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Dresden 2 – Quarterly Performance Indicators

3Q/2017 Performance Indicators

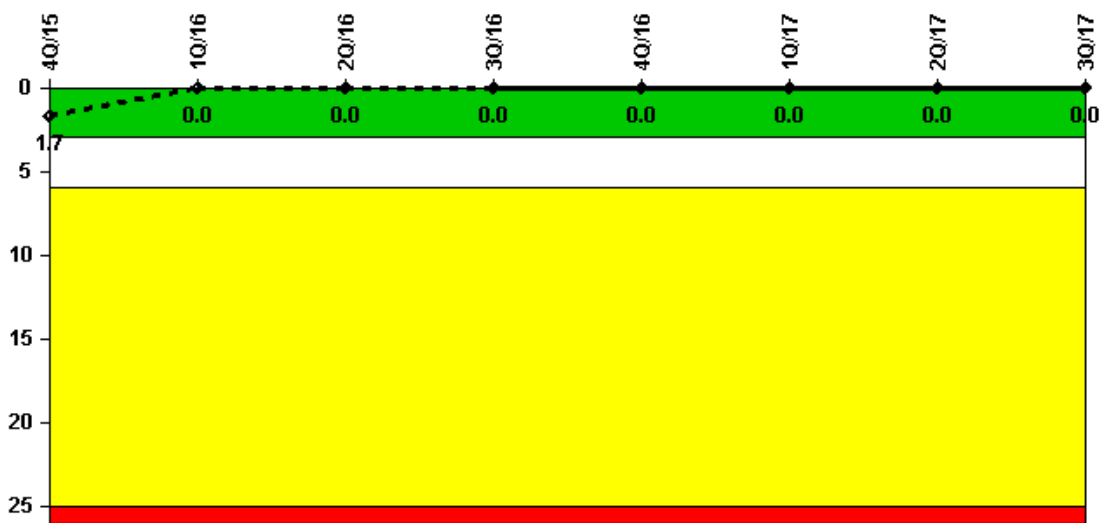
The solid trend line represents the current reporting period.

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

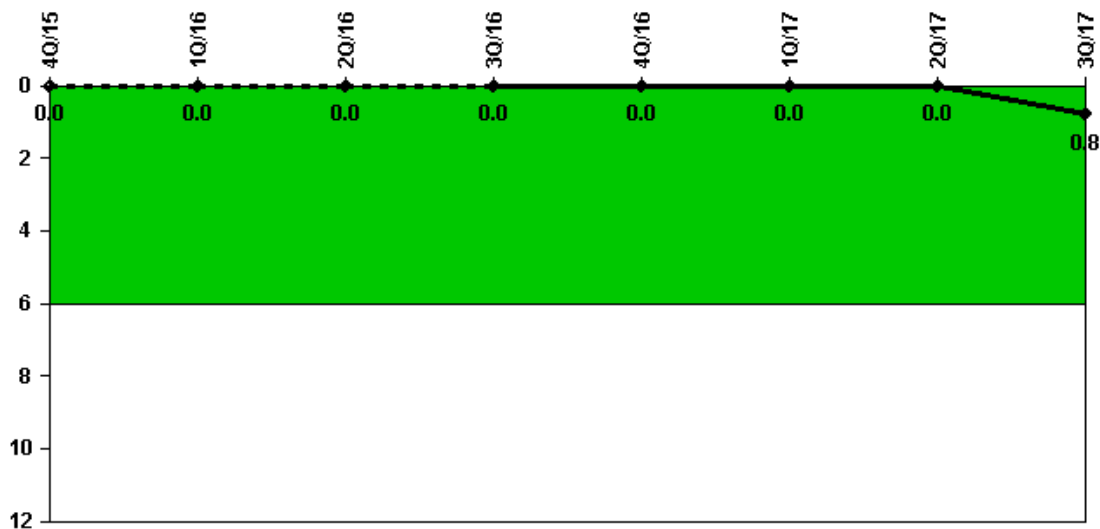
Unplanned Scrams per 7000 Critical Hrs	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17	3Q/17
Unplanned scrams	0	0	0	0	0	0	0	0
Critical hours	1779.6	2183.0	2184.0	2208.0	2209.0	2159.0	2184.0	2208.0

Indicator value: 1.7 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

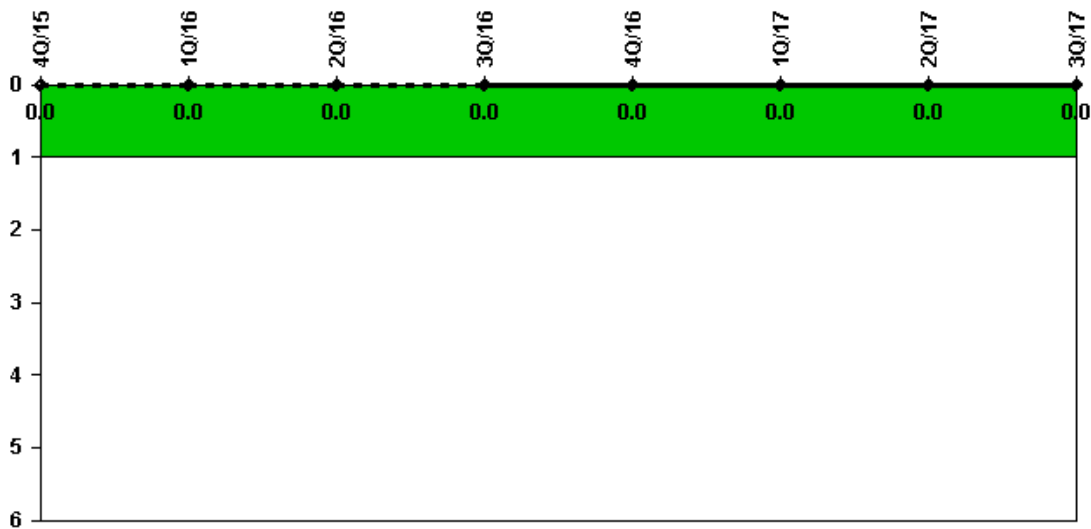
Notes

Unplanned Power Changes per 7000 Critical Hrs	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17	3Q/17
Unplanned power changes	0	0	0	0	0	0	0	1.0
Critical hours	1779.6	2183.0	2184.0	2208.0	2209.0	2159.0	2184.0	2208.0
Indicator value	0	0	0	0	0	0	0	0.8

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Licensee Comments: none

Unplanned Scrams with Complications



Thresholds: White > 1.0

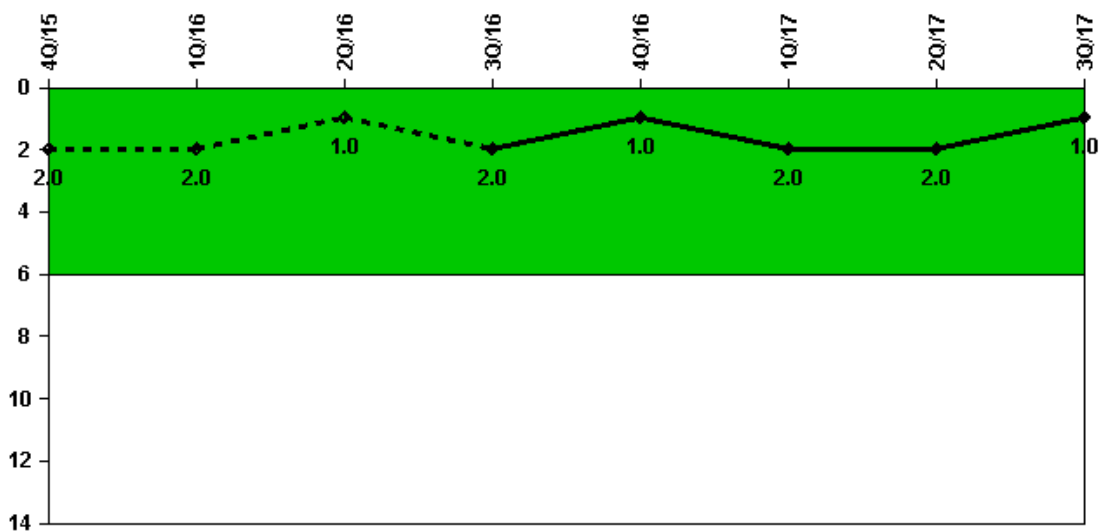
Notes

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

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

Indicator value 2 2 1 2 1 2 2 1

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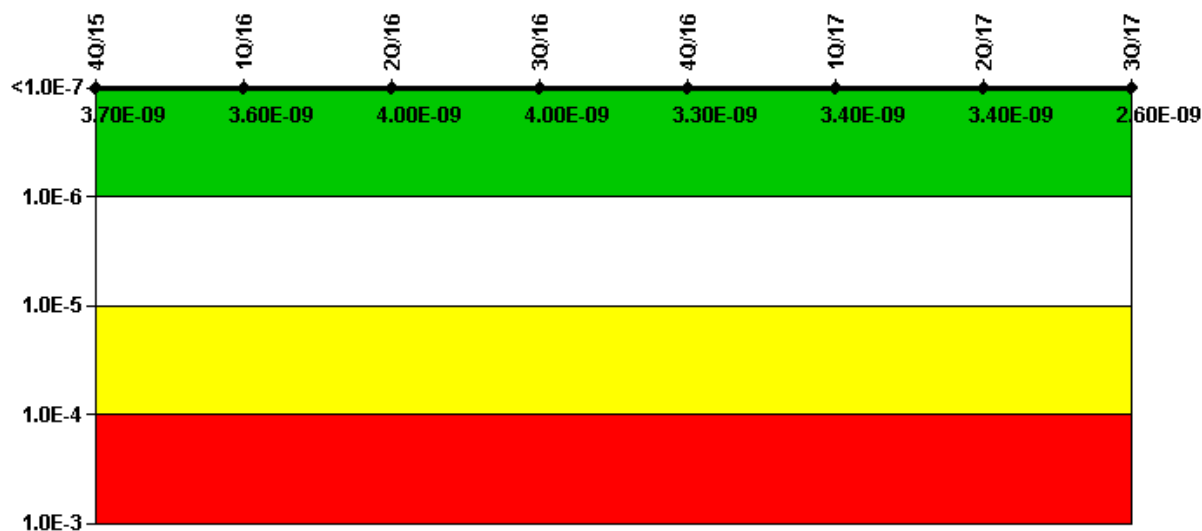
Licensee Comments:

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

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

	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17	3Q/17
UAI (Δ CDF)	2.67E-10	2.76E-10	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
URI (Δ CDF)	3.43E-09	3.34E-09	4.03E-09	4.03E-09	3.30E-09	3.43E-09	3.39E-09	2.57E-09
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	3.70E-09	3.60E-09	4.00E-09	4.00E-09	3.30E-09	3.40E-09	3.40E-09	2.60E-09

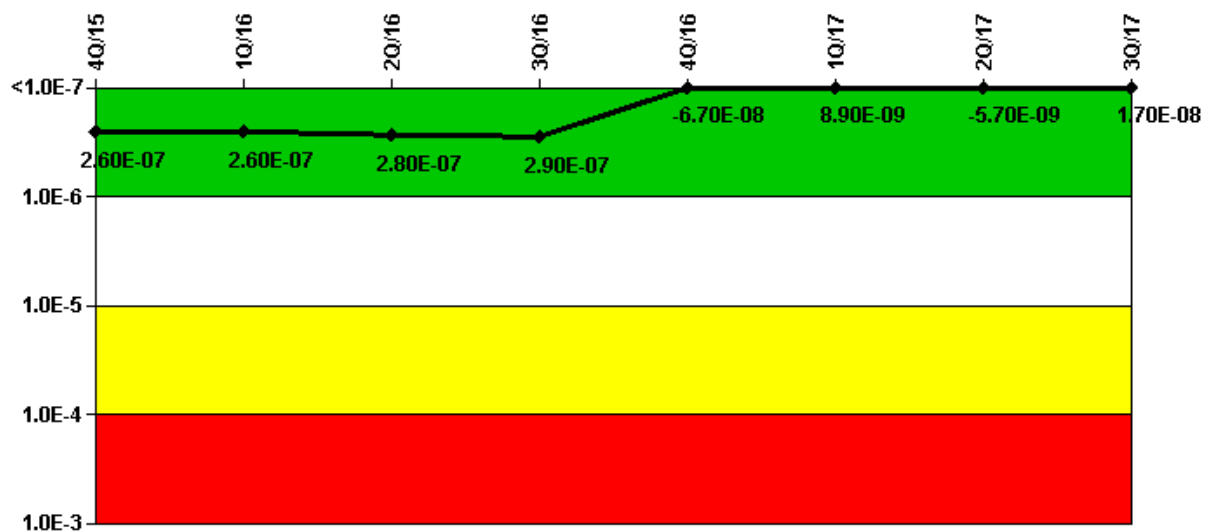
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Licensee Comments:

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

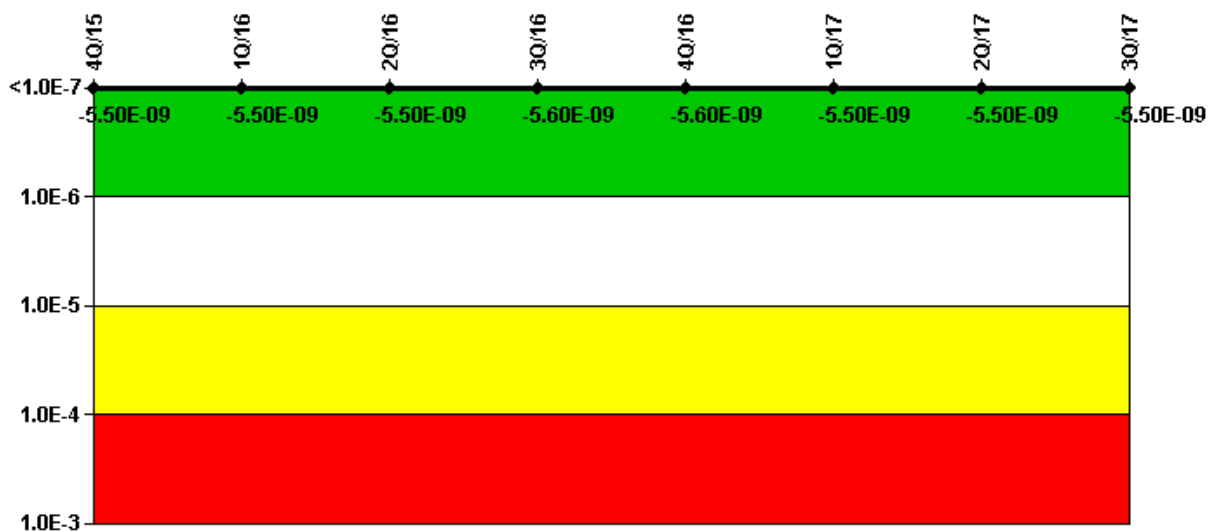
Mitigating Systems Performance Index, High Pressure Injection System

	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17	3Q/17
UAI (ΔCDF)	6.26E-08	6.25E-08	8.18E-08	9.38E-08	9.51E-10	7.69E-08	6.23E-08	8.46E-08
URI (ΔCDF)	1.97E-07	1.97E-07	1.97E-07	1.97E-07	-6.80E-08	-6.80E-08	-6.80E-08	-6.80E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	2.60E-07	2.60E-07	2.80E-07	2.90E-07	-6.70E-08	8.90E-09	-5.70E-09	1.70E-08

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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

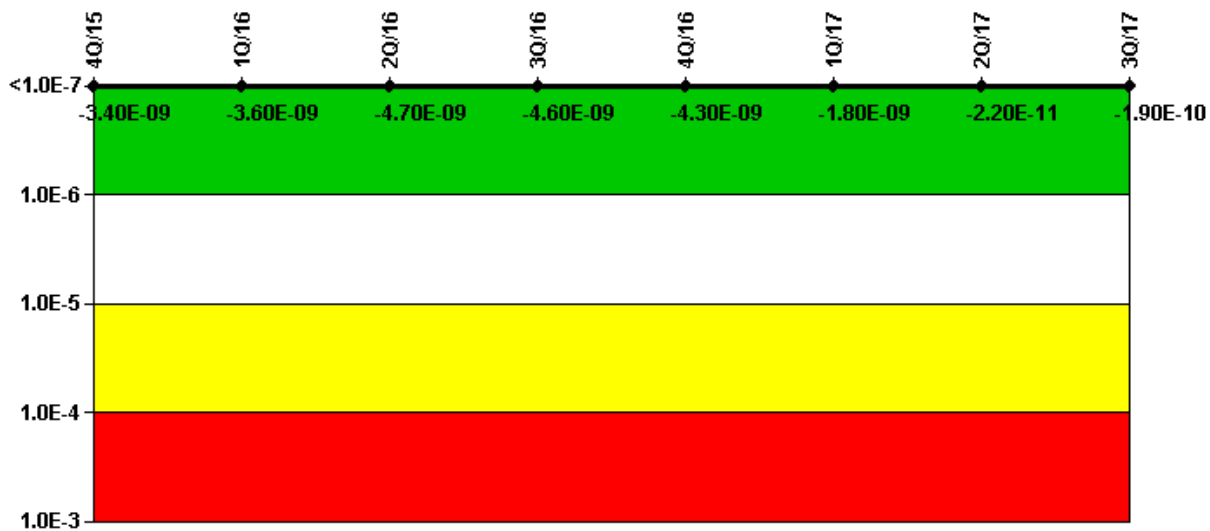
Mitigating Systems Performance Index, Heat Removal System

	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17	3Q/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	-1.13E-10	-1.25E-10	-1.25E-10	-1.13E-10	-1.13E-10	-1.13E-10
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-5.50E-09	-5.50E-09	-5.50E-09	-5.60E-09	-5.60E-09	-5.50E-09	-5.50E-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

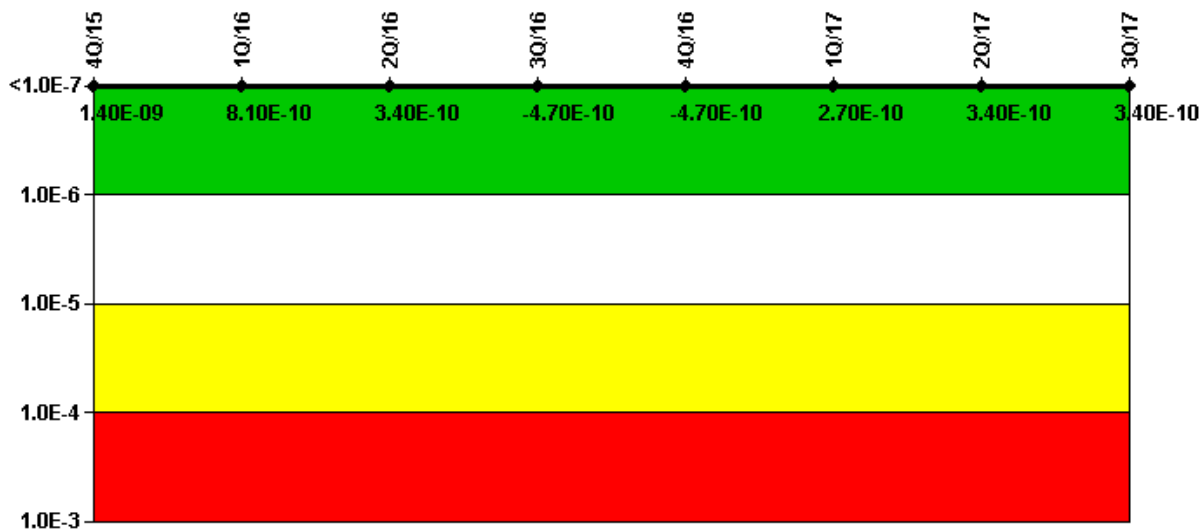
Mitigating Systems Performance Index, Residual Heat Removal System

	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17	3Q/17
UAI (ΔCDF)	1.02E-09	8.71E-10	-1.57E-10	3.89E-11	2.73E-10	2.82E-09	4.57E-09	4.41E-09
URI (ΔCDF)	-4.39E-09	-4.45E-09	-4.51E-09	-4.64E-09	-4.61E-09	-4.61E-09	-4.59E-09	-4.60E-09
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-3.40E-09	-3.60E-09	-4.70E-09	-4.60E-09	-4.30E-09	-1.80E-09	-2.20E-11	-1.90E-10

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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

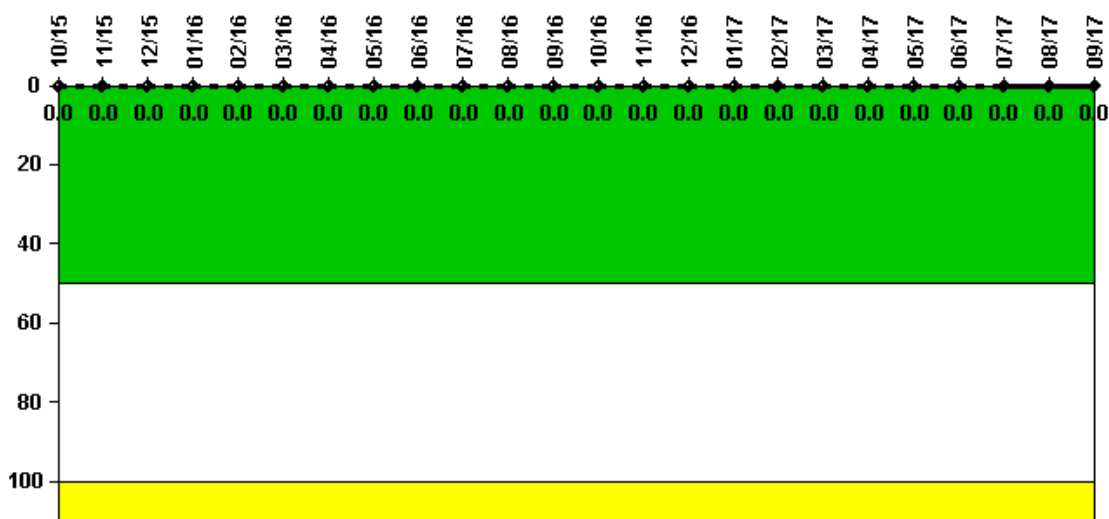
Mitigating Systems Performance Index, Cooling Water Systems

	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17	3Q/17
UAI (ΔCDF)	1.39E-09	8.33E-10	3.64E-10	-4.47E-10	-4.47E-10	2.92E-10	3.69E-10	3.69E-10
URI (ΔCDF)	-2.74E-11	-2.74E-11	-2.70E-11	-2.69E-11	-2.58E-11	-2.61E-11	-2.59E-11	-2.60E-11
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	1.40E-09	8.10E-10	3.40E-10	-4.70E-10	-4.70E-10	2.70E-10	3.40E-10	3.40E-10

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Licensee Comments: none

Reactor Coolant System Activity



Thresholds: White > 50.0 Yellow > 100.0

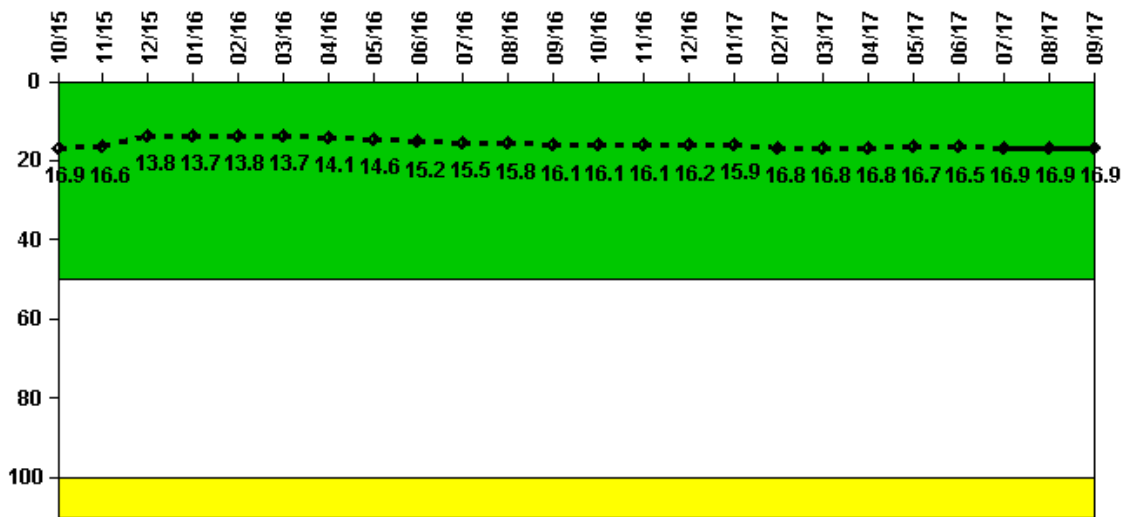
Notes

Reactor Coolant System Activity	10/15	11/15	12/15	1/16	2/16	3/16	4/16	5/16	6/16	7/16	8/16	9/16
Maximum activity	0.000010	0.000004	0.000003	0.000003	0.000004	0.000002	0.000003	0.000003	0.000003	0.000003	0.000003	0.000004
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	10/16	11/16	12/16	1/17	2/17	3/17	4/17	5/17	6/17	7/17	8/17	9/17
Maximum activity	0.000004	0.000005	0.000004	0.000004	0.000004	0.000006	0.000006	0.000006	0.000006	0.000005	0.000007	0.000007
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	10/15	11/15	12/15	1/16	2/16	3/16	4/16	5/16	6/16	7/16	8/16	9/16
Maximum leakage	4.219	4.144	3.444	3.413	3.440	3.430	3.524	3.661	3.804	3.875	3.951	4.018
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

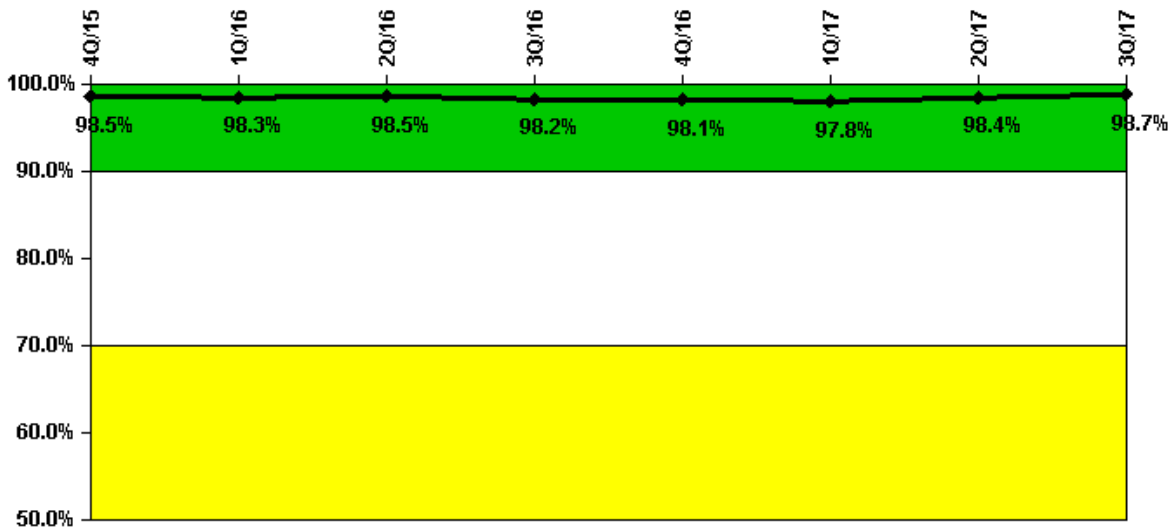
Indicator value	16.9	16.6	13.8	13.7	13.8	13.7	14.1	14.6	15.2	15.5	15.8	16.1
Reactor Coolant System Leakage	10/16	11/16	12/16	1/17	2/17	3/17	4/17	5/17	6/17	7/17	8/17	9/17
Maximum leakage	4.032	4.020	4.049	3.985	4.194	4.193	4.206	4.179	4.135	4.224	4.230	4.218
Technical specification limit	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0

Indicator value	16.1	16.1	16.2	15.9	16.8	16.8	16.8	16.7	16.5	16.9	16.9	16.9
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Licensee Comments: none

Drill/Exercise Performance



Thresholds: White < 90.0% Yellow < 70.0%

Notes

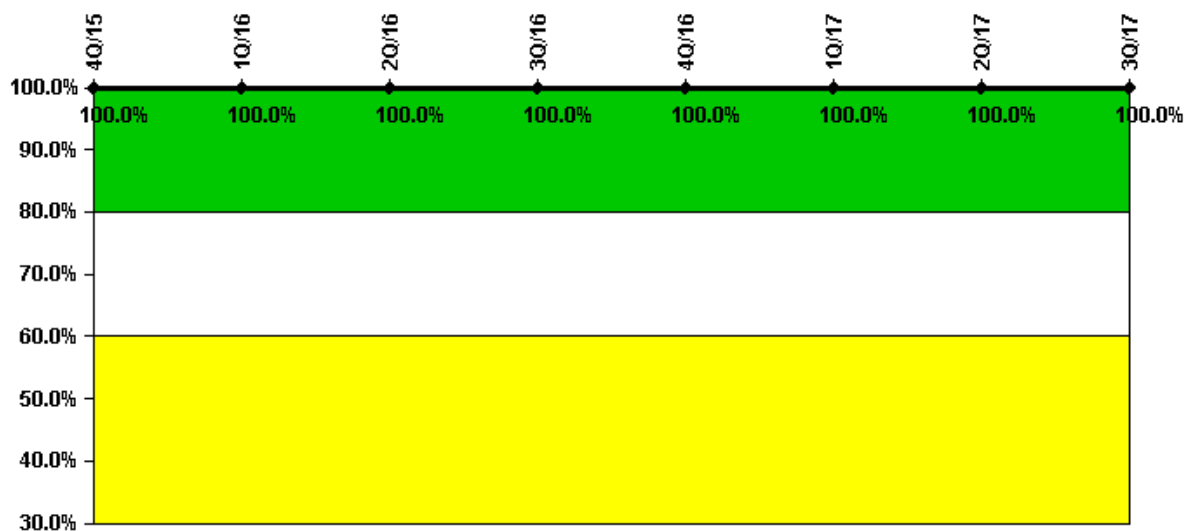
Drill/Exercise Performance	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17	3Q/17
Successful opportunities	27.0	31.0	80.0	44.0	33.0	34.0	70.0	48.0
Total opportunities	27.0	32.0	80.0	47.0	33.0	35.0	70.0	48.0

Indicator value **98.5% 98.3% 98.5% 98.2% 98.1% 97.8% 98.4% 98.7%**

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Licensee Comments: none

ERO Drill Participation



Thresholds: White < 80.0% Yellow < 60.0%

Notes

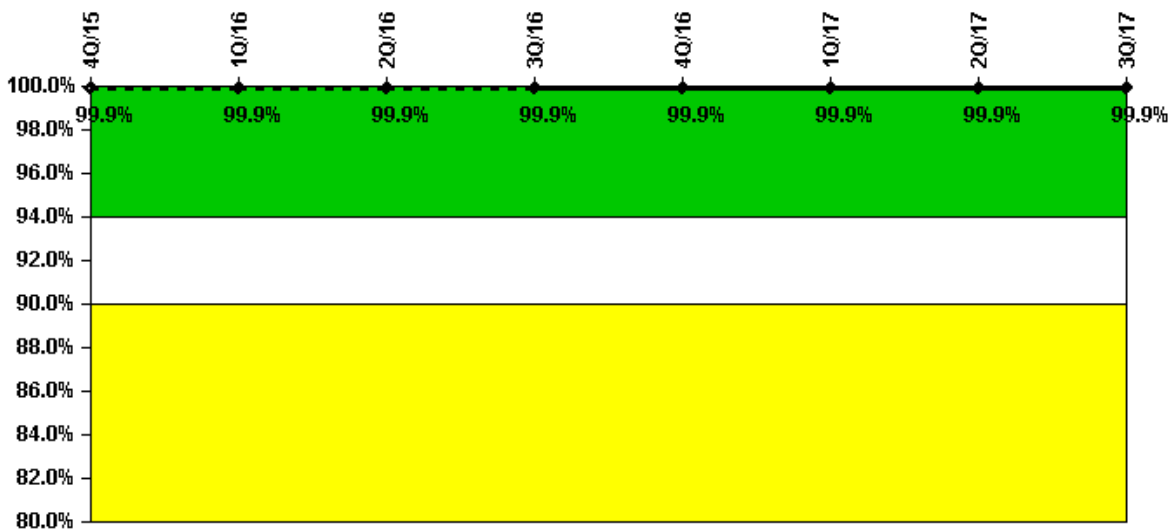
ERO Drill Participation	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17	3Q/17
Participating Key personnel	77.0	70.0	64.0	64.0	65.0	65.0	64.0	61.0
Total Key personnel	77.0	70.0	64.0	64.0	65.0	65.0	64.0	61.0

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

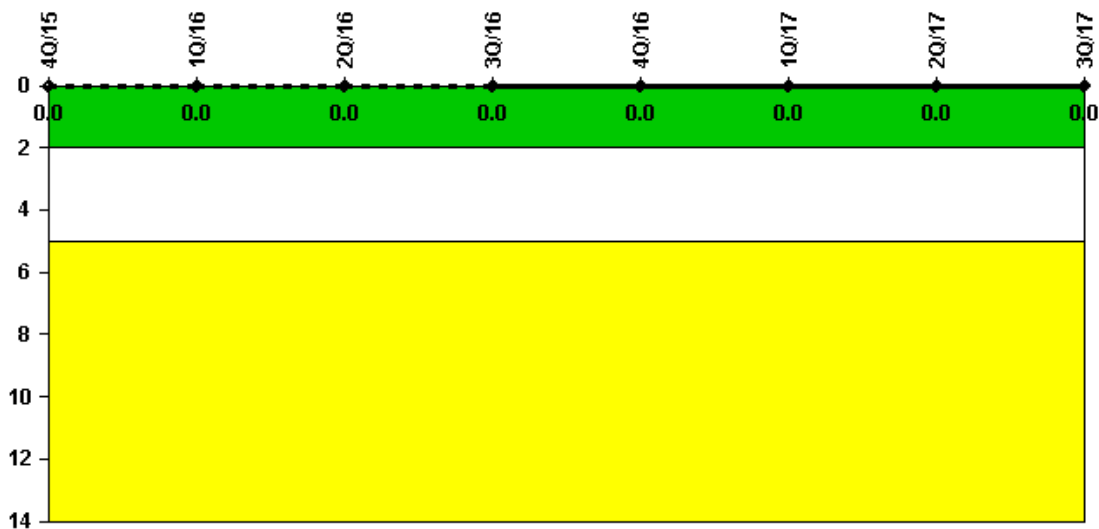
Alert & Notification System	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17	3Q/17
Successful siren-tests	2943	2942	2942	2937	2852	2986	2941	2892
Total sirens-tests	2944	2944	2944	2944	2852	2990	2944	2898

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

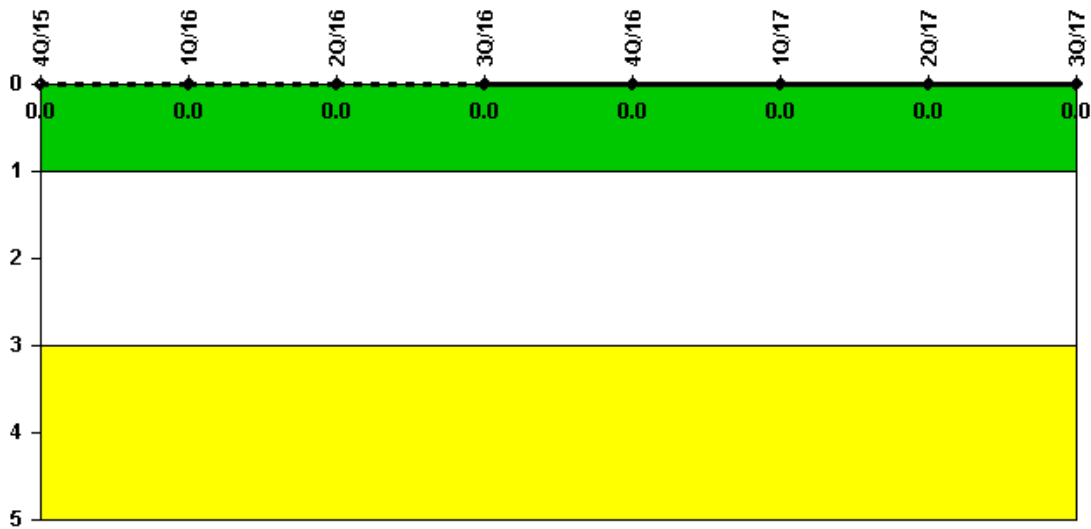
Occupational Exposure Control Effectiveness 4Q/15 1Q/16 2Q/16 3Q/16 4Q/16 1Q/17 2Q/17 3Q/17

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 4Q/15 1Q/16 2Q/16 3Q/16 4Q/16 1Q/17 2Q/17 3Q/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: October 31, 2017

Page Last Reviewed/Updated Monday, November 06, 2017