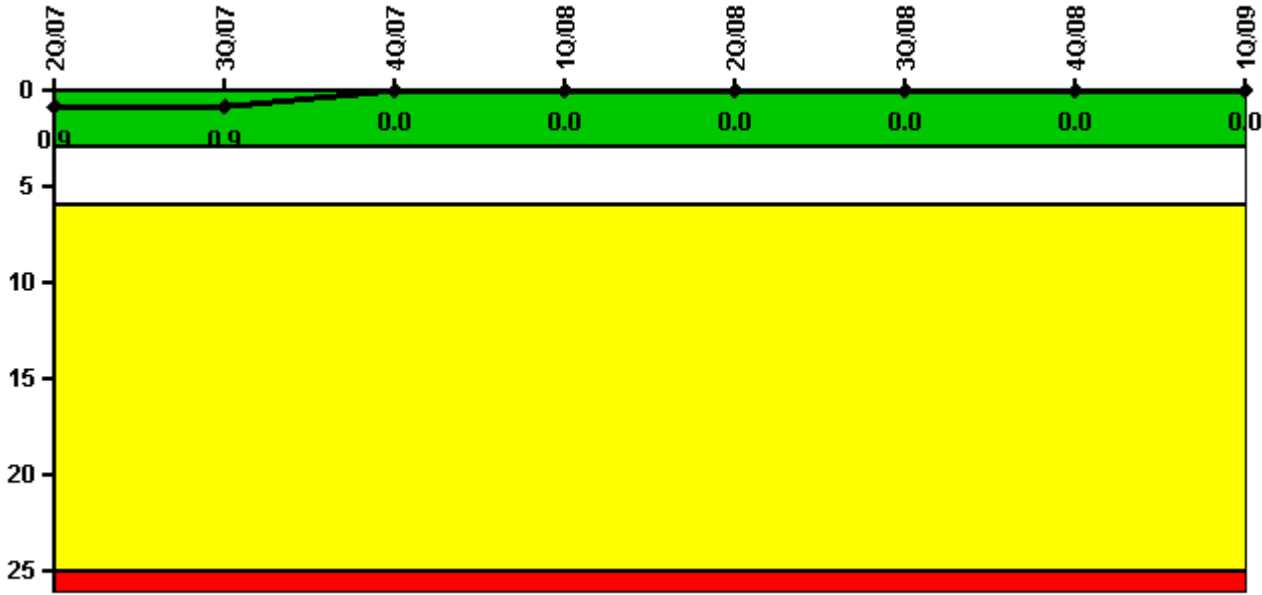


# Calvert Cliffs 2

## 1Q/2009 Performance Indicators

Licensee's General Comments: none

### Unplanned Scrams per 7000 Critical Hrs



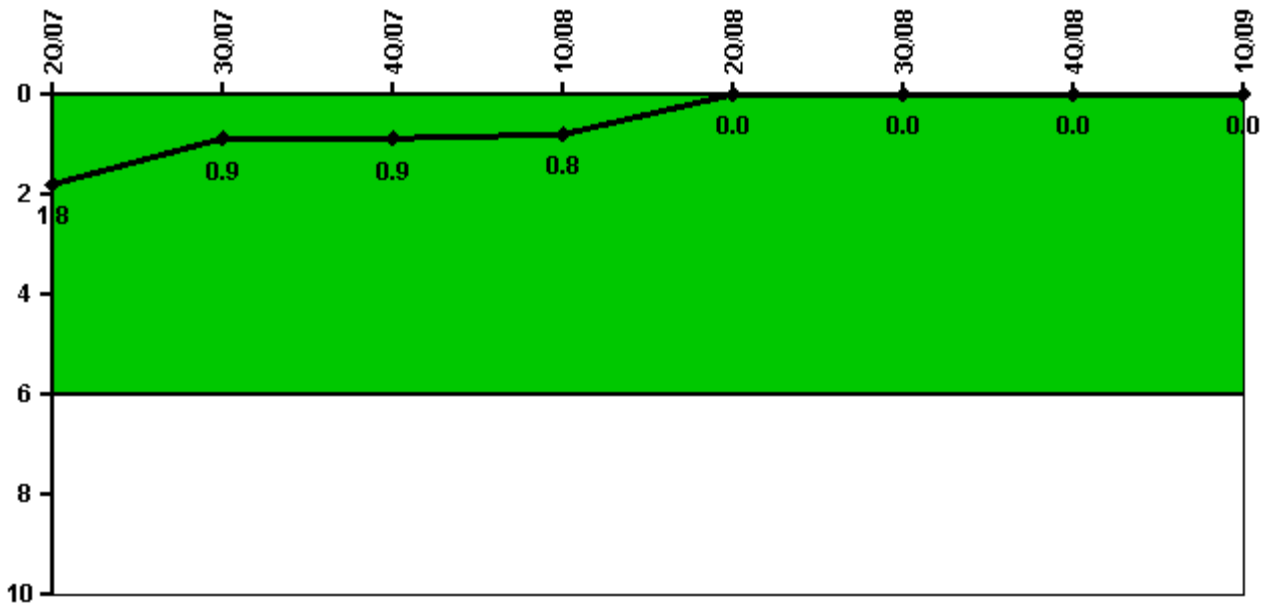
Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

### Notes

Unplanned Scrams per 7000 Critical Hrs	2Q/07	3Q/07	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09
Unplanned scrams	0	0	0	0	0	0	0	0
Critical hours	2162.4	2208.0	2209.0	2183.0	2184.0	2208.0	2209.0	1657.0
Indicator value	0.9	0.9	0	0	0	0	0	0

Licensee Comments: none

## Unplanned Power Changes per 7000 Critical Hrs



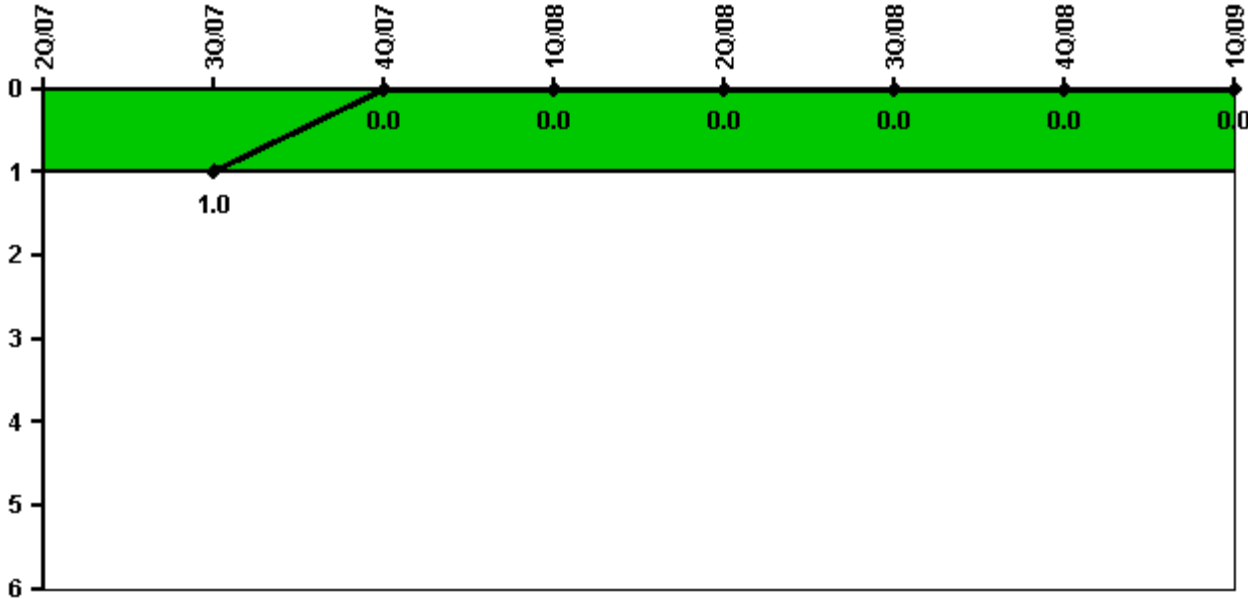
Thresholds: White > 6.0

### Notes

Unplanned Power Changes per 7000 Critical Hrs	2Q/07	3Q/07	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09
Unplanned power changes	1.0	0	0	0	0	0	0	0
Critical hours	2162.4	2208.0	2209.0	2183.0	2184.0	2208.0	2209.0	1657.0
Indicator value	1.8	0.9	0.9	0.8	0	0	0	0

Licensee Comments: none

# Unplanned Scrams with Complications



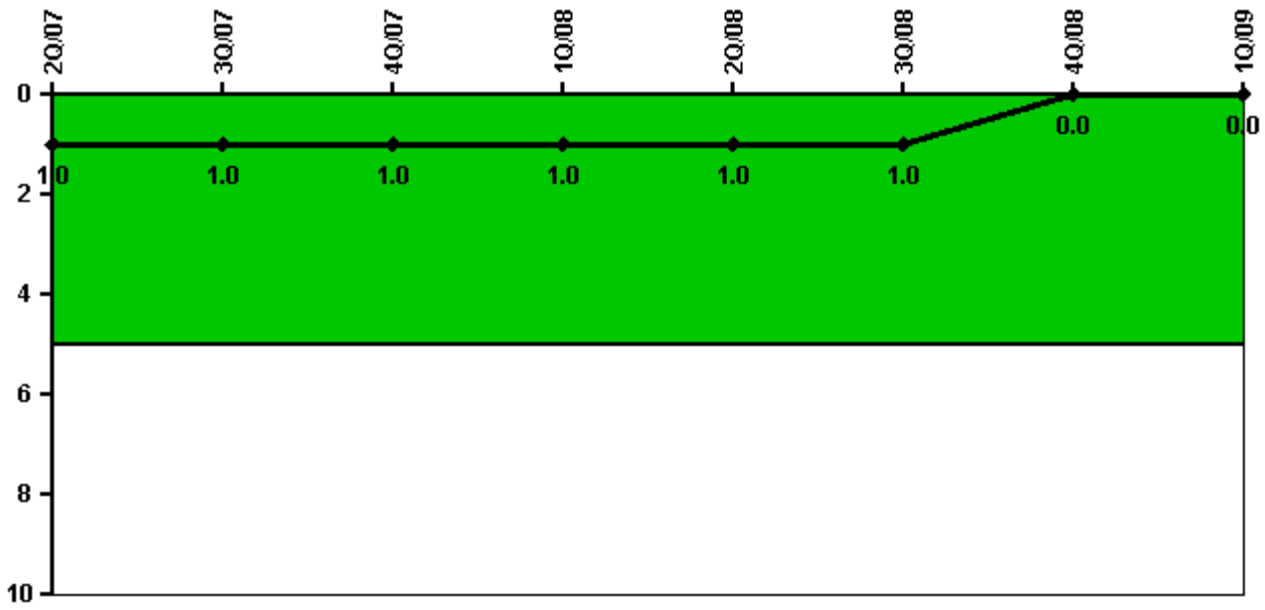
Thresholds: White > 1.0

**Notes**

Unplanned Scrams with Complications	2Q/07	3Q/07	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09
Scrams with complications	0	0	0	0	0	0	0	0
Indicator value		1.0	0.0	0.0	0.0	0.0	0.0	0.0

Licensee Comments: none

## Safety System Functional Failures (PWR)



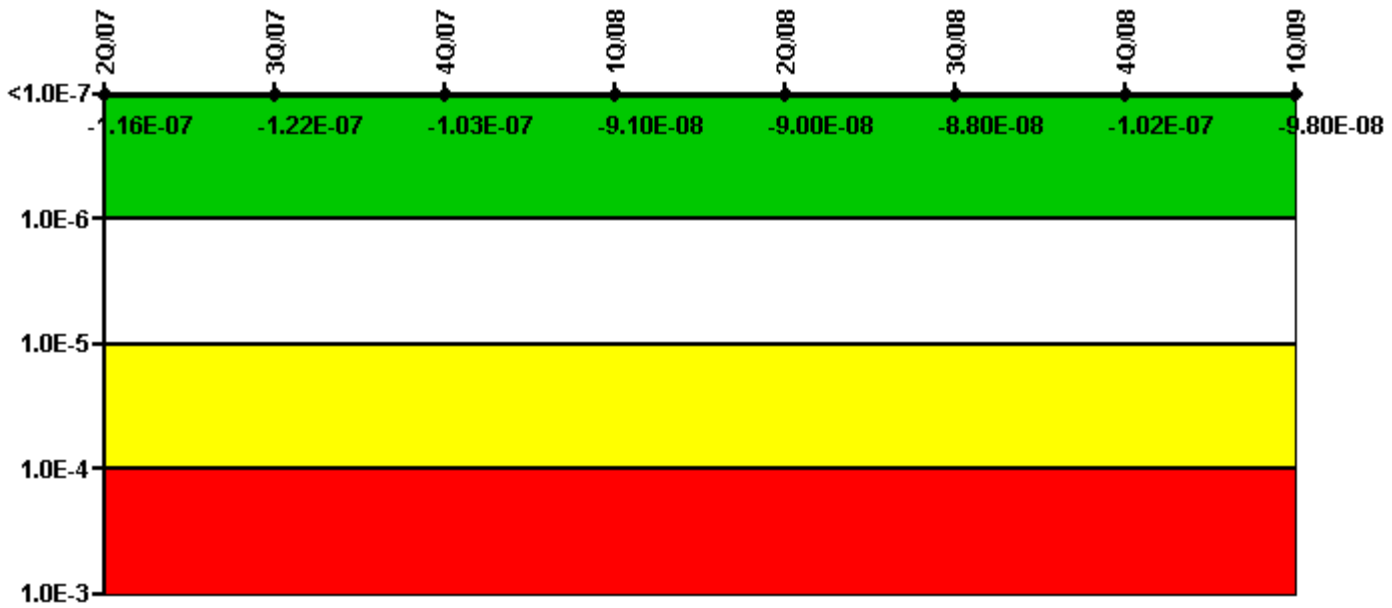
Thresholds: White > 5.0

### Notes

Safety System Functional Failures (PWR)	2Q/07	3Q/07	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09
Safety System Functional Failures	0	0	1	0	0	0	0	0
Indicator value	1	1	1	1	1	1	0	0

Licensee Comments: none

# Mitigating Systems Performance Index, Emergency AC Power System



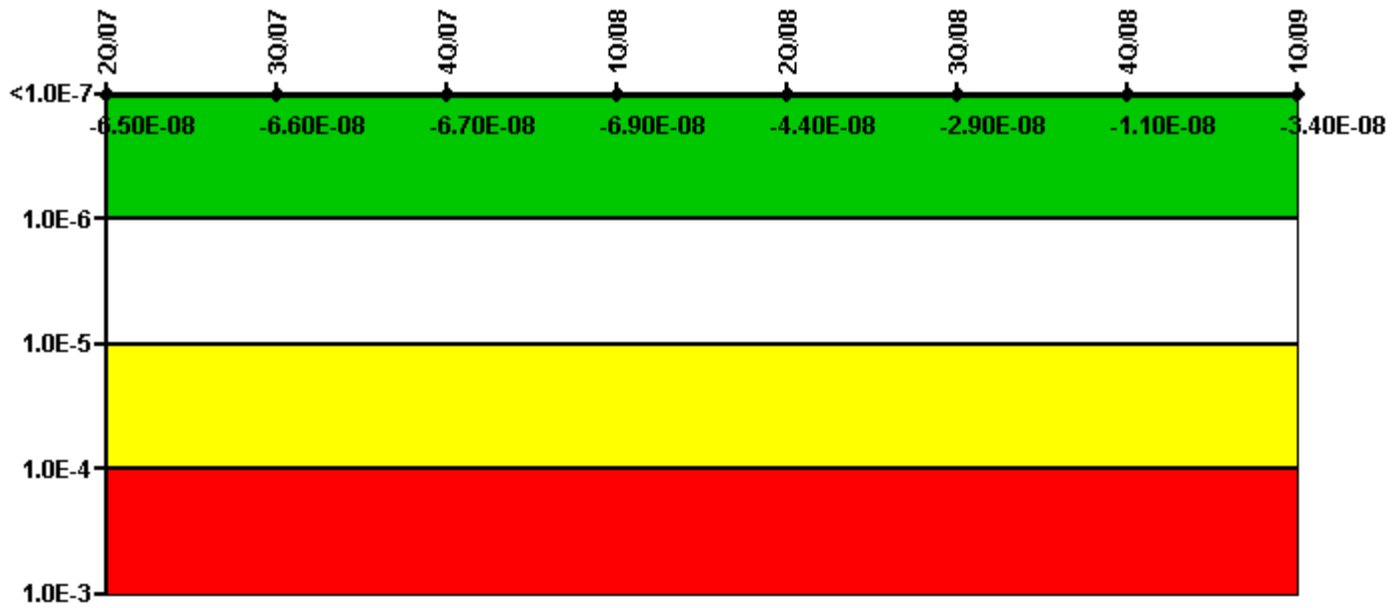
Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

## Notes

Mitigating Systems Performance Index, Emergency AC Power System	2Q/07	3Q/07	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09
UAI ( $\Delta$ CDF)	1.40E-08	7.80E-09	2.70E-08	2.90E-08	4.00E-08	4.20E-08	1.80E-08	2.20E-08
URI ( $\Delta$ CDF)	-1.30E-07	-1.30E-07	-1.30E-07	-1.20E-07	-1.30E-07	-1.30E-07	-1.20E-07	-1.20E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-1.16E-07	-1.22E-07	-1.03E-07	-9.10E-08	-9.00E-08	-8.80E-08	-1.02E-07	-9.80E-08

Licensee Comments: none

# Mitigating Systems Performance Index, High Pressure Injection System



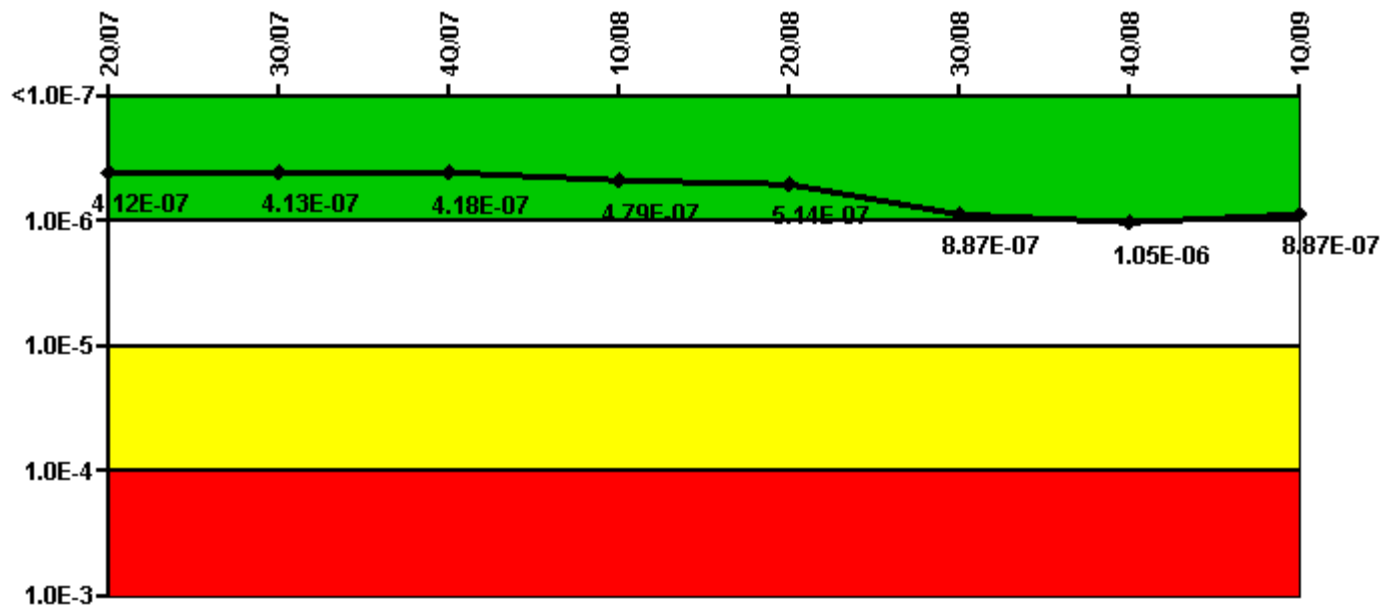
Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

## Notes

Mitigating Systems Performance Index, High Pressure Injection System	2Q/07	3Q/07	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09
UAI ( $\Delta$ CDF)	2.60E-08	2.70E-08	2.80E-08	2.00E-08	4.80E-08	6.10E-08	7.80E-08	6.00E-08
URI ( $\Delta$ CDF)	-9.10E-08	-9.30E-08	-9.50E-08	-8.90E-08	-9.20E-08	-9.00E-08	-8.90E-08	-9.40E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-6.50E-08	-6.60E-08	-6.70E-08	-6.90E-08	-4.40E-08	-2.90E-08	-1.10E-08	-3.40E-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	2Q/07	3Q/07	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09
UAI ( $\Delta$ CDF)	3.20E-08	7.30E-08	6.80E-08	6.90E-08	9.40E-08	8.70E-08	8.60E-08	4.70E-08
URI ( $\Delta$ CDF)	3.80E-07	3.40E-07	3.50E-07	4.10E-07	4.20E-07	8.00E-07	9.60E-07	8.40E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	4.12E-07	4.13E-07	4.18E-07	4.79E-07	5.14E-07	8.87E-07	1.05E-06	8.87E-07

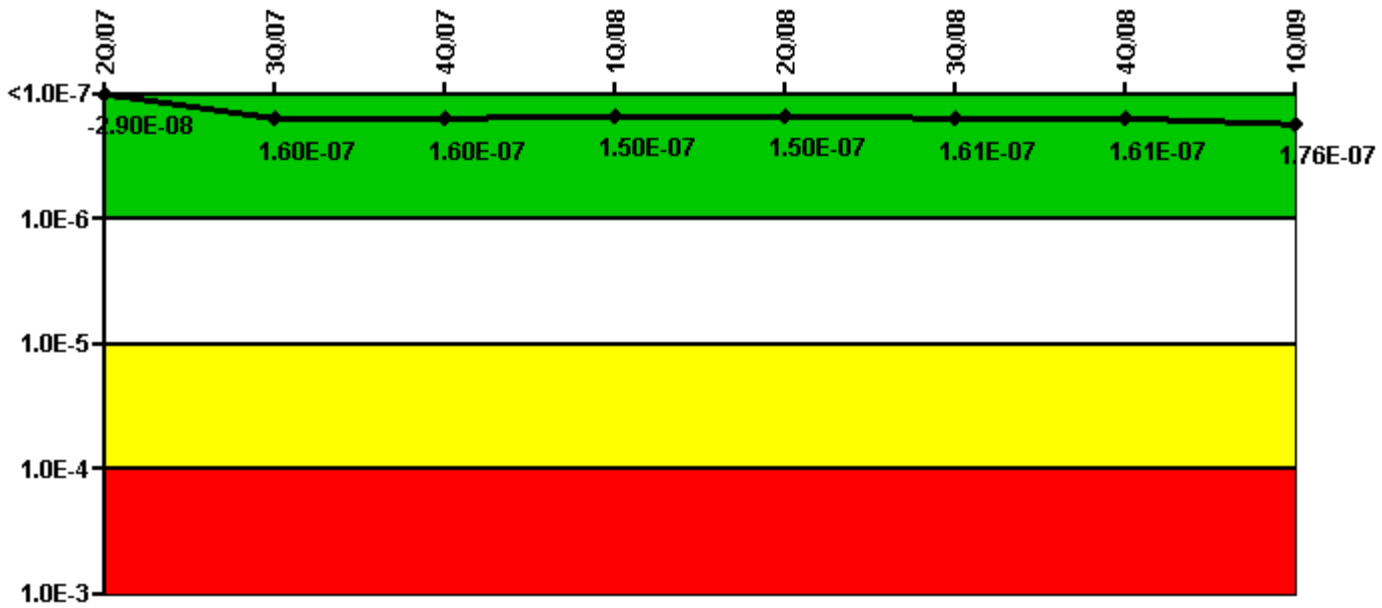
Licensee Comments:

1Q/09: Changed PRA Parameter(s).

4Q/08: Change in unavailable hours for 23 AFW pump because it was determined that the motor driven AFW flow paths to both Steam Generators were simultaneously isolated for routine maintenance, this effectively removed 23 AFW pump from service. Previous performance of this maintenance was performed on one flow path at a time, which did not remove the pump from service.

3Q/08: Risk Cap Invoked. Change in unavailable hours for 23 AFW pump because it was determined that the motor driven AFW flow paths to both Steam Generators were simultaneously isolated for routine maintenance, this effectively removed 23 AFW pump from service. Previous performance of this maintenance was performed on one flow path at a time, which did not remove the pump from service.

# Mitigating Systems Performance Index, Residual Heat Removal System



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

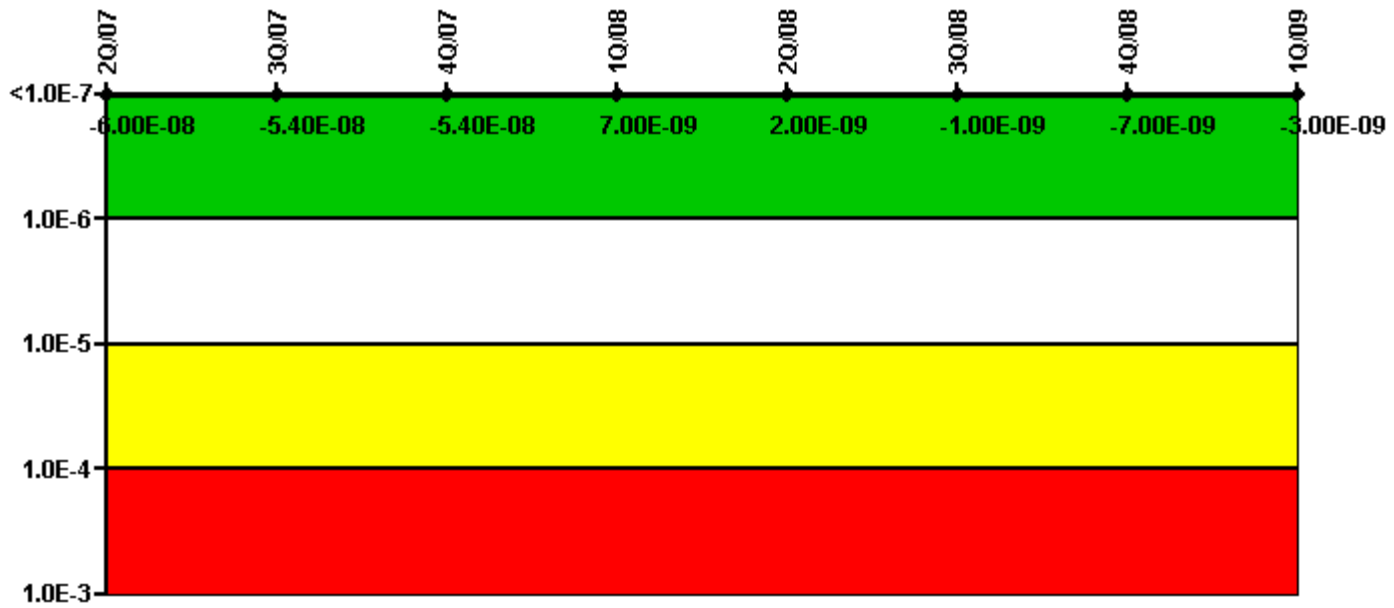
## Notes

Mitigating Systems Performance Index, Residual Heat Removal System	2Q/07	3Q/07	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09
UAI ( $\Delta$ CDF)	-2.40E-08	1.10E-07	1.10E-07	1.00E-07	1.00E-07	1.10E-07	1.10E-07	1.20E-07
URI ( $\Delta$ CDF)	-5.00E-09	5.00E-08	5.00E-08	5.00E-08	5.00E-08	5.10E-08	5.10E-08	5.60E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-2.90E-08	1.60E-07	1.60E-07	1.50E-07	1.50E-07	1.61E-07	1.61E-07	1.76E-07

Licensee Comments: none



# Mitigating Systems Performance Index, Cooling Water Systems



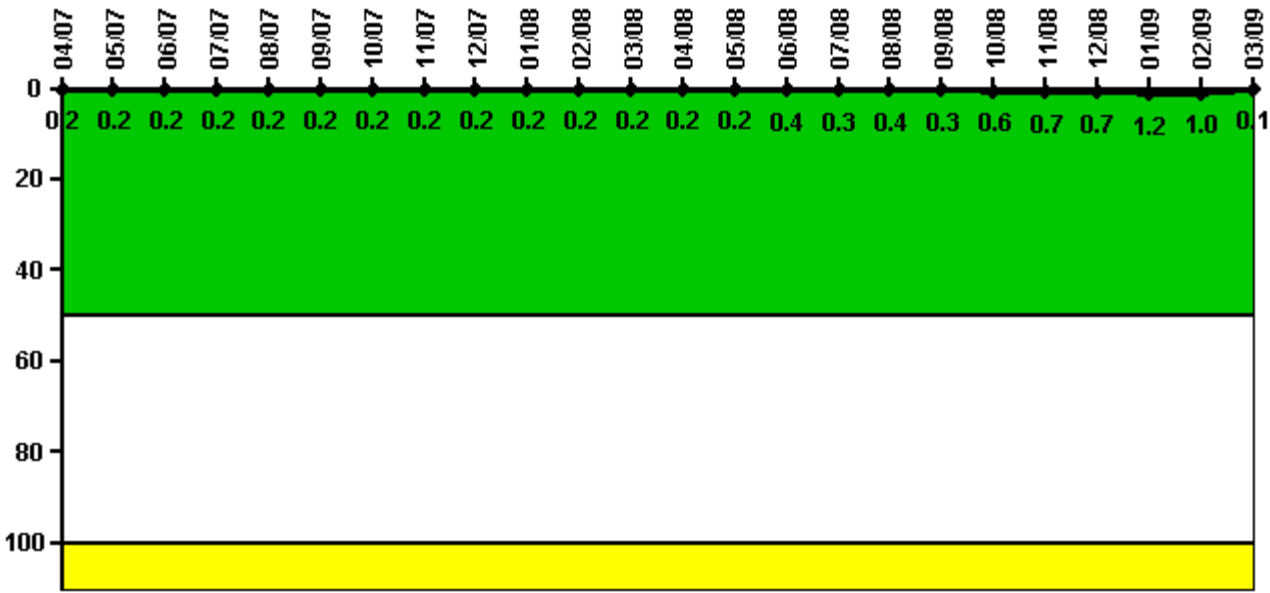
Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

## Notes

Mitigating Systems Performance Index, Cooling Water Systems	2Q/07	3Q/07	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09
UAI ( $\Delta$ CDF)	3.00E-08	3.60E-08	3.60E-08	4.70E-08	4.30E-08	3.10E-08	2.60E-08	3.10E-08
URI ( $\Delta$ CDF)	-9.00E-08	-9.00E-08	-9.00E-08	-4.00E-08	-4.10E-08	-3.20E-08	-3.30E-08	-3.40E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-6.00E-08	-5.40E-08	-5.40E-08	7.00E-09	2.00E-09	-1.00E-09	-7.00E-09	-3.00E-09

Licensee Comments: none

## Reactor Coolant System Activity



Thresholds: White > 50.0 Yellow > 100.0

### Notes

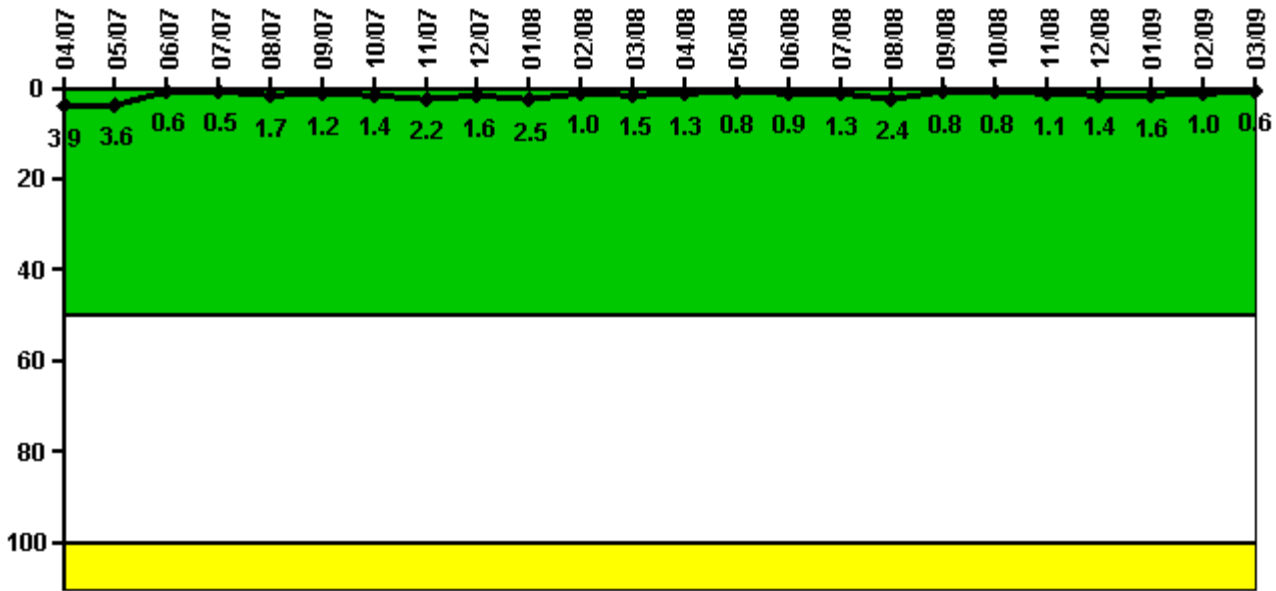
Reactor Coolant System Activity	4/07	5/07	6/07	7/07	8/07	9/07	10/07	11/07	12/07	1/08	2/08	3/08
Maximum activity	0.001730	0.001650	0.001770	0.001940	0.002000	0.002210	0.002240	0.002230	0.002350	0.001850	0.002210	0.002370
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2

Reactor Coolant System Activity	4/08	5/08	6/08	7/08	8/08	9/08	10/08	11/08	12/08	1/09	2/09	3/09
Maximum activity	0.002100	0.002290	0.003820	0.003180	0.004380	0.003470	0.005590	0.007390	0.006710	0.012200	0.010200	0.001360
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	0.2	0.2	0.4	0.3	0.4	0.3	0.6	0.7	0.7	1.2	1.0	0.1

Licensee Comments: none

## Reactor Coolant System Leakage



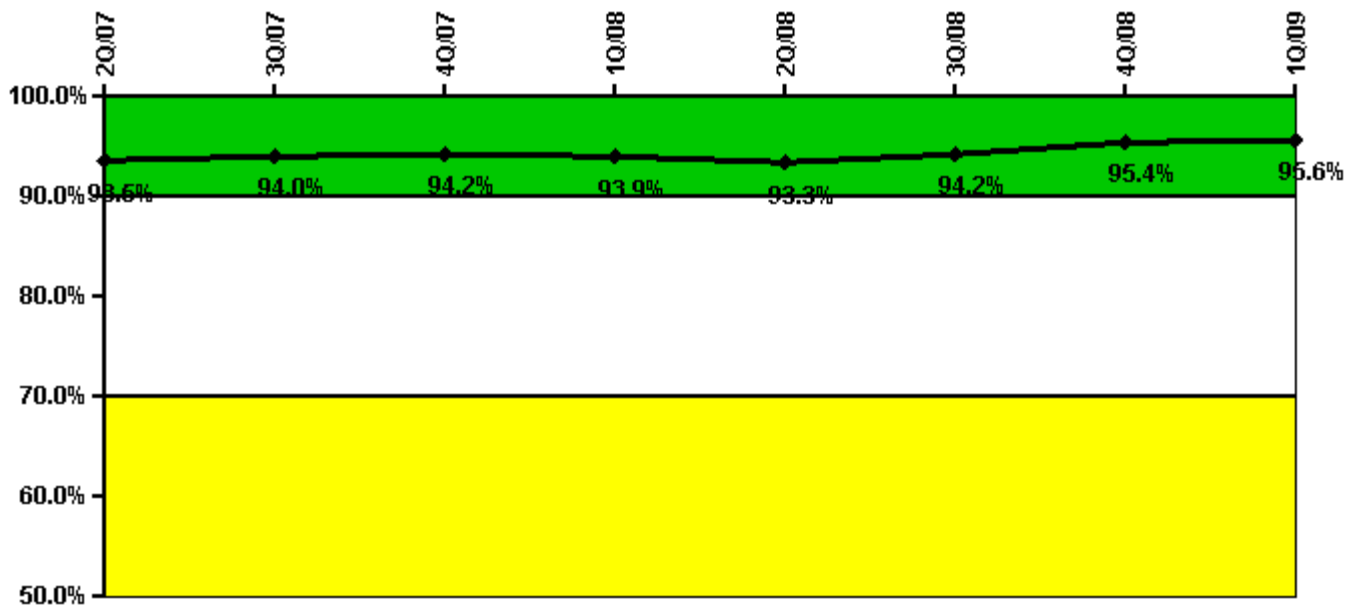
Thresholds: White > 50.0 Yellow > 100.0

### Notes

Reactor Coolant System Leakage	4/07	5/07	6/07	7/07	8/07	9/07	10/07	11/07	12/07	1/08	2/08	3/08
Maximum leakage	0.390	0.360	0.060	0.050	0.170	0.120	0.140	0.218	0.160	0.250	0.100	0.150
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	3.9	3.6	0.6	0.5	1.7	1.2	1.4	2.2	1.6	2.5	1.0	1.5
Reactor Coolant System Leakage	4/08	5/08	6/08	7/08	8/08	9/08	10/08	11/08	12/08	1/09	2/09	3/09
Maximum leakage	0.130	0.080	0.090	0.130	0.240	0.080	0.080	0.110	0.140	0.160	0.100	0.060
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	1.3	0.8	0.9	1.3	2.4	0.8	0.8	1.1	1.4	1.6	1.0	0.6

Licensee Comments: none

## Drill/Exercise Performance



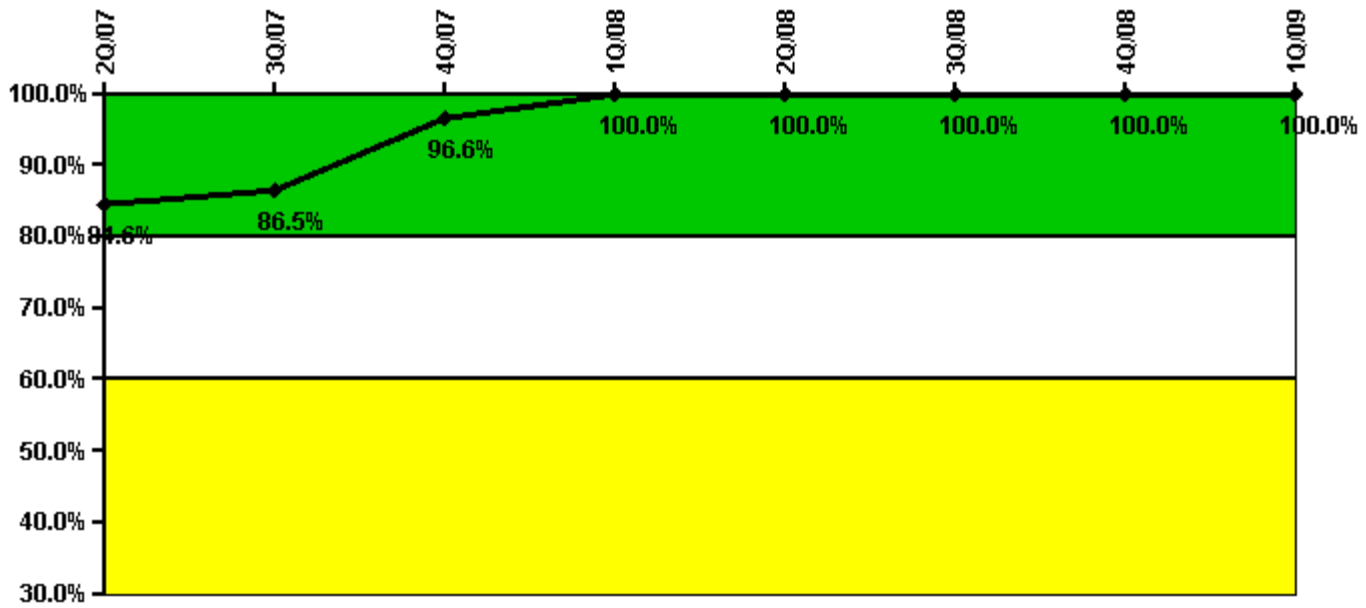
Thresholds: White < 90.0% Yellow < 70.0%

### Notes

Drill/Exercise Performance	2Q/07	3Q/07	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09
Successful opportunities	21.0	36.0	69.0	4.0	26.0	40.0	52.0	10.0
Total opportunities	22.0	36.0	71.0	5.0	27.0	40.0	59.0	10.0
Indicator value	93.5%	94.0%	94.2%	93.9%	93.3%	94.2%	95.4%	95.6%

Licensee Comments: none

## ERO Drill Participation



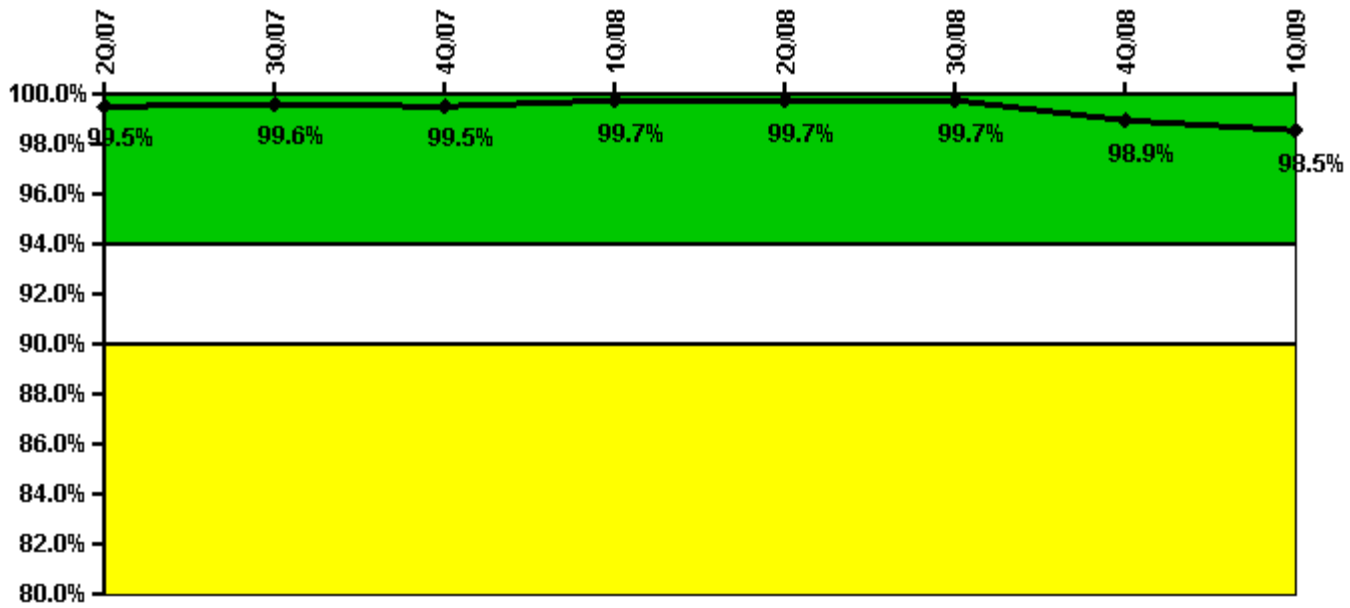
Thresholds: White < 80.0% Yellow < 60.0%

### Notes

ERO Drill Participation	2Q/07	3Q/07	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09
Participating Key personnel	77.0	77.0	85.0	83.0	87.0	86.0	84.0	88.0
Total Key personnel	91.0	89.0	88.0	83.0	87.0	86.0	84.0	88.0
Indicator value	84.6%	86.5%	96.6%	100.0%	100.0%	100.0%	100.0%	100.0%

Licensee Comments: none

## Alert & Notification System



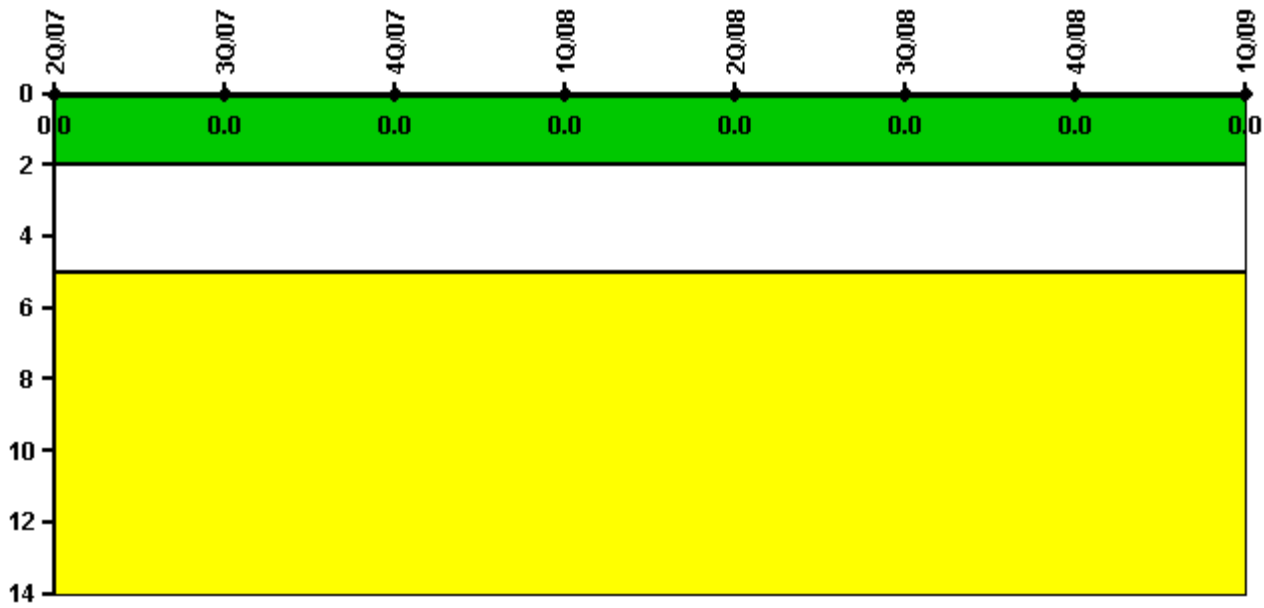
Thresholds: White < 94.0% Yellow < 90.0%

### Notes

Alert & Notification System	2Q/07	3Q/07	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09
Successful siren-tests	944	947	1019	947	946	946	916	932
Total sirens-tests	949	949	1022	949	949	949	949	949
Indicator value	99.5%	99.6%	99.5%	99.7%	99.7%	99.7%	98.9%	98.5%

Licensee Comments: none

## Occupational Exposure Control Effectiveness



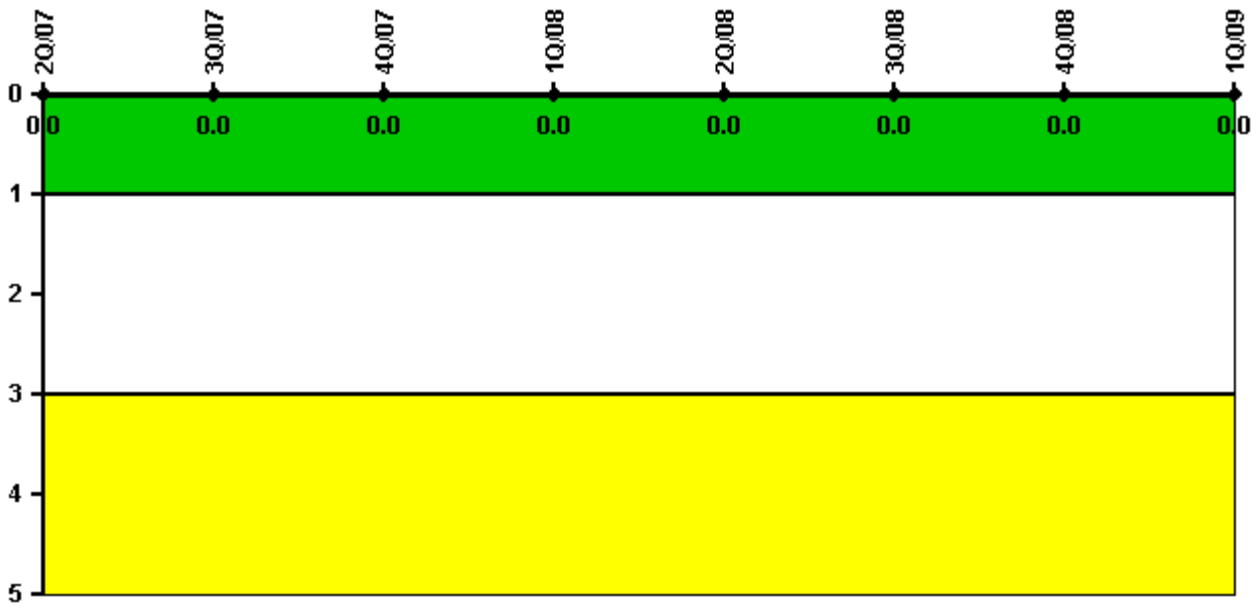
Thresholds: White > 2.0 Yellow > 5.0

### Notes

Occupational Exposure Control Effectiveness	2Q/07	3Q/07	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08	1Q/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
Indicator value	0	0	0	0	0	0	0	0

Licensee Comments: none

## RETS/ODCM Radiological Effluent



Thresholds: White > 1.0 Yellow > 3.0

### Notes

RETS/ODCM Radiological Effluent	2Q/07	3Q/07	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08	1Q/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.