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Brunswick 1 – Quarterly Performance Indicators

2Q/2017 Performance Indicators

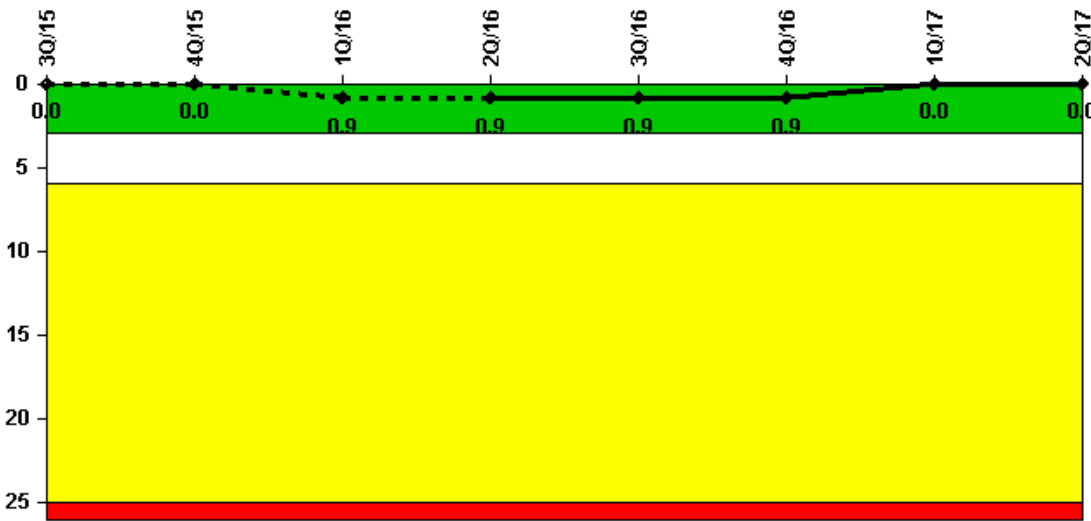
The solid trend line represents the current reporting period.

Licensee's General Comments: The CCTV Normalization Factor was revised for March 2017 based on a change to the number CCTV cameras as part of the IDS Project. This change did not affect the color status of the indicator.

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

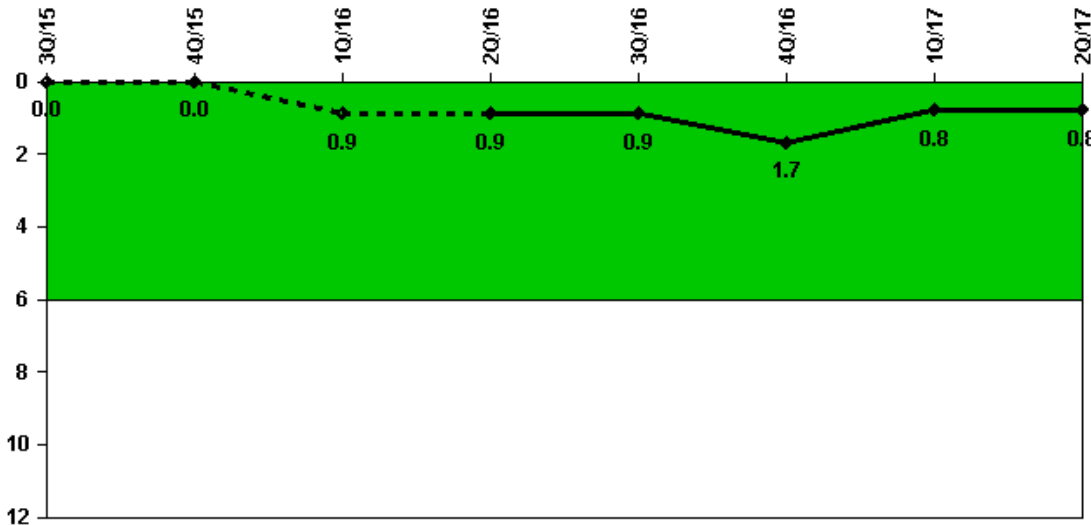
Unplanned Scrams per 7000 Critical Hrs	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17
Unplanned scrams	0	0	1.0	0	0	0	0	0
Critical hours	2208.0	2127.2	1421.2	2184.0	2208.0	2209.0	2159.0	2127.4

Indicator value	0	0	0.9	0.9	0.9	0.9	0	0
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Licensee Comments: none

Unplanned Power Changes per 7000 Critical Hrs



Thresholds: White > 6.0

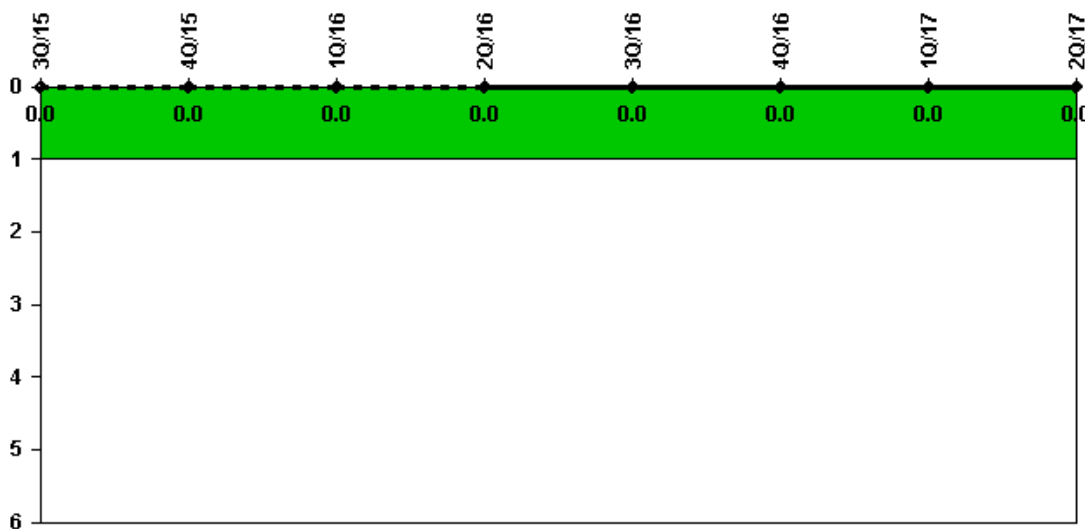
Notes

Unplanned Power Changes per 7000 Critical Hrs	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17
Unplanned power changes	0	0	1.0	0	0	1.0	0	0
Critical hours	2208.0	2127.2	1421.2	2184.0	2208.0	2209.0	2159.0	2127.4
Indicator value	0	0	0.9	0.9	0.9	1.7	0.8	0.8

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Licensee Comments: none

Unplanned Scrams with Complications



Thresholds: White > 1.0

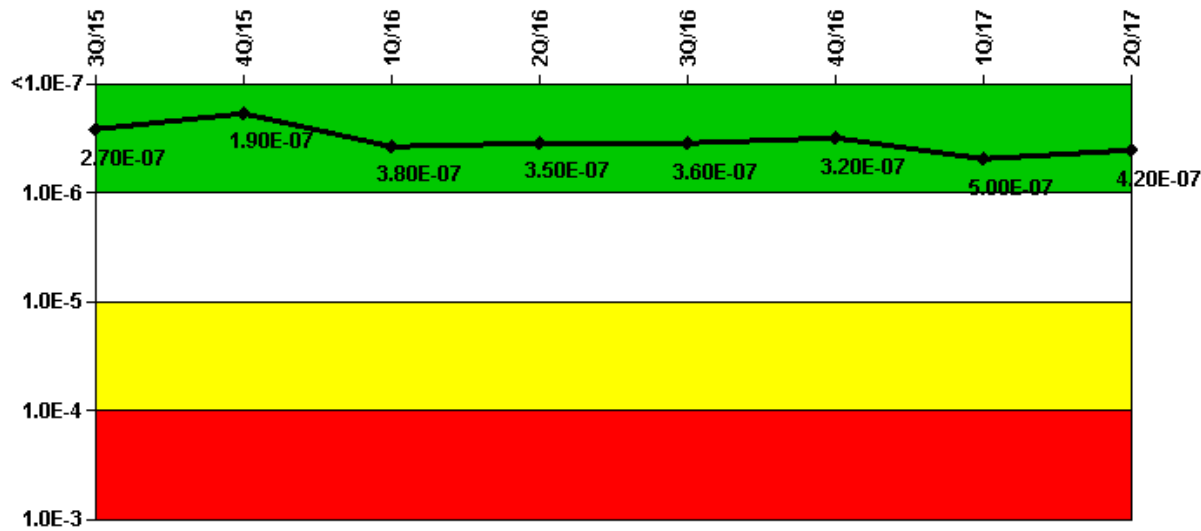
Notes

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

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

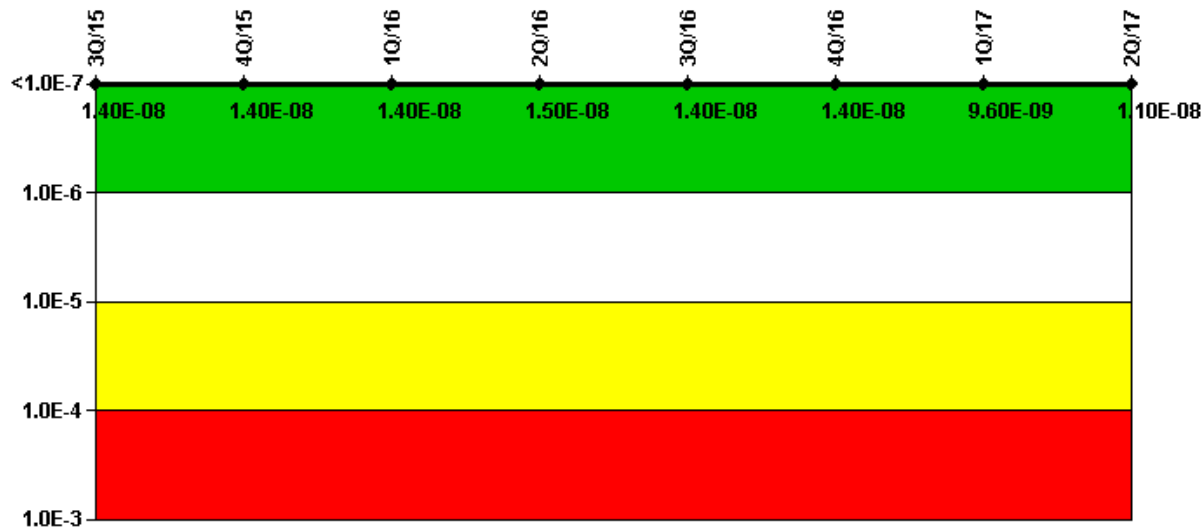
	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17
UAI (ΔCDF)	1.24E-07	1.14E-07	1.68E-07	1.36E-07	1.42E-07	1.02E-07	1.37E-07	1.28E-07
URI (ΔCDF)	1.46E-07	7.27E-08	2.13E-07	2.14E-07	2.14E-07	2.14E-07	3.60E-07	2.90E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	2.70E-07	1.90E-07	3.80E-07	3.50E-07	3.60E-07	3.20E-07	5.00E-07	4.20E-07

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Licensee Comments:

1Q/16: Planned unavailability hours were adjusted for March 2016 on the Emergency Diesel Generators due to double counting of hours that was discovered during a review of Operations logs and the CDE database. This adjustment did not affect the color of the EAC MPSI indicator.

Mitigating Systems Performance Index, High Pressure Injection System



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

Notes

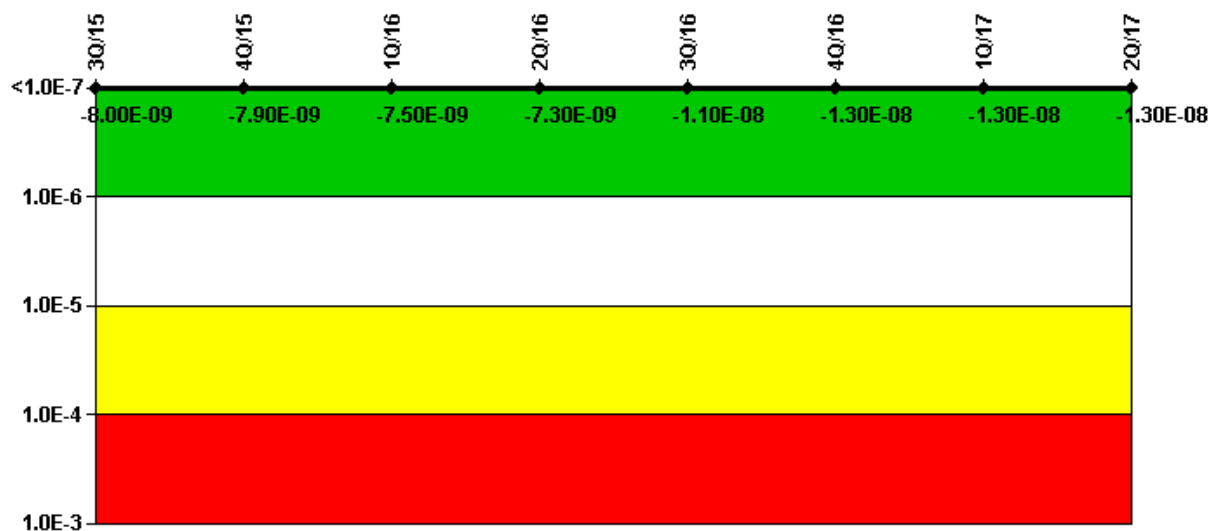
Mitigating Systems Performance Index, High Pressure Injection System

	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17
UAI (Δ CDF)	6.40E-09	6.43E-09	6.91E-09	7.34E-09	6.45E-09	6.44E-09	2.38E-09	3.44E-09
URI (Δ CDF)	7.25E-09	7.25E-09	7.25E-09	7.25E-09	7.25E-09	7.25E-09	7.25E-09	7.25E-09
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	1.40E-08	1.40E-08	1.40E-08	1.50E-08	1.40E-08	1.40E-08	9.60E-09	1.10E-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

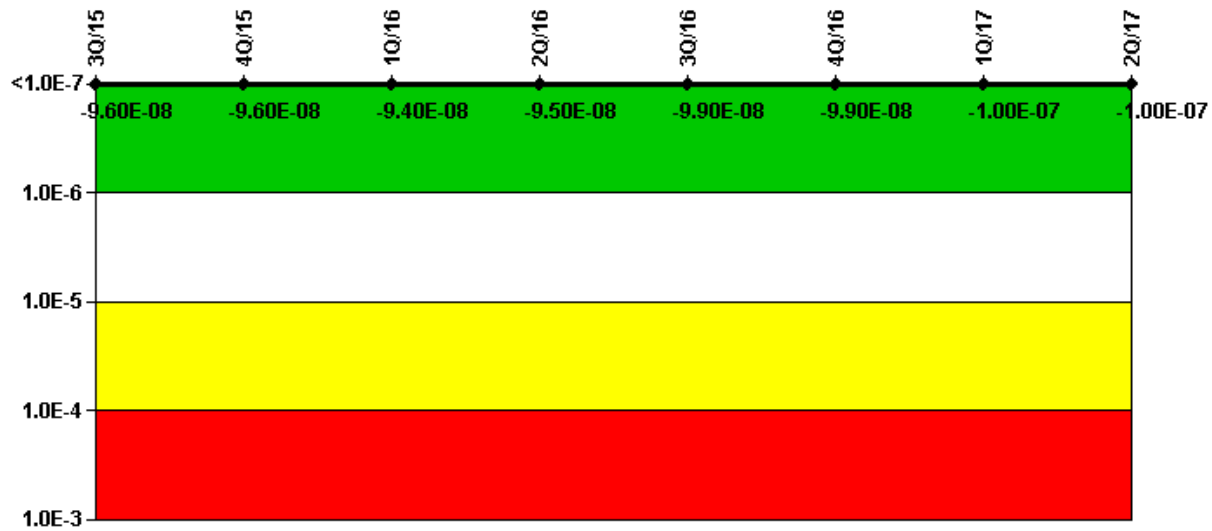
Mitigating Systems Performance Index, Heat Removal System

	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17
UAI (Δ CDF)	2.21E-09	2.26E-09	2.64E-09	2.91E-09	-3.76E-10	-3.25E-09	-3.25E-09	-3.25E-09
URI (Δ CDF)	-1.02E-08	-1.02E-08	-1.02E-08	-1.02E-08	-1.02E-08	-1.02E-08	-1.02E-08	-1.02E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-8.00E-09	-7.90E-09	-7.50E-09	-7.30E-09	-1.10E-08	-1.30E-08	-1.30E-08	-1.30E-08

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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

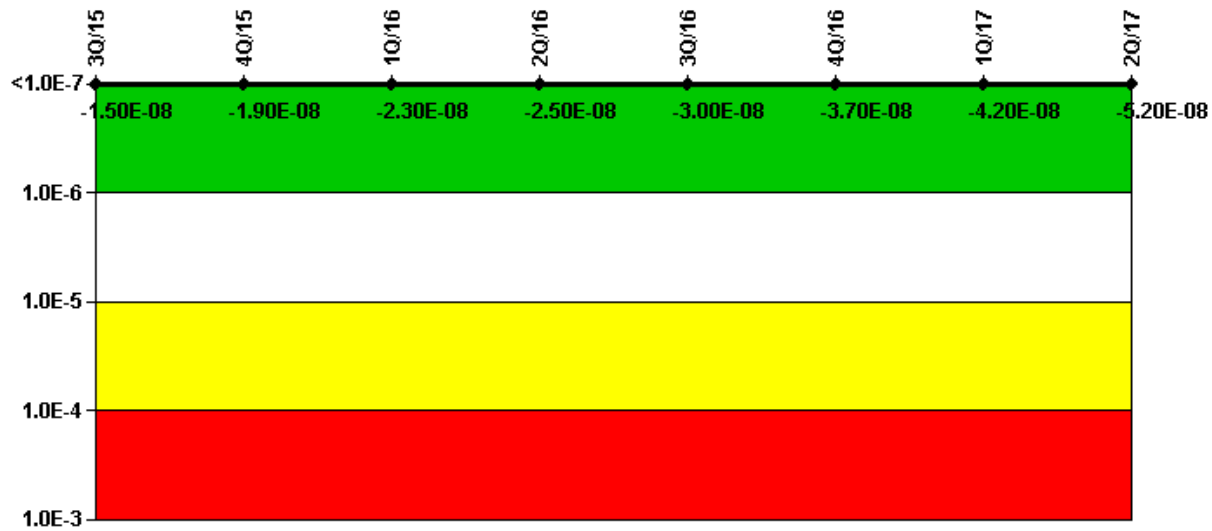
Mitigating Systems Performance Index, Residual Heat Removal System

	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17
UAI (ΔCDF)	-2.47E-08	-2.45E-08	-2.26E-08	-2.33E-08	-2.74E-08	-2.77E-08	-2.95E-08	-2.98E-08
URI (ΔCDF)	-7.13E-08	-7.13E-08	-7.13E-08	-7.13E-08	-7.13E-08	-7.13E-08	-7.13E-08	-7.13E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-9.60E-08	-9.60E-08	-9.40E-08	-9.50E-08	-9.90E-08	-9.90E-08	-1.00E-07	-1.00E-07

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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

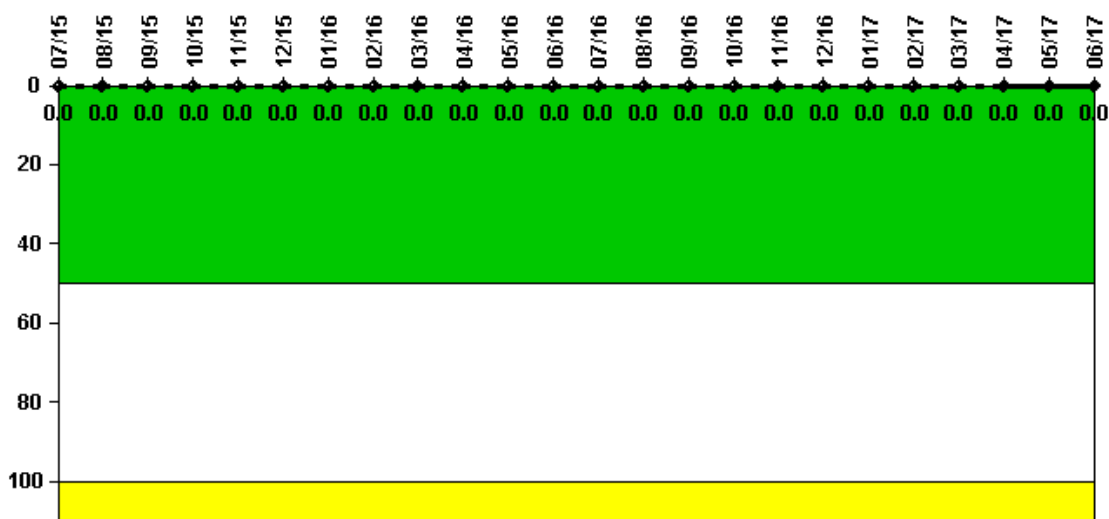
	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17
UAI (ΔCDF)	-3.25E-10	-4.59E-09	-8.56E-09	-9.59E-09	-1.44E-08	-2.18E-08	-2.64E-08	-2.71E-08
URI (ΔCDF)	-1.48E-08	-1.48E-08	-1.48E-08	-1.56E-08	-1.56E-08	-1.56E-08	-1.56E-08	-2.45E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-1.50E-08	-1.90E-08	-2.30E-08	-2.50E-08	-3.00E-08	-3.70E-08	-4.20E-08	-5.20E-08

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Licensee Comments:

3Q/15: Changed PRA Parameter(s). The MSPI Basis document (BNP-PSA-069), Revision 13, was approved on 3/24/14 that corrected data for the Service Water (Cooling Water) pump alignments and various valves. This data was not updated within CDE until 8/24/15 due to lack of communication of the change to the MSPI Basis Document. CDE values for Cooling Water were updated back to the approval date of the MSPI Basis Document. No thresholds were crossed due to this change and the greatest delta in calculated unavailability margin due to this change was only 3%.

Reactor Coolant System Activity



Thresholds: White > 50.0 Yellow > 100.0

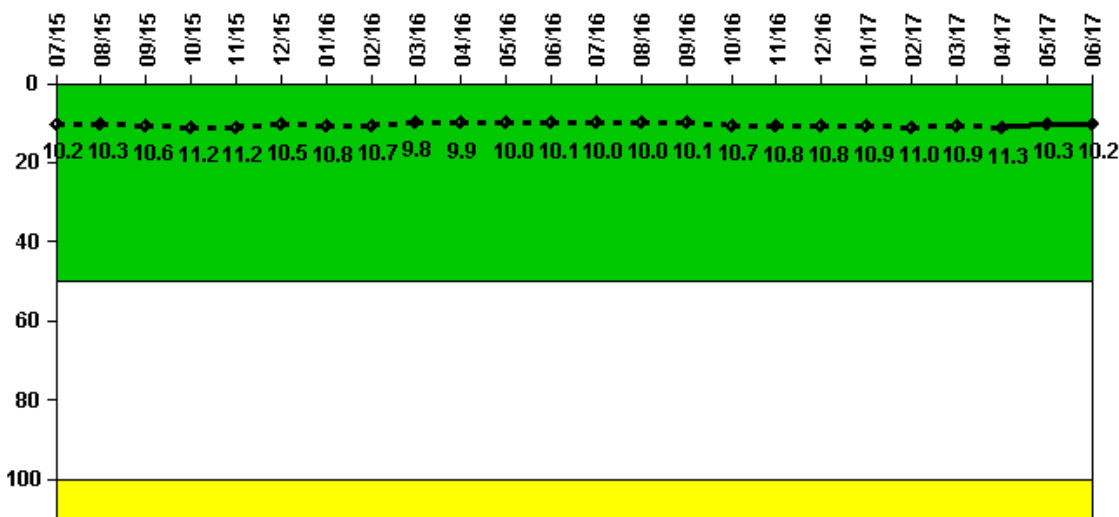
Notes

Reactor Coolant System Activity	7/15	8/15	9/15	10/15	11/15	12/15	1/16	2/16	3/16	4/16	5/16	6/16
Maximum activity	0.000041	0.000035	0.000060	0.000038	0.000038	0.000038	0.000036	0.000036	0.000035	0.000033	0.000029	0.000043
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	7/16	8/16	9/16	10/16	11/16	12/16	1/17	2/17	3/17	4/17	5/17	6/17
Maximum activity	0.000031	0.000035	0.000034	0.000029	0.000036	0.000027	0.000026	0.000029	0.000035	0.000033	0.000033	0.000034
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	7/15	8/15	9/15	10/15	11/15	12/15	1/16	2/16	3/16	4/16	5/16	6/16
Maximum leakage	2.540	2.570	2.650	2.800	2.790	2.620	2.690	2.680	2.440	2.470	2.510	2.520
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

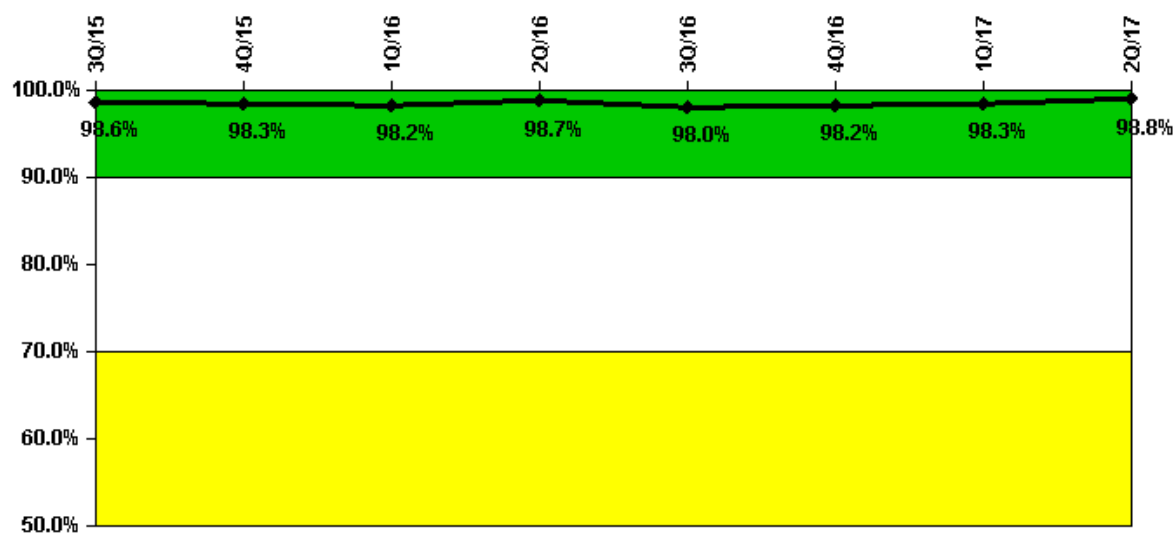
Indicator value	10.2	10.3	10.6	11.2	11.2	10.5	10.8	10.7	9.8	9.9	10.0	10.1
Reactor Coolant System Leakage	7/16	8/16	9/16	10/16	11/16	12/16	1/17	2/17	3/17	4/17	5/17	6/17
Maximum leakage	2.510	2.510	2.520	2.680	2.700	2.710	2.730	2.750	2.730	2.830	2.570	2.550
Technical specification limit	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0

Indicator value	10.0	10.0	10.1	10.7	10.8	10.8	10.9	11.0	10.9	11.3	10.3	10.2
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Licensee Comments: none

Drill/Exercise Performance



Thresholds: White < 90.0% Yellow < 70.0%

Notes

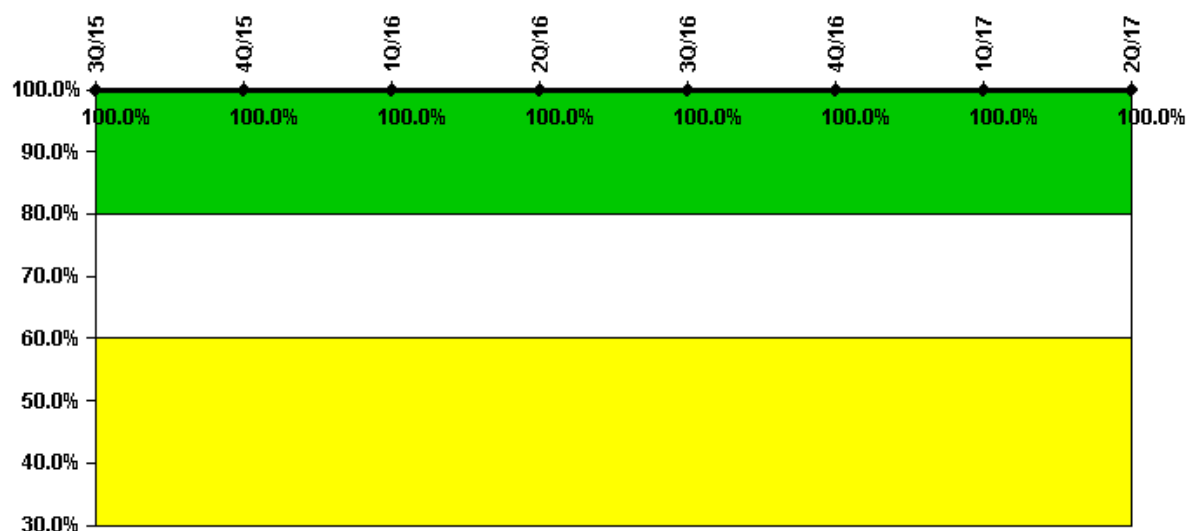
Drill/Exercise Performance	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17
Successful opportunities	30.0	22.0	8.0	9.0	29.0	35.0	23.0	8.0
Total opportunities	31.0	22.0	8.0	9.0	30.0	35.0	23.0	8.0

Indicator value **98.6% 98.3% 98.2% 98.7% 98.0% 98.2% 98.3% 98.8%**

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Licensee Comments: none

ERO Drill Participation



Thresholds: White < 80.0% Yellow < 60.0%

Notes

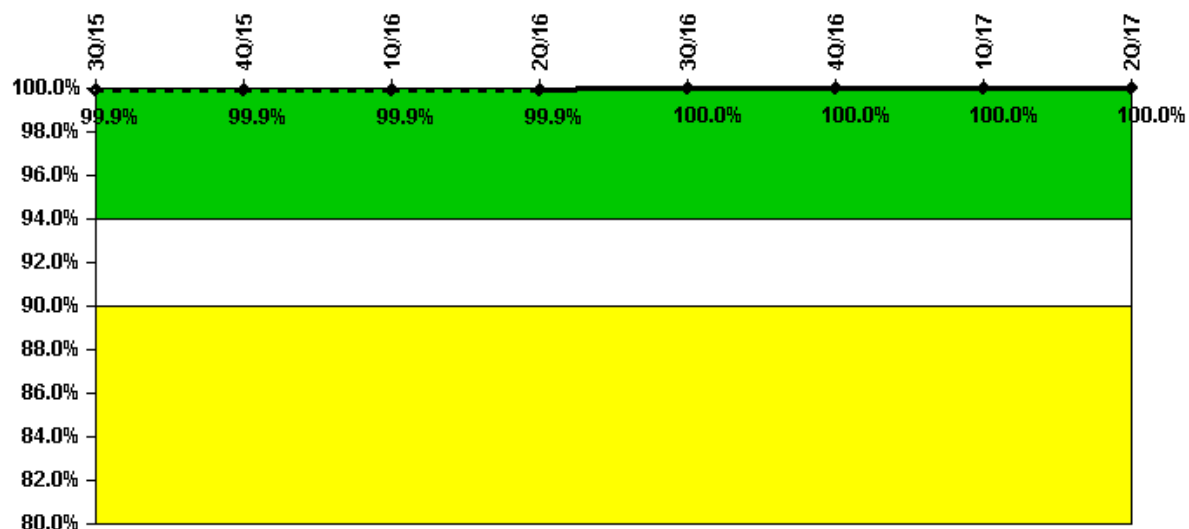
ERO Drill Participation	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17
Participating Key personnel	106.0	112.0	108.0	102.0	109.0	112.0	102.0	97.0
Total Key personnel	106.0	112.0	108.0	102.0	109.0	112.0	102.0	97.0

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

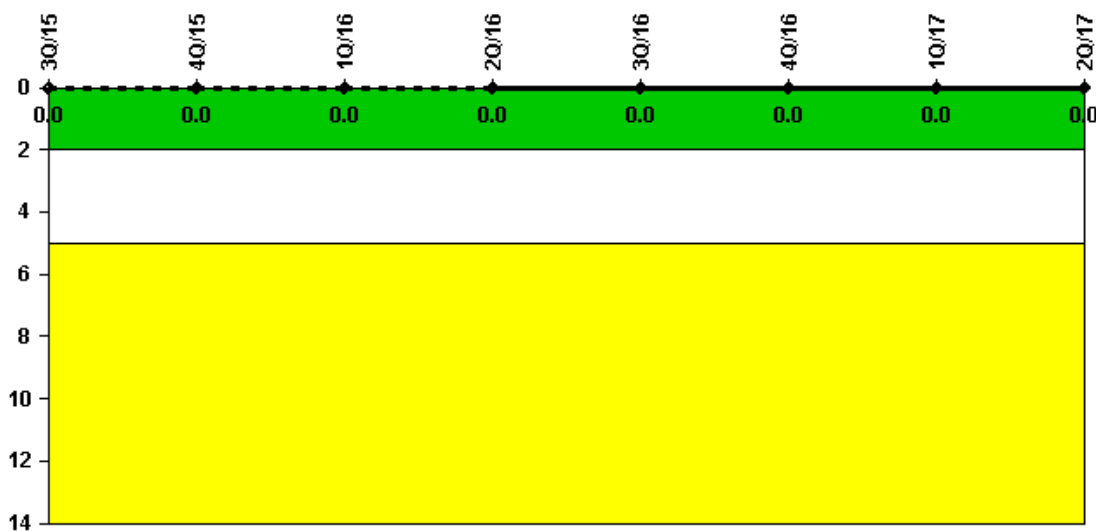
Alert & Notification System	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17
Successful siren-tests	530	570	532	532	532	532	532	532
Total sirens-tests	532	570	532	532	532	532	532	532

Indicator value 99.9% 99.9% 99.9% 99.9% 100.0% 100.0% 100.0% 100.0%

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Licensee Comments: none

Occupational Exposure Control Effectiveness



Thresholds: White > 2.0 Yellow > 5.0

Notes

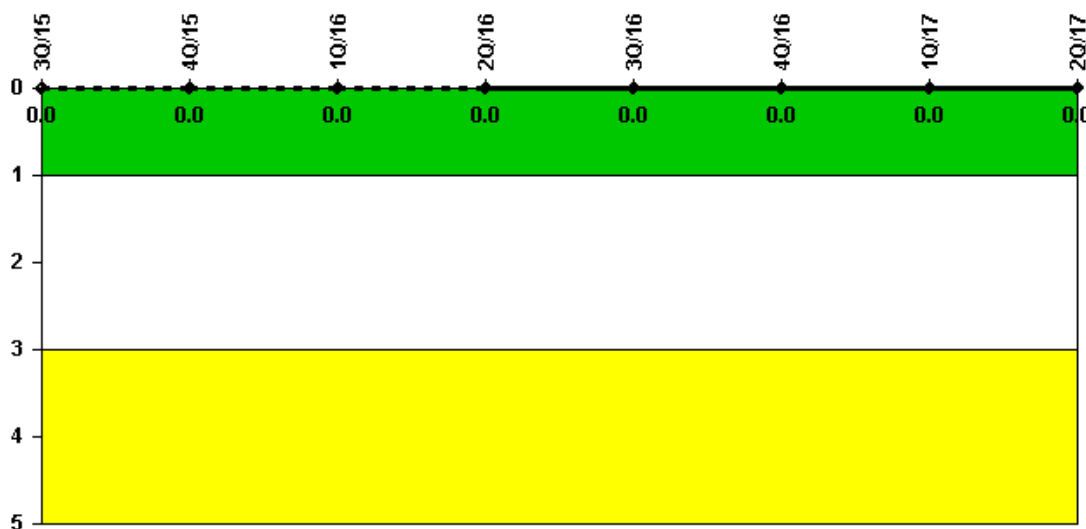
Occupational Exposure Control Effectiveness 3Q/15 4Q/15 1Q/16 2Q/16 3Q/16 4Q/16 1Q/17 2Q/17

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 3Q/15 4Q/15 1Q/16 2Q/16 3Q/16 4Q/16 1Q/17 2Q/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: July 26, 2017

Page Last Reviewed/Updated Wednesday, June 07, 2017