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Dresden 2 – Quarterly Performance Indicators

1Q/2017 Performance Indicators

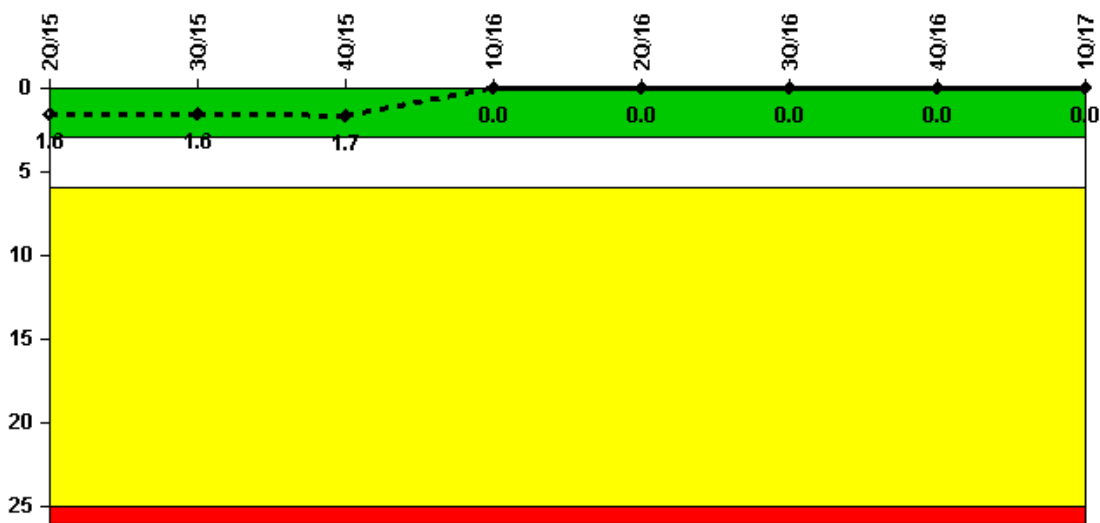
The solid trend line represents the current reporting period.

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

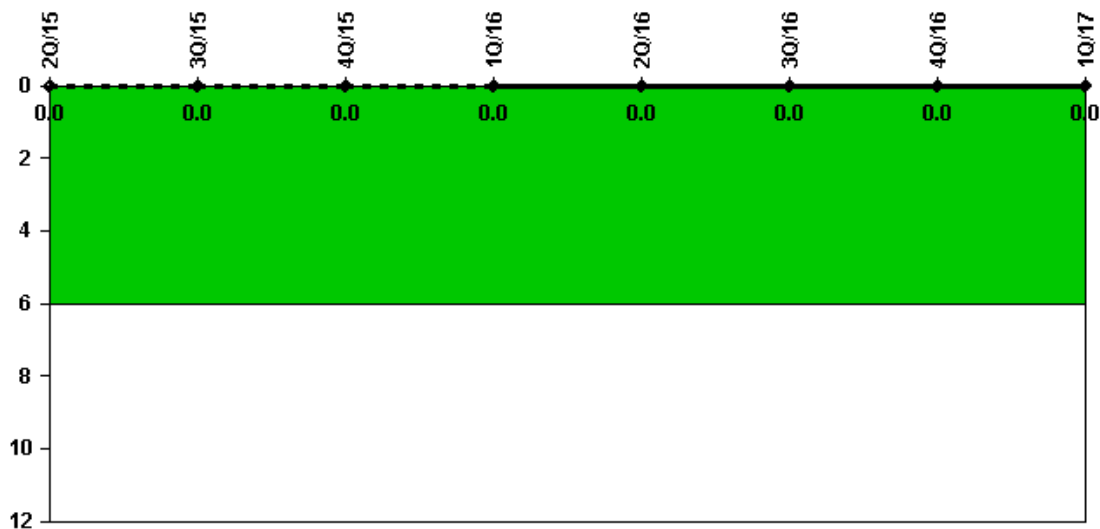
Unplanned Scrams per 7000 Critical Hrs	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17
Unplanned scrams	0	0	0	0	0	0	0	0
Critical hours	2184.0	2208.0	1779.6	2183.0	2184.0	2208.0	2209.0	2159.0

Indicator value	1.6	1.6	1.7	0	0	0	0	0
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Licensee Comments: none

Unplanned Power Changes per 7000 Critical Hrs



Thresholds: White > 6.0

Notes

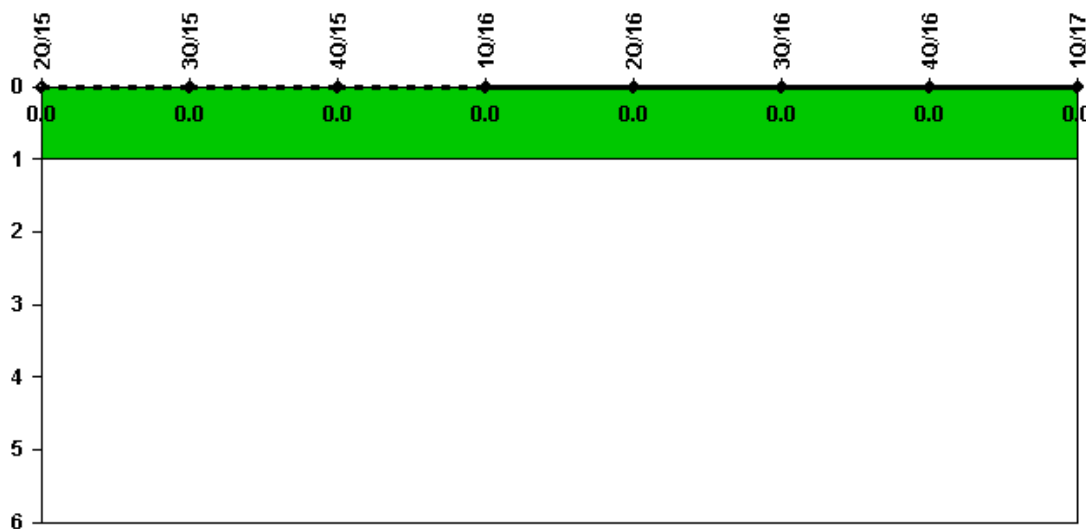
Unplanned Power Changes per 7000 Critical Hrs	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17
Unplanned power changes	0	0	0	0	0	0	0	0
Critical hours	2184.0	2208.0	1779.6	2183.0	2184.0	2208.0	2209.0	2159.0

Indicator value 0 0 0 0 0 0 0 0 0

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Licensee Comments: none

Unplanned Scrams with Complications



Thresholds: White > 1.0

Notes

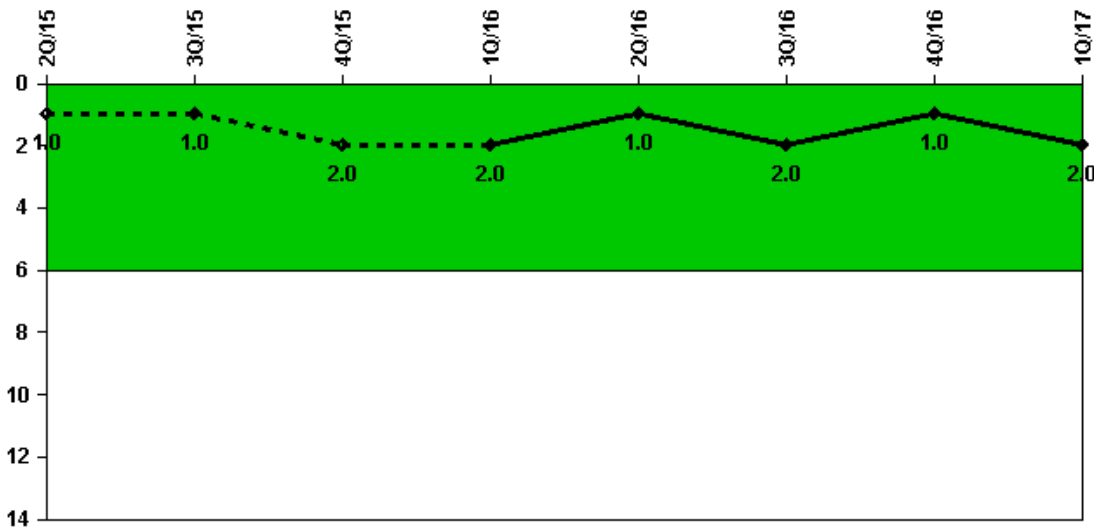
Unplanned Scrams with Complications	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17
Scrams with complications	0	0	0	0	0	0	0	0

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 (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 1 0 1 0 0 1 0 1

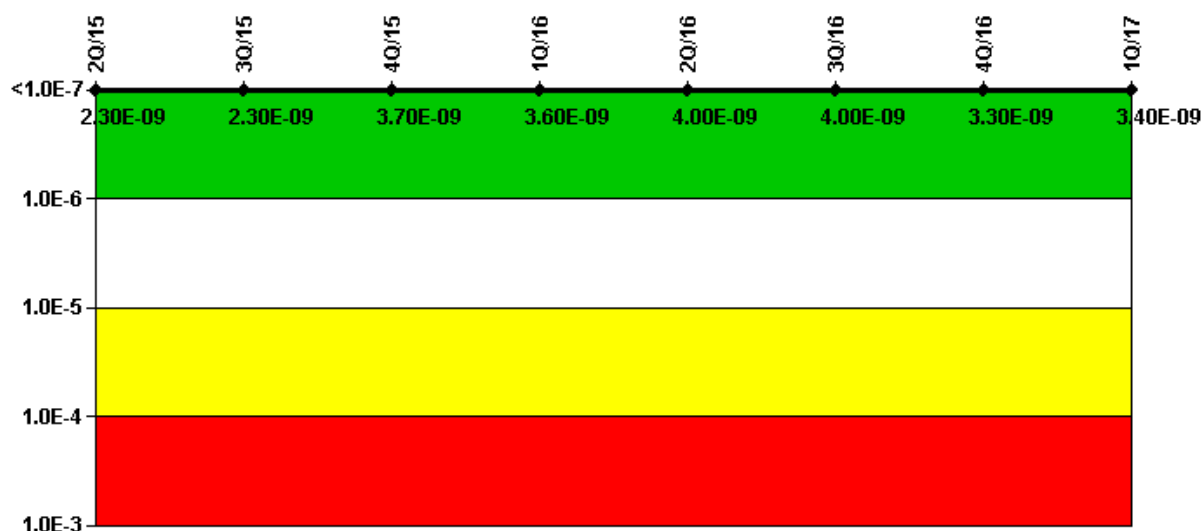
Indicator value 1 1 2 2 1 2 1 2

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Licensee Comments:

- 1Q/17: LER 237-2016-004-00, Reactor Building Differential Pressure Less than Technical Specification Requirement, dated 1/9/2017
- 3Q/16: LER 237/2016-002-00, "Unit 2 HPCI Inlet Steam Drain Pot Piping Leak Resulting in HPCI Inoperability," dated 7/15/2016
- 4Q/15: LER 237/2015-003-00 Unit 2 Turbine Building to Reactor Building Interlock Doors Open Simultaneously, dated 10/30/15
- 2Q/15: LER 237-2015-002-00, "2C ERV Failed to Actuate during Extent of Condition Testing", dated 04-03-2015

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)	2.31E-10	2.01E-10	2.67E-10	2.76E-10	0.00E+00	0.00E+00	0.00E+00	0.00E+00
URI (Δ CDF)	2.11E-09	2.12E-09	3.43E-09	3.34E-09	4.03E-09	4.03E-09	3.30E-09	3.43E-09
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	2.30E-09	2.30E-09	3.70E-09	3.60E-09	4.00E-09	4.00E-09	3.30E-09	3.40E-09

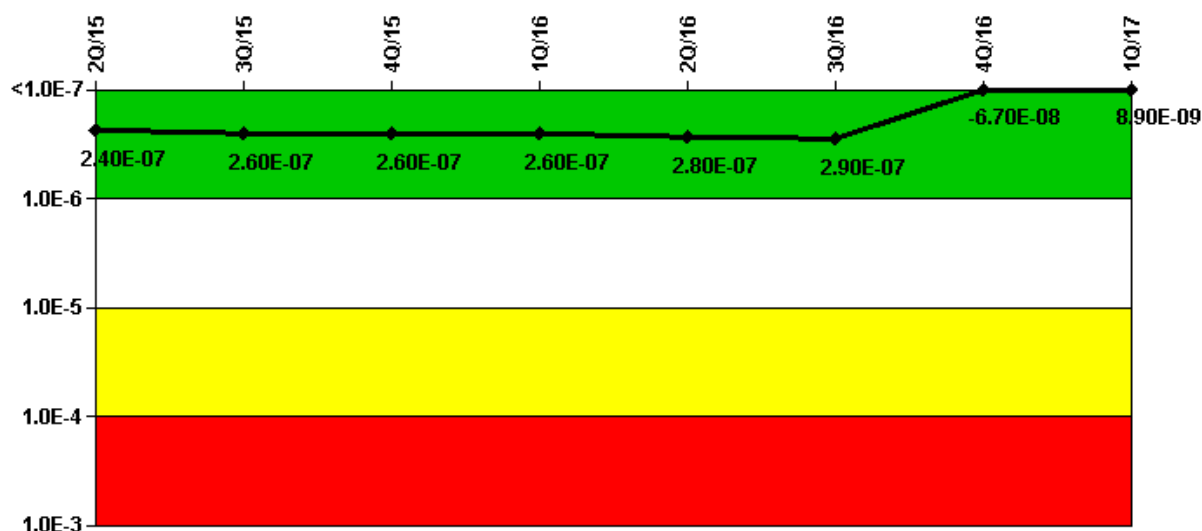
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Licensee Comments:

4Q/15: An MSPI EDG failure that occurred in October 2015 (Issue Report 2573588) was reported to CDE via ICES 320357 in 2nd quarter 2016. ICES 320357 resulted in the re-calculation of EDG URI values from October 2015 onward.

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Mitigating Systems Performance Index, High Pressure Injection System



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

Notes

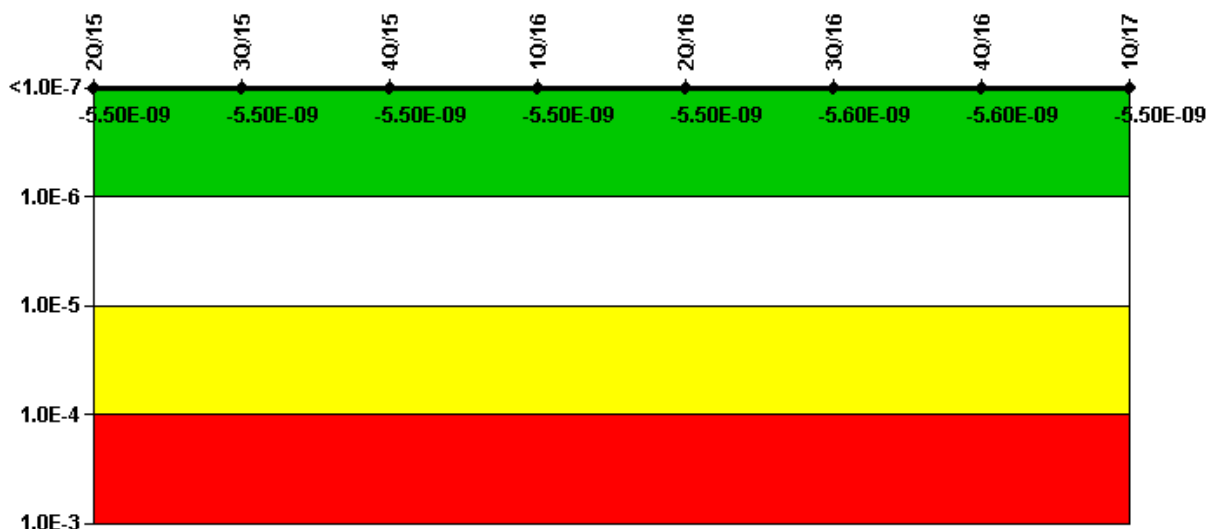
Mitigating Systems Performance Index, High Pressure Injection System

	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17
UAI (ΔCDF)	4.11E-08	6.30E-08	6.26E-08	6.25E-08	8.18E-08	9.38E-08	9.51E-10	7.69E-08
URI (ΔCDF)	1.97E-07	1.97E-07	1.97E-07	1.97E-07	1.97E-07	1.97E-07	-6.80E-08	-6.80E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	2.40E-07	2.60E-07	2.60E-07	2.60E-07	2.80E-07	2.90E-07	-6.70E-08	8.90E-09

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Licensee Comments: none

Mitigating Systems Performance Index, Heat Removal System



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

Notes

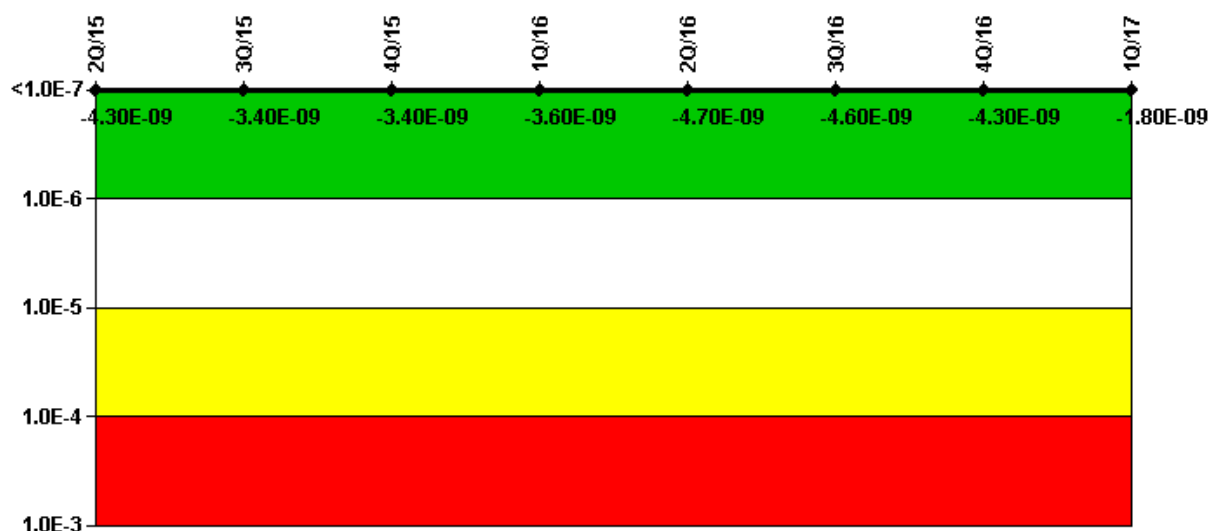
Mitigating Systems Performance Index, Heat Removal System

	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17
UAI (Δ CDF)	-5.43E-09	-5.43E-09	-5.43E-09	-5.43E-09	-5.43E-09	-5.43E-09	-5.43E-09	-5.43E-09
URI (Δ CDF)	-1.09E-10	-1.09E-10	-1.09E-10	-1.09E-10	-1.13E-10	-1.25E-10	-1.25E-10	-1.13E-10
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-5.50E-09	-5.50E-09	-5.50E-09	-5.50E-09	-5.50E-09	-5.60E-09	-5.60E-09	-5.50E-09

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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

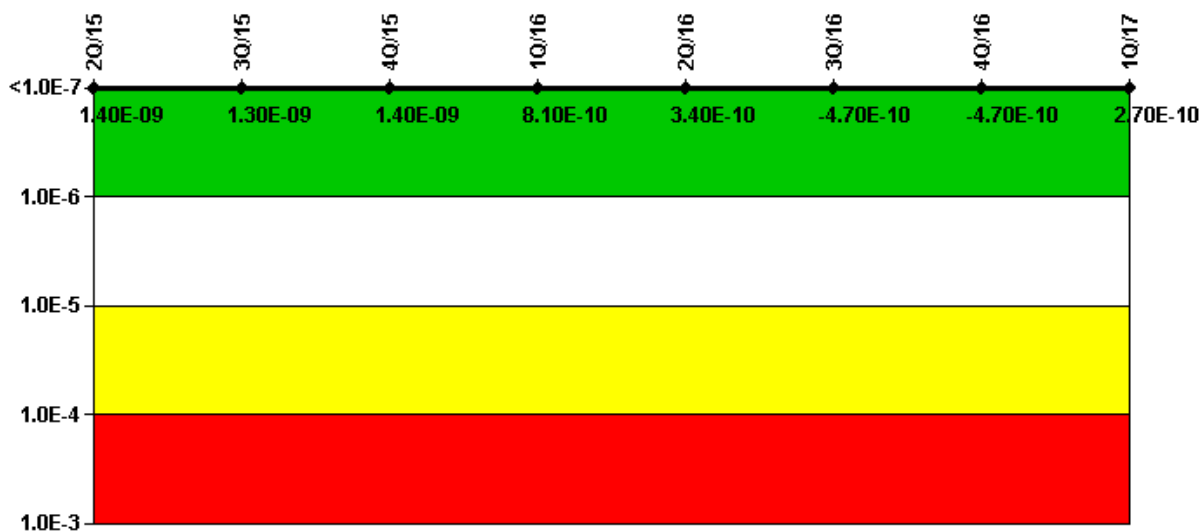
Mitigating Systems Performance Index, Residual Heat Removal System

	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17
UAI (ΔCDF)	-2.50E-10	8.26E-10	1.02E-09	8.71E-10	-1.57E-10	3.89E-11	2.73E-10	2.82E-09
URI (ΔCDF)	-4.08E-09	-4.24E-09	-4.39E-09	-4.45E-09	-4.51E-09	-4.64E-09	-4.61E-09	-4.61E-09
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-4.30E-09	-3.40E-09	-3.40E-09	-3.60E-09	-4.70E-09	-4.60E-09	-4.30E-09	-1.80E-09

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Licensee Comments: none

Mitigating Systems Performance Index, Cooling Water Systems



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

Notes

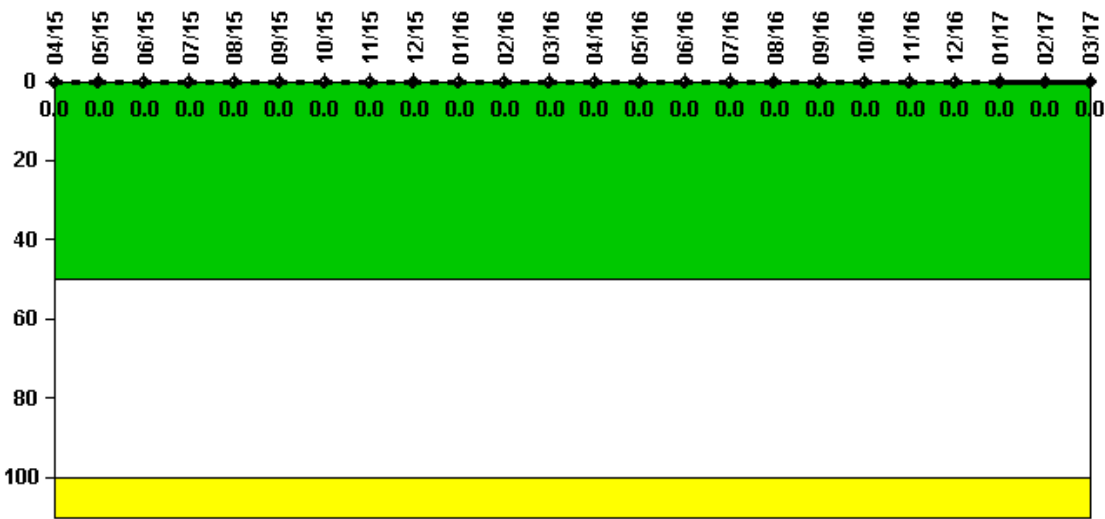
Mitigating Systems Performance Index, Cooling Water Systems

	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17
UAI (Δ CDF)	1.39E-09	1.36E-09	1.39E-09	8.33E-10	3.64E-10	-4.47E-10	-4.47E-10	2.92E-10
URI (Δ CDF)	-2.75E-11	-2.73E-11	-2.74E-11	-2.74E-11	-2.70E-11	-2.69E-11	-2.58E-11	-2.61E-11
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	1.40E-09	1.30E-09	1.40E-09	8.10E-10	3.40E-10	-4.70E-10	-4.70E-10	2.70E-10

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Licensee Comments: none

Reactor Coolant System Activity



Thresholds: White > 50.0 Yellow > 100.0

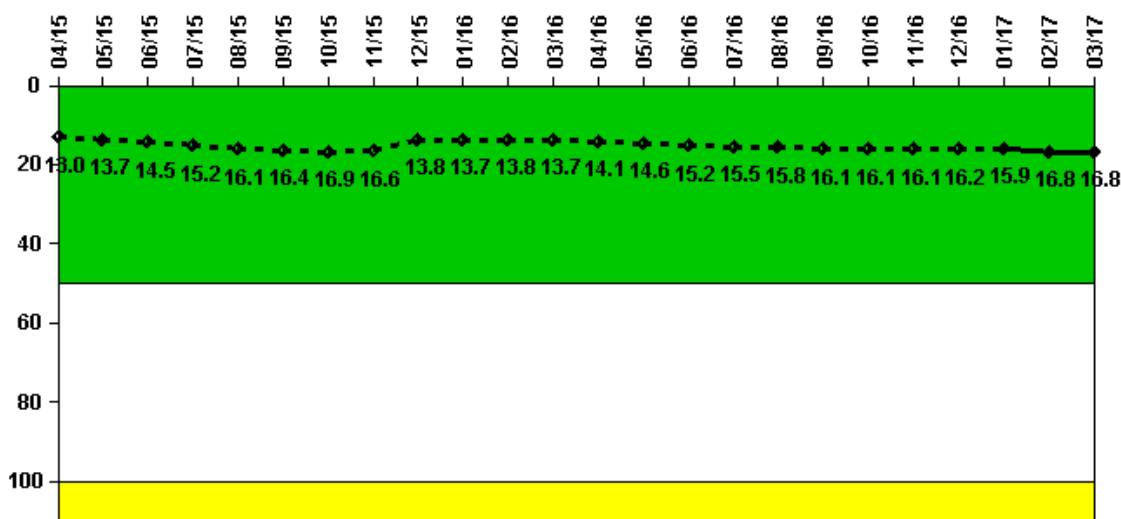
Notes

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	0.000007	0.000006	0.000007	0.000006	0.000007	0.000008	0.000010	0.000004	0.000003	0.000003	0.000004	0.000002
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
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	0.000003	0.000003	0.000003	0.000003	0.000003	0.000004	0.000004	0.000005	0.000004	0.000004	0.000004	0.000006
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

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Licensee Comments: none

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	3.262	3.434	3.630	3.808	4.030	4.088	4.219	4.144	3.444	3.413	3.440	3.430
Technical specification limit	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0

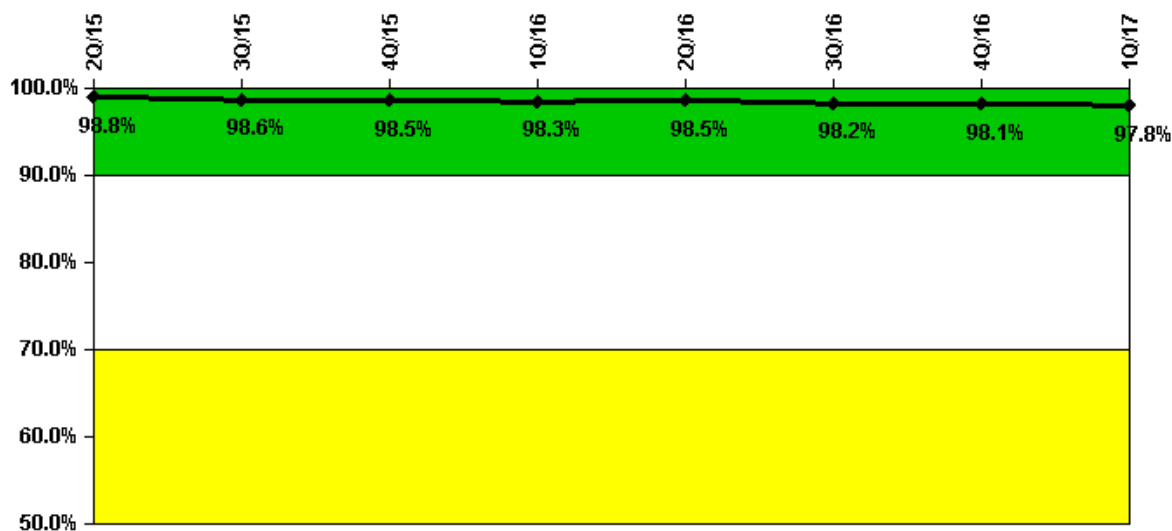
Indicator value	13.0	13.7	14.5	15.2	16.1	16.4	16.9	16.6	13.8	13.7	13.8	13.7
Reactor Coolant System Leakage	4/16	5/16	6/16	7/16	8/16	9/16	10/16	11/16	12/16	1/17	2/17	3/17
Maximum leakage	3.524	3.661	3.804	3.875	3.951	4.018	4.032	4.020	4.049	3.985	4.194	4.193
Technical specification limit	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0

Indicator value	14.1	14.6	15.2	15.5	15.8	16.1	16.1	16.1	16.2	15.9	16.8	16.8
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Licensee Comments: none

Drill/Exercise Performance



Thresholds: White < 90.0% Yellow < 70.0%

Notes

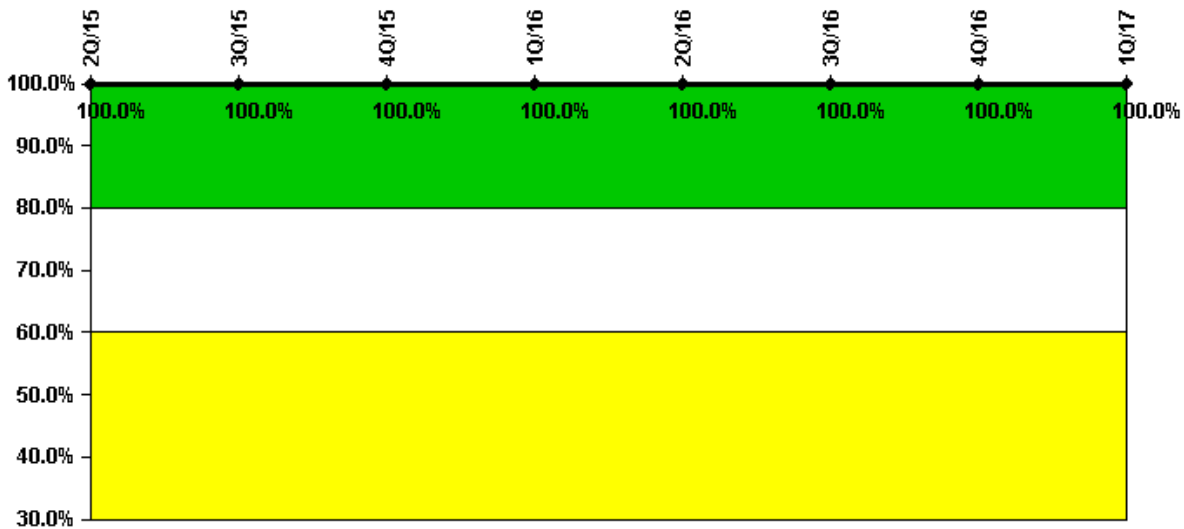
Drill/Exercise Performance	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17
Successful opportunities	65.0	44.0	27.0	31.0	80.0	44.0	33.0	34.0
Total opportunities	67.0	45.0	27.0	32.0	80.0	47.0	33.0	35.0

Indicator value 98.8% 98.6% 98.5% 98.3% 98.5% 98.2% 98.1% 97.8%

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Licensee Comments: none

ERO Drill Participation



Thresholds: White < 80.0% Yellow < 60.0%

Notes

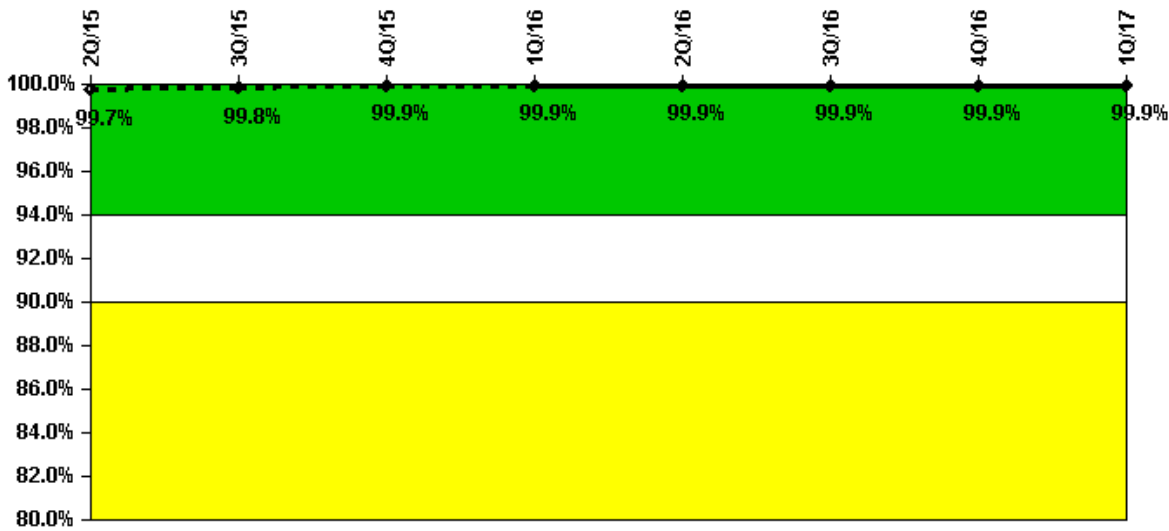
ERO Drill Participation	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17
Participating Key personnel	75.0	72.0	77.0	70.0	64.0	64.0	65.0	65.0
Total Key personnel	75.0	72.0	77.0	70.0	64.0	64.0	65.0	65.0

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

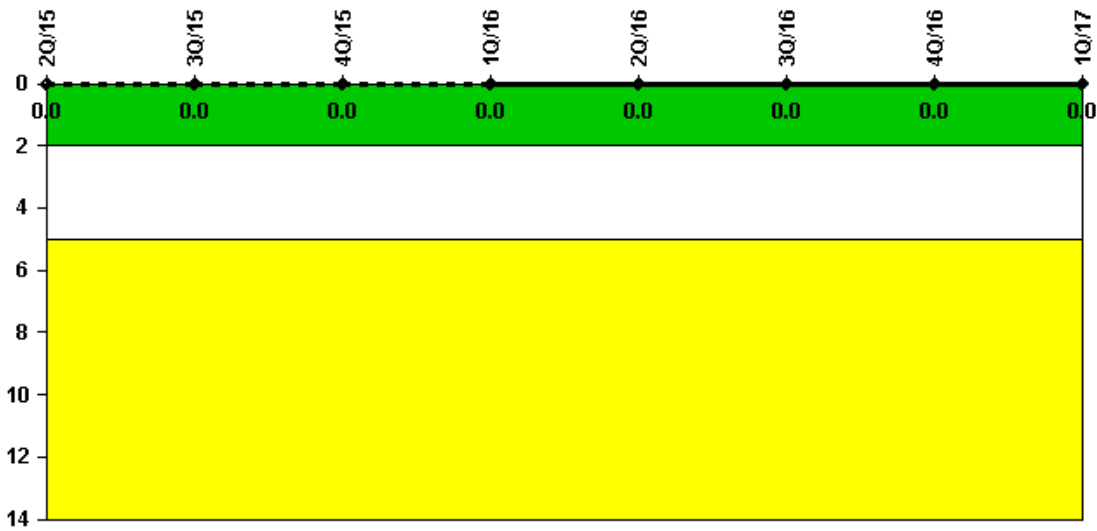
Alert & Notification System	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17
Successful siren-tests	2937	2985	2943	2942	2942	2937	2852	2986
Total sirens-tests	2944	2990	2944	2944	2944	2944	2852	2990

Indicator value 99.7% 99.8% 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

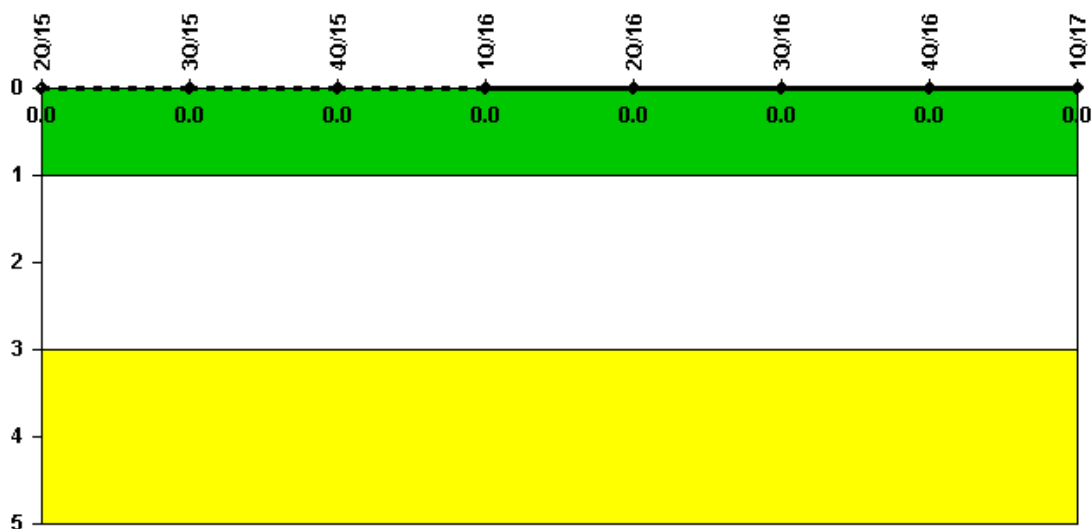
Occupational Exposure Control Effectiveness 2Q/15 3Q/15 4Q/15 1Q/16 2Q/16 3Q/16 4Q/16 1Q/17

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