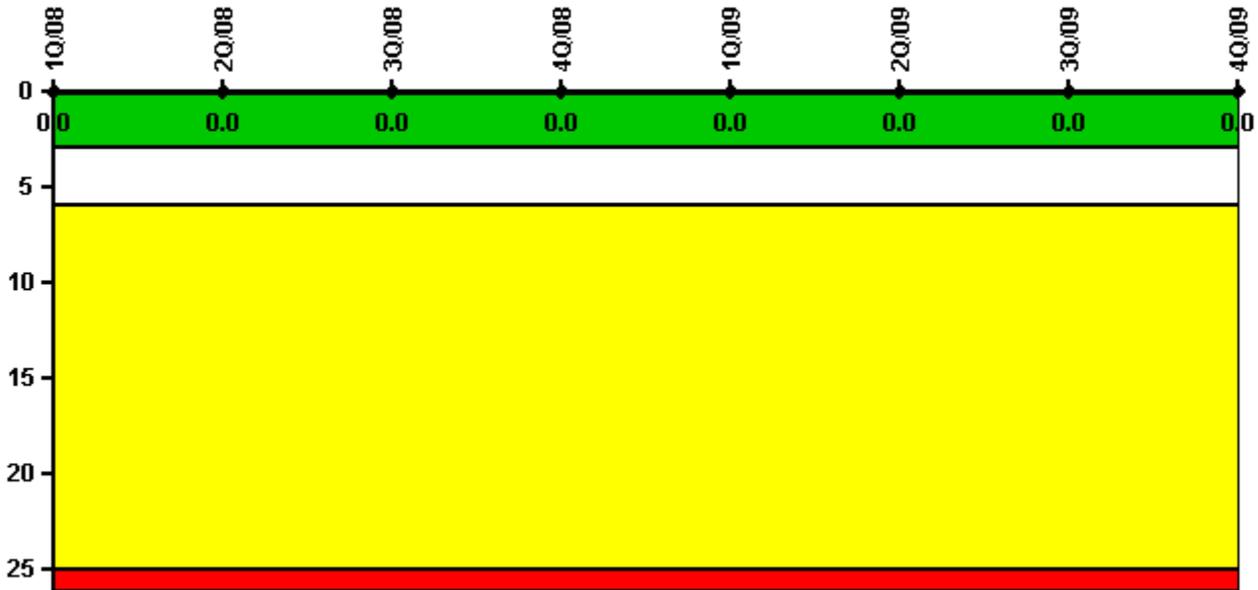


# Calvert Cliffs 1

## 4Q/2009 Performance Indicators

Licensee's General Comments: none

### Unplanned Scrams per 7000 Critical Hrs



Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

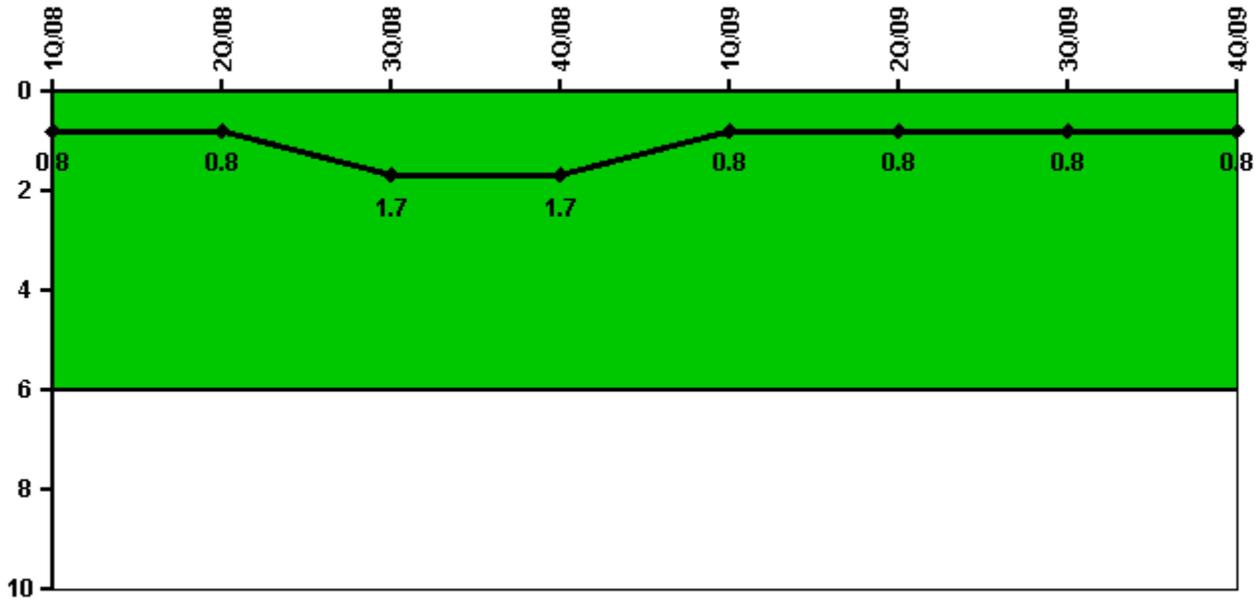
### Notes

Unplanned Scrams per 7000 Critical Hrs	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09	2Q/09	3Q/09	4Q/09
Unplanned scrams	0	0	0	0	0	0	0	0
Critical hours	1727.4	2184.0	2208.0	2209.0	2159.0	2184.0	2115.0	2209.0
Indicator value	0	0	0	0	0	0	0	0

Licensee Comments: none

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## Unplanned Power Changes per 7000 Critical Hrs



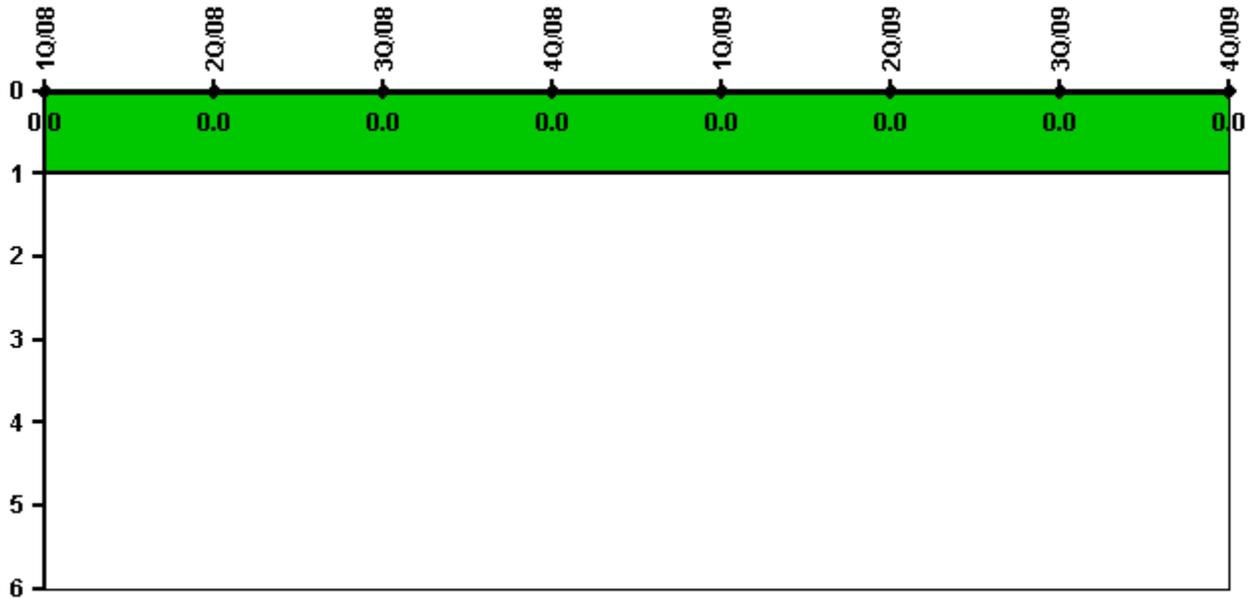
Thresholds: White > 6.0

### Notes

Unplanned Power Changes per 7000 Critical Hrs	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09	2Q/09	3Q/09	4Q/09
Unplanned power changes	1.0	0	1.0	0	0	0	1.0	0
Critical hours	1727.4	2184.0	2208.0	2209.0	2159.0	2184.0	2115.0	2209.0
Indicator value	0.8	0.8	1.7	1.7	0.8	0.8	0.8	0.8

Licensee Comments: none

## Unplanned Scrams with Complications



Thresholds: White > 1.0

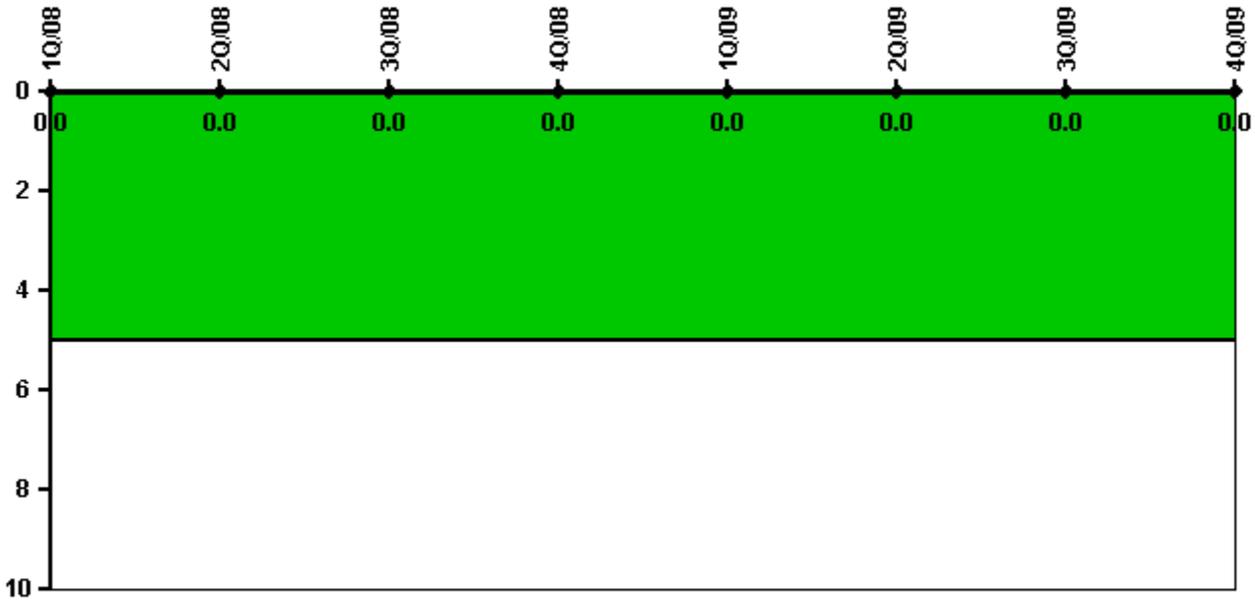
### Notes

Unplanned Scrams with Complications	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09	2Q/09	3Q/09	4Q/09
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

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## Safety System Functional Failures (PWR)



Thresholds: White > 5.0

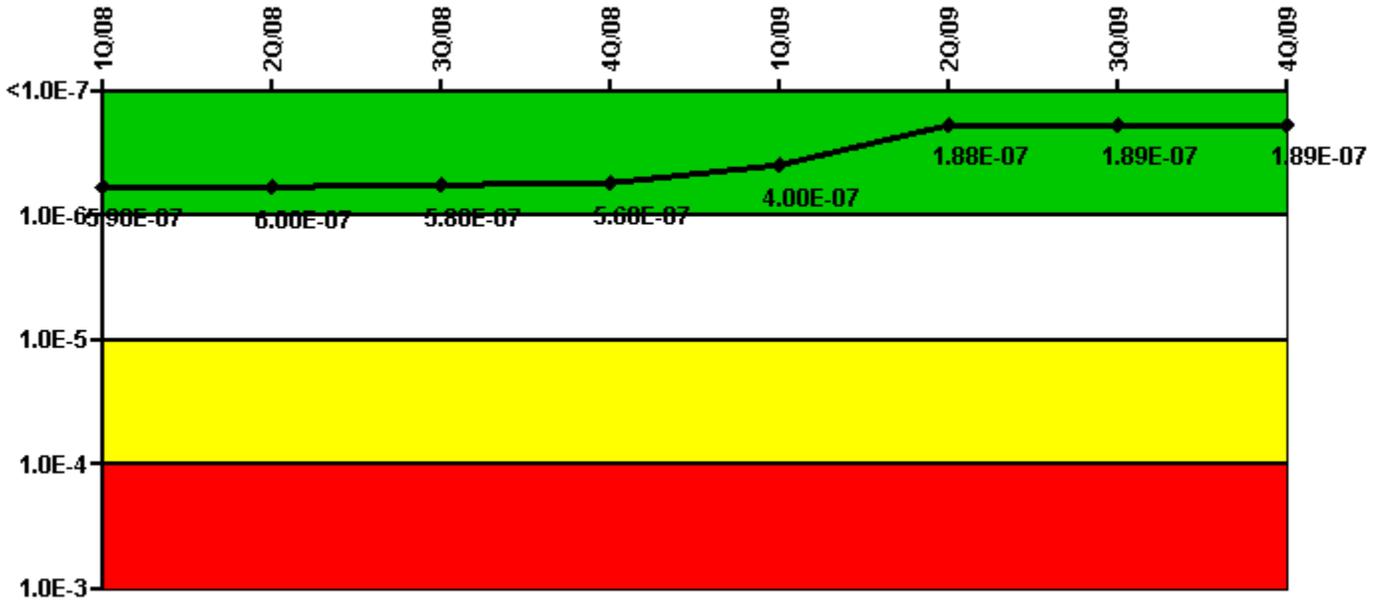
### Notes

Safety System Functional Failures (PWR)	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09	2Q/09	3Q/09	4Q/09
Safety System Functional Failures	0	0	0	0	0	0	0	0
Indicator value	0	0	0	0	0	0	0	0

Licensee Comments: none

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# Mitigating Systems Performance Index, Emergency AC Power System



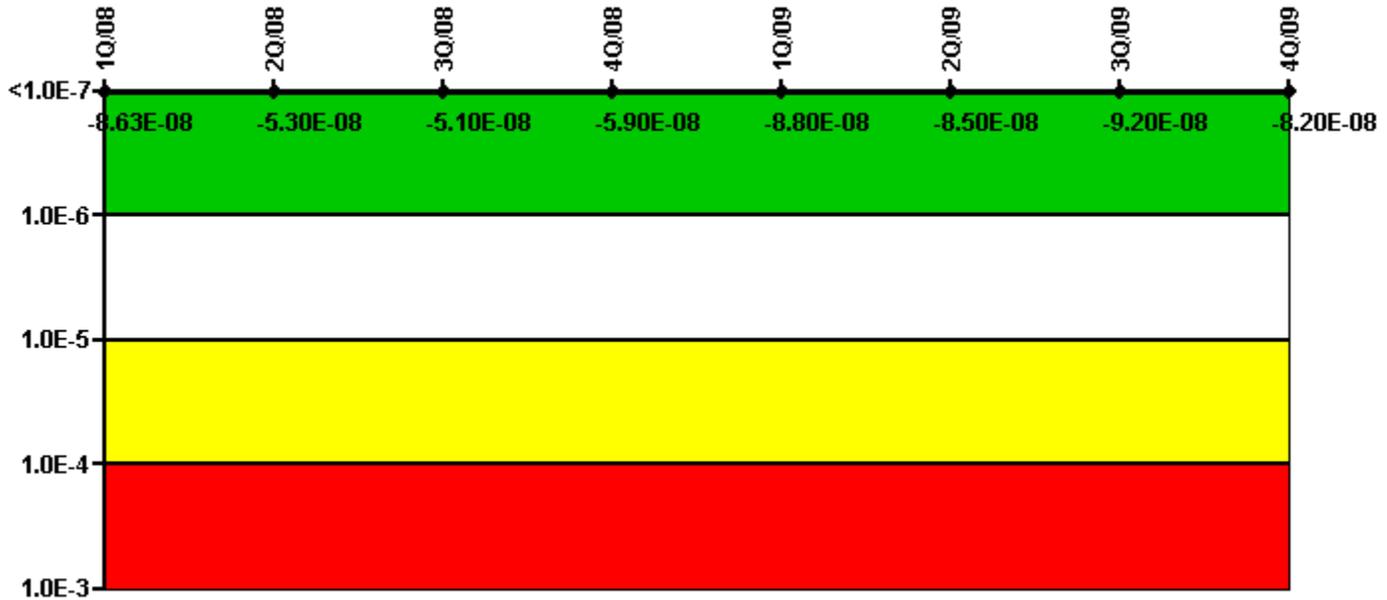
Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

## Notes

Mitigating Systems Performance Index, Emergency AC Power System	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09	2Q/09	3Q/09	4Q/09
UAI ( $\Delta$ CDF)	2.60E-07	2.80E-07	2.60E-07	2.50E-07	2.30E-07	1.40E-07	1.40E-07	1.40E-07
URI ( $\Delta$ CDF)	3.30E-07	3.20E-07	3.20E-07	3.10E-07	1.70E-07	4.80E-08	4.90E-08	4.90E-08
PLE	NO							
Indicator value	5.90E-07	6.00E-07	5.80E-07	5.60E-07	4.00E-07	1.88E-07	1.89E-07	1.89E-07

Licensee Comments: none

# Mitigating Systems Performance Index, High Pressure Injection System



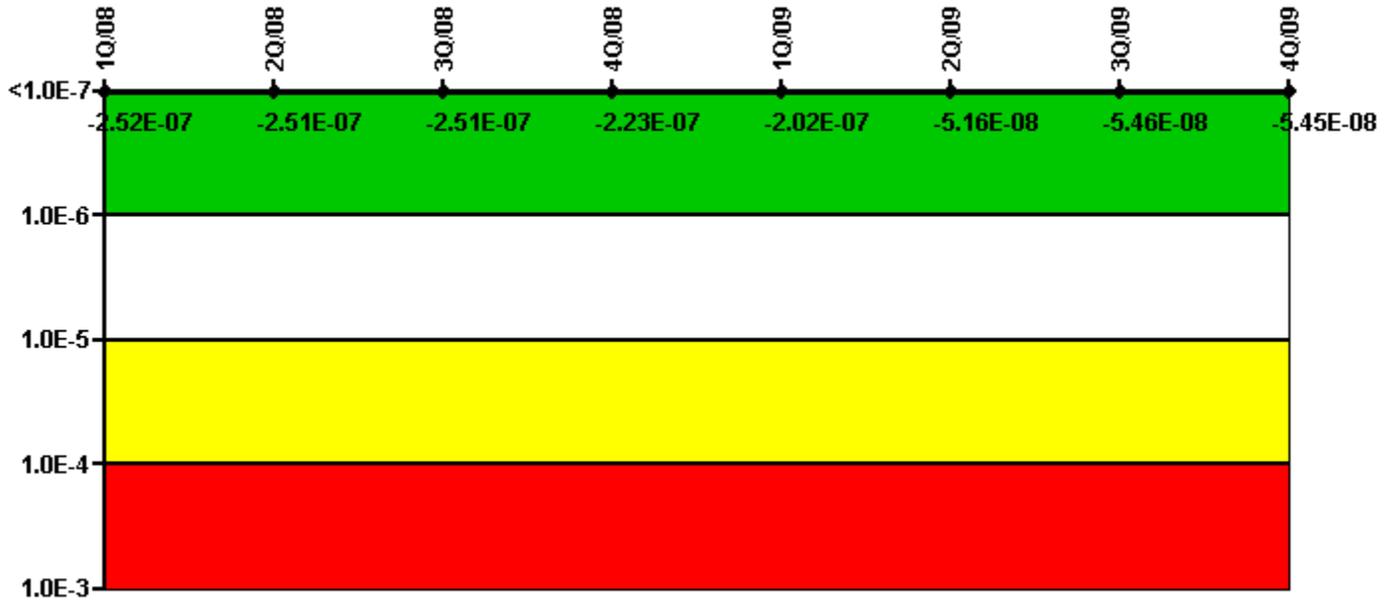
Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

## Notes

Mitigating Systems Performance Index, High Pressure Injection System	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09	2Q/09	3Q/09	4Q/09
UAI ( $\Delta$ CDF)	3.70E-09	3.40E-08	3.50E-08	2.40E-08	-1.40E-08	-2.40E-08	-2.90E-08	-2.20E-08
URI ( $\Delta$ CDF)	-9.00E-08	-8.70E-08	-8.60E-08	-8.30E-08	-7.40E-08	-6.10E-08	-6.30E-08	-6.00E-08
PLE	NO							
Indicator value	-8.63E-08	-5.30E-08	-5.10E-08	-5.90E-08	-8.80E-08	-8.50E-08	-9.20E-08	-8.20E-08

Licensee Comments: none

# Mitigating Systems Performance Index, Heat Removal System



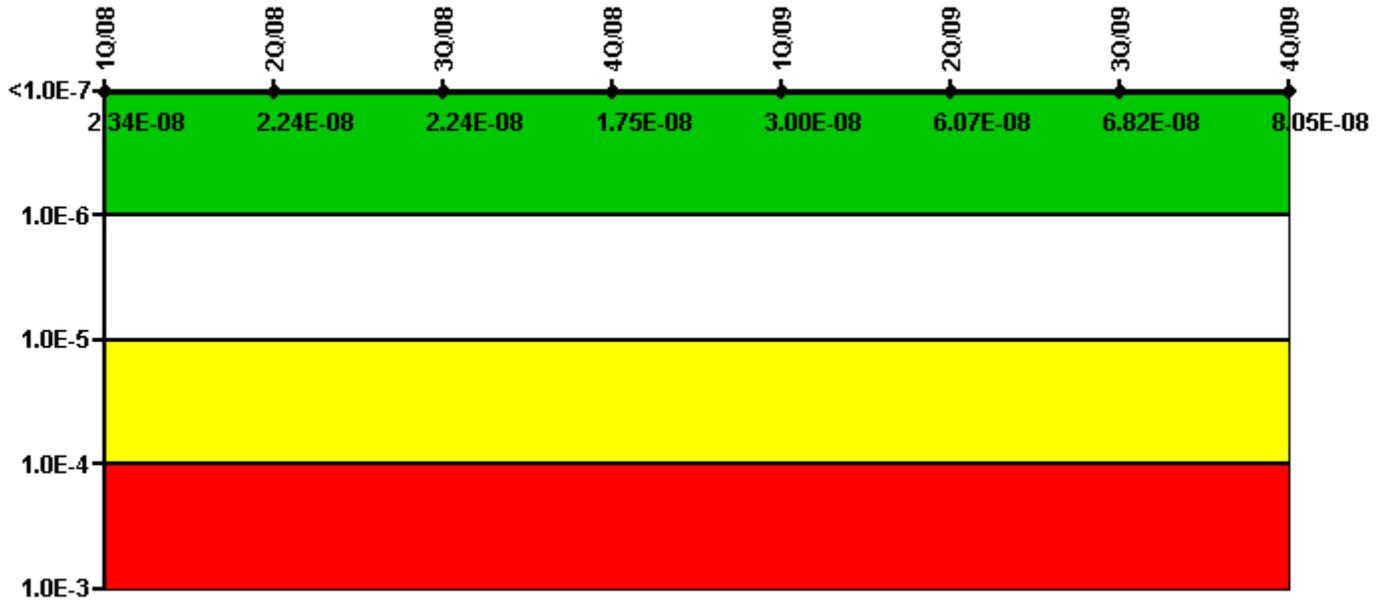
Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

## Notes

Mitigating Systems Performance Index, Heat Removal System	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09	2Q/09	3Q/09	4Q/09
UAI ( $\Delta$ CDF)	3.80E-08	4.90E-08	4.90E-08	7.70E-08	6.80E-08	9.40E-09	6.40E-09	6.50E-09
URI ( $\Delta$ CDF)	-2.90E-07	-3.00E-07	-3.00E-07	-3.00E-07	-2.70E-07	-6.10E-08	-6.10E-08	-6.10E-08
PLE	NO							
Indicator value	-2.52E-07	-2.51E-07	-2.51E-07	-2.23E-07	-2.02E-07	-5.16E-08	-5.46E-08	-5.45E-08

Licensee Comments: none

# Mitigating Systems Performance Index, Residual Heat Removal System



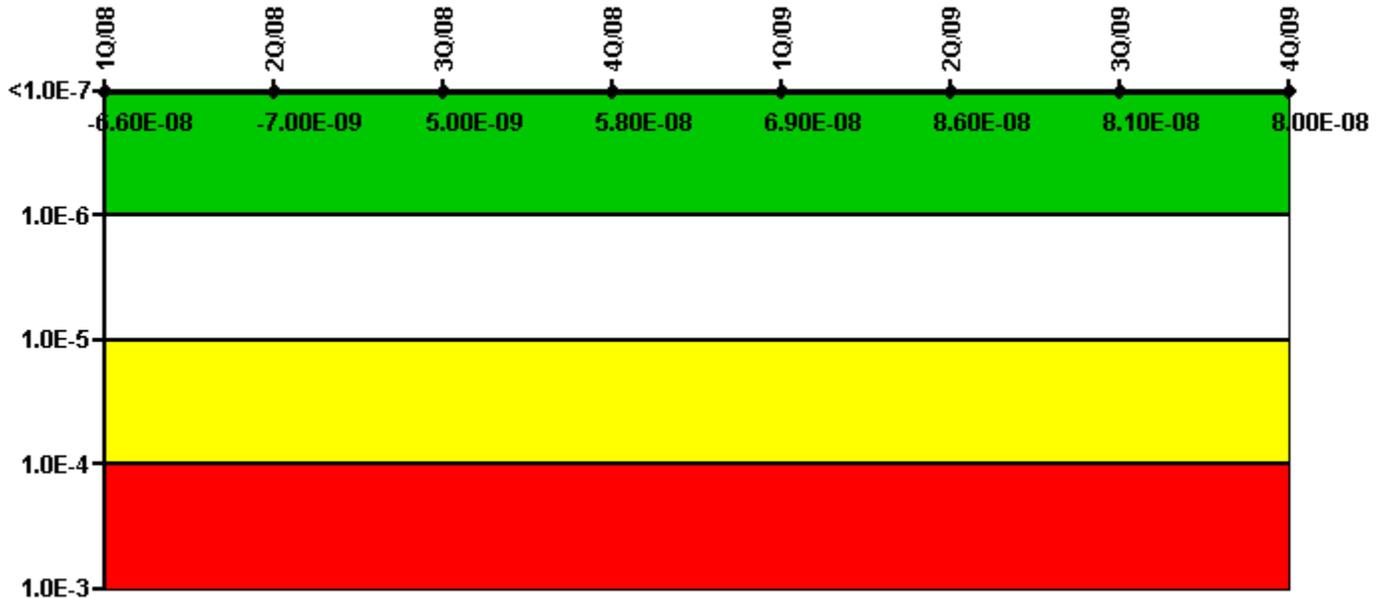
Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

## Notes

Mitigating Systems Performance Index, Residual Heat Removal System	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09	2Q/09	3Q/09	4Q/09
UAI ( $\Delta$ CDF)	2.20E-08	2.10E-08	2.10E-08	1.60E-08	3.40E-08	6.70E-08	7.40E-08	8.60E-08
URI ( $\Delta$ CDF)	1.40E-09	1.40E-09	1.40E-09	1.50E-09	-4.00E-09	-6.30E-09	-5.80E-09	-5.50E-09
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	2.34E-08	2.24E-08	2.24E-08	1.75E-08	3.00E-08	6.07E-08	6.82E-08	8.05E-08

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	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09	2Q/09	3Q/09	4Q/09
UAI (ΔCDF)	1.60E-08	1.60E-08	2.30E-08	3.60E-08	4.60E-08	2.50E-08	2.00E-08	2.00E-08
URI (ΔCDF)	-8.20E-08	-2.30E-08	-1.80E-08	2.20E-08	2.30E-08	6.10E-08	6.10E-08	6.00E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-6.60E-08	-7.00E-09	5.00E-09	5.80E-08	6.90E-08	8.60E-08	8.10E-08	8.00E-08

## Licensee Comments:

3Q/09: 3 changes were made to 13 CC Pp in 3Q2008: 1) Aug. 08 - Failure 1276 was not screened correctly resulting in incorrect information entered into ePIC which is now corrected. 2) Aug. 08 - No demand or run hours were reported. Demands corrected to report 1, and Unplanned Unavailable hours corrected to report 32.57. 3) Sep. 08 - Unplanned Unavailable hours were incorrectly reported as 0 and were corrected to 205.66.

2Q/09: 3 changes were made to 13 CC Pp in 3Q2008: 1) Aug. 08 - Failure 1276 was not screened correctly resulting in incorrect information entered into ePIC which is now corrected. 2) Aug. 08 - No demand or run hours were reported. Demands corrected to report 1, and Unplanned Unavailable hours corrected to report 32.57. 3) Sep. 08 - Unplanned Unavailable hours were incorrectly reported as 0 and were corrected to 205.66.

1Q/09: 3 changes were made to 13 CC Pp in 3Q2008: 1) Aug. 08 - Failure 1276 was not screened correctly resulting in incorrect information entered into ePIC which is now corrected. 2) Aug. 08 - No demand or run hours were reported. Demands corrected to report 1, and Unplanned Unavailable hours corrected to report 32.57. 3) Sep. 08 - Unplanned Unavailable hours were incorrectly reported as 0 and were corrected to 205.66.

4Q/08: Change report resulting from Failure Report 1219 was entered in EPIX on 12/18/2008 when the failure date was 9/12/2008. No indicator color change results from this change. 4-9-9: An EPIX failure report 1219, was submitted in error on 8/7/08. The failure report was written for a failure of 1CV5206, SW outlet for 11 CCHX on 5/22/08. The component that failed was 1CV5208, SW outlet for 12 CCHX. The error was recognized following creation of the failure report. The failure report for 1CV5208 had been previously submitted by another individual. The failure report for 1CV5206 has been deleted and will result in a change to previously reported MSPI data for MS10, Cooling Water Systems. No indicator color change results from this change. 3 changes were made to 13

CC Pp in 3Q2008: 1) Aug. 08 - Failure 1276 was not screened correctly resulting in incorrect information entered into ePIC which is now corrected. 2) Aug. 08 - No demand or run hours were reported. Demands corrected to report 1, and Unplanned Unavailable hours corrected to report 32.57. 3) Sep. 08 ??? Unplanned Unavailable hours were incorrectly reported as 0 and were corrected to 205.66.

3Q/08: 4-9-9: An EPIX failure report 1219, was submitted in error on 8/7/08. The failure report was written for a failure of 1CV5206, SW outlet for 11 CCHX on 5/22/08. The component that failed was 1CV5208, SW outlet for 12 CCHX. The error was recognized following creation of the failure report. The failure report for 1CV5208 had been previously submitted by another individual. The failure report for 1CV5206 has been deleted and will result in a change to previously reported MSPI data for MS10, Cooling Water Systems. No indicator color change results from this change. 3 changes were made to 13 CC Pp in 3Q2008: 1) Aug. 08 - Failure 1276 was not screened correctly resulting in incorrect information entered into ePIC which is now corrected. 2) Aug. 08 - No demand or run hours were reported. Demands corrected to report 1, and Unplanned Unavailable hours corrected to report 32.57. 3) Sep. 08 ??? Unplanned Unavailable hours were incorrectly reported as 0 and were corrected to 205.66.

4Q/07: Changes were made to 1Q2005 resulting in a cascade of change reports. The changes made were to 12 & 13 SRW Pp run hours reported for 1Q2005 due to typographical error. 12 SRW Pp run hours were reported as 20780 run hours, and corrected to 2078 run hours. 13 SRW Pp run hours were reported as 90 and corrected to 9.

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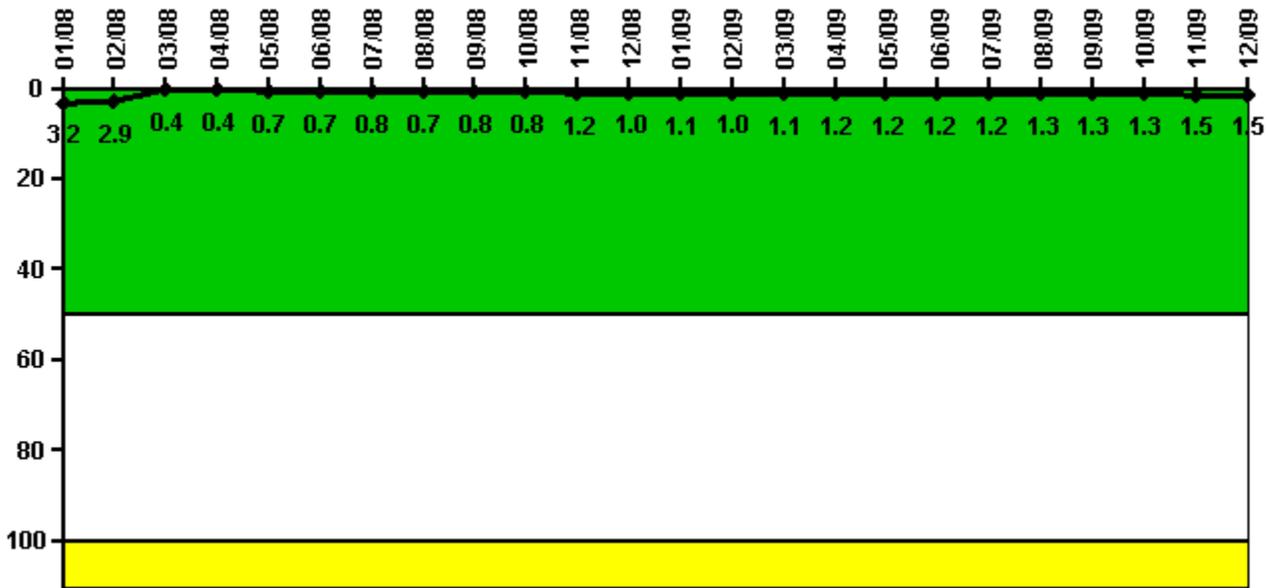
4Q/06: Changes were made to 1Q2005 resulting in a cascade of change reports. The changes made were to 12 & 13 SRW Pp run hours reported for 1Q2005 due to typographical error. 12 SRW Pp run hours were reported as 20780 run hours, and corrected to 2078 run hours. 13 SRW Pp run hours were reported as 90 and corrected to 9.

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2Q/06: Changes were made to 1Q2005 resulting in a cascade of change reports. The changes made were to 12 & 13 SRW Pp run hours reported for 1Q2005 due to typographical error. 12 SRW Pp run hours were reported as 20780 run hours, and corrected to 2078 run hours. 13 SRW Pp run hours were reported as 90 and corrected to 9.

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# Reactor Coolant System Activity



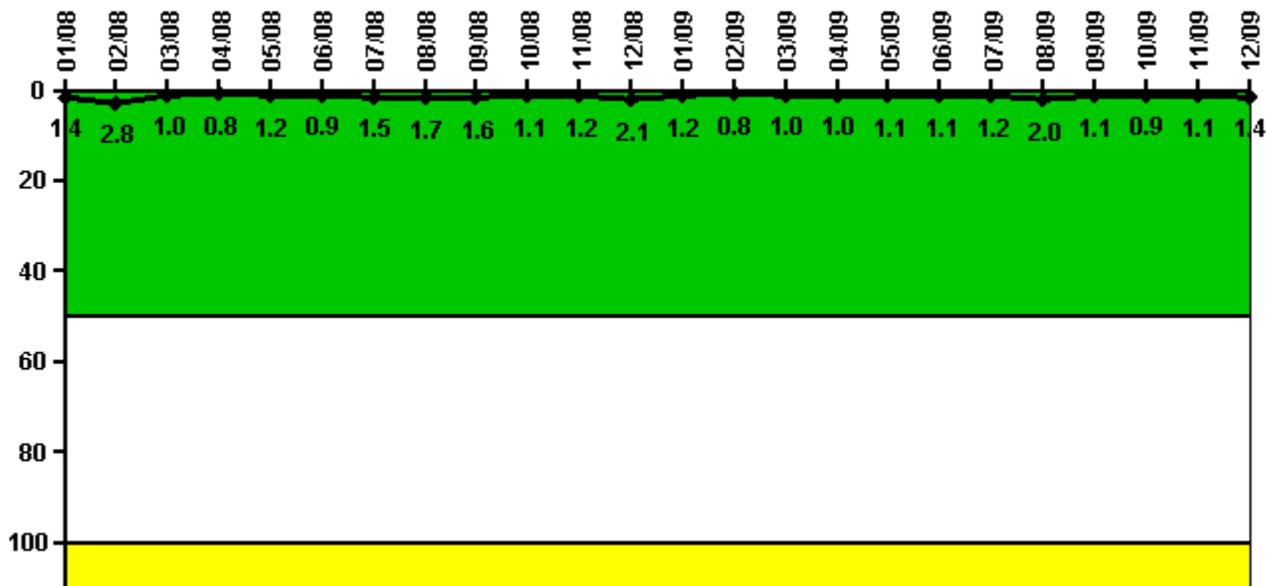
Thresholds: White > 50.0 Yellow > 100.0

## Notes

Reactor Coolant System Activity	1/08	2/08	3/08	4/08	5/08	6/08	7/08	8/08	9/08	10/08	11/08	12/08
Maximum activity	0.031800	0.029000	0.003840	0.004050	0.006520	0.006960	0.007570	0.007470	0.008140	0.008350	0.011800	0.010000
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	3.2	2.9	0.4	0.4	0.7	0.7	0.8	0.7	0.8	0.8	1.2	1.0
Reactor Coolant System Activity	1/09	2/09	3/09	4/09	5/09	6/09	7/09	8/09	9/09	10/09	11/09	12/09
Maximum activity	0.010700	0.010100	0.010800	0.011500	0.011800	0.012200	0.012300	0.012500	0.013100	0.013200	0.014500	0.015400
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	1.1	1.0	1.1	1.2	1.2	1.2	1.2	1.3	1.3	1.3	1.5	1.5

Licensee Comments: none

## Reactor Coolant System Leakage



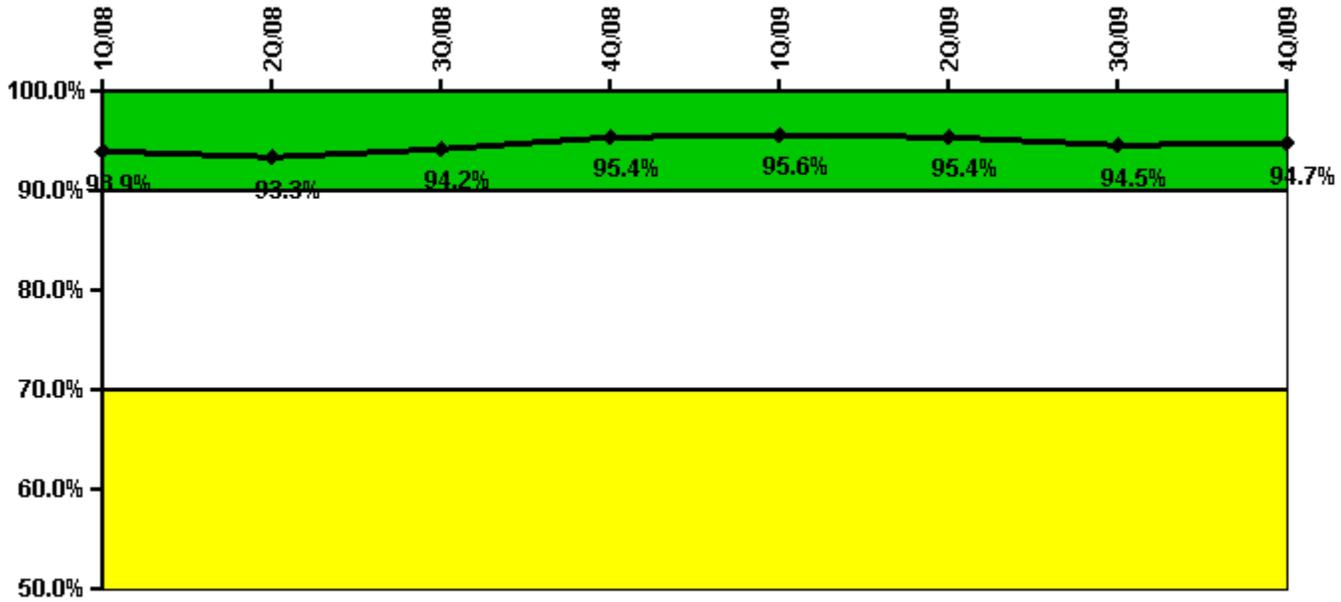
Thresholds: White > 50.0 Yellow > 100.0

### Notes

Reactor Coolant System Leakage	1/08	2/08	3/08	4/08	5/08	6/08	7/08	8/08	9/08	10/08	11/08	12/08
Maximum leakage	0.140	0.280	0.100	0.080	0.120	0.090	0.150	0.170	0.160	0.110	0.120	0.210
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	1.4	2.8	1.0	0.8	1.2	0.9	1.5	1.7	1.6	1.1	1.2	2.1
Reactor Coolant System Leakage	1/09	2/09	3/09	4/09	5/09	6/09	7/09	8/09	9/09	10/09	11/09	12/09
Maximum leakage	0.120	0.080	0.100	0.100	0.110	0.110	0.120	0.200	0.110	0.090	0.110	0.140
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	1.2	0.8	1.0	1.0	1.1	1.1	1.2	2.0	1.1	0.9	1.1	1.4

Licensee Comments: none

## Drill/Exercise Performance



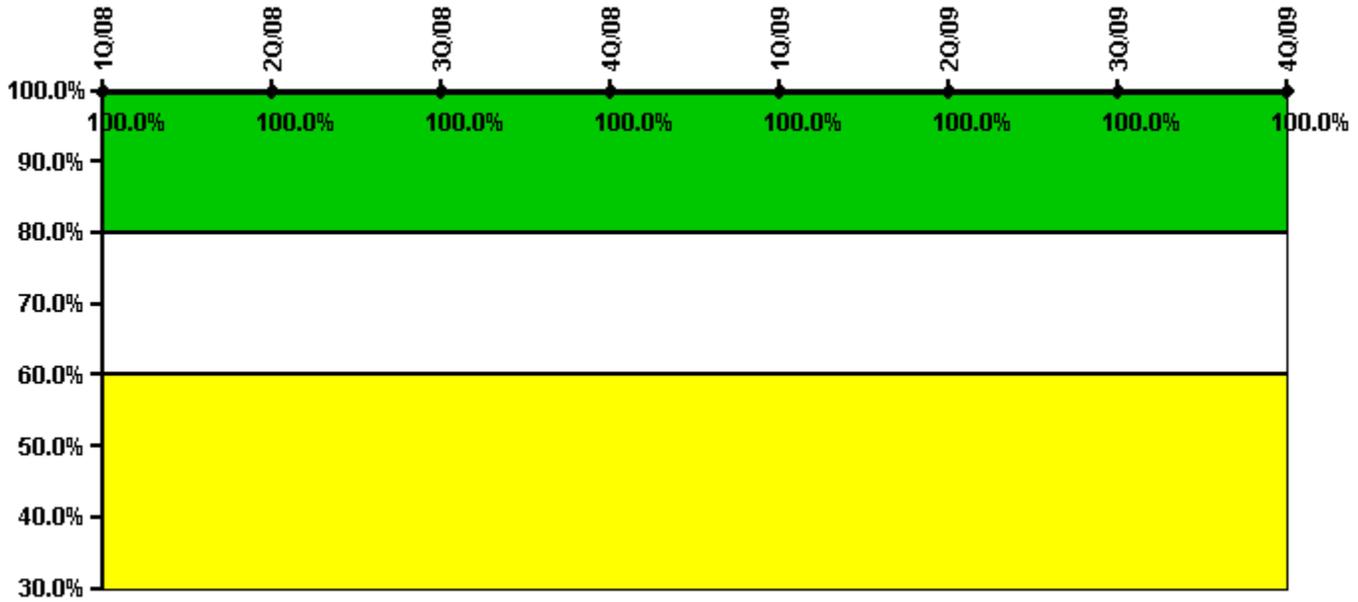
Thresholds: White < 90.0% Yellow < 70.0%

### Notes

Drill/Exercise Performance	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09	2Q/09	3Q/09	4Q/09
Successful opportunities	4.0	26.0	40.0	52.0	10.0	30.0	43.0	63.0
Total opportunities	5.0	27.0	40.0	59.0	10.0	32.0	46.0	64.0
Indicator value	93.9%	93.3%	94.2%	95.4%	95.6%	95.4%	94.5%	94.7%

Licensee Comments: none

# ERO Drill Participation



Thresholds: White < 80.0% Yellow < 60.0%

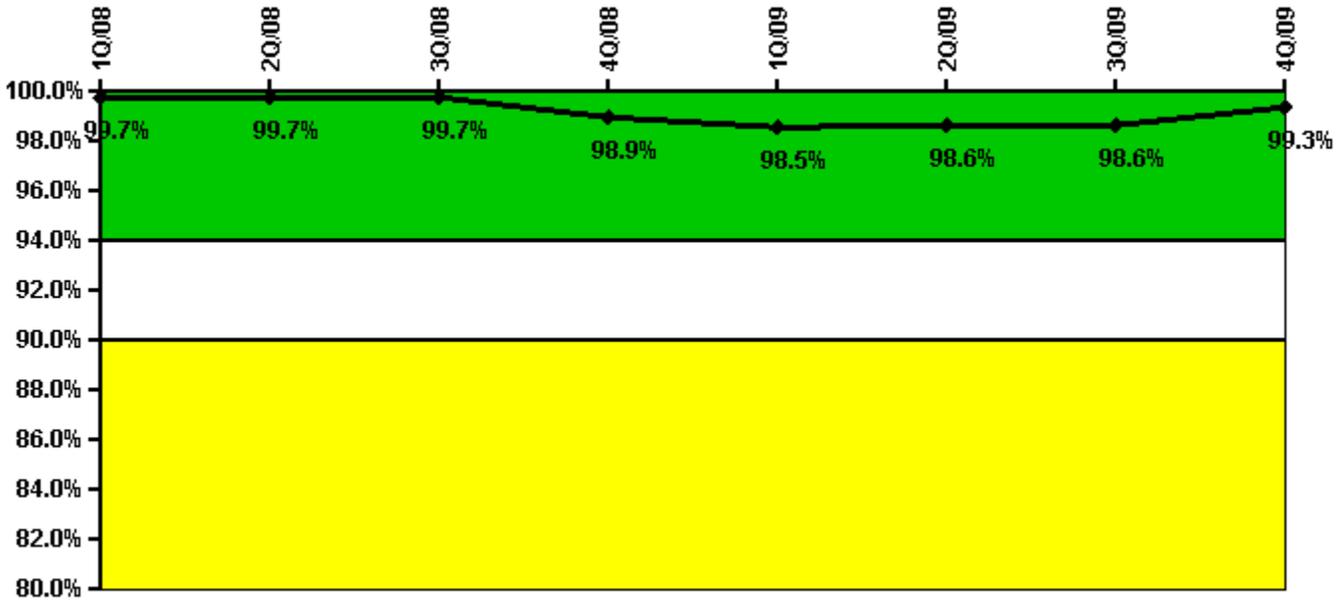
## Notes

ERO Drill Participation	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09	2Q/09	3Q/09	4Q/09
Participating Key personnel	83.0	87.0	86.0	84.0	88.0	98.0	101.0	95.0
Total Key personnel	83.0	87.0	86.0	84.0	88.0	98.0	101.0	95.0
Indicator value	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Licensee Comments: none

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# Alert & Notification System



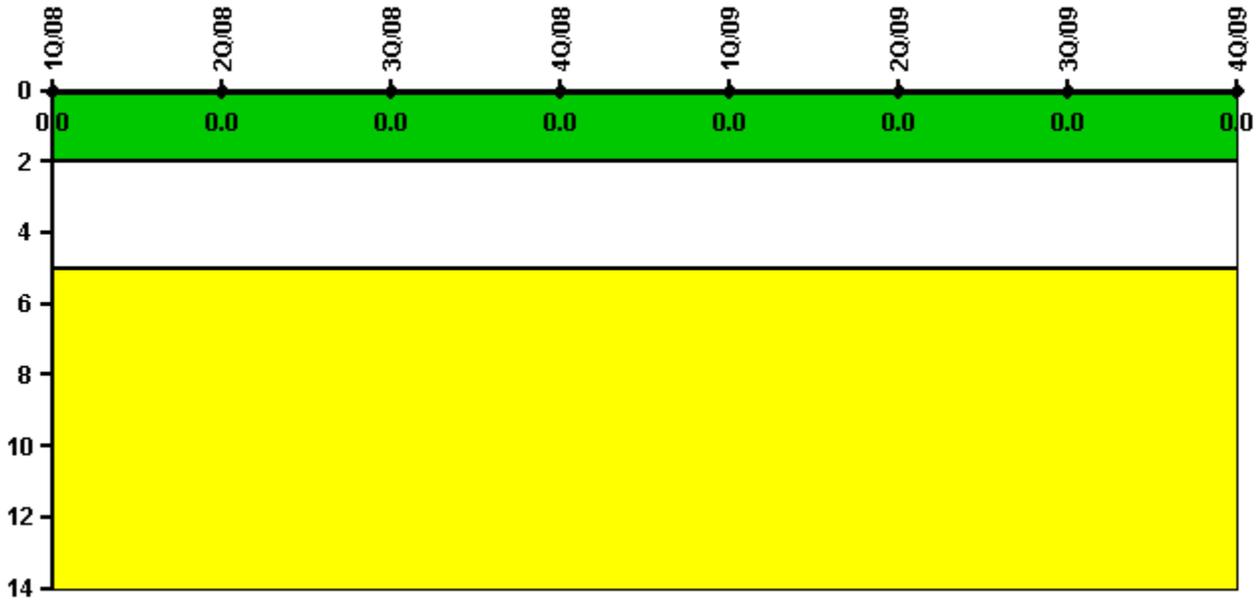
Thresholds: White < 94.0% Yellow < 90.0%

## Notes

Alert & Notification System	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09	2Q/09	3Q/09	4Q/09
Successful siren-tests	947	946	946	916	932	948	947	942
Total sirens-tests	949	949	949	949	949	949	949	949
Indicator value	99.7%	99.7%	99.7%	98.9%	98.5%	98.6%	98.6%	99.3%

Licensee Comments: none

# Occupational Exposure Control Effectiveness



**Thresholds: White > 2.0 Yellow > 5.0**

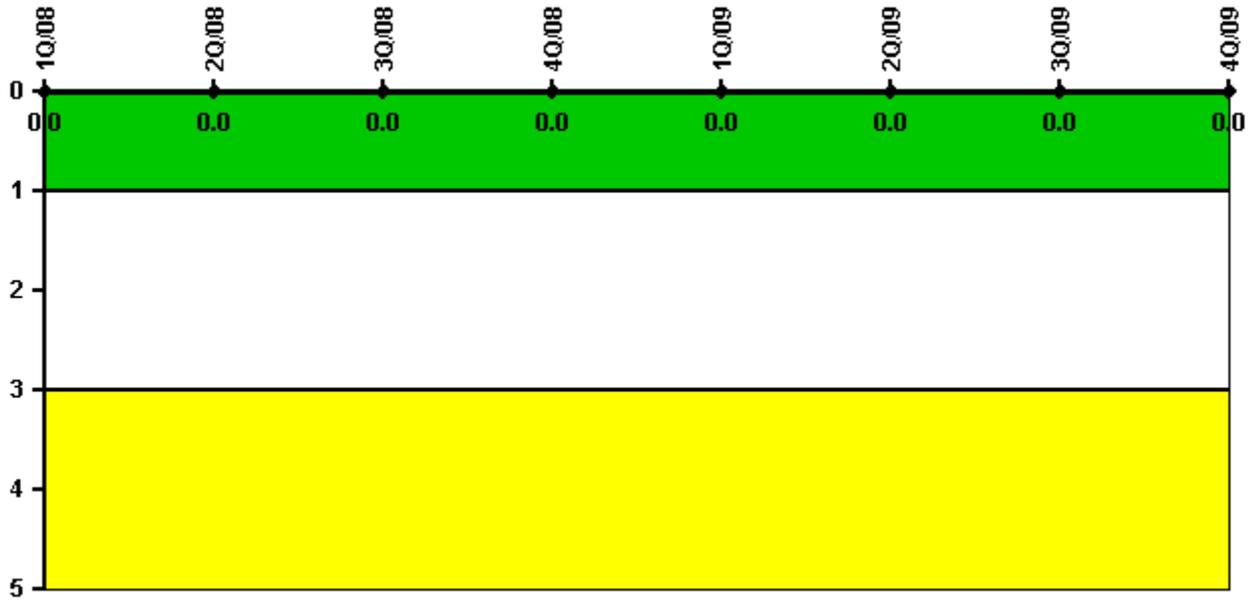
## Notes

Occupational Exposure Control Effectiveness	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09	2Q/09	3Q/09	4Q/09
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
<b>Indicator value</b>	<b>0</b>							

Licensee Comments: none

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# RETS/ODCM Radiological Effluent



Thresholds: White > 1.0 Yellow > 3.0

## Notes

RETS/ODCM Radiological Effluent	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09	2Q/09	3Q/09	4Q/09
RETS/ODCM occurrences	0	0	0	0	0	0	0	0
Indicator value	0	0	0	0	0	0	0	0

Licensee Comments: none

[Security](#) information not publicly available.