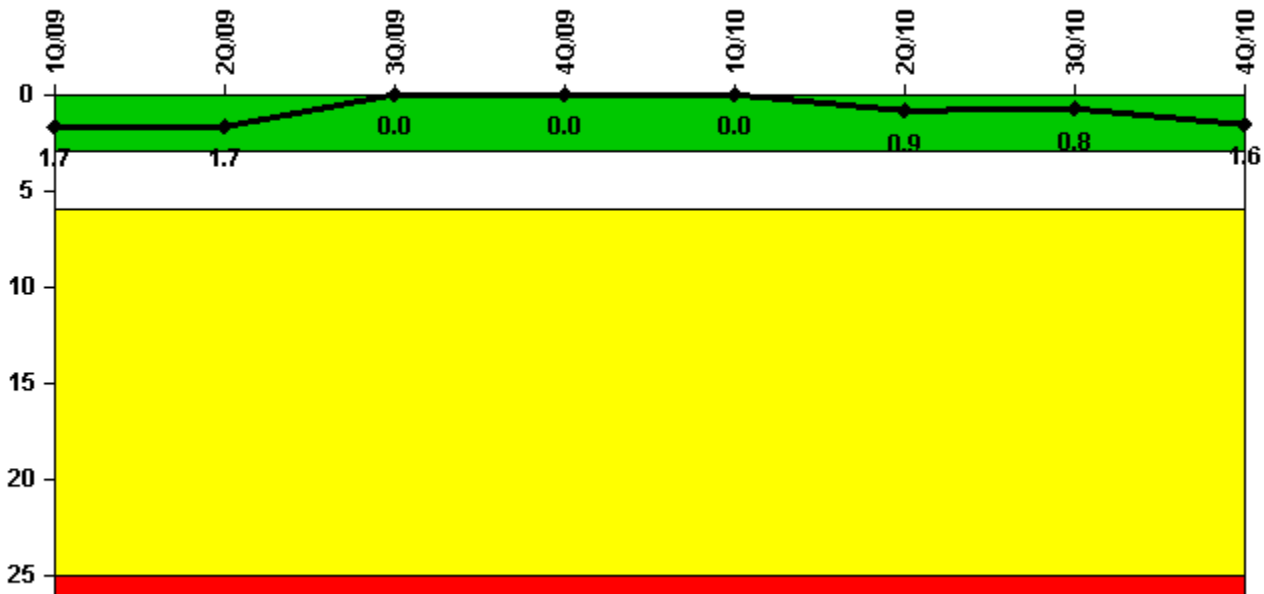


# Watts Bar 1

## 4Q/2010 Performance Indicators

Licensee's General Comments: Two MSPI events at TVA Watts Bar Nuclear Plant on B train Auxiliary Feedwater (Heat Removal) was due to low level in the backup (ERCW) supply piping. The first failure occurred on November 3, 2008 on EPIX report 553 and May 08, 2009 on EPIX report 554. These conditions occurred outside the monitored boundary for the MSPI Heat Removal function and Cooling Water functions as described in NEI-99-02. These two events were changed in EPIX to not being MSPI failures. Therefore, this changed the MSPI value for Heat removal during these periods.

### Unplanned Scrams per 7000 Critical Hrs



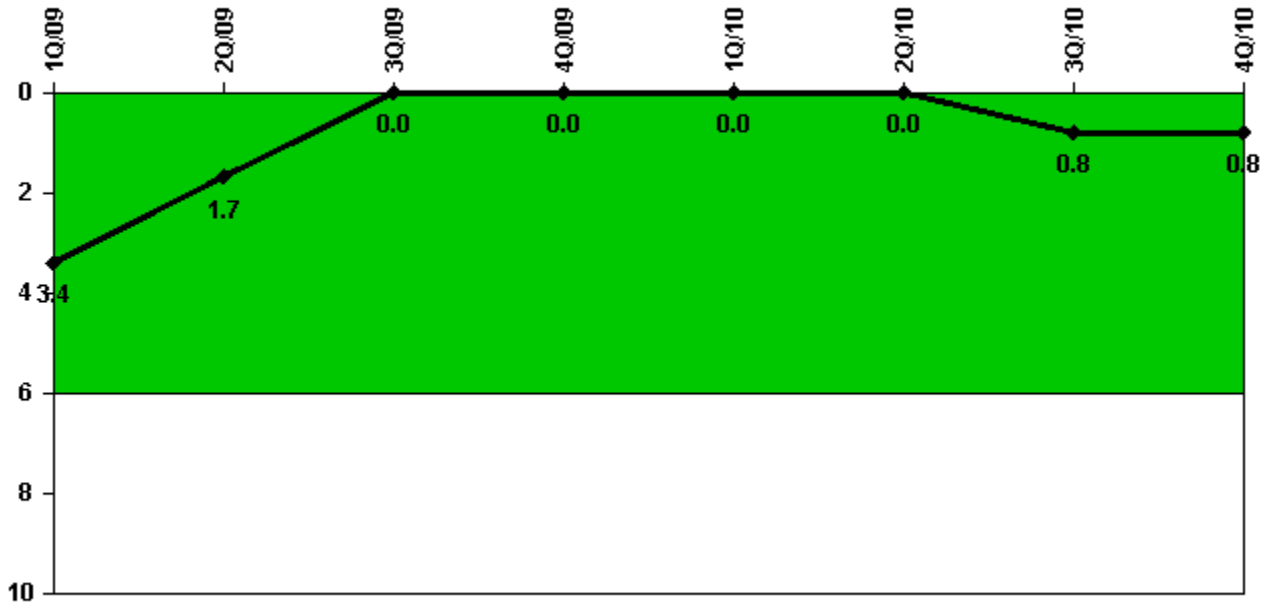
Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

### Notes

Unplanned Scrams per 7000 Critical Hrs	1Q/09	2Q/09	3Q/09	4Q/09	1Q/10	2Q/10	3Q/10	4Q/10
Unplanned scrams	0	0	0	0	0	1.0	0	1.0
Critical hours	2159.0	2184.0	1968.0	1753.9	2159.0	2119.7	2208.0	2126.2
Indicator value	1.7	1.7	0	0	0	0.9	0.8	1.6

Licensee Comments: none

## Unplanned Power Changes per 7000 Critical Hrs



Thresholds: White > 6.0

### Notes

Unplanned Power Changes per 7000 Critical Hrs	1Q/09	2Q/09	3Q/09	4Q/09	1Q/10	2Q/10	3Q/10	4Q/10
Unplanned power changes	0	0	0	0	0	0	1.0	0
Critical hours	2159.0	2184.0	1968.0	1753.9	2159.0	2119.7	2208.0	2126.2
Indicator value	3.4	1.7	0	0	0	0	0.8	0.8

Licensee Comments: none

## Unplanned Scrams with Complications



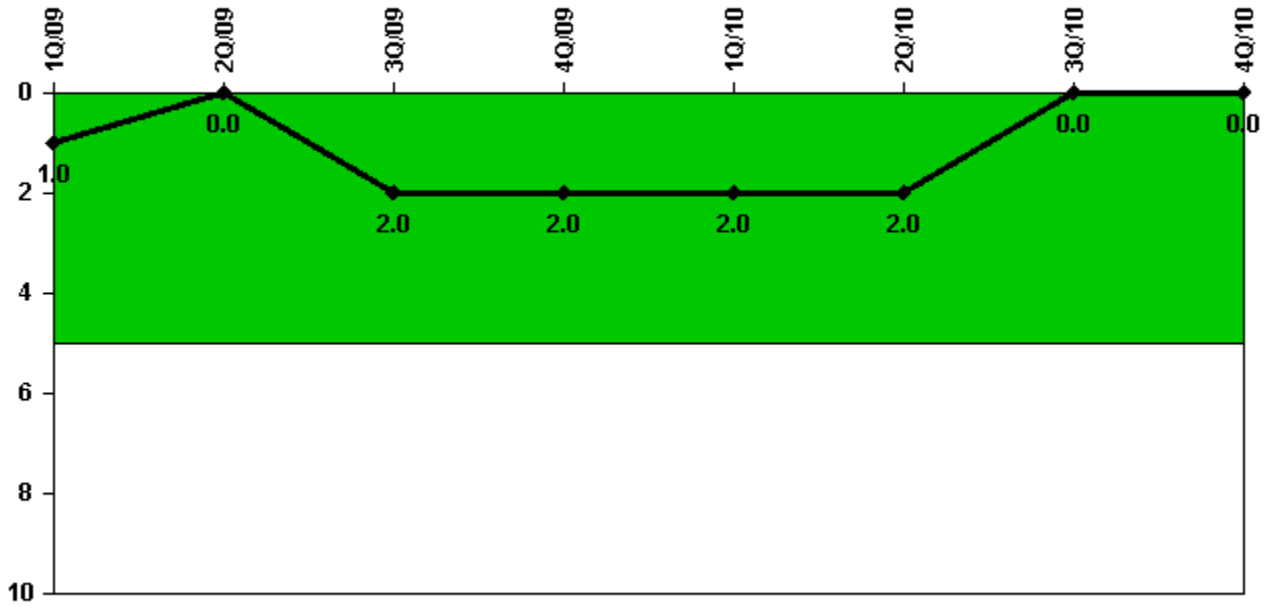
Thresholds: White > 1.0

### Notes

Unplanned Scrams with Complications	1Q/09	2Q/09	3Q/09	4Q/09	1Q/10	2Q/10	3Q/10	4Q/10
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

## Safety System Functional Failures (PWR)



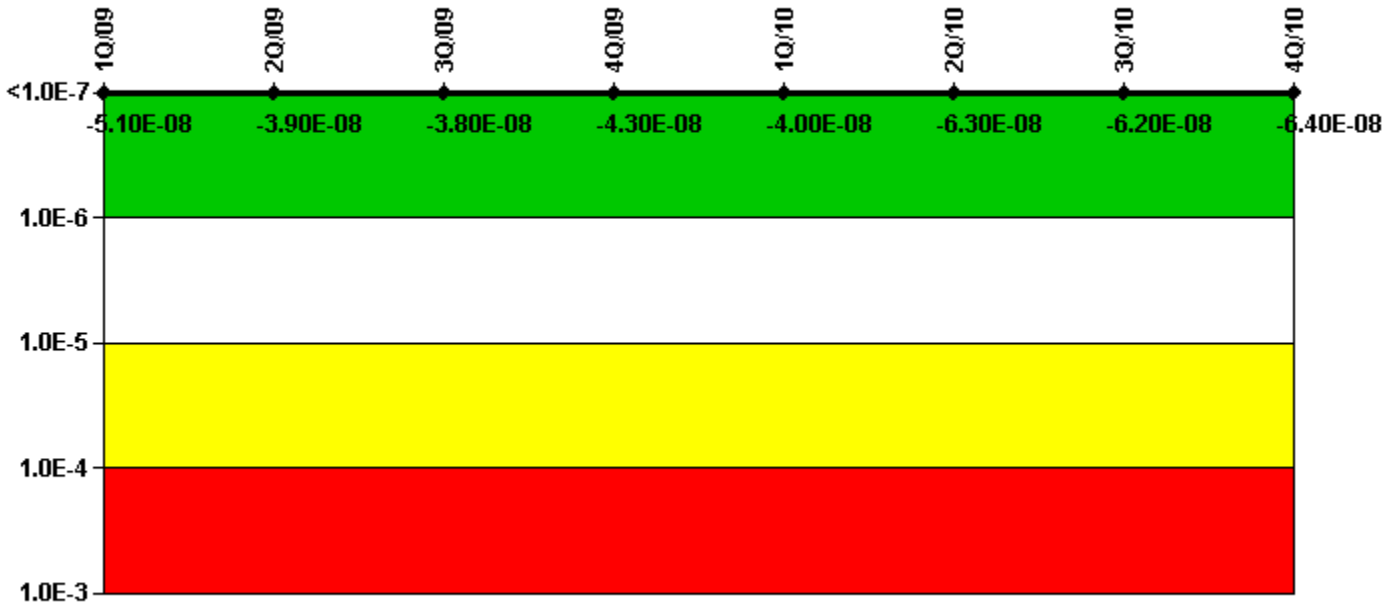
Thresholds: White > 5.0

### Notes

Safety System Functional Failures (PWR)	1Q/09	2Q/09	3Q/09	4Q/09	1Q/10	2Q/10	3Q/10	4Q/10
Safety System Functional Failures	0	0	2	0	0	0	0	0
Indicator value	1	0	2	2	2	2	0	0

Licensee Comments: none

# Mitigating Systems Performance Index, Emergency AC Power System



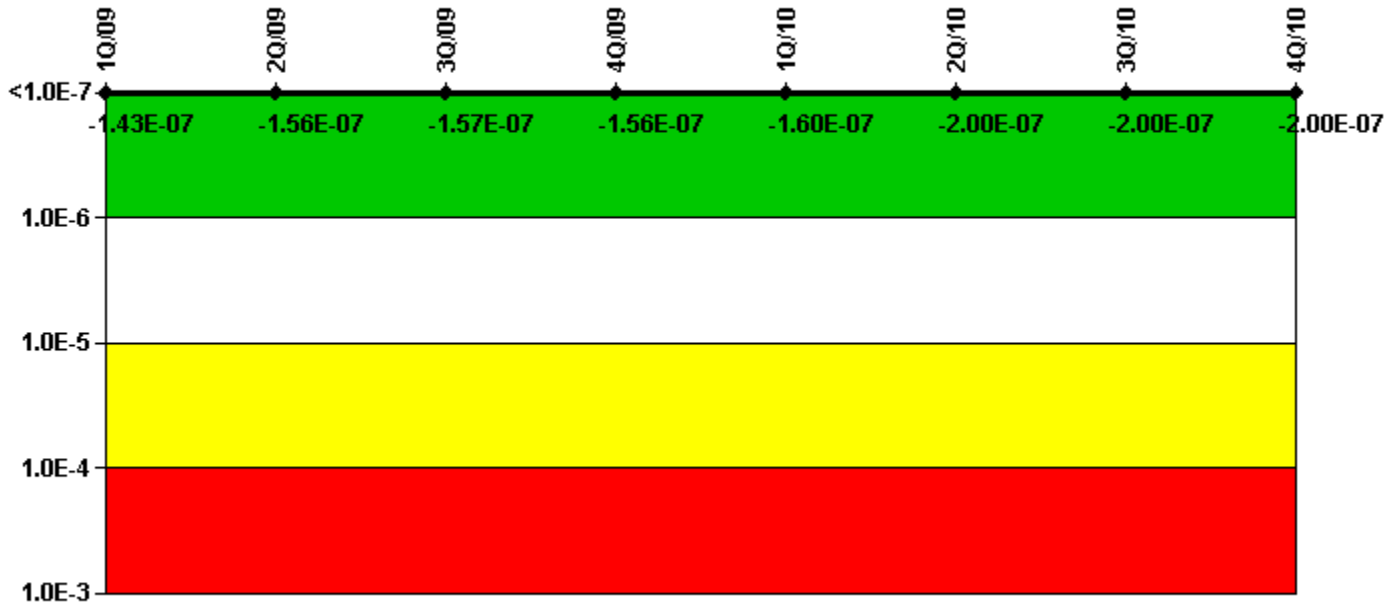
Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

## Notes

Mitigating Systems Performance Index, Emergency AC Power System	1Q/09	2Q/09	3Q/09	4Q/09	1Q/10	2Q/10	3Q/10	4Q/10
UAI ( $\Delta$ CDF)	4.20E-08	5.40E-08	5.70E-08	5.20E-08	5.57E-08	3.25E-08	3.31E-08	3.12E-08
URI ( $\Delta$ CDF)	-9.30E-08	-9.30E-08	-9.50E-08	-9.50E-08	-9.54E-08	-9.54E-08	-9.54E-08	-9.54E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-5.10E-08	-3.90E-08	-3.80E-08	-4.30E-08	-4.00E-08	-6.30E-08	-6.20E-08	-6.40E-08

Licensee Comments: none

# Mitigating Systems Performance Index, High Pressure Injection System



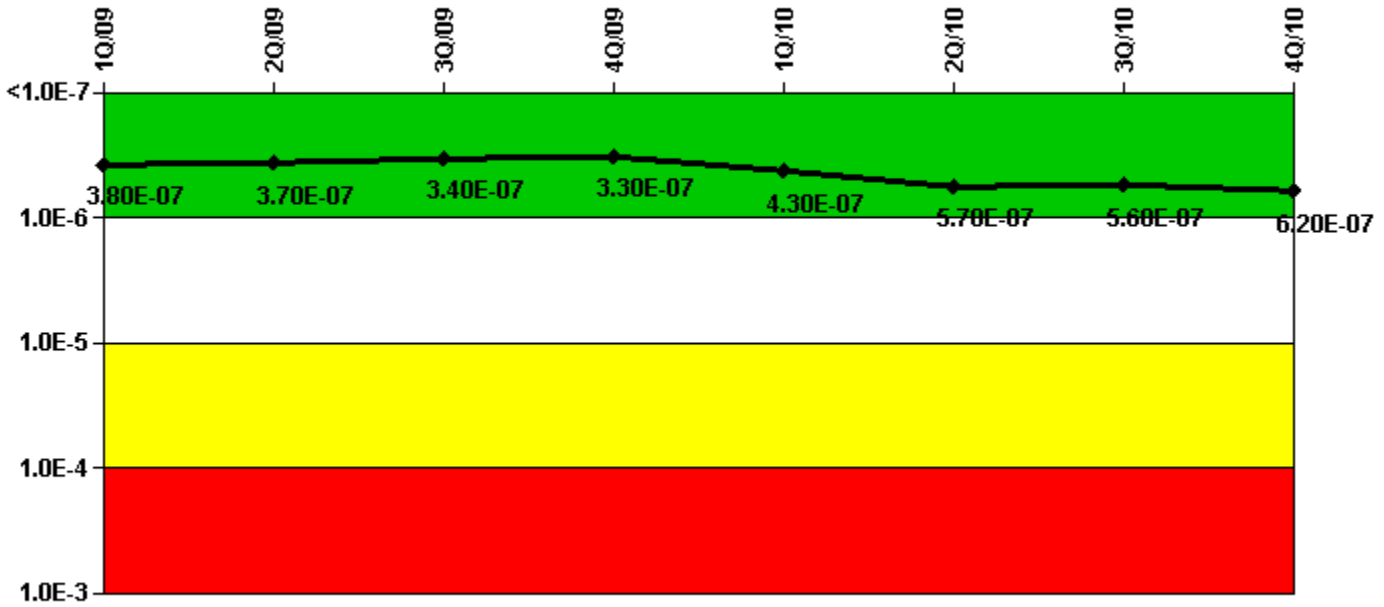
Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

## Notes

Mitigating Systems Performance Index, High Pressure Injection System	1Q/09	2Q/09	3Q/09	4Q/09	1Q/10	2Q/10	3Q/10	4Q/10
UAI ( $\Delta$ CDF)	7.00E-09	-6.00E-09	-7.30E-09	-5.50E-09	-1.10E-08	-1.41E-08	-1.52E-08	-1.54E-08
URI ( $\Delta$ CDF)	-1.50E-07	-1.50E-07	-1.50E-07	-1.50E-07	-1.48E-07	-1.89E-07	-1.89E-07	-1.89E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-1.43E-07	-1.56E-07	-1.57E-07	-1.56E-07	-1.60E-07	-2.00E-07	-2.00E-07	-2.00E-07

Licensee Comments: none

# Mitigating Systems Performance Index, Heat Removal System



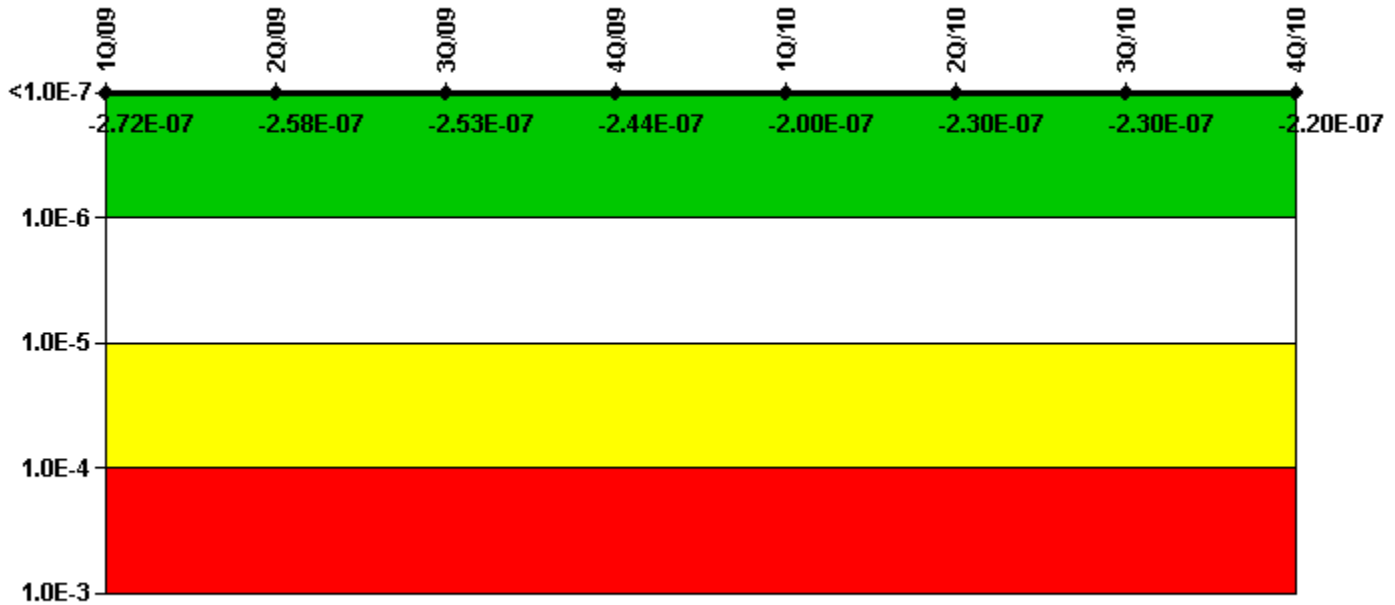
Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

## Notes

Mitigating Systems Performance Index, Heat Removal System	1Q/09	2Q/09	3Q/09	4Q/09	1Q/10	2Q/10	3Q/10	4Q/10
UAI ( $\Delta$ CDF)	2.04E-07	1.98E-07	1.61E-07	1.48E-07	2.55E-07	3.13E-07	3.14E-07	3.71E-07
URI ( $\Delta$ CDF)	1.72E-07	1.74E-07	1.78E-07	1.78E-07	1.78E-07	2.55E-07	2.49E-07	2.49E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	3.80E-07	3.70E-07	3.40E-07	3.30E-07	4.30E-07	5.70E-07	5.60E-07	6.20E-07

Licensee Comments: none

# Mitigating Systems Performance Index, Residual Heat Removal System



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

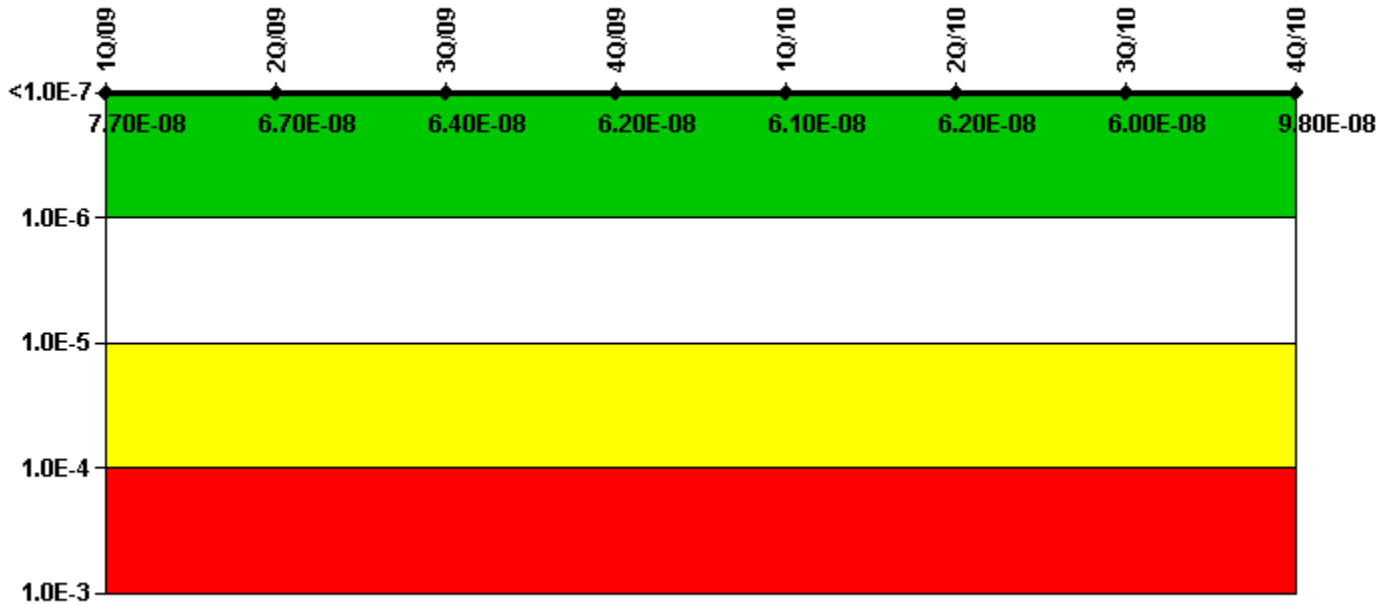
## Notes

Mitigating Systems Performance Index, Residual Heat Removal System	1Q/09	2Q/09	3Q/09	4Q/09	1Q/10	2Q/10	3Q/10	4Q/10
UAI ( $\Delta$ CDF)	-2.20E-08	-8.20E-09	-3.00E-09	5.60E-09	5.05E-08	1.95E-08	2.83E-08	3.71E-08
URI ( $\Delta$ CDF)	-2.50E-07	-2.50E-07	-2.50E-07	-2.50E-07	-2.54E-07	-2.54E-07	-2.54E-07	-2.54E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-2.72E-07	-2.58E-07	-2.53E-07	-2.44E-07	-2.00E-07	-2.30E-07	-2.30E-07	-2.20E-07

Licensee Comments: none



# Mitigating Systems Performance Index, Cooling Water Systems



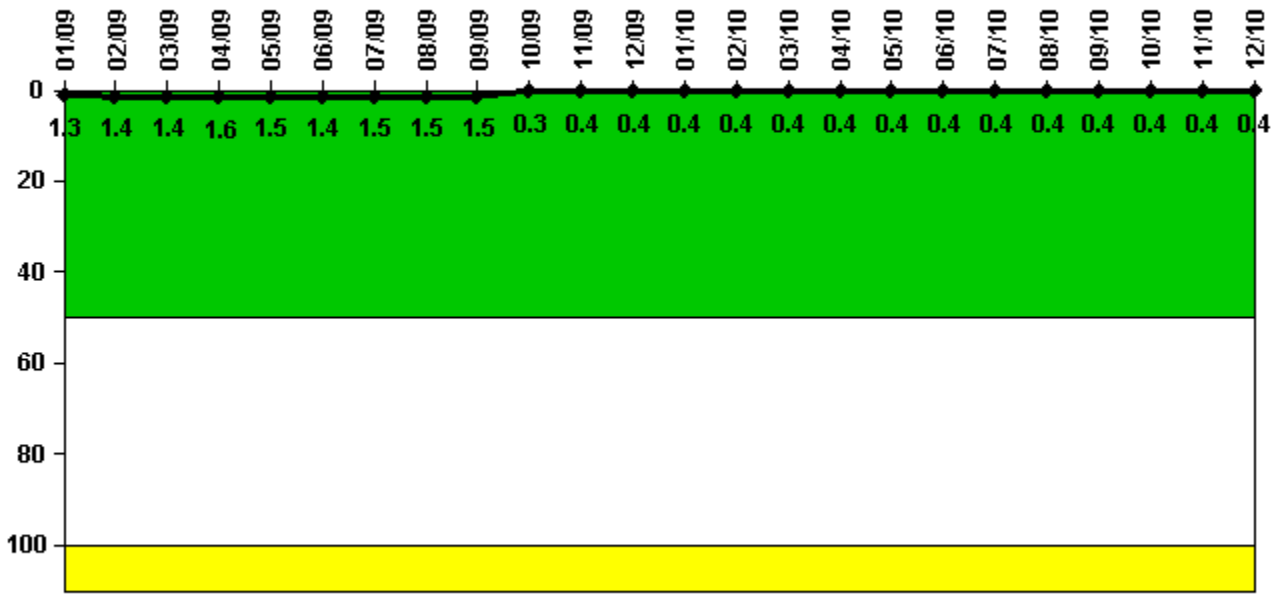
Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

## Notes

Mitigating Systems Performance Index, Cooling Water Systems	1Q/09	2Q/09	3Q/09	4Q/09	1Q/10	2Q/10	3Q/10	4Q/10
UAI ( $\Delta$ CDF)	6.50E-08	5.50E-08	5.20E-08	5.00E-08	4.83E-08	4.92E-08	4.80E-08	7.28E-08
URI ( $\Delta$ CDF)	1.20E-08	1.20E-08	1.20E-08	1.20E-08	1.23E-08	1.23E-08	1.23E-08	2.49E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	7.70E-08	6.70E-08	6.40E-08	6.20E-08	6.10E-08	6.20E-08	6.00E-08	9.80E-08

Licensee Comments: none

# Reactor Coolant System Activity



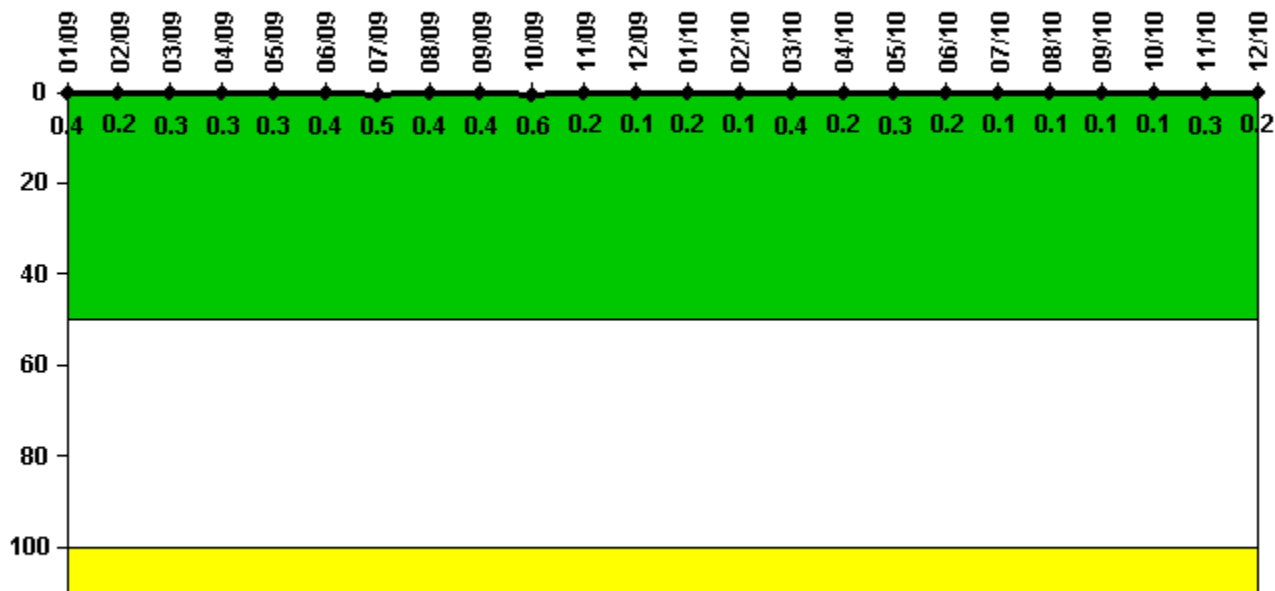
Thresholds: White > 50.0 Yellow > 100.0

## Notes

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	0.003481	0.003693	0.003662	0.004110	0.003844	0.003790	0.003882	0.004091	0.004052	0.000819	0.001042	0.000935
Technical specification limit	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Indicator value	1.3	1.4	1.4	1.6	1.5	1.4	1.5	1.5	1.5	0.3	0.4	0.4
Reactor Coolant System Activity	1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	10/10	11/10	12/10
Maximum activity	0.000936	0.000957	0.000947	0.001016	0.001053	0.001160	0.001062	0.001066	0.001108	0.001161	0.001191	0.001186
Technical specification limit	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Indicator value	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4

Licensee Comments: none

# Reactor Coolant System Leakage



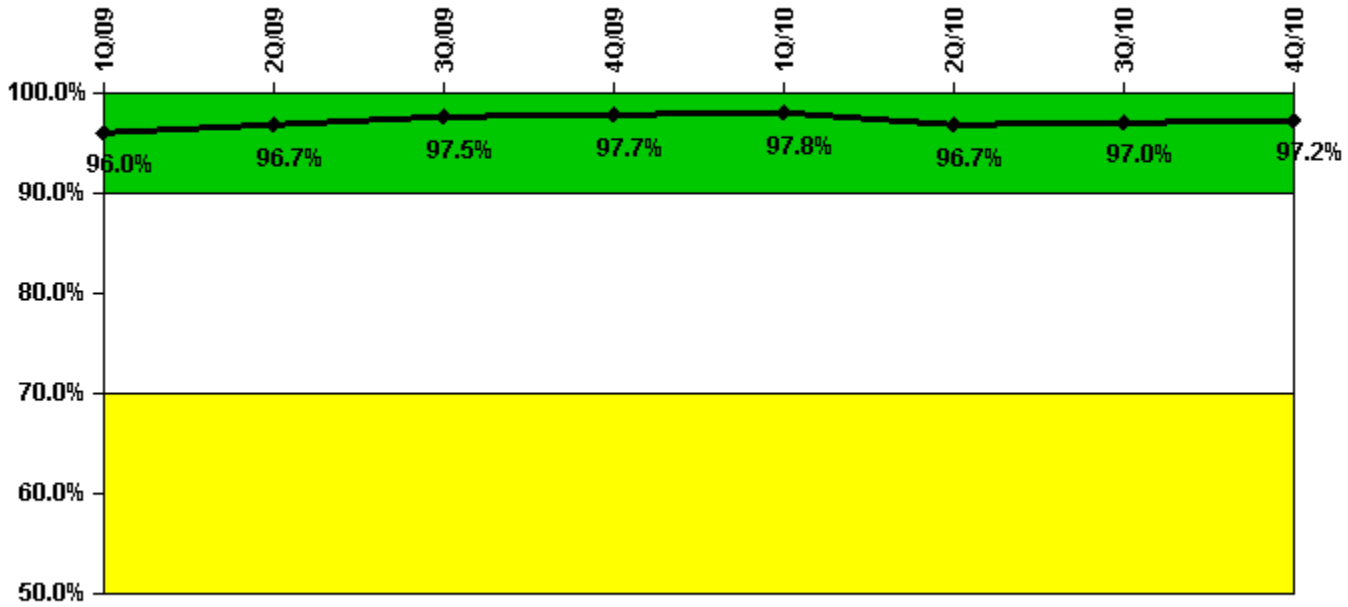
Thresholds: White > 50.0 Yellow > 100.0

## Notes

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	0.040	0.020	0.030	0.030	0.030	0.040	0.050	0.040	0.040	0.060	0.020	0.010
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	0.4	0.2	0.3	0.3	0.3	0.4	0.5	0.4	0.4	0.6	0.2	0.1
Reactor Coolant System Leakage	1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	10/10	11/10	12/10
Maximum leakage	0.020	0.010	0.040	0.020	0.030	0.020	0.010	0.010	0.010	0.010	0.030	0.020
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	0.2	0.1	0.4	0.2	0.3	0.2	0.1	0.1	0.1	0.1	0.3	0.2

Licensee Comments: none

## Drill/Exercise Performance



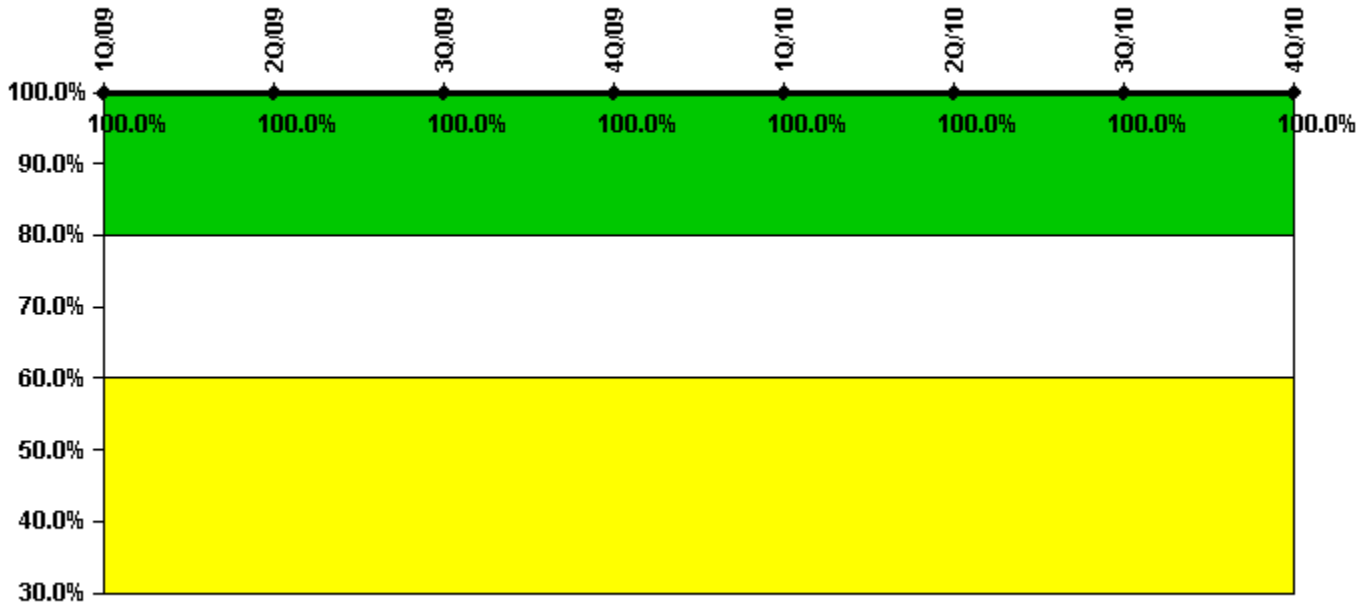
Thresholds: White < 90.0% Yellow < 70.0%

### Notes

Drill/Exercise Performance	1Q/09	2Q/09	3Q/09	4Q/09	1Q/10	2Q/10	3Q/10	4Q/10
Successful opportunities	54.0	108.0	46.0	18.0	65.0	29.0	62.0	64.0
Total opportunities	56.0	110.0	46.0	18.0	68.0	34.0	62.0	65.0
Indicator value	96.0%	96.7%	97.5%	97.7%	97.8%	96.7%	97.0%	97.2%

License Comments: none

# ERO Drill Participation



Thresholds: White < 80.0% Yellow < 60.0%

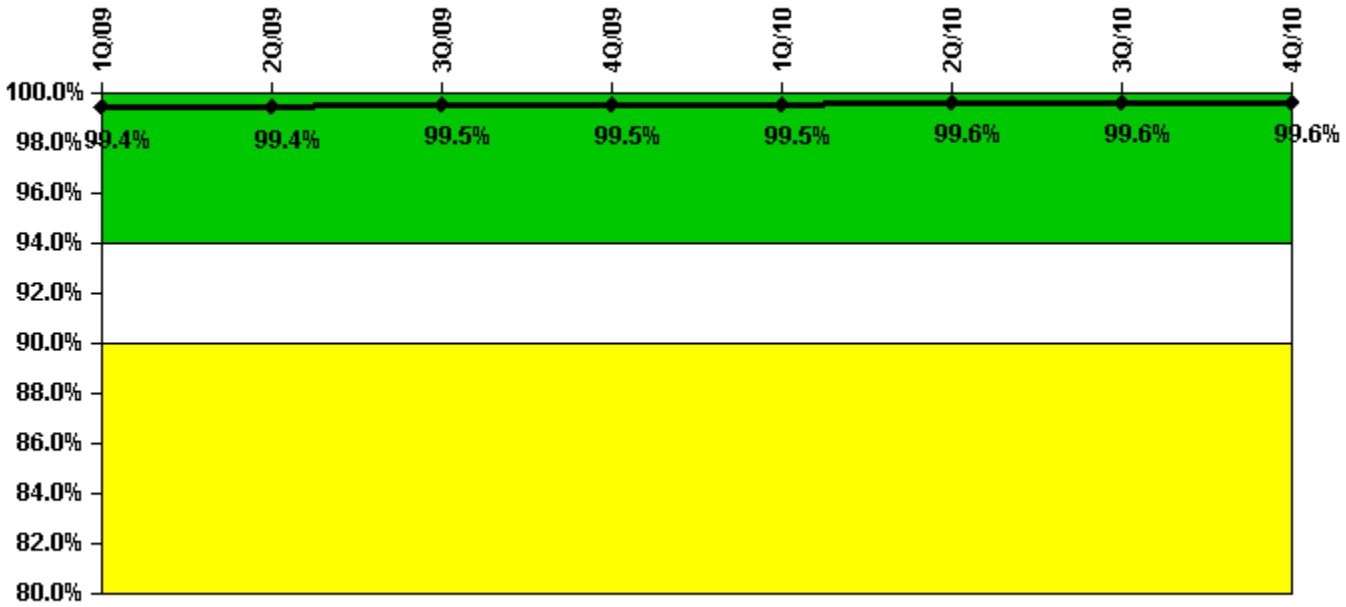
## Notes

ERO Drill Participation	1Q/09	2Q/09	3Q/09	4Q/09	1Q/10	2Q/10	3Q/10	4Q/10
Participating Key personnel	76.0	72.0	65.0	68.0	69.0	72.0	79.0	78.0
Total Key personnel	76.0	72.0	65.0	68.0	69.0	72.0	79.0	78.0
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/09	2Q/09	3Q/09	4Q/09	1Q/10	2Q/10	3Q/10	4Q/10
Successful siren-tests	591	887	788	886	691	888	690	887
Total sirens-tests	594	891	792	891	693	891	693	891
Indicator value	99.4%	99.4%	99.5%	99.5%	99.5%	99.6%	99.6%	99.6%

Licensee Comments: none

# Occupational Exposure Control Effectiveness



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

## Notes

Occupational Exposure Control Effectiveness	1Q/09	2Q/09	3Q/09	4Q/09	1Q/10	2Q/10	3Q/10	4Q/10
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>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</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/09	2Q/09	3Q/09	4Q/09	1Q/10	2Q/10	3Q/10	4Q/10
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.