholds: White > 1.0

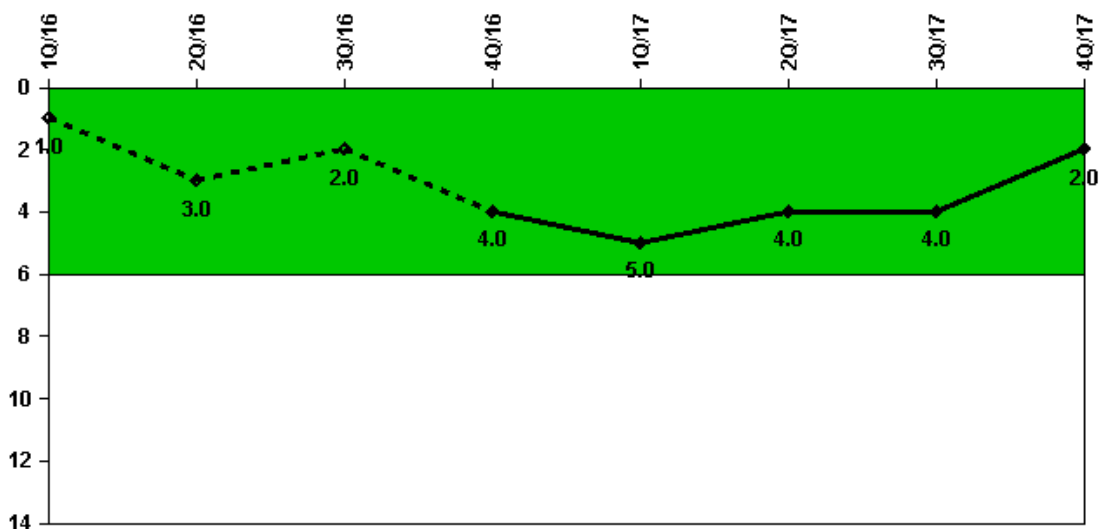
Notes

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

▲ TOP

Licensee Comments: none

Safety System Functional Failures (BWR)



Thresholds: White > 6.0

Notes

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

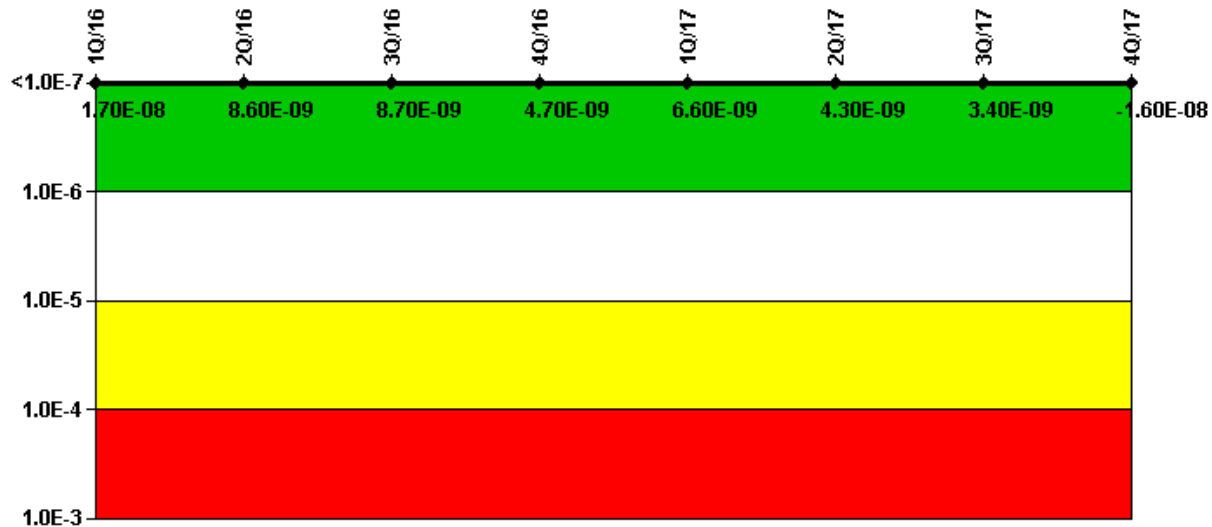
Safety System Functional Failures 0 2 0 2 1 1 0 0

Indicator value 1 3 2 4 5 4 4 2

▲ TOP

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

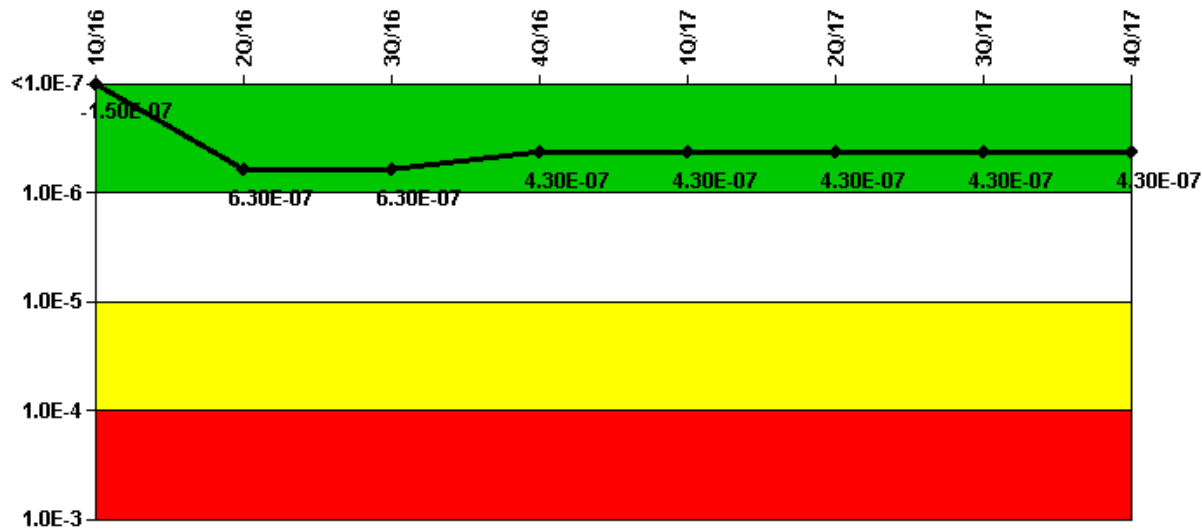
	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17	3Q/17	4Q/17
UAI (ΔCDF)	1.46E-09	3.12E-09	3.22E-09	-5.28E-10	1.76E-09	-5.75E-10	-1.52E-09	-1.61E-09
URI (ΔCDF)	1.50E-08	5.52E-09	5.51E-09	5.19E-09	4.79E-09	4.85E-09	4.96E-09	-1.41E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	1.70E-08	8.60E-09	8.70E-09	4.70E-09	6.60E-09	4.30E-09	3.40E-09	-1.60E-08

▲ TOP

Licensee Comments:

4Q/16: Changed PRA Parameter(s).

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

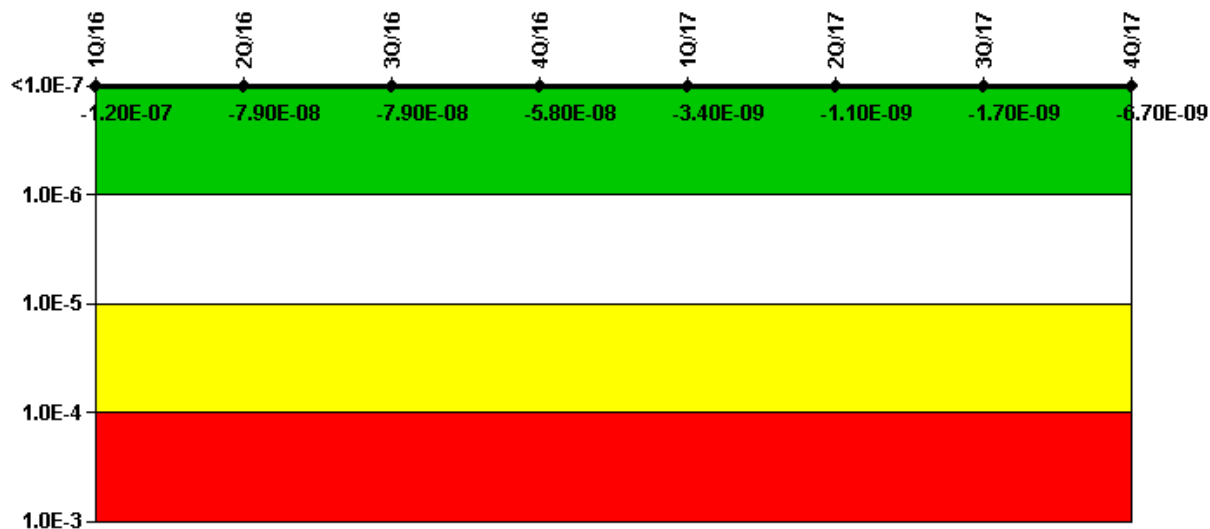
	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17	3Q/17	4Q/17
UAI (ΔCDF)	-5.40E-08	-4.34E-08	-4.32E-08	-2.79E-08	-2.79E-08	-2.80E-08	-2.80E-08	-2.87E-08
URI (ΔCDF)	-9.90E-08	6.69E-07	6.69E-07	4.55E-07	4.55E-07	4.55E-07	4.55E-07	4.55E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-1.50E-07	6.30E-07	6.30E-07	4.30E-07	4.30E-07	4.30E-07	4.30E-07	4.30E-07

TOP

Licensee Comments:

4Q/16: Changed PRA Parameter(s).

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

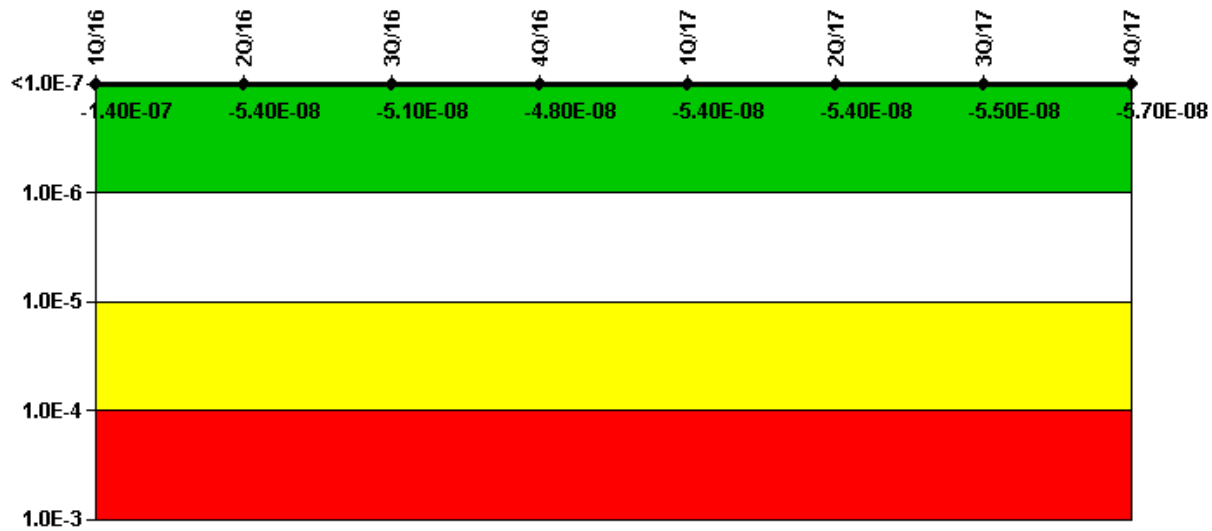
	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17	3Q/17	4Q/17
UAI (ΔCDF)	-4.68E-08	-2.98E-08	-2.98E-08	-1.28E-08	4.20E-08	4.43E-08	4.38E-08	3.87E-08
URI (ΔCDF)	-7.54E-08	-4.87E-08	-4.87E-08	-4.54E-08	-4.54E-08	-4.54E-08	-4.54E-08	-4.54E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-1.20E-07	-7.90E-08	-7.90E-08	-5.80E-08	-3.40E-09	-1.10E-09	-1.70E-09	-6.70E-09

TOP

Licensee Comments:

4Q/16: Changed PRA Parameter(s).

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

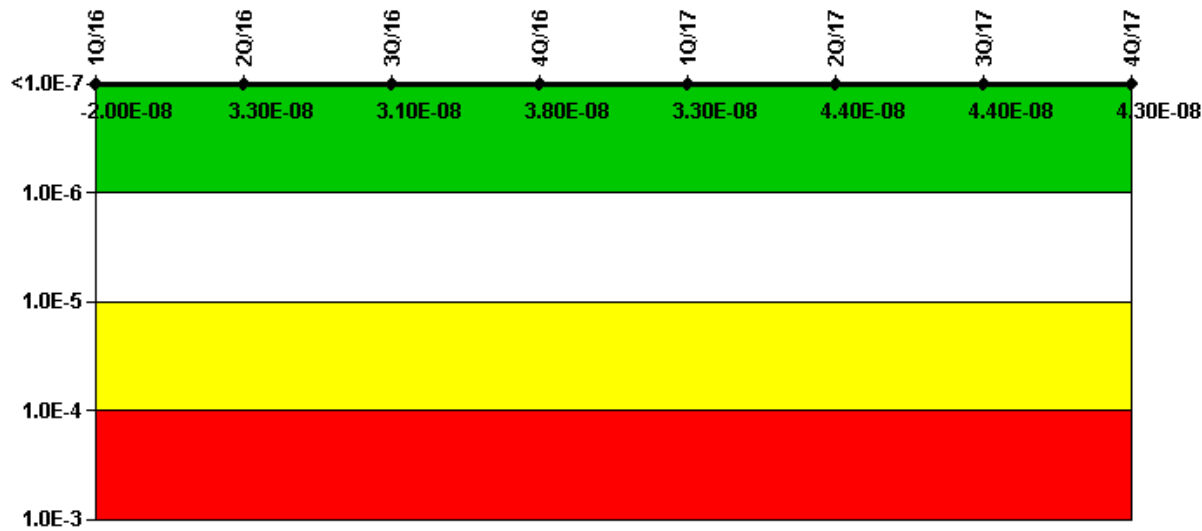
	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17	3Q/17	4Q/17
UAI (ΔCDF)	-7.07E-09	-7.31E-09	-4.62E-09	2.37E-09	-3.05E-09	-3.18E-09	-5.07E-09	-7.52E-09
URI (ΔCDF)	-1.28E-07	-4.63E-08	-4.65E-08	-5.07E-08	-5.08E-08	-5.06E-08	-5.04E-08	-4.98E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-1.40E-07	-5.40E-08	-5.10E-08	-4.80E-08	-5.40E-08	-5.40E-08	-5.50E-08	-5.70E-08

▲ TOP

Licensee Comments:

4Q/16: Changed PRA Parameter(s).

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)	4.88E-08	3.99E-08	3.79E-08	4.46E-08	4.03E-08	4.68E-08	4.67E-08	4.53E-08
URI (ΔCDF)	-6.85E-08	-7.11E-09	-7.11E-09	-6.92E-09	-6.92E-09	-2.46E-09	-2.46E-09	-2.46E-09
PLE	NO	NO	NO	NO	NO	NO	NO	NO

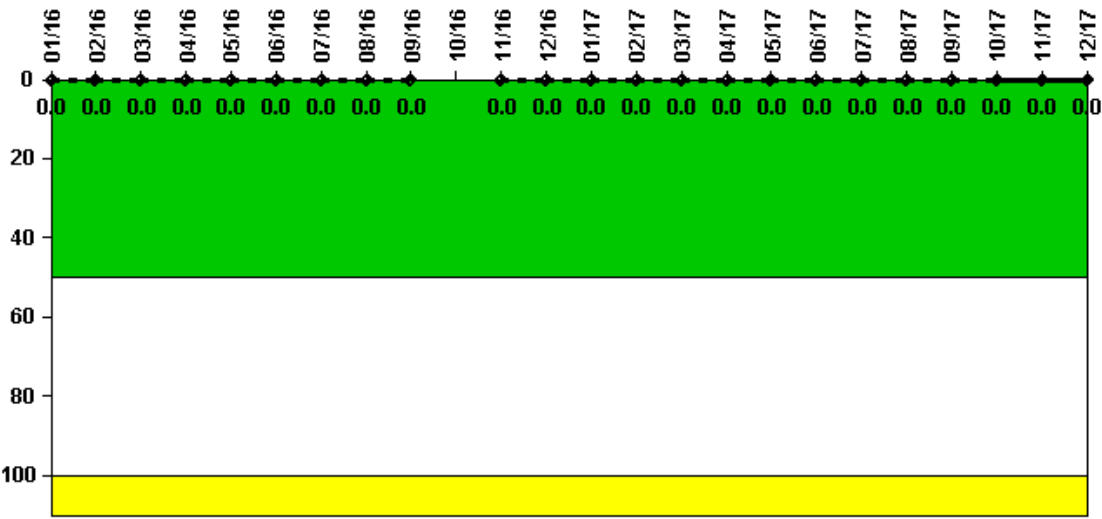
Indicator value	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17	3Q/17	4Q/17
	4.88E-08	3.99E-08	3.79E-08	4.46E-08	4.03E-08	4.68E-08	4.67E-08	4.53E-08

TOP

Licensee Comments:

4Q/16: Changed PRA Parameter(s).

Reactor Coolant System Activity



Thresholds: White > 50.0 Yellow > 100.0

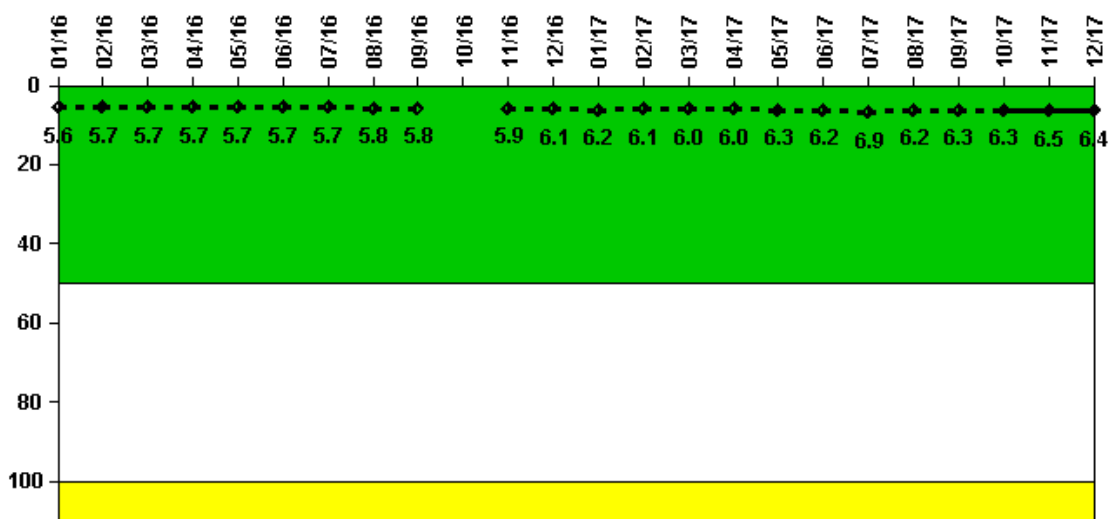
Notes

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	0.000012	0.000010	0.000011	0.000011	0.000011	0.000013	0.000013	0.000011	0.000009	N/A	0.000010	0.000010
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	0	0	N/A	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	0.000011	0.000011	0.000012	0.000009	0.000013	0.000011	0.000012	0.000011	0.000010	0.000011	0.000008	0.000011
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	0	0	0	0	0

TOP

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	1.690	1.711	1.721	1.721	1.702	1.706	1.723	1.734	1.741	N/A	1.781	1.834
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

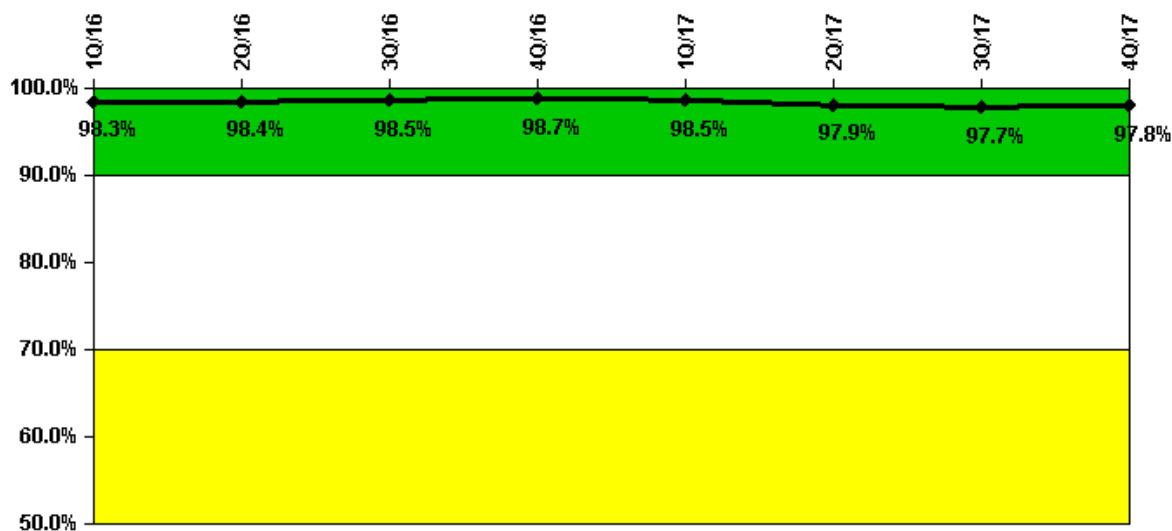
Indicator value	5.6	5.7	5.7	5.7	5.7	5.7	5.7	5.8	5.8	N/A	5.9	6.1
Reactor Coolant System Leakage	1/17	2/17	3/17	4/17	5/17	6/17	7/17	8/17	9/17	10/17	11/17	12/17
Maximum leakage	1.864	1.823	1.804	1.805	1.877	1.863	2.077	1.856	1.875	1.883	1.962	1.913
Technical specification limit	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0

Indicator value	6.2	6.1	6.0	6.0	6.3	6.2	6.9	6.2	6.3	6.3	6.5	6.4
-----------------	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

▲ TOP

Licensee Comments: none

Drill/Exercise Performance



Thresholds: White < 90.0% Yellow < 70.0%

Notes

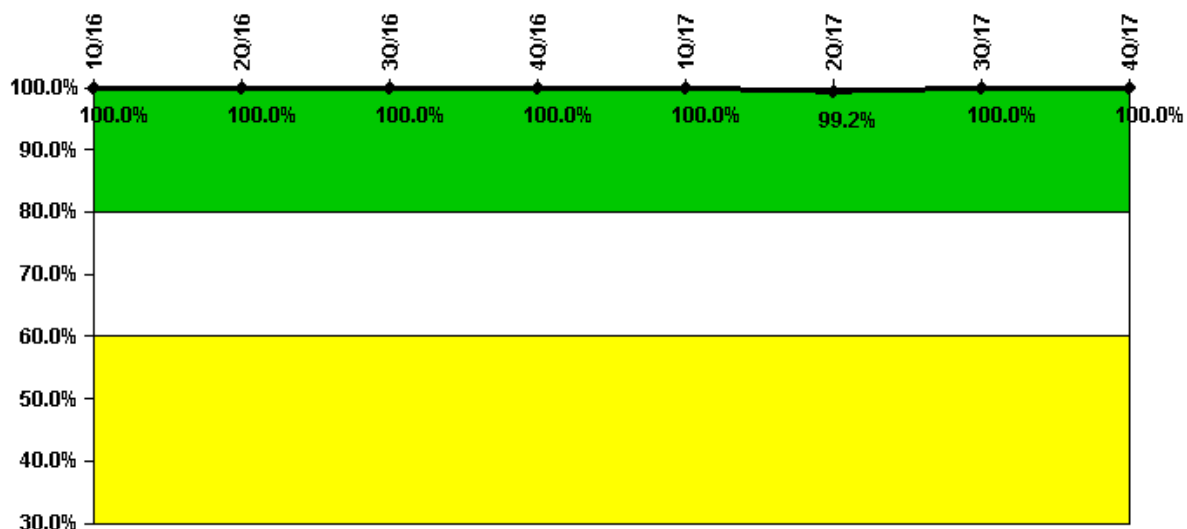
Drill/Exercise Performance	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17	3Q/17	4Q/17
Successful opportunities	58.0	84.0	48.0	15.0	34.0	59.0	41.0	54.0
Total opportunities	58.0	85.0	49.0	16.0	36.0	62.0	42.0	54.0

Indicator value 98.3% 98.4% 98.5% 98.7% 98.5% 97.9% 97.7% 97.8%

▲ TOP

Licensee Comments: none

ERO Drill Participation



Thresholds: White < 80.0% Yellow < 60.0%

Notes

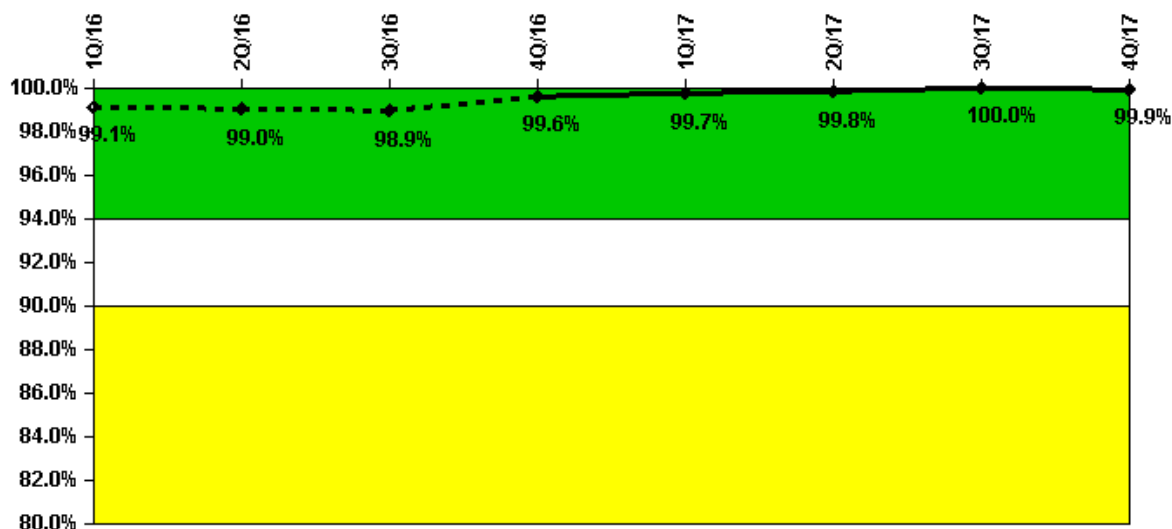
ERO Drill Participation	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17	3Q/17	4Q/17
Participating Key personnel	104.0	105.0	107.0	105.0	107.0	117.0	111.0	109.0
Total Key personnel	104.0	105.0	107.0	105.0	107.0	118.0	111.0	109.0

Indicator value **100.0% 100.0% 100.0% 100.0% 100.0% 99.2% 100.0% 100.0%**

▲ TOP

Licensee Comments: none

Alert & Notification System



Thresholds: White < 94.0% Yellow < 90.0%

Notes

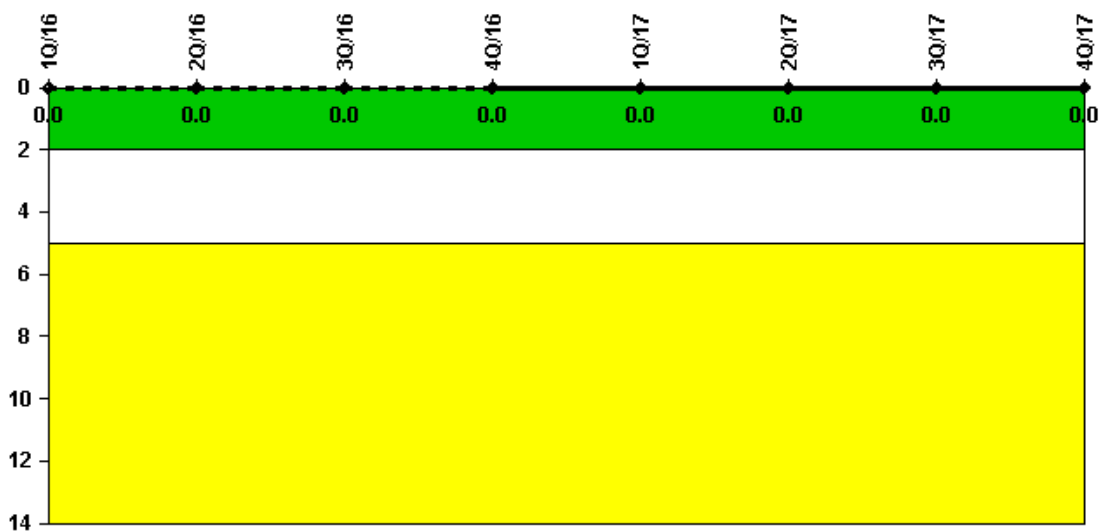
Alert & Notification System	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17	3Q/17	4Q/17
Successful siren-tests	287	287	282	273	251	251	273	251
Total sirens-tests	288	288	284	273	251	251	273	252

Indicator value 99.1% 99.0% 98.9% 99.6% 99.7% 99.8% 100.0% 99.9%

▲ TOP

Licensee Comments: none

Occupational Exposure Control Effectiveness



Thresholds: White > 2.0 Yellow > 5.0

Notes

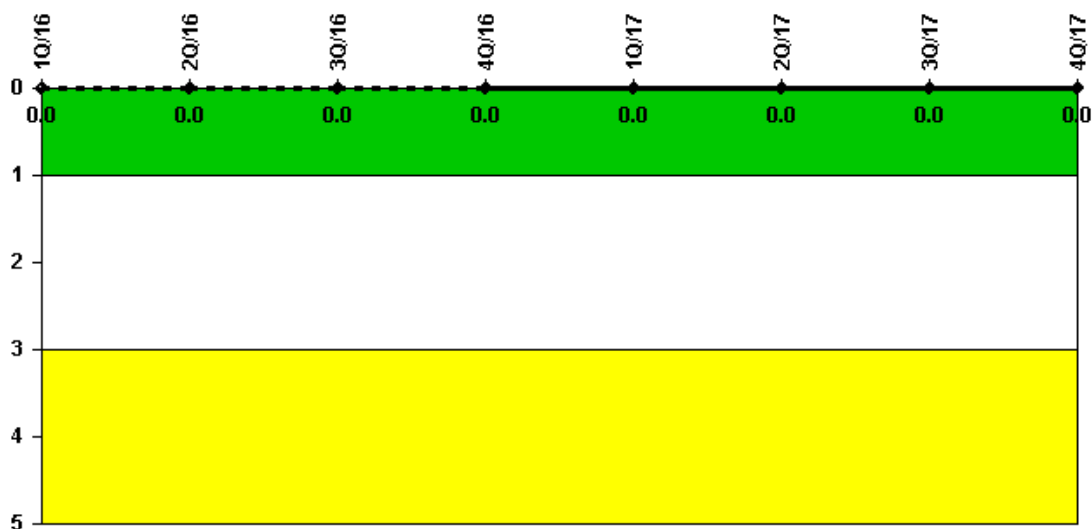
Occupational Exposure Control Effectiveness 1Q/16 2Q/16 3Q/16 4Q/16 1Q/17 2Q/17 3Q/17 4Q/17

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

▲ TOP

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

▲ 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: February 1, 2018

Page Last Reviewed/Updated Monday, November 06, 2017