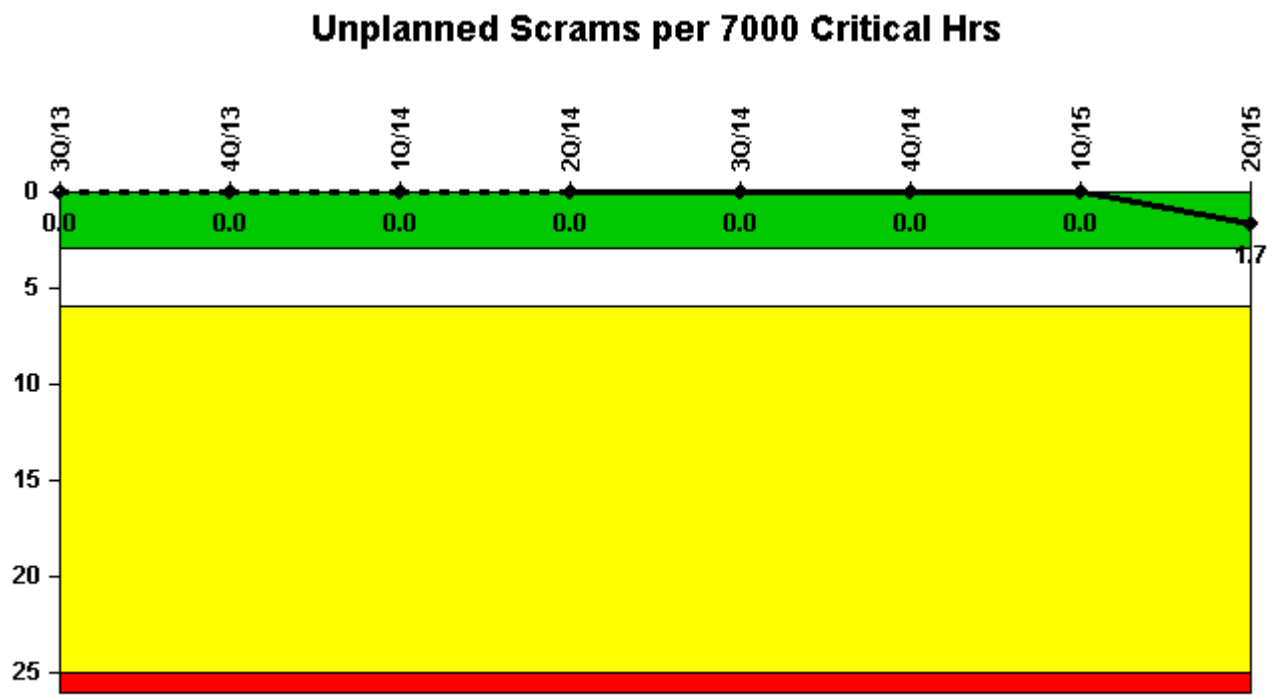
Prairie Island 2

2Q/2015 Performance Indicators

The solid trend line represents the current reporting period.

Licensee's General Comments: LER 50-306/2015-001-00 submitted on 5/4/2015 for 21 Fan Coil Unit Leak-Containment Declared Inoperable

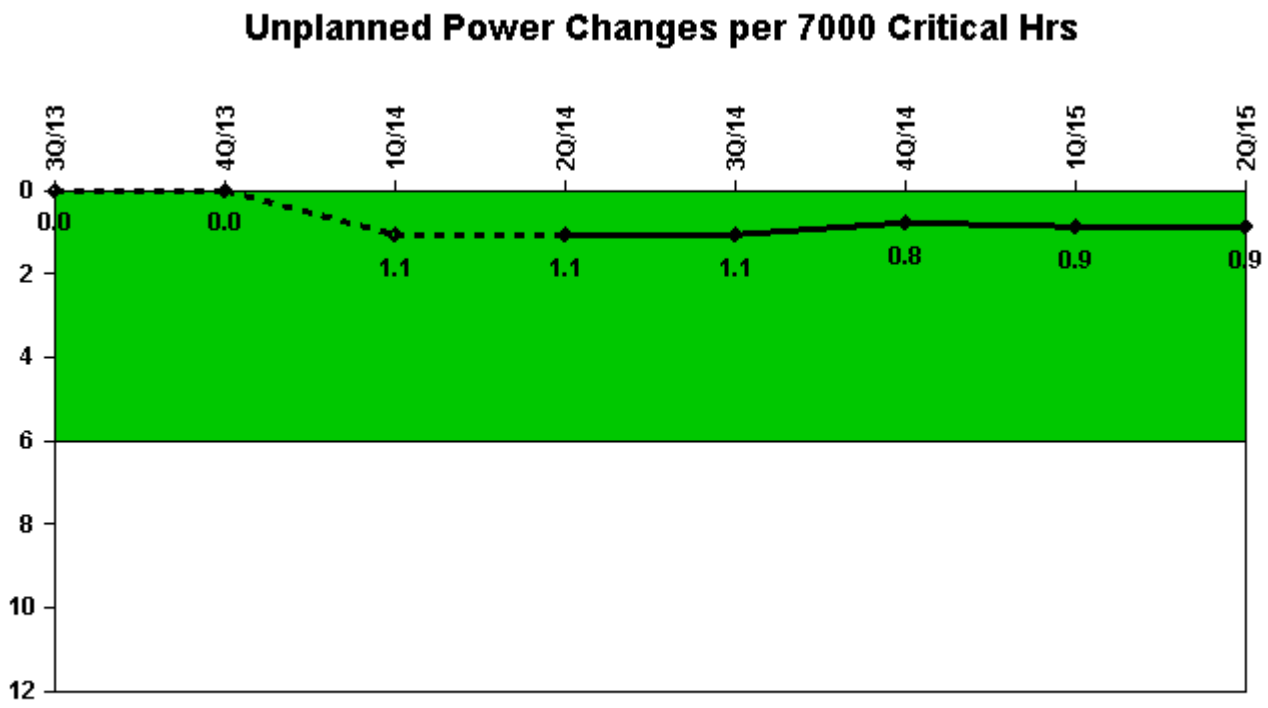


Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

Notes

Unplanned Scrams per 7000 Critical Hrs	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15
Unplanned scrams	0	0	0	0	0	0	0	2.0
Critical hours	1968.1	0	2141.3	2080.6	2208.0	2209.0	1682.8	2035.8
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1.7**

Licensee Comments: none

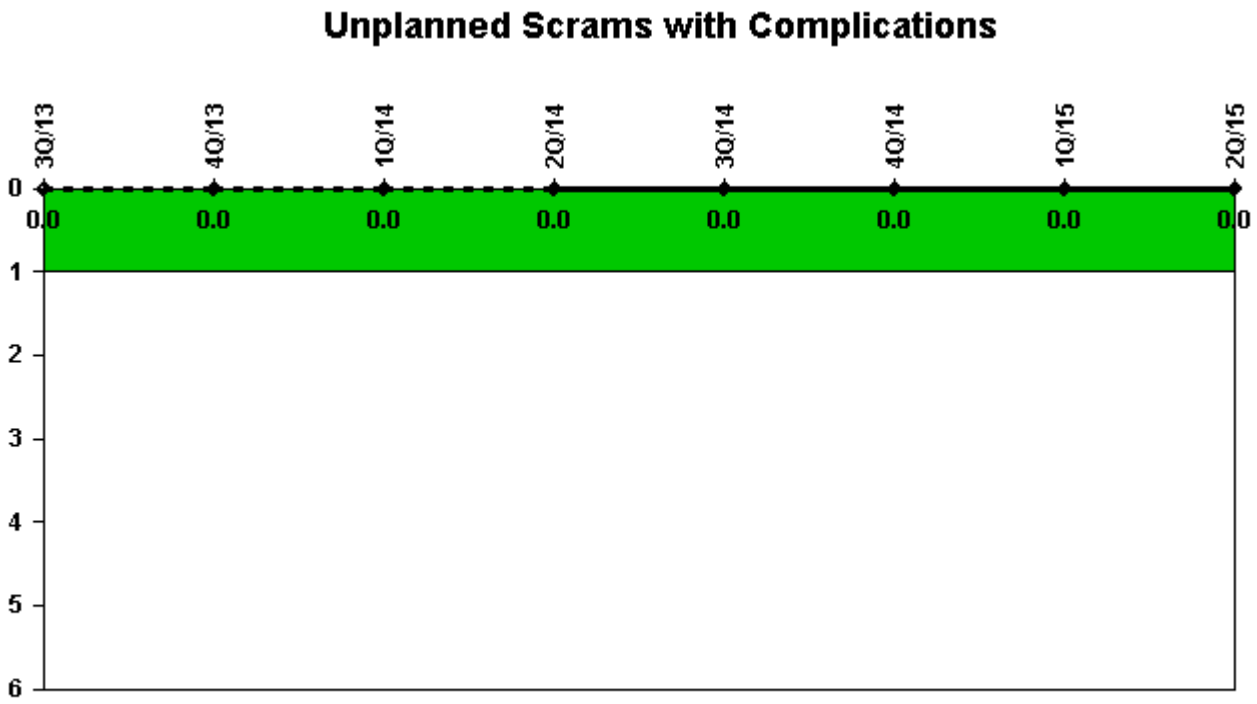


Thresholds: White > 6.0

Notes

Unplanned Power Changes per 7000 Critical Hrs	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15
Unplanned power changes	0	0	1.0	0	0	0	1.0	0
Critical hours	1968.1	0	2141.3	2080.6	2208.0	2209.0	1682.8	2035.8
Indicator value	**0**	**0**	**1.1**	**1.1**	**1.1**	**0.8**	**0.9**	**0.9**

Licensee Comments: none

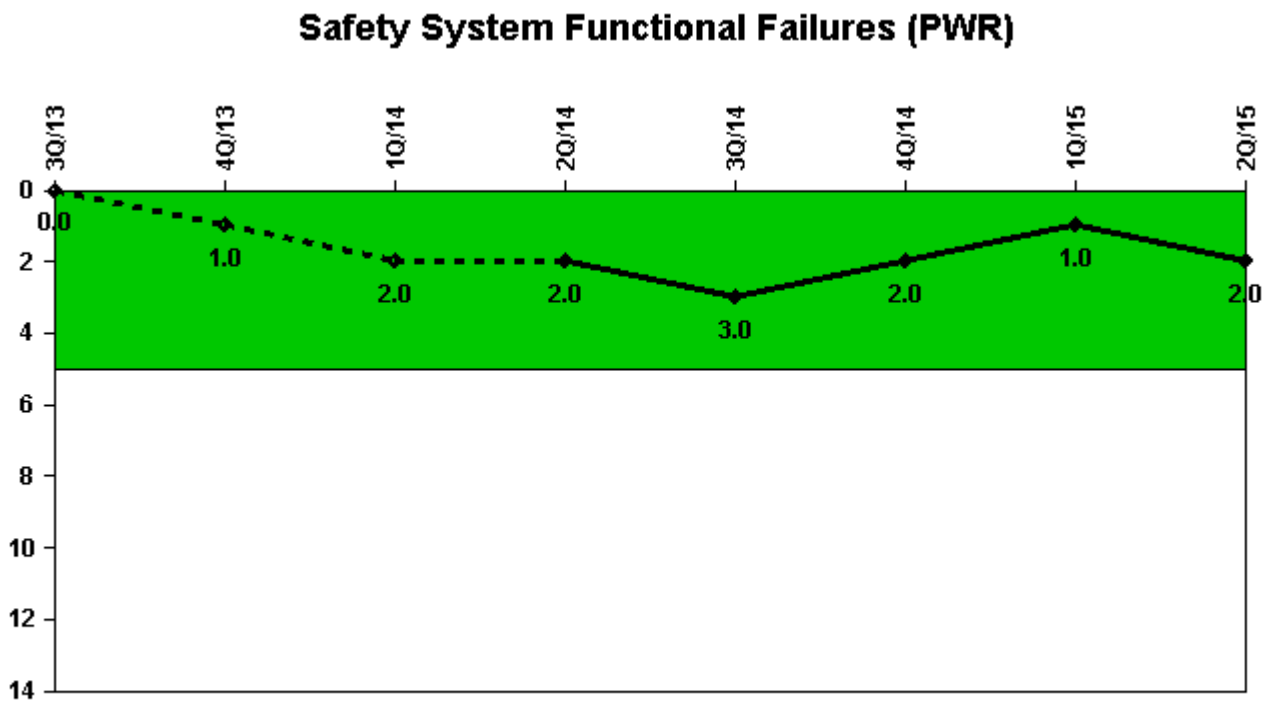


Thresholds: White > 1.0

Notes

Unplanned Scrams with Complications	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15
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**

Licensee Comments: none



Thresholds: White > 5.0

Notes

Safety System Functional Failures (PWR)	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15
Safety System Functional Failures	0	1	1	0	1	0	0	1
Indicator value	**0**	**1**	**2**	**2**	**3**	**2**	**1**	**2**

Licensee Comments:

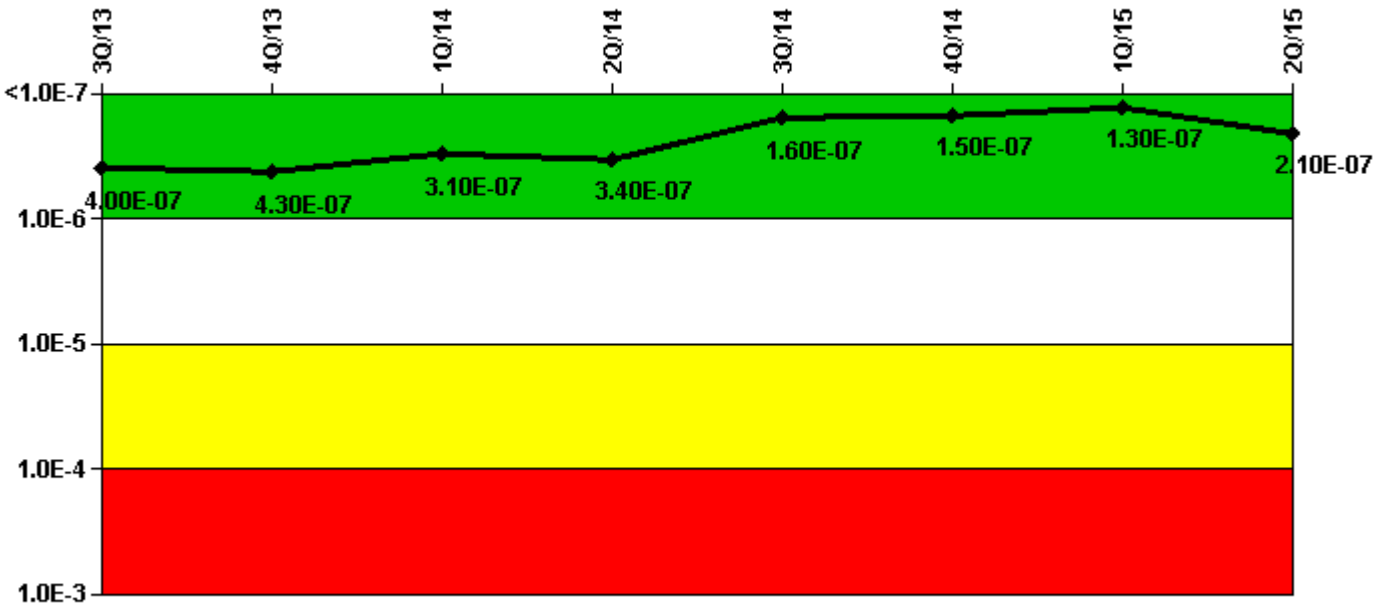
2Q/15: LER 50-306/2015-001-00, 5/4/2015, 21 Fan Coil Unit Leak - Containment Declared Inoperable

3Q/14: LER 50-306/2014-002-00, 7/15/14 23 Fan Coil Unit Lower Northeast Face Corner Gasket Leaking

1Q/14: LER 50-306/2014-001-00, March 3, 2014, Unanalyzed Condition Due to Removal of Multiple Steam Generator Lateral Support Shims and Bumpers

4Q/13: LER 50-282/2013-001-00, 10/8/2013, Control Room Envelope Inoperable.

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/13**	**4Q/13**	**1Q/14**	**2Q/14**	**3Q/14**	**4Q/14**	**1Q/15**	**2Q/15**
UAI (ΔCDF)	9.72E-08	1.24E-07	2.86E-08	5.50E-08	6.82E-08	6.08E-08	5.16E-08	6.17E-08
URI (ΔCDF)	3.05E-07	3.09E-07	2.83E-07	2.87E-07	9.20E-08	9.37E-08	8.02E-08	1.52E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**4.00E-07**	**4.30E-07**	**3.10E-07**	**3.40E-07**	**1.60E-07**	**1.50E-07**	**1.30E-07**	**2.10E-07**

Licensee Comments:

1Q/15: Changed PRA Parameter(s). Changed PRA Parameter(s). The PINGP PRA Model Revision 5.1 was approved on 11/21/2014 with a corresponding MSPI Basis Document Revision 16 approved on 2/26/2015. The PRA model revision was a maintenance update to the model which included an update to incorporate newly installed Unit 1 RCP Seals and PRA specific success criteria for cooling water trains.

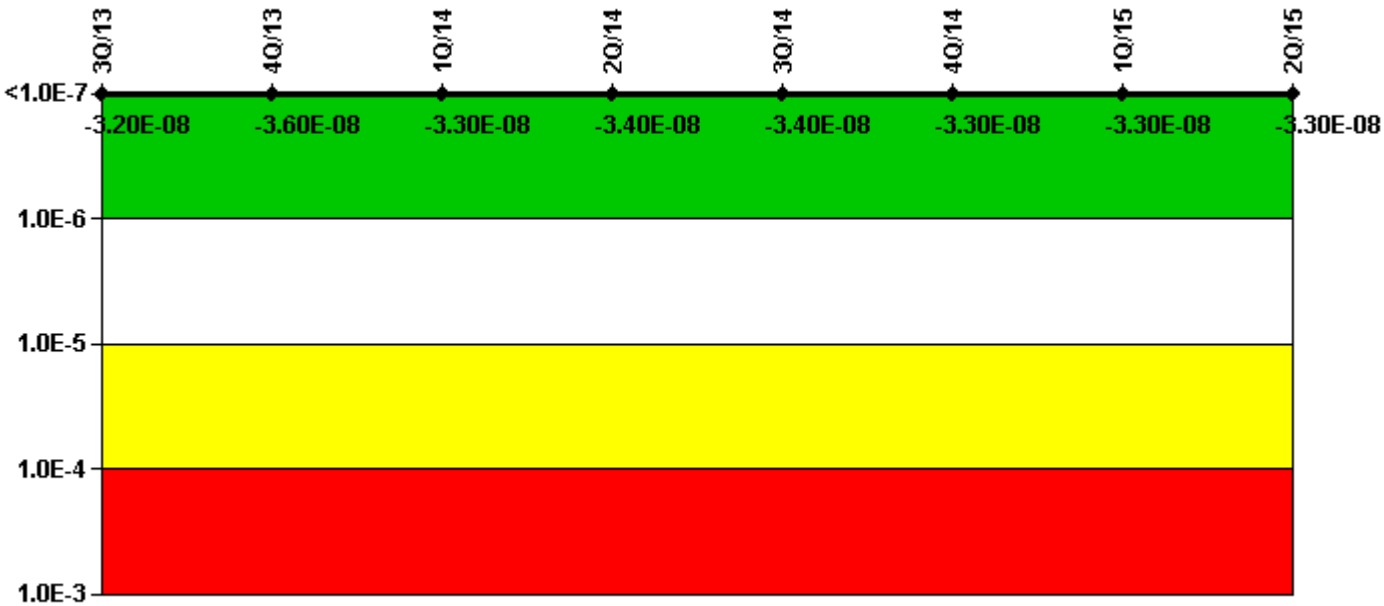
3Q/14: The D5 & D6 EDGs had a Planned Unavailability Baseline change that went into effect for the 3rd Quarter of 2014 (3Q2014). This change reflects current plant maintenance philosophy.

1Q/14: Changed PRA Parameter(s). The PINGP PRA Model Revision 5.0 was approved on 12/20/2013 with a corresponding MSPI Basis Document Revision 13 approved on 4/3/2014. The PRA model revision was a periodic update to the model which included an update to incorporate newly installed Unit 2 RCP Seals. As a result of the PRA model change, both units CDF and Fussel-Vesely values for all monitored trains and components were revised, and Auxiliary Feedwater monitored components were added.

4Q/13: 2014 review of previously submitted data identified corrections to be made to MSPI Data reported. Changes do not result in a color change for any MSPI system.

3Q/13: 2014 review of previously submitted data identified corrections to be made to MSPI Data reported. Changes do not result in a color change for any MSPI system.

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/13**	**4Q/13**	**1Q/14**	**2Q/14**	**3Q/14**	**4Q/14**	**1Q/15**	**2Q/15**
UAI (ΔCDF)	-9.04E-09	-9.96E-09	-8.63E-09	-8.63E-09	-8.63E-09	-8.63E-09	-8.51E-09	-8.51E-09
URI (ΔCDF)	-2.25E-08	-2.60E-08	-2.48E-08	-2.49E-08	-2.50E-08	-2.48E-08	-2.48E-08	-2.47E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-3.20E-08**	**-3.60E-08**	**-3.30E-08**	**-3.40E-08**	**-3.40E-08**	**-3.30E-08**	**-3.30E-08**	**-3.30E-08**

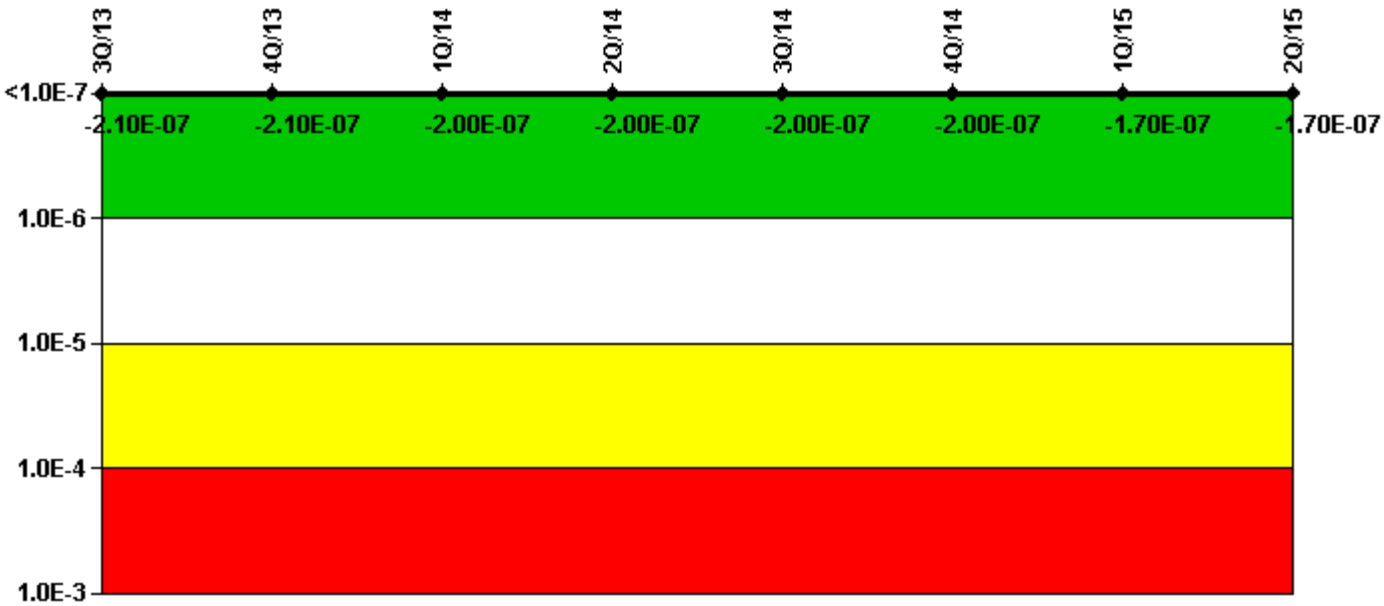
Licensee Comments:

1Q/15: Changed PRA Parameter(s). Changed PRA Parameter(s). The PINGP PRA Model Revision 5.1 was approved on 11/21/2014 with a corresponding MSPI Basis Document Revision 16 approved on 2/26/2015. The PRA model revision was a maintenance update to the model which included an update to incorporate newly installed Unit 1 RCP Seals and PRA specific success criteria for cooling water trains.

1Q/14: Changed PRA Parameter(s). The PINGP PRA Model Revision 5.0 was approved on 12/20/2013 with a corresponding MSPI Basis Document Revision 13 approved on 4/3/2014. The PRA model revision was a periodic update to the model which included an update to incorporate newly installed Unit 2 RCP Seals. As a result of the PRA model change, both units CDF and Fussel-Vesely values for all monitored trains and components were revised, and Auxiliary Feedwater monitored components were added.

3Q/13: 2014 review of previously submitted data identified corrections to be made to MSPI Data reported. Changes do not result in a color change for any MSPI system.

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/13**	**4Q/13**	**1Q/14**	**2Q/14**	**3Q/14**	**4Q/14**	**1Q/15**	**2Q/15**
UAI (ΔCDF)	-3.63E-08	-3.63E-08	-3.05E-08	-3.05E-08	-3.05E-08	-3.05E-08	-2.68E-08	-2.68E-08
URI (ΔCDF)	-1.69E-07	-1.73E-07	-1.71E-07	-1.69E-07	-1.69E-07	-1.68E-07	-1.44E-07	-1.44E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-2.10E-07**	**-2.10E-07**	**-2.00E-07**	**-2.00E-07**	**-2.00E-07**	**-2.00E-07**	**-1.70E-07**	**-1.70E-07**

Licensee Comments:

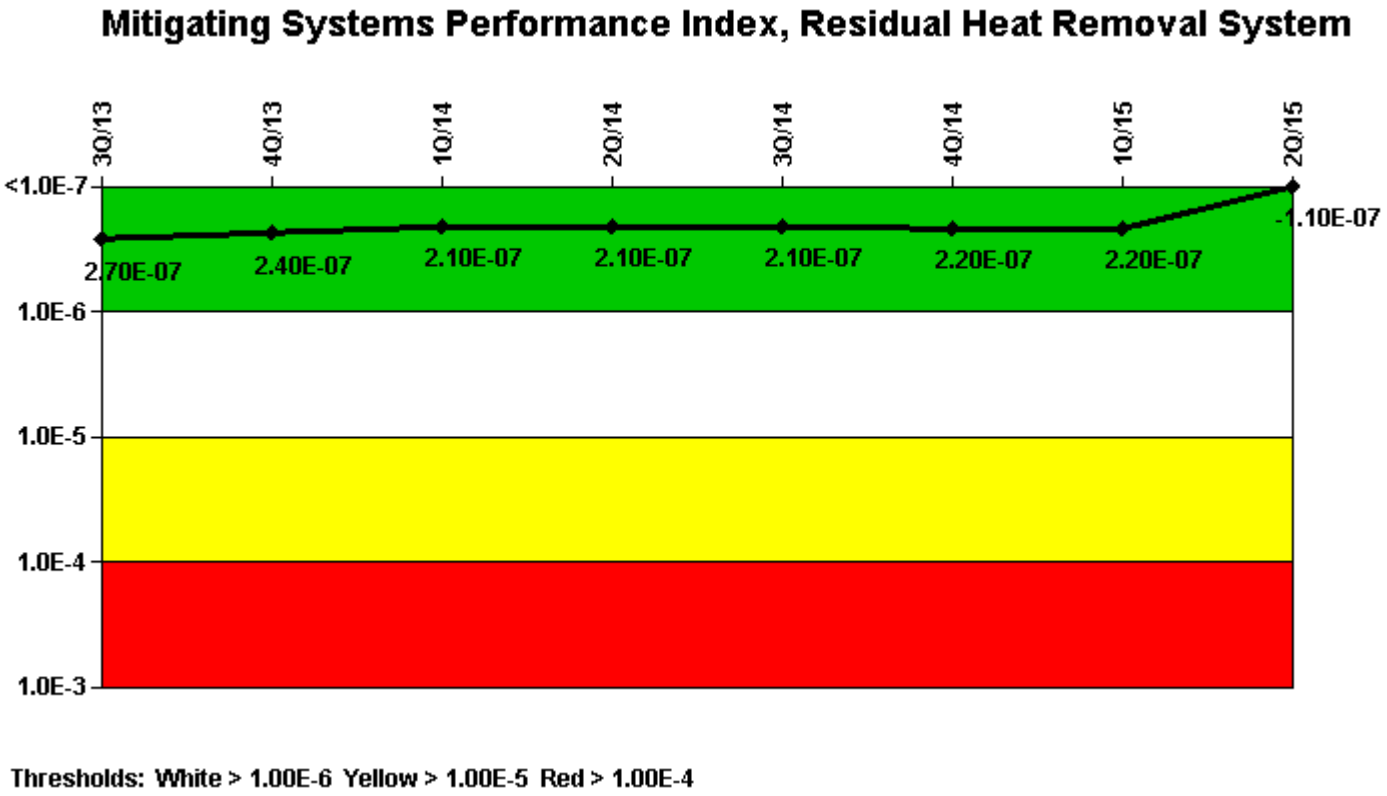
1Q/15: Changed PRA Parameter(s). Changed PRA Parameter(s). The PINGP PRA Model Revision 5.1 was approved on 11/21/2014 with a corresponding MSPI Basis Document Revision 16 approved on 2/26/2015. The PRA model revision was a maintenance update to the model which included an update to incorporate newly installed Unit 1 RCP Seals and PRA specific success criteria for cooling water trains. As a result of the PRA model change, the motor valves are no longer monitored components.

4Q/14: Effective for the 4th quarter 2014, the reporting of Reliability Data for Component Cooling and Auxiliary Feedwater System MSPI Monitored Components has been changed to Estimated Operational/Alignment Demands and Estimated Operational/Alignment Run Hours. This change is coincident with an updated value of Estimated Test Demands and Estimated Test Run Hours for monitored components in these systems. This change did not require a change to the PRA model, is in accordance with NEI 99-02 requirements regarding Reporting of Estimated Data, and has basis documented in Prairie Island MSPI Basis Document Revision 15 as approved during the previous quarter.

1Q/14: Changed PRA Parameter(s). The PINGP PRA Model Revision 5.0 was approved on 12/20/2013 with a corresponding MSPI Basis Document Revision 13 approved on 4/3/2014. The PRA model revision was a periodic update to the model which included an update to incorporate newly installed Unit 2 RCP Seals. As a result of the PRA model change, both units CDF and Fussel-Vesely values for all monitored trains and components were revised, and Auxiliary Feedwater monitored components were added.

4Q/13: 2014 review of previously submitted data identified corrections to be made to MSPI Data reported. Changes do not result in a color change for any MSPI system.

3Q/13: 2014 review of previously submitted data identified corrections to be made to MSPI Data reported. Changes do not result in a color change for any MSPI system.



Notes

Mitigating Systems Performance Index, Residual Heat Removal System	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15
UAI (ΔCDF)	-2.36E-08	-2.36E-08	-1.82E-08	-1.82E-08	-1.82E-08	-1.82E-08	-1.73E-08	-1.73E-08
URI (ΔCDF)	2.95E-07	2.59E-07	2.24E-07	2.24E-07	2.24E-07	2.39E-07	2.39E-07	-8.81E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**2.70E-07**	**2.40E-07**	**2.10E-07**	**2.10E-07**	**2.10E-07**	**2.20E-07**	**2.20E-07**	**-1.10E-07**

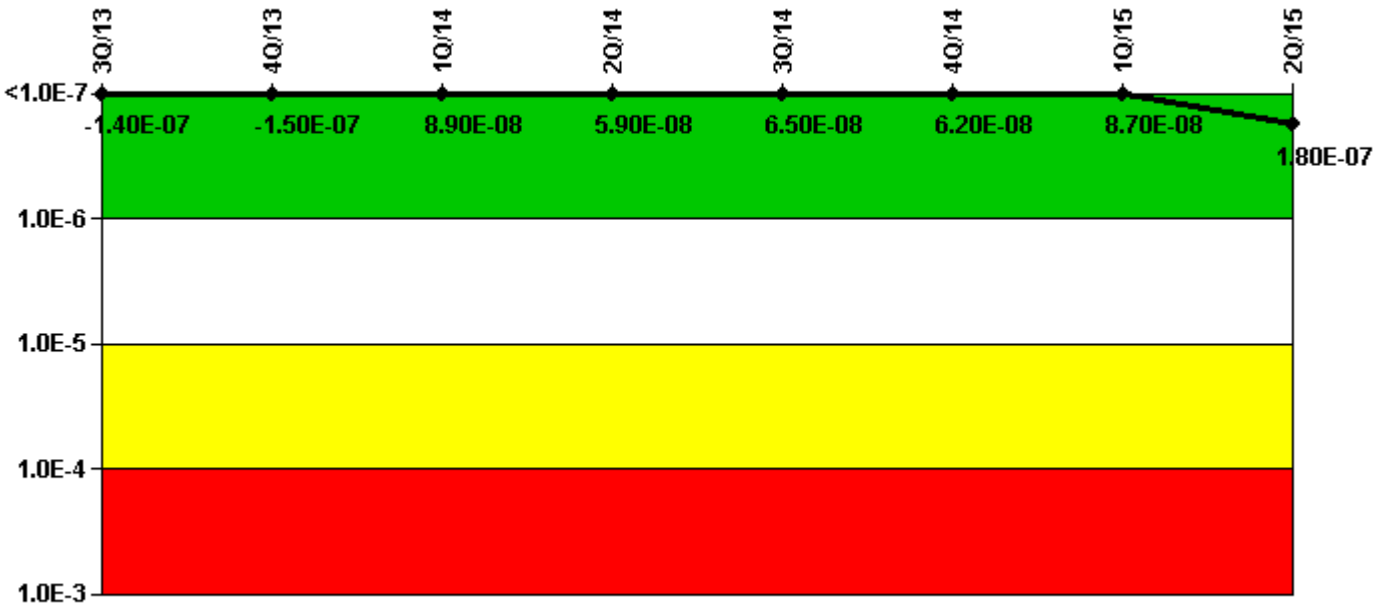
Licensee Comments:

1Q/15: Changed PRA Parameter(s). Changed PRA Parameter(s). The PINGP PRA Model Revision 5.1 was approved on 11/21/2014 with a corresponding MSPI Basis Document Revision 16 approved on 2/26/2015. The PRA model revision was a maintenance update to the model which included an update to incorporate newly installed Unit 1 RCP Seals and PRA specific success criteria for cooling water trains.

1Q/14: Changed PRA Parameter(s). The PINGP PRA Model Revision 5.0 was approved on 12/20/2013 with a corresponding MSPI Basis Document Revision 13 approved on 4/3/2014. The PRA model revision was a periodic update to the model which included an update to incorporate newly installed Unit 2 RCP Seals. As a result of the PRA model change, both units CDF and Fussel-Vesely values for all monitored trains and components were revised, and Auxiliary Feedwater monitored components were added.

3Q/13: MSPI Unavailiability corrections due to previously missed unavailability windows when using RHR as load for Component Cooling Water testing; also identify unavailability window extended from that previously reported.

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/13**	**4Q/13**	**1Q/14**	**2Q/14**	**3Q/14**	**4Q/14**	**1Q/15**	**2Q/15**
UAI (ΔCDF)	1.12E-07	1.03E-07	1.19E-07	8.93E-08	9.61E-08	9.26E-08	1.30E-07	2.18E-07
URI (ΔCDF)	-2.50E-07	-2.58E-07	-3.08E-08	-3.05E-08	-3.13E-08	-3.04E-08	-4.35E-08	-4.20E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-1.40E-07**	**-1.50E-07**	**8.90E-08**	**5.90E-08**	**6.50E-08**	**6.20E-08**	**8.70E-08**	**1.80E-07**

Licensee Comments:

1Q/15: Changed PRA Parameter(s). The PINGP PRA Model Revision 5.1 was approved on 11/21/2014 with a corresponding MSPI Basis Document Revision 16 approved on 2/26/2015. The PRA model revision was a maintenance update to the model which included an update to incorporate newly installed Unit 1 RCP Seals and PRA specific success criteria for cooling water trains on both units.

1Q/15: Changed PRA Parameter(s). Changed PRA Parameter(s). The PINGP PRA Model Revision 5.1 was approved on 11/21/2014 with a corresponding MSPI Basis Document Revision 16 approved on 2/26/2015. The PRA model revision was a maintenance update to the model which included an update to incorporate newly installed Unit 1 RCP Seals and PRA specific success criteria for cooling water trains on both units.

4Q/14: Effective for the 4th quarter 2014, the reporting of Reliability Data for Component Cooling and Auxiliary Feedwater System MSPI Monitored Components has been changed to Estimated Operational/Alignment Demands and Estimated Operational/Alignment Run Hours. This change is coincident with an updated value of Estimated Test Demands and Estimated Test Run Hours for monitored components in these systems. This change did not require a change to the PRA model, is in accordance with NEI 99-02 requirements regarding

Reporting of Estimated Data, and has basis documented in Prairie Island MSPI Basis Document Revision 15 as approved during the previous quarter.

4Q/14: Effective for the 4th quarter 2014, the reporting of Reliability Data for Component Cooling and Auxiliary Feedwater System MSPI Monitored Components has been changed to Estimated Operational/Alignment Demands and Estimated Operational/Alignment Run Hours. This change is coincident with an updated value of Estimated Test Demands and Estimated Test Run Hours for monitored components in these systems. This change did not require a change to the PRA model, is in accordance with NEI 99-02 requirements regarding Reporting of Estimated Data, and has basis documented in Prairie Island MSPI Basis Document Revision 15 as approved during the previous quarter.

3Q/14: 22 Cooling Water Pump was operable at time of replacement in April 2014. At time of third quarter submittal, vendor analysis of the pump which was removed is pending. If there is a question of past operability, that will be evaluated in light of vendor information.

3Q/14: 22 Cooling Water Pump was operable at time of replacement in April 2014. At time of third quarter submittal, vendor analysis of the pump which was removed is pending. If there is a question of past operability, that will be evaluated in light of vendor information.

2Q/14: Data correction to reflect diesel driven cooling water pump replacement while motor driven pump was aligned. 22 Cooling Water Pump was operable at time of replacement in April 2014. At time of second quarter submittal, vendor analysis of the pump which was removed is pending. If there is a question of past operability, that will be evaluated in light of vendor information.

2Q/14: Data correction to reflect diesel driven cooling water pump replacement while motor driven pump was aligned. 22 Cooling Water Pump was operable at time of replacement in April 2014. At time of second quarter submittal, vendor analysis of the pump which was removed is pending. If there is a question of past operability, that will be evaluated in light of vendor information.

1Q/14: MSPI Unavailability corrections due to previously omitted unavailability window for swing pump when dedicated to opposite train and math error. (2Q2015) Correction to align with NEI 99-02 and MSPI Basis Document. Single cooling water strainer out of service does not render header unavailable for MSPI.

1Q/14: Changed PRA Parameter(s). The PINGP PRA Model Revision 5.0 was approved on 12/20/2013 with a corresponding MSPI Basis Document Revision 13 approved on 4/3/2014. The PRA model revision was a periodic update to the model which included an update to incorporate newly installed Unit 2 RCP Seals. As a result of the PRA model change, both units CDF and Fussel-Vesely values for all monitored trains and components were revised, and Auxiliary Feedwater monitored components were added.

1Q/14: MSPI Unavailability corrections due to previously omitted unavailability window for swing pump when dedicated to opposite train and math error.

4Q/13: 2014 review of previously submitted data identified corrections to be made to MSPI Data reported. Changes do not result in a color change for any MSPI system.

4Q/13: 2014 review of previously submitted data identified corrections to be made to MSPI Data reported. Changes do not result in a color change for any MSPI system.

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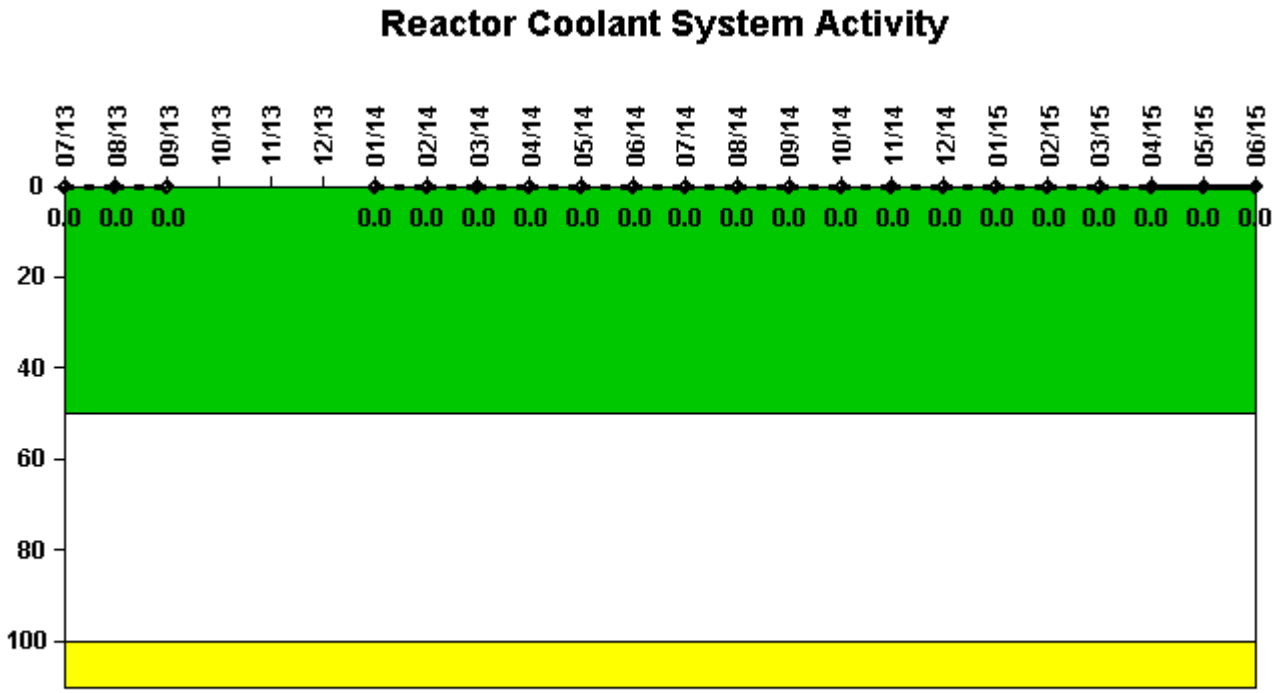


Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Activity	**7/13**	**8/13**	**9/13**	**10/13**	**11/13**	**12/13**	**1/14**	**2/14**	**3/14**	**4/14**	**5/14**	**6/14**
Maximum activity	0.000129	0.000137	0.000133	N/A	N/A	N/A	0.000034	0.000045	0.000045	0.000051	0.000041	0.000056
Technical specification limit	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Indicator value	**0**	**0**	**0**	**N/A**	**N/A**	**N/A**	**0**	**0**	**0**	**0**	**0**	**0**

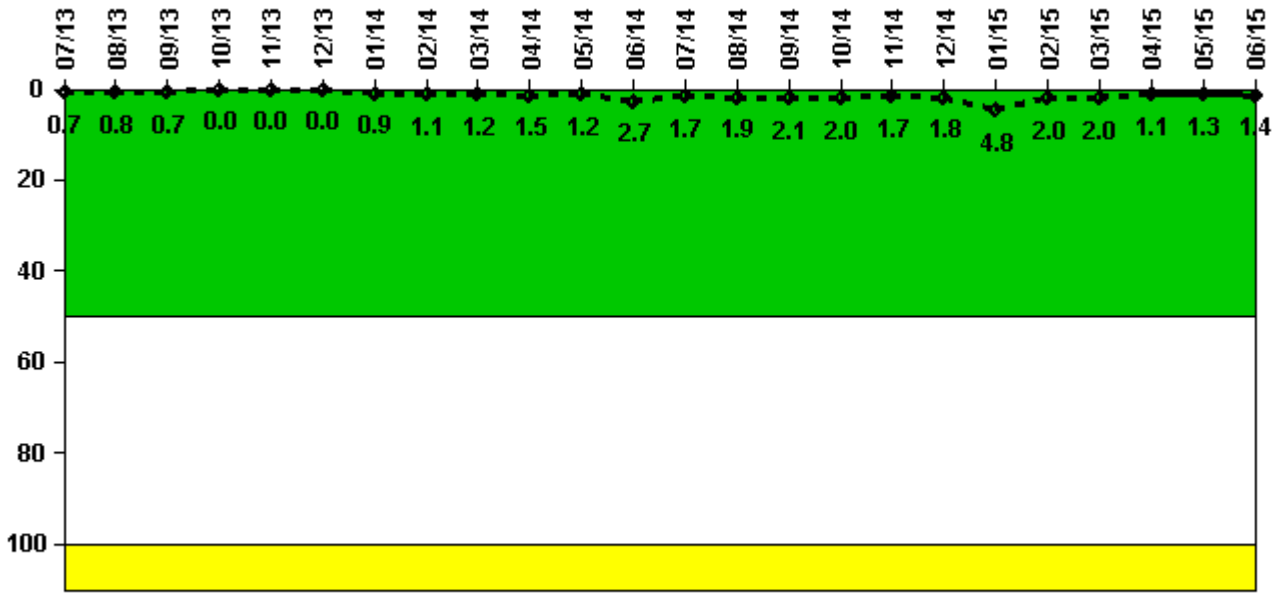
Reactor Coolant System Activity	**7/14**	**8/14**	**9/14**	**10/14**	**11/14**	**12/14**	**1/15**	**2/15**	**3/15**	**4/15**	**5/15**	**6/15**
Maximum activity	0.000056	0.000048	0.000050	0.000051	0.000054	0.000054	0.000049	0.000056	0.000041	0.000055	0.000059	0.000061
Technical specification limit	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Indicator												

value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments:

9/13: Revised Unit 2 data for RCS Specific Activity (Maximum I-131) for the 3rd quarter 2013 reporting period. The change does not affect the color of the indicator.

Reactor Coolant System Leakage

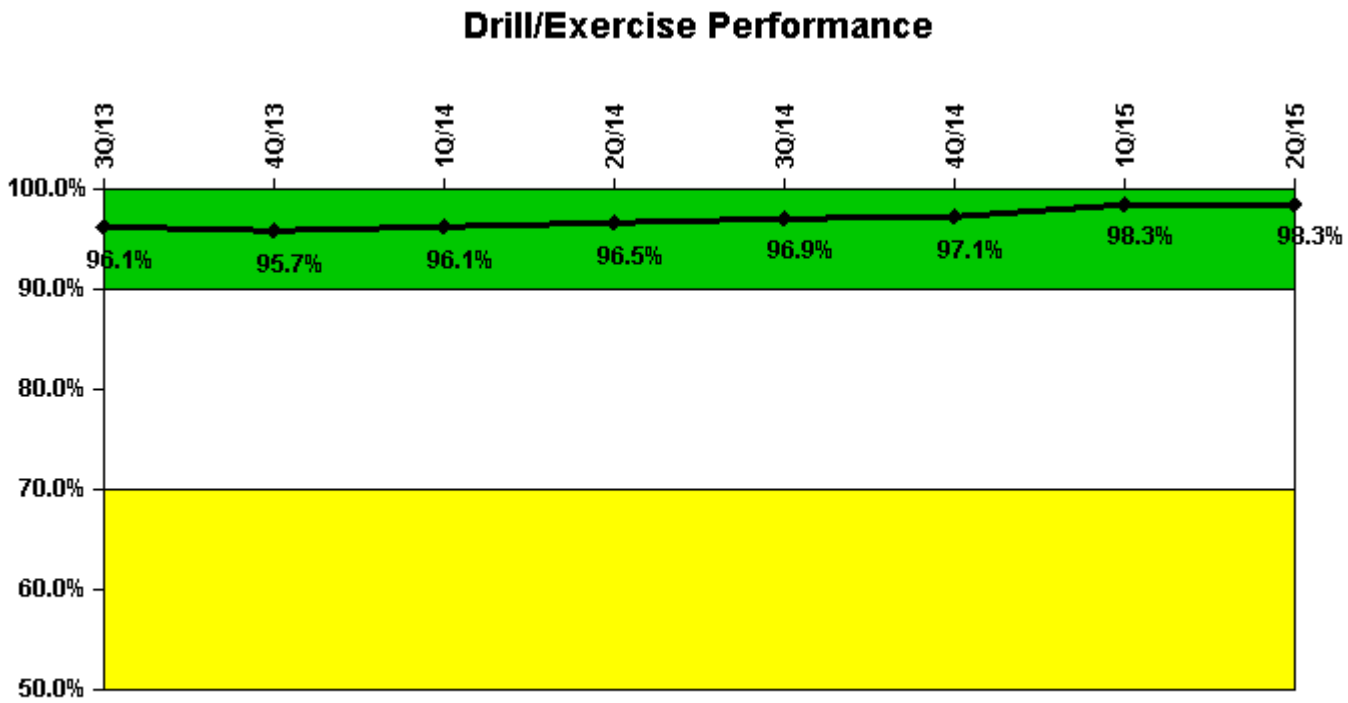


Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Leakage	**7/13**	**8/13**	**9/13**	**10/13**	**11/13**	**12/13**	**1/14**	**2/14**	**3/14**	**4/14**	**5/14**	**6/14**
Maximum leakage	0.068	0.075	0.072	0	0	0	0.093	0.112	0.115	0.152	0.118	0.273
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	**0.7**	**0.8**	**0.7**	**0**	**0**	**0**	**0.9**	**1.1**	**1.2**	**1.5**	**1.2**	**2.7**
Reactor Coolant System Leakage	**7/14**	**8/14**	**9/14**	**10/14**	**11/14**	**12/14**	**1/15**	**2/15**	**3/15**	**4/15**	**5/15**	**6/15**
Maximum leakage	0.166	0.186	0.205	0.202	0.165	0.182	0.479	0.197	0.203	0.110	0.128	0.136
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	**1.7**	**1.9**	**2.1**	**2.0**	**1.7**	**1.8**	**4.8**	**2.0**	**2.0**	**1.1**	**1.3**	**1.4**

Licensee Comments: none



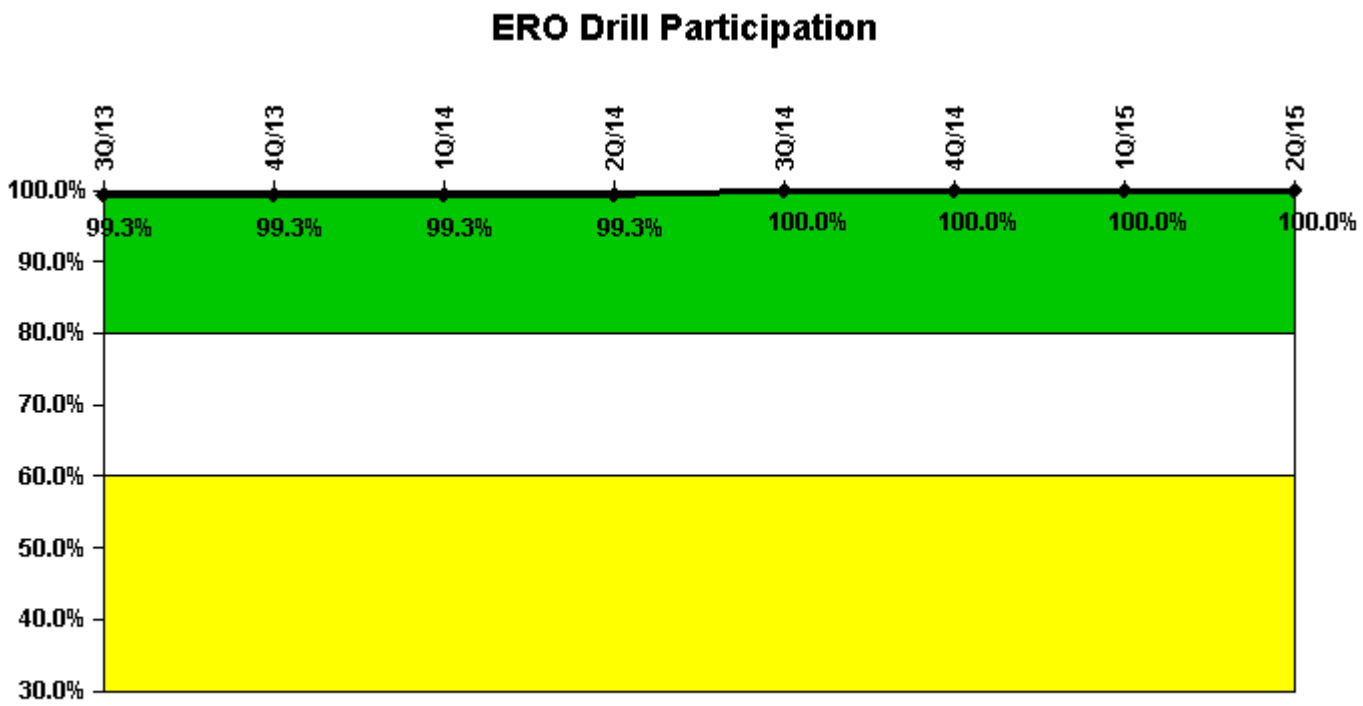
Thresholds: White < 90.0% Yellow < 70.0%

Notes

Drill/Exercise Performance	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15
Successful opportunities	111.0	0	106.0	112.0	71.0	8.0	32.0	28.0
Total opportunities	113.0	0	110.0	114.0	71.0	8.0	32.0	28.0
Indicator value	**96.1%**	**95.7%**	**96.1%**	**96.5%**	**96.9%**	**97.1%**	**98.3%**	**98.3%**

Licensee Comments:

3Q/13: DEP data for Aug 2013 was changed. The change does not affect the color of the indicator.

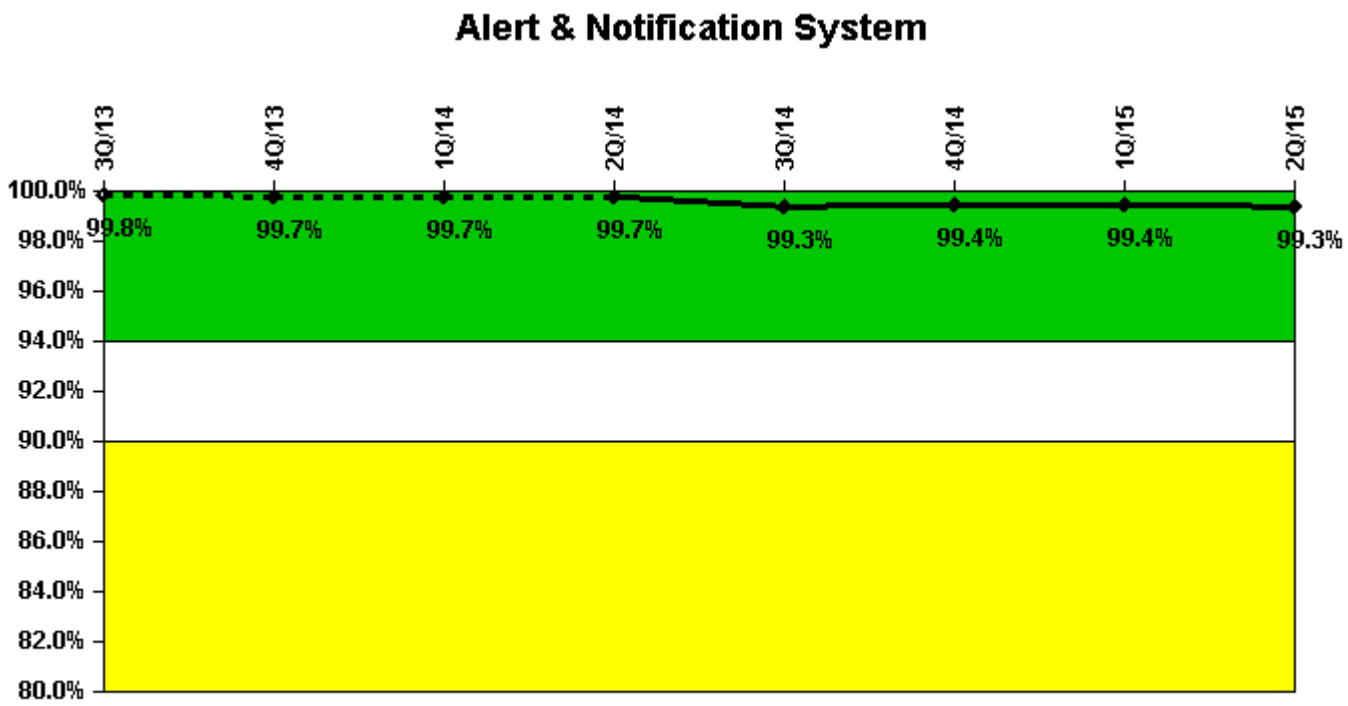


Thresholds: White < 80.0% Yellow < 60.0%

Notes

ERO Drill Participation	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15
Participating Key personnel	144.0	141.0	142.0	149.0	153.0	156.0	158.0	148.0
Total Key personnel	145.0	142.0	143.0	150.0	153.0	156.0	158.0	148.0
Indicator value	**99.3%**	**99.3%**	**99.3%**	**99.3%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Licensee Comments: none

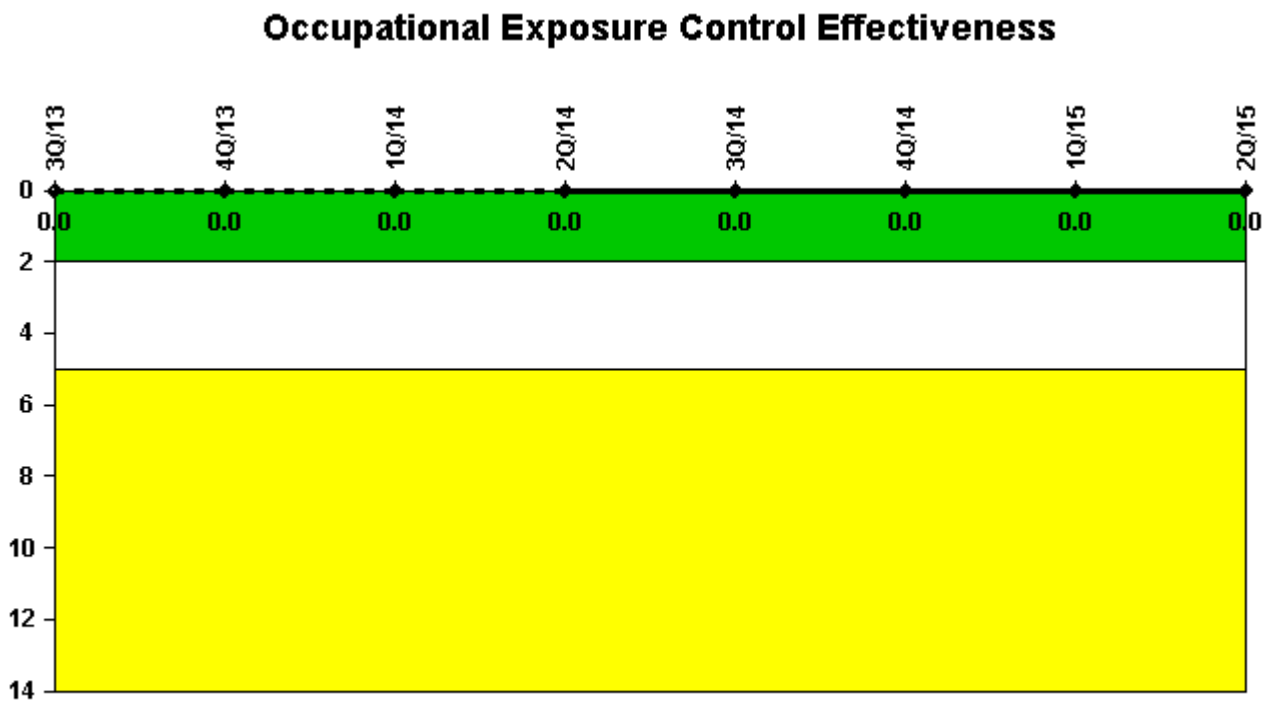


Thresholds: White < 94.0% Yellow < 90.0%

Notes

Alert & Notification System	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15
Successful siren-tests	1520	1591	1591	1596	1574	1719	1469	1587
Total sirens-tests	1521	1599	1599	1599	1599	1722	1476	1599
Indicator value	**99.8%**	**99.7%**	**99.7%**	**99.7%**	**99.3%**	**99.4%**	**99.4%**	**99.3%**

Licensee Comments: none

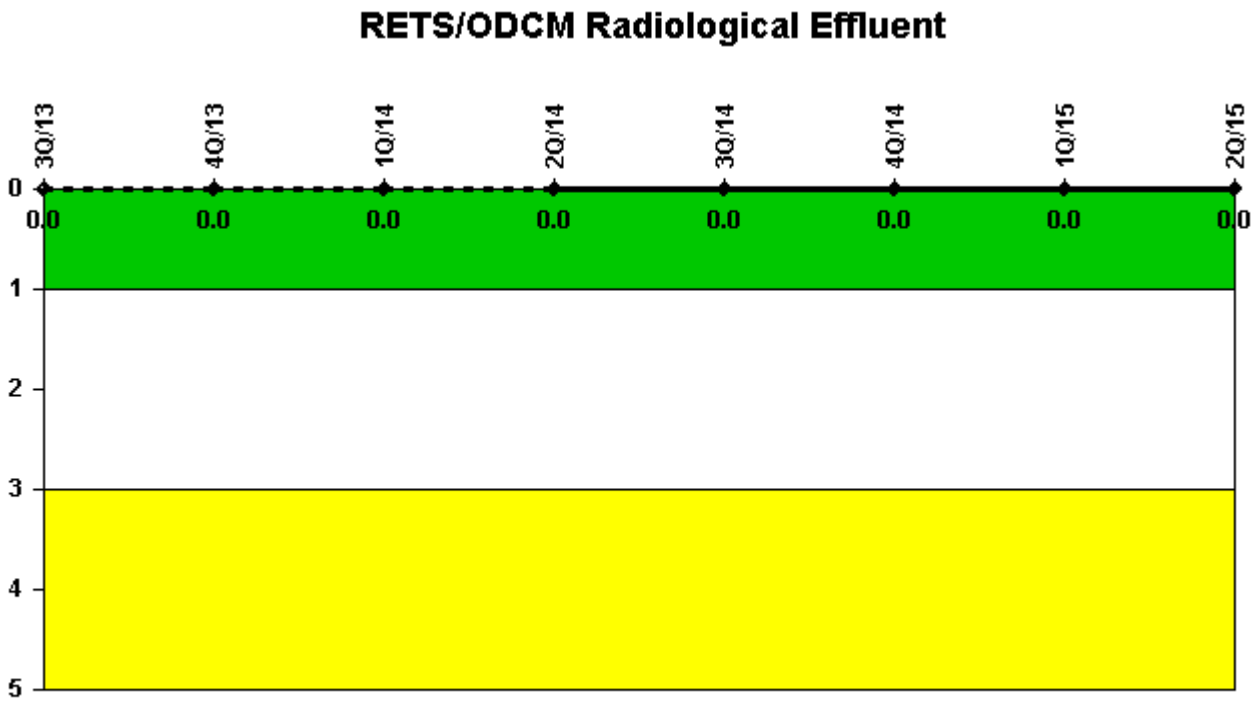


Thresholds: White > 2.0 Yellow > 5.0

Notes

Occupational Exposure Control Effectiveness	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15
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**

Licensee Comments: none



Thresholds: White > 1.0 Yellow > 3.0

Notes

RETS/ODCM Radiological Effluent	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15
RETS/ODCM occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

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.

Action Matrix Summary | Inspection Findings Summary | PI Summary | Reactor Oversight Process

Last Modified: July 24, 2015