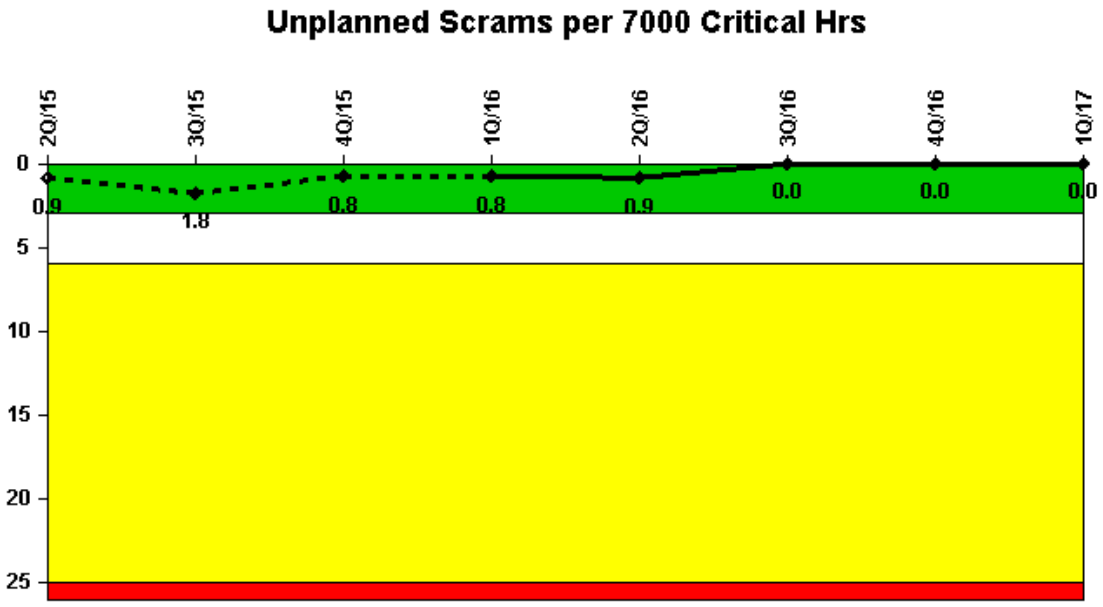
Callaway – Quarterly Performance Indicators

1Q/2017 Performance Indicators

The solid trend line represents the current reporting period.

Licensee's General Comments: none

On this page:



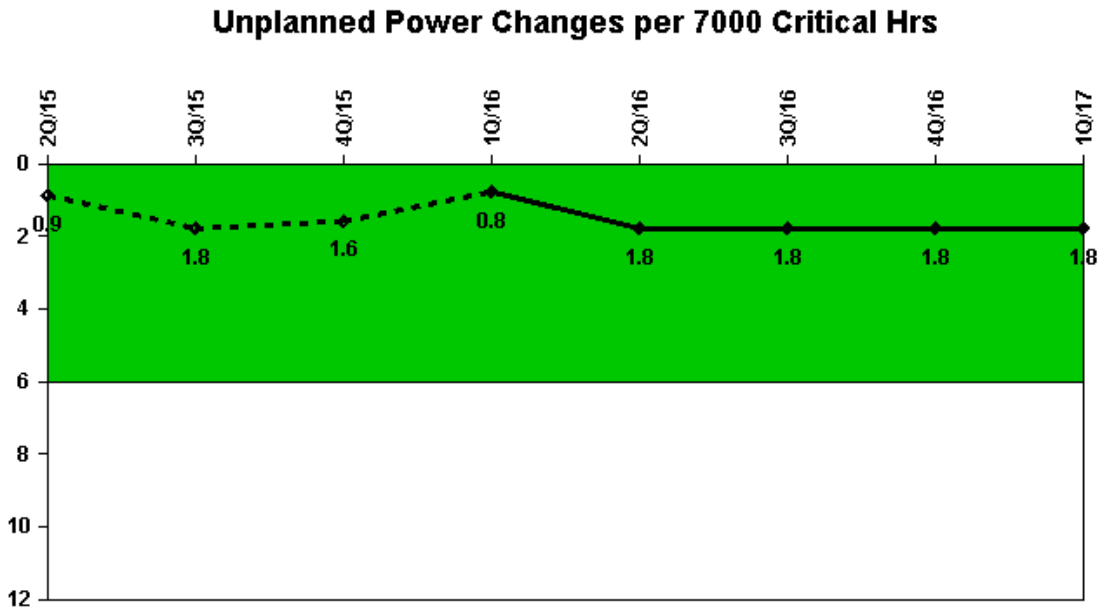
Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

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	1.0	0	0	0	0	0	0
Critical hours	2184.0	2126.8	2209.0	2183.0	1289.1	2208.0	2209.0	2159.0
Indicator value	**0.9**	**1.8**	**0.8**	**0.8**	**0.9**	**0**	**0**	**0**

TOP

Licensee Comments: none



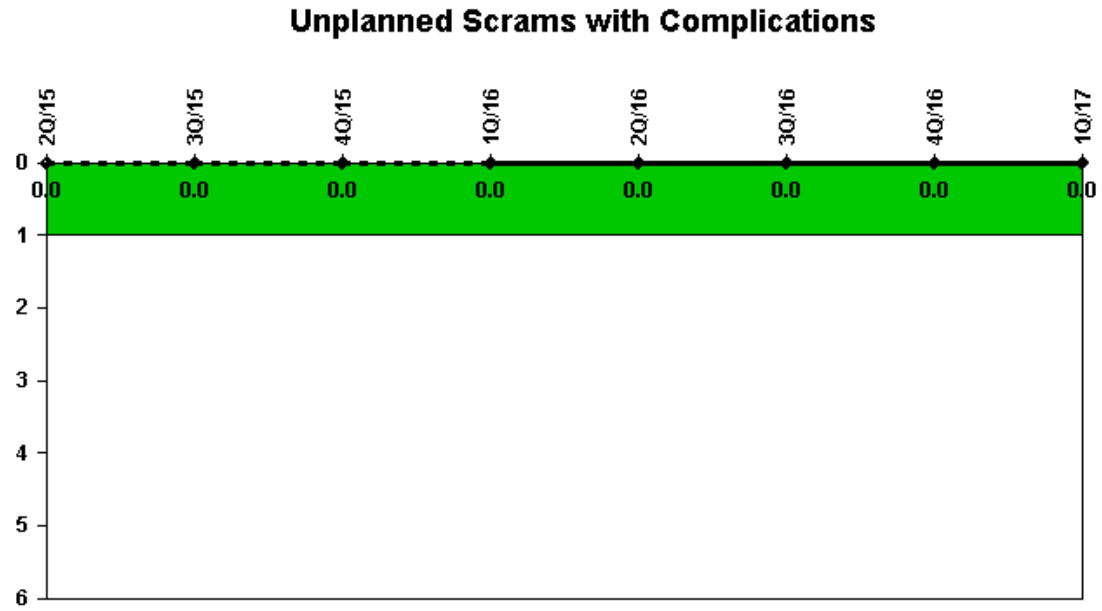
Thresholds: White > 6.0

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	1.0	0	0	1.0	1.0	0	0
Critical hours	2184.0	2126.8	2209.0	2183.0	1289.1	2208.0	2209.0	2159.0
Indicator value	**0.9**	**1.8**	**1.6**	**0.8**	**1.8**	**1.8**	**1.8**	**1.8**

TOP

Licensee Comments: none



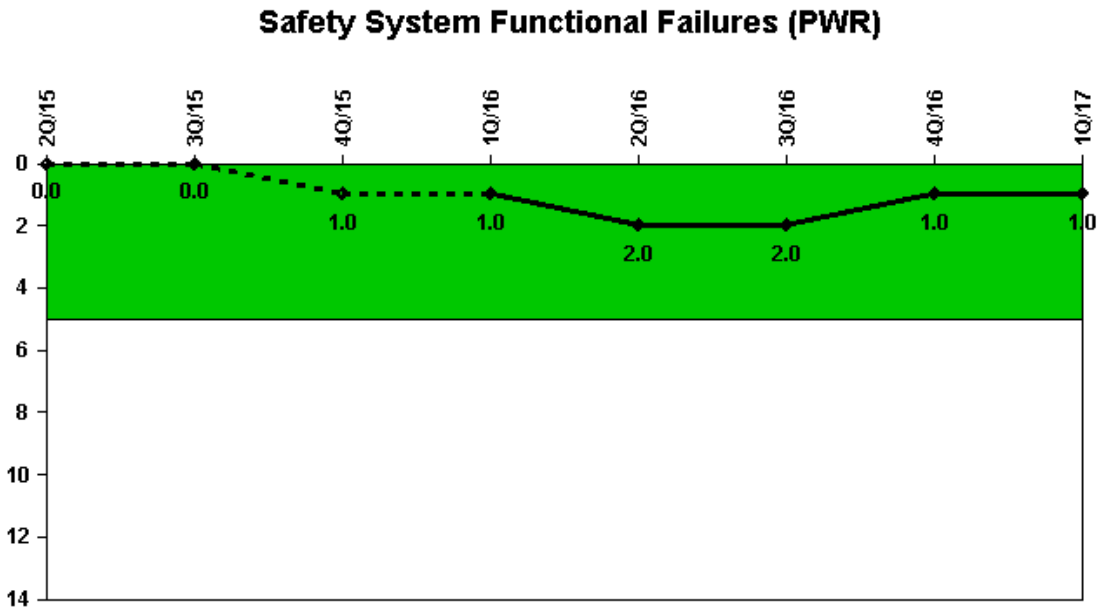
Thresholds: White > 1.0

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**

TOP

Licensee Comments: none



Thresholds: White > 5.0

Notes

Safety System Functional Failures (PWR)	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17
Safety System Functional Failures	0	0	1	0	1	0	0	0
Indicator value	**0**	**0**	**1**	**1**	**2**	**2**	**1**	**1**

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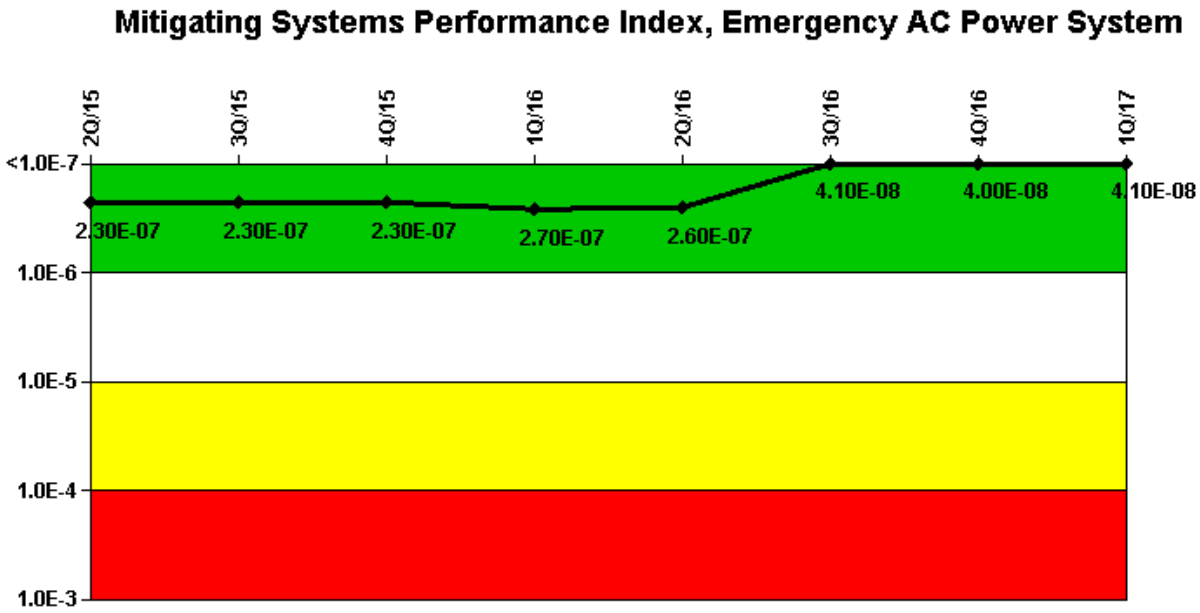
Licensee Comments:
2Q/16: LER 2016-001-00 associated with the Control Room Air Conditioning system
4Q/15: One SSFF was reported in LER 2015-004-00 during the 4th quarter of 2015. It is also reported in this PI. An ongoing evaluation of the associated condition is being performed to determine whether it meets the NEI 99-02 section 2.2 criteria for reportability in the SSFF PI or if it may be withdrawn from the PI.



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

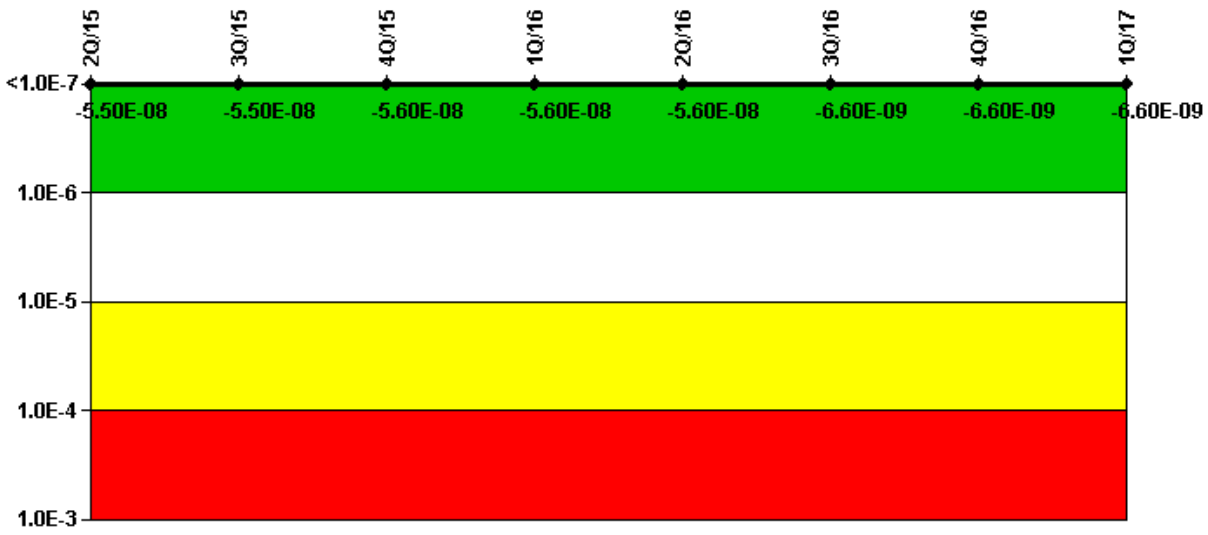
Notes

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 (ΔCDF)	-7.01E-08	-7.01E-08	-7.01E-08	-3.48E-08	-3.53E-08	4.89E-09	3.75E-09	4.72E-09
URI (ΔCDF)	3.00E-07	3.00E-07	3.00E-07	3.00E-07	3.00E-07	3.61E-08	3.61E-08	3.61E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**2.30E-07**	**2.30E-07**	**2.30E-07**	**2.70E-07**	**2.60E-07**	**4.10E-08**	**4.00E-08**	**4.10E-08**

TOP

Licensee Comments:
3Q/16: Changed PRA Parameter(s). The PRA model has been updated to incorporate the Generation III RCP Shutdown Seals, incorporate the Hardened Condensate Storage Tank and refine the Anticipated Transient Without Scram (ATWS) modeling. As a result of these changes, all MSPI PRA coefficients were recalculated and the MSPI Basis Document was revised.
1Q/16: An engineering evaluation associated with the "B" emergency diesel generator was pending at the end of the quarter.

Mitigating Systems Performance Index, High Pressure Injection System



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

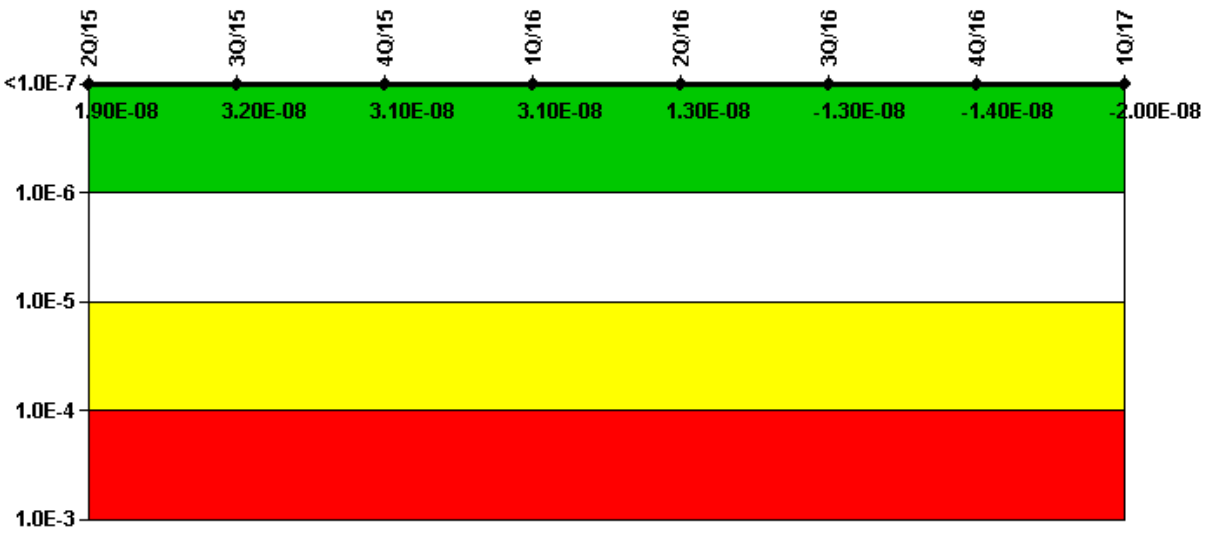
Notes

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)	-1.34E-08	-1.34E-08	-1.44E-08	-1.44E-08	-1.44E-08	-1.98E-09	-1.98E-09	-1.98E-09
URI (ΔCDF)	-4.14E-08	-4.14E-08	-4.14E-08	-4.14E-08	-4.14E-08	-4.60E-09	-4.60E-09	-4.60E-09
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-5.50E-08**	**-5.50E-08**	**-5.60E-08**	**-5.60E-08**	**-5.60E-08**	**-6.60E-09**	**-6.60E-09**	**-6.60E-09**

TOP

Licensee Comments:
3Q/16: Changed PRA Parameter(s). The PRA model has been updated to incorporate the Generation III RCP Shutdown Seals, incorporate the Hardened Condensate Storage Tank and refine the Anticipated Transient Without Scram (ATWS) modeling. As a result of these changes, all MSPI PRA coefficients were recalculated and the MSPI Basis Document was revised.

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 (ΔCDF)	8.12E-08	8.06E-08	7.98E-08	7.94E-08	6.15E-08	5.32E-08	5.21E-08	4.66E-08
URI (ΔCDF)	-6.24E-08	-4.85E-08	-4.85E-08	-4.85E-08	-4.85E-08	-6.65E-08	-6.65E-08	-6.65E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**1.90E-08**	**3.20E-08**	**3.10E-08**	**3.10E-08**	**1.30E-08**	**-1.30E-08**	**-1.40E-08**	**-2.00E-08**

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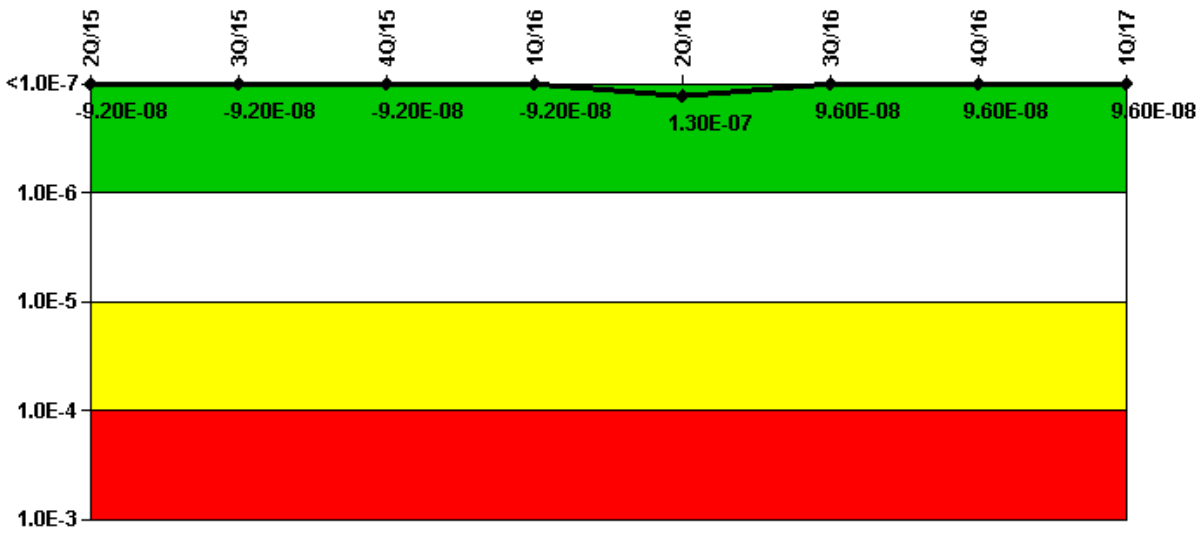
Licensee Comments:
3Q/16: Changed PRA Parameter(s). The PRA model has been updated to incorporate the Generation III RCP Shutdown Seals, incorporate the Hardened Condensate Storage Tank and refine the Anticipated Transient Without Scram (ATWS) modeling. As a result of these changes, all MSPI PRA coefficients were recalculated and the MSPI Basis Document was revised.
3Q/15: An engineering evaluation associated with a degraded condition for an Auxiliary Feedwater valve's Modutronics Card was not completed when data for the third quarter 2015 was submitted. 4th quarter 2014 availability data revised for valve ALHV0005.

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)	-1.11E-08	-1.11E-08	-1.11E-08	-1.11E-08	-1.11E-08	-1.02E-08	-1.02E-08	-1.02E-08
URI (ΔCDF)	-8.09E-08	-8.09E-08	-8.09E-08	-8.09E-08	1.40E-07	1.07E-07	1.07E-07	1.07E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-9.20E-08**	**-9.20E-08**	**-9.20E-08**	**-9.20E-08**	**1.30E-07**	**9.60E-08**	**9.60E-08**	**9.60E-08**

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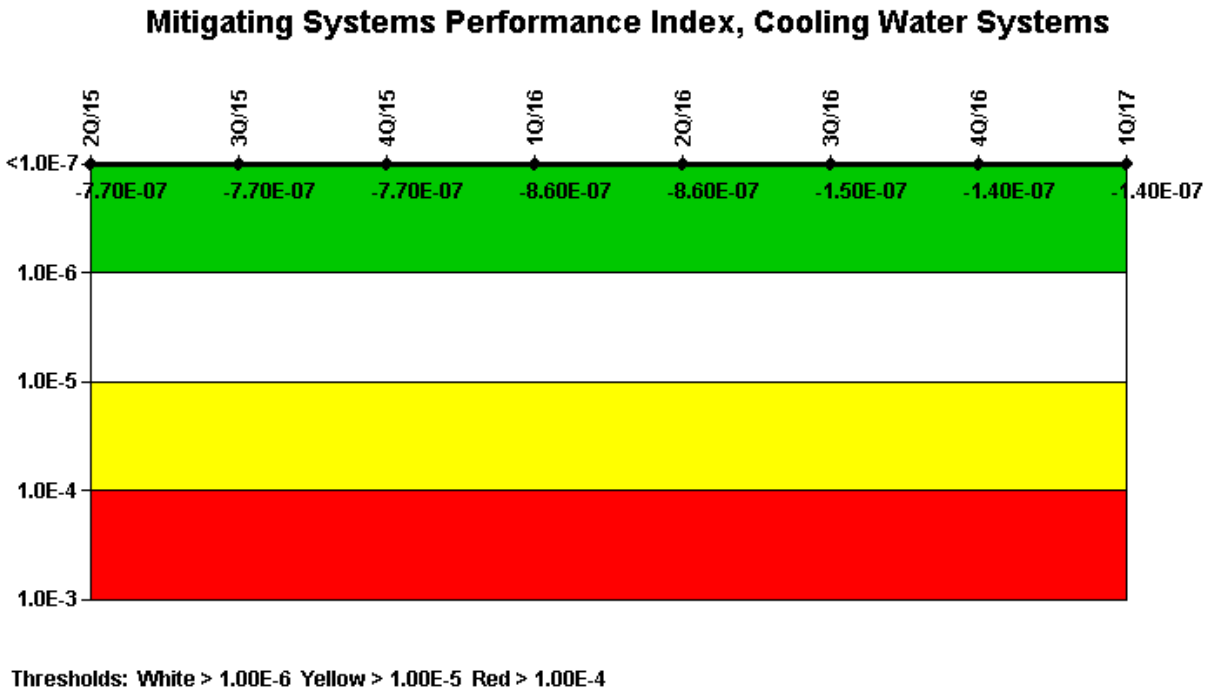
Licensee Comments:
3Q/16: Changed PRA Parameter(s). The PRA model has been updated to incorporate the Generation III RCP Shutdown Seals, incorporate the Hardened Condensate Storage Tank and refine the Anticipated Transient Without Scram (ATWS) modeling. As a result of these changes, all MSPI PRA coefficients were recalculated and the MSPI Basis Document was revised.



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 (ΔCDF)	-4.11E-08	-4.03E-08	-4.39E-08	-1.27E-07	-1.30E-07	-3.51E-08	-2.94E-08	-2.94E-08
URI (ΔCDF)	-7.29E-07	-7.30E-07	-7.30E-07	-7.30E-07	-7.30E-07	-1.15E-07	-1.15E-07	-1.15E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-7.70E-07**	**-7.70E-07**	**-7.70E-07**	**-8.60E-07**	**-8.60E-07**	**-1.50E-07**	**-1.40E-07**	**-1.40E-07**

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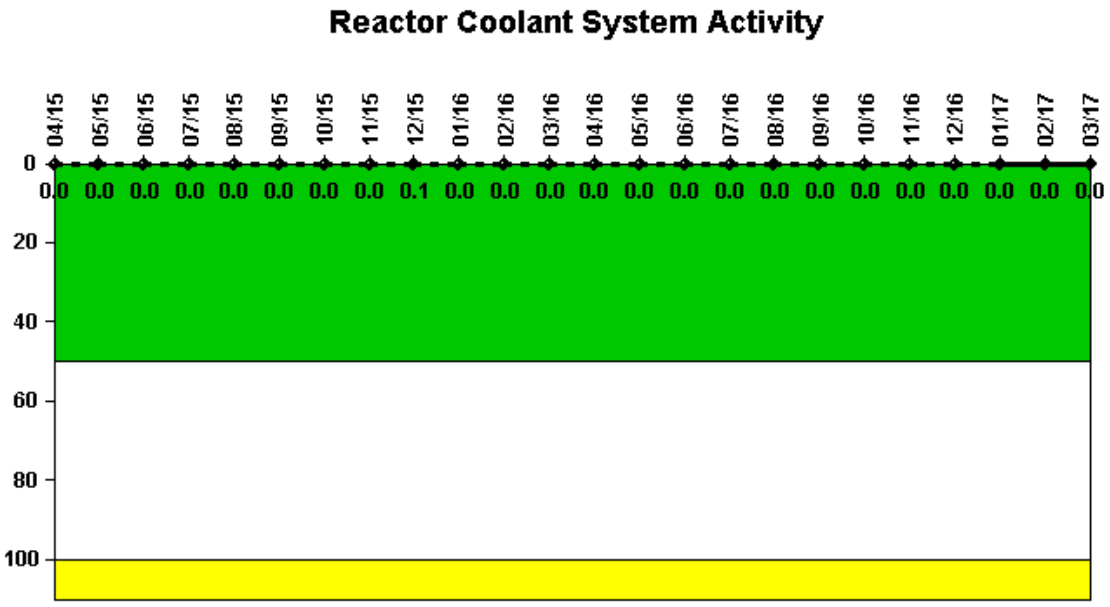
Licensee Comments:
3Q/16: Changed PRA Parameter(s). The PRA model has been updated to incorporate the Generation III RCP Shutdown Seals, incorporate the Hardened Condensate Storage Tank and refine the Anticipated Transient Without Scram (ATWS) modeling. As a result of these changes, all MSPI PRA coefficients were recalculated and the MSPI Basis Document was revised.



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	0.000305	0.000351	0.000225	0.000307	0.000364	0.000462	0.000353	0.000422	0.001480	0.000499	0.000469	0.000448
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.1**	**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	0.000314	0.000255	0.000187	0.000261	0.000240	0.000257	0.000363	0.000260	0.000346	0.000267	0.000366	0.000269
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

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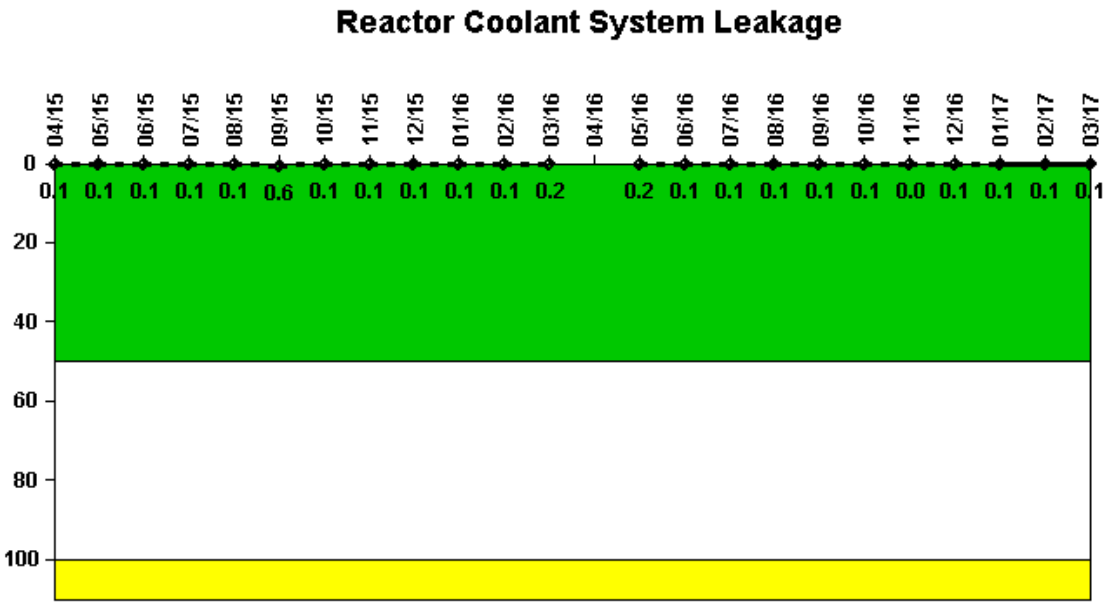
Licensee Comments: none



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	0.012	0.008	0.009	0.006	0.013	0.061	0.007	0.012	0.012	0.010	0.009	0.016
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	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.6**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.2**

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	N/A	0.016	0.005	0.009	0.008	0.006	0.005	0.004	0.007	0.009	0.007	0.008
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	**N/A**	**0.2**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0**	**0.1**	**0.1**	**0.1**	**0.1**

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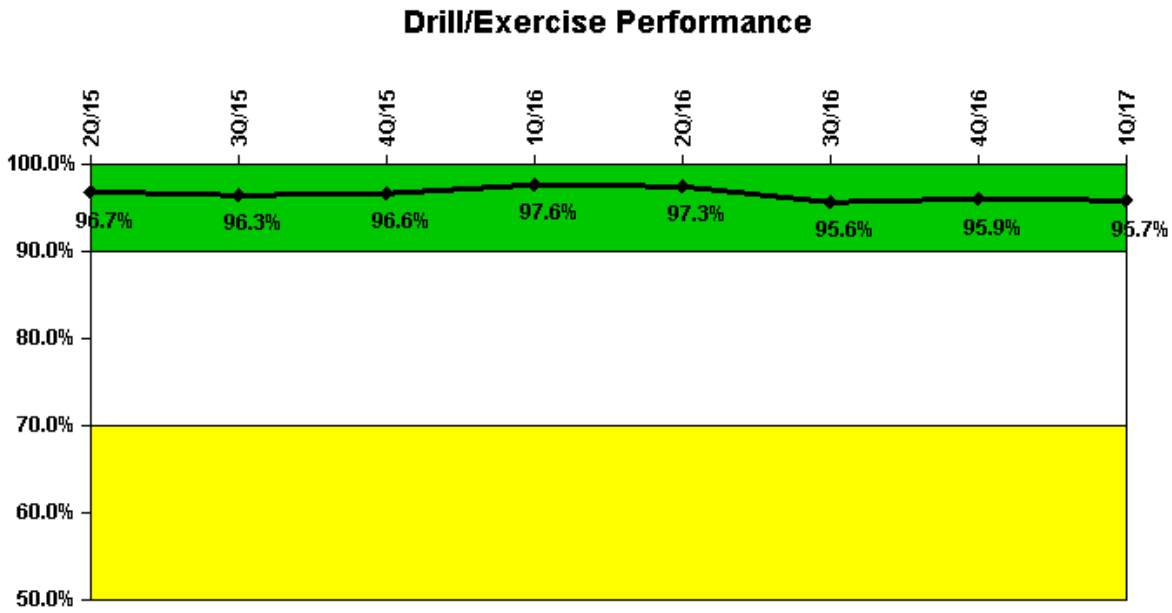
Licensee Comments: none



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	6.0	21.0	50.0	34.0	15.0	76.0	67.0	63.0
Total opportunities	8.0	23.0	52.0	34.0	16.0	81.0	69.0	64.0
Indicator value	**96.7%**	**96.3%**	**96.6%**	**97.6%**	**97.3%**	**95.6%**	**95.9%**	**95.7%**

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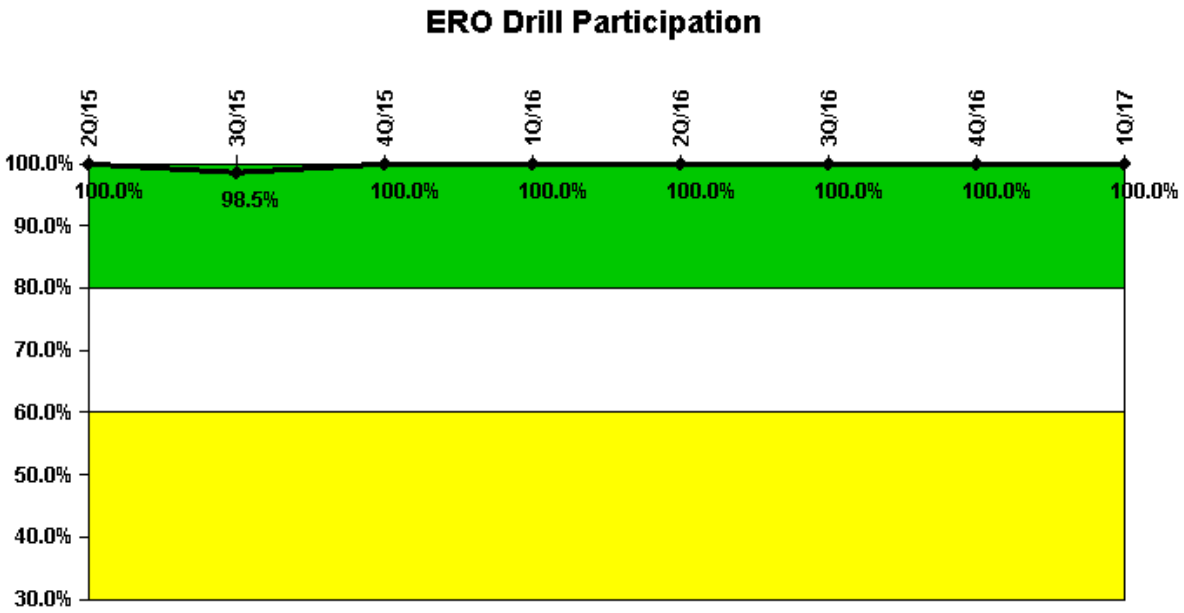
Licensee Comments: none



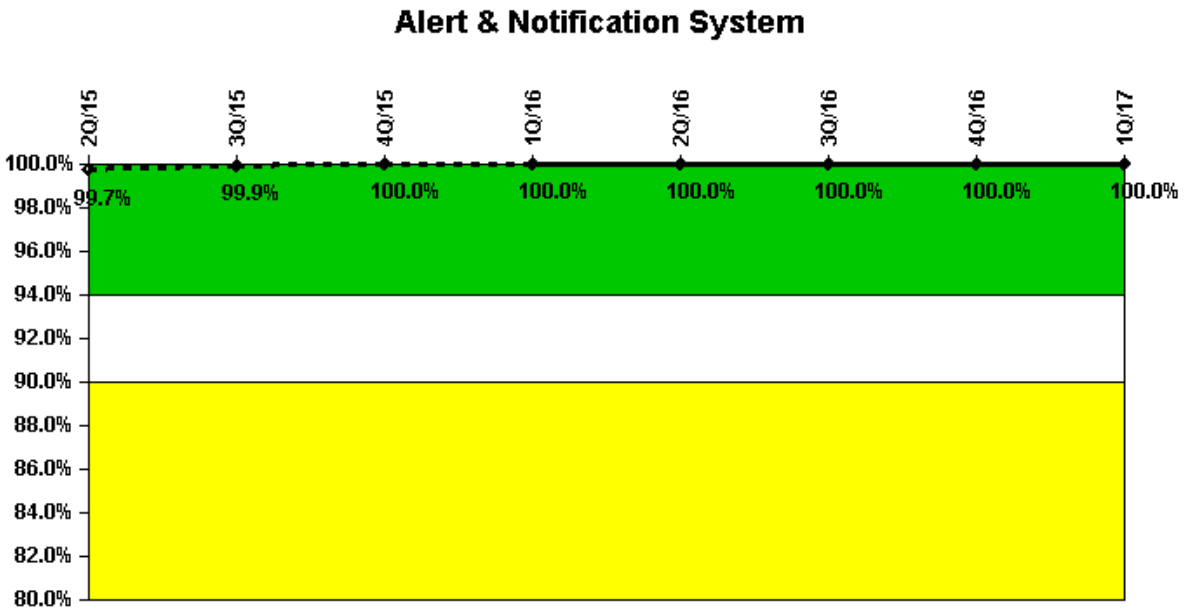
Thresholds: White < 80.0% Yellow < 60.0%

Notes

ERO Drill Participation	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17
Participating Key personnel	97.0	67.0	70.0	68.0	63.0	62.0	63.0	62.0
Total Key personnel	97.0	68.0	70.0	68.0	63.0	62.0	63.0	62.0
Indicator value	**100.0%**	**98.5%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

TOP

Licensee Comments: none



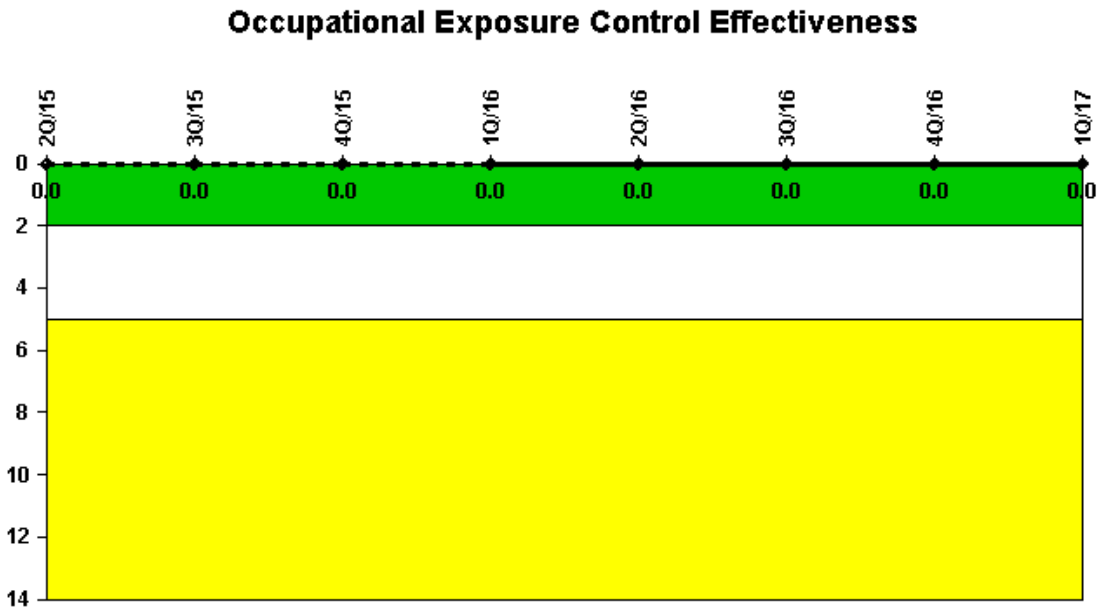
Thresholds: White < 94.0% Yellow < 90.0%

Notes

Alert & Notification System	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17
Successful siren-tests	377	377	377	377	377	377	377	377
Total sirens-tests	377	377	377	377	377	377	377	377
Indicator value	**99.7%**	**99.9%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

TOP

Licensee Comments: none



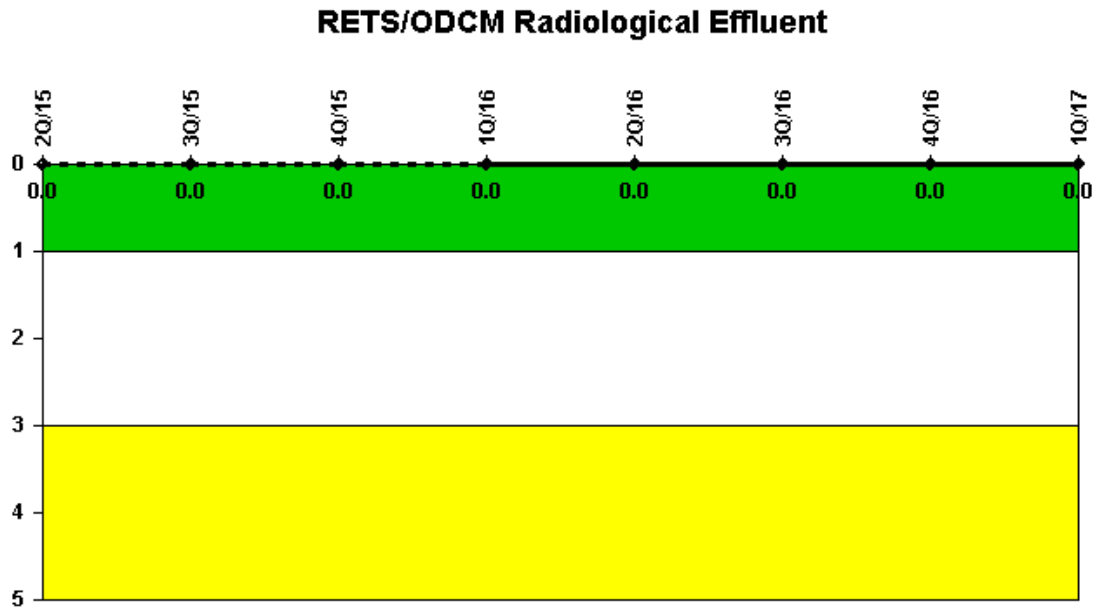
Thresholds: White > 2.0 Yellow > 5.0

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**

TOP

Licensee Comments: none



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**

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: May 5, 2017

Page Last Reviewed/Updated Wednesday, June 07, 2017