

# Fort Calhoun

## 1Q/2011 Performance Indicators

Licensee's General Comments: none

### Unplanned Scrams per 7000 Critical Hrs



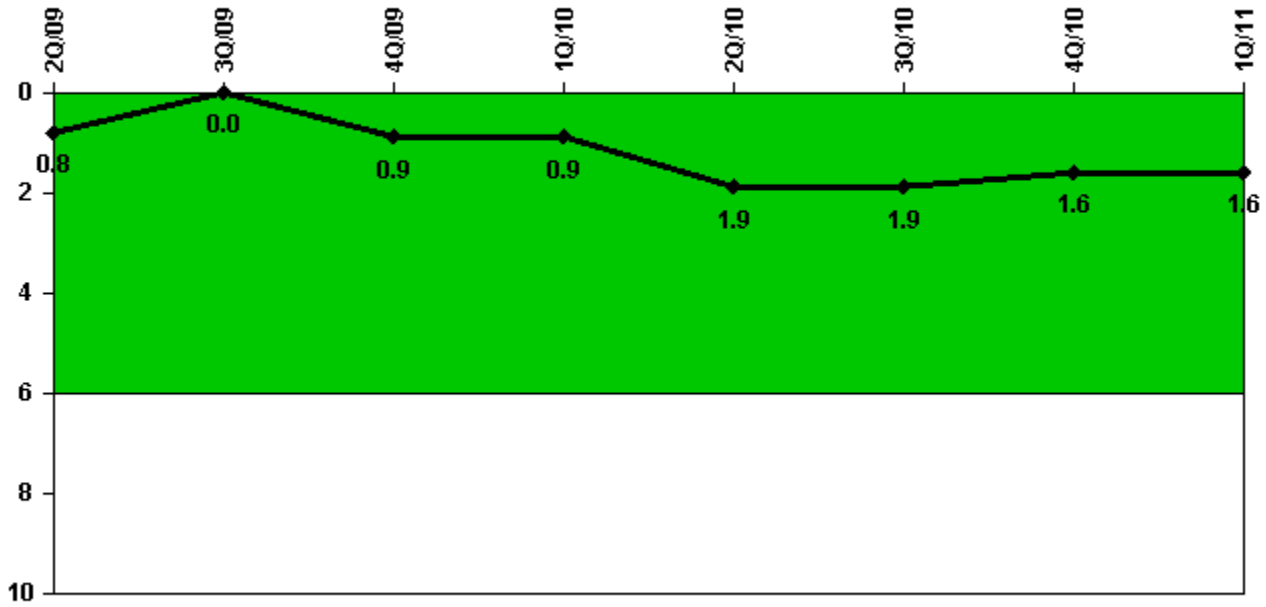
Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

### Notes

Unplanned Scrams per 7000 Critical Hrs	2Q/09	3Q/09	4Q/09	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11
Unplanned scrams	0	0	0	0	0	0	1.0	0
Critical hours	2184.0	2208.0	1071.8	2159.0	2105.6	2208.0	2160.0	2135.4
Indicator value	0	0	0	0	0	0	0.8	0.8

Licensee Comments: none

## Unplanned Power Changes per 7000 Critical Hrs



Thresholds: White > 6.0

### Notes

Unplanned Power Changes per 7000 Critical Hrs	2Q/09	3Q/09	4Q/09	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11
Unplanned power changes	0	0	1.0	0	1.0	0	1.0	0
Critical hours	2184.0	2208.0	1071.8	2159.0	2105.6	2208.0	2160.0	2135.4
Indicator value	0.8	0	0.9	0.9	1.9	1.9	1.6	1.6

Licensee Comments: none

## Unplanned Scrams with Complications



Thresholds: White > 1.0

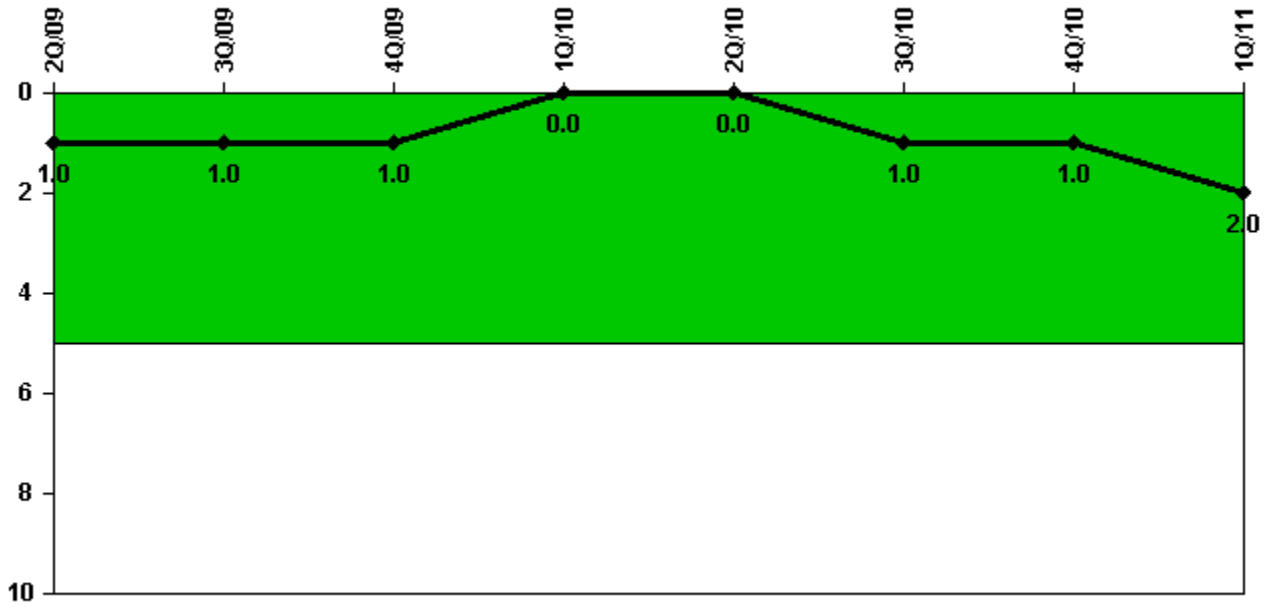
### Notes

Unplanned Scrams with Complications	2Q/09	3Q/09	4Q/09	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11
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

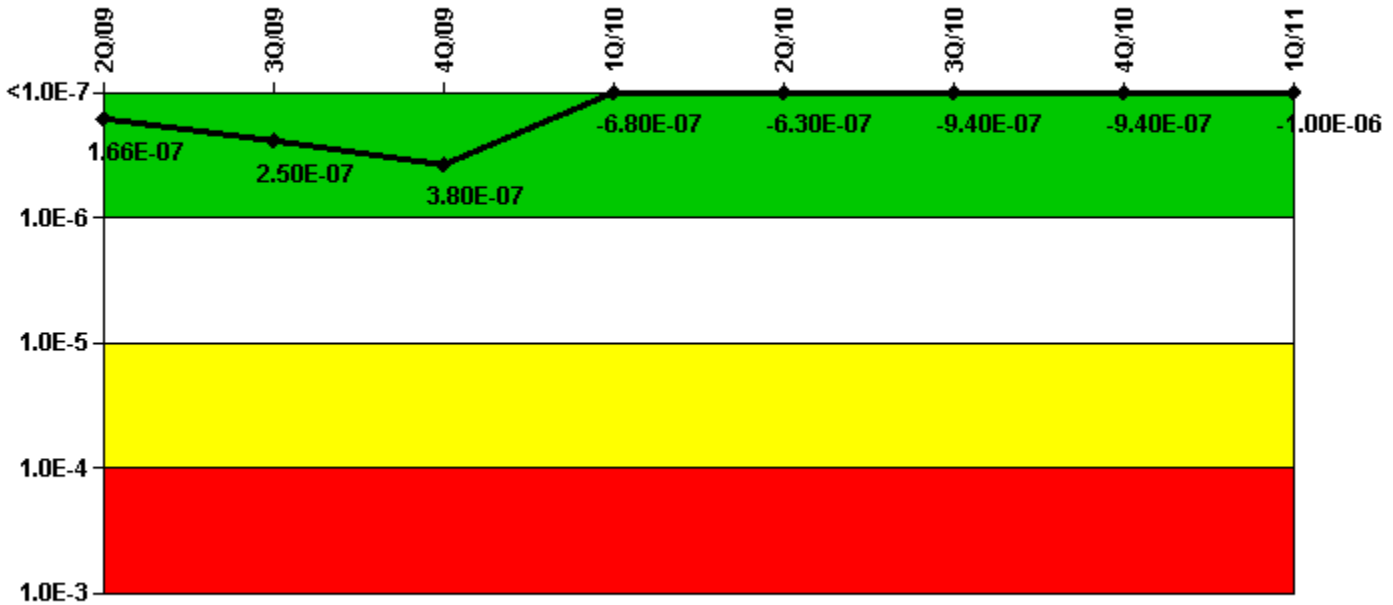
Safety System Functional Failures (PWR)	2Q/09	3Q/09	4Q/09	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11
Safety System Functional Failures	0	0	0	0	0	1	0	1
Indicator value	1	1	1	0	0	1	1	2

Licensee Comments:

1Q/11: LER 2011-001 "Inadequate Flooding Protection Due To Ineffective Oversight"

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# Mitigating Systems Performance Index, Emergency AC Power System



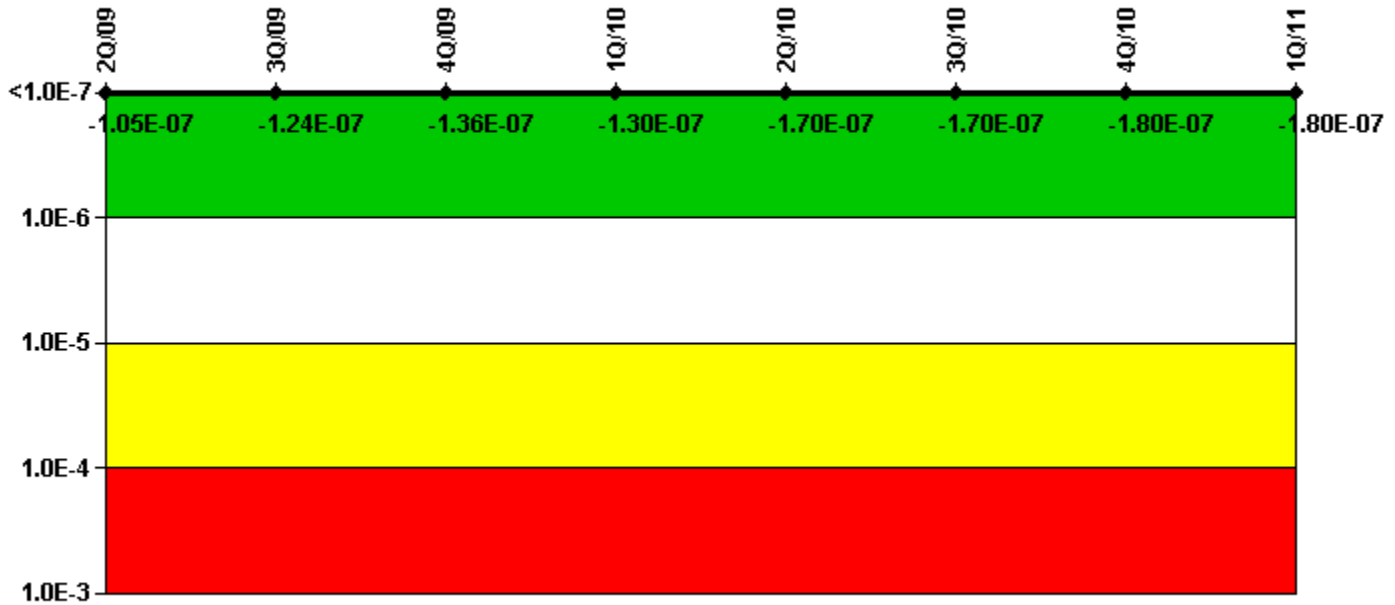
Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

## Notes

Mitigating Systems Performance Index, Emergency AC Power System	2Q/09	3Q/09	4Q/09	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11
UAI ( $\Delta$ CDF)	2.30E-07	3.50E-07	4.90E-07	3.69E-07	5.46E-07	1.93E-07	1.76E-07	1.89E-08
URI ( $\Delta$ CDF)	-6.40E-08	-1.00E-07	-1.10E-07	-1.05E-06	-1.18E-06	-1.13E-06	-1.11E-06	-1.01E-06
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	1.66E-07	2.50E-07	3.80E-07	-6.80E-07	-6.30E-07	-9.40E-07	-9.40E-07	-1.00E-06

Licensee Comments: none

# Mitigating Systems Performance Index, High Pressure Injection System



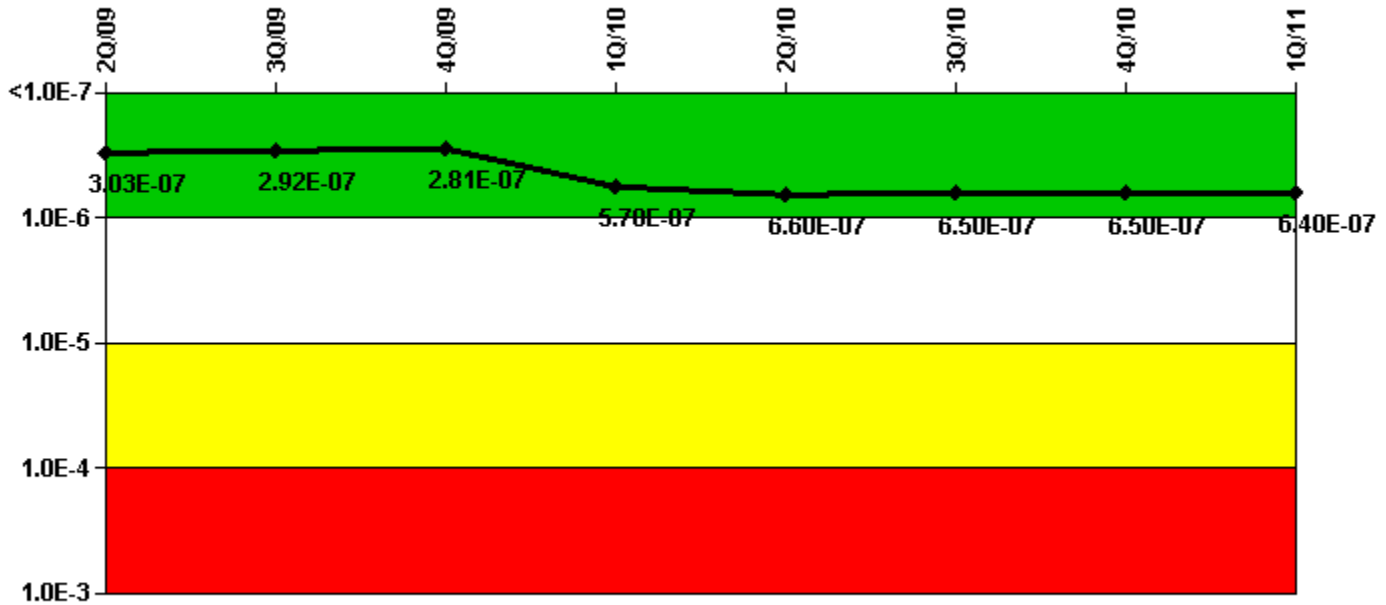
Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

## Notes

Mitigating Systems Performance Index, High Pressure Injection System	2Q/09	3Q/09	4Q/09	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11
UAI ( $\Delta$ CDF)	-5.20E-08	-7.10E-08	-6.50E-08	-6.19E-08	-8.98E-08	-8.92E-08	-8.90E-08	-8.65E-08
URI ( $\Delta$ CDF)	-5.30E-08	-5.30E-08	-7.10E-08	-7.23E-08	-8.21E-08	-8.46E-08	-9.21E-08	-9.22E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-1.05E-07	-1.24E-07	-1.36E-07	-1.30E-07	-1.70E-07	-1.70E-07	-1.80E-07	-1.80E-07

Licensee Comments: none

# Mitigating Systems Performance Index, Heat Removal System



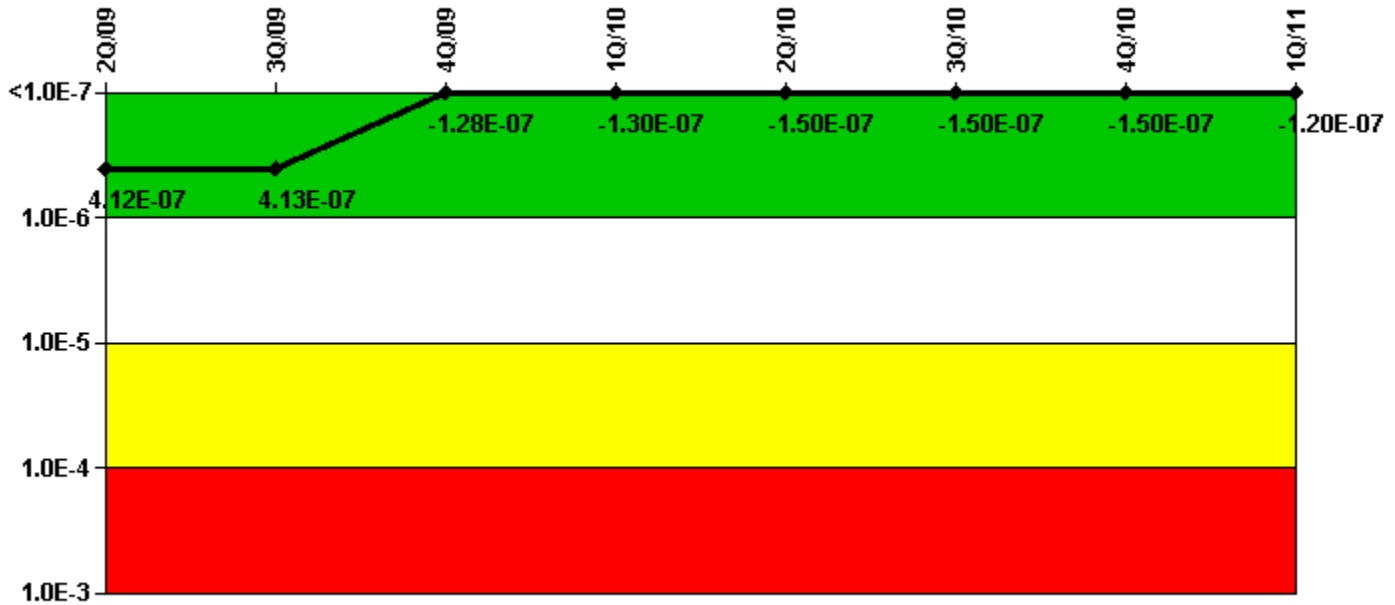
Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

## Notes

Mitigating Systems Performance Index, Heat Removal System	2Q/09	3Q/09	4Q/09	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11
UAI ( $\Delta$ CDF)	3.30E-09	-8.40E-09	-1.90E-08	1.04E-08	4.54E-09	-1.38E-09	-6.39E-09	-3.49E-08
URI ( $\Delta$ CDF)	3.00E-07	3.00E-07	3.00E-07	5.62E-07	6.54E-07	6.47E-07	6.57E-07	6.77E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	3.03E-07	2.92E-07	2.81E-07	5.70E-07	6.60E-07	6.50E-07	6.50E-07	6.40E-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

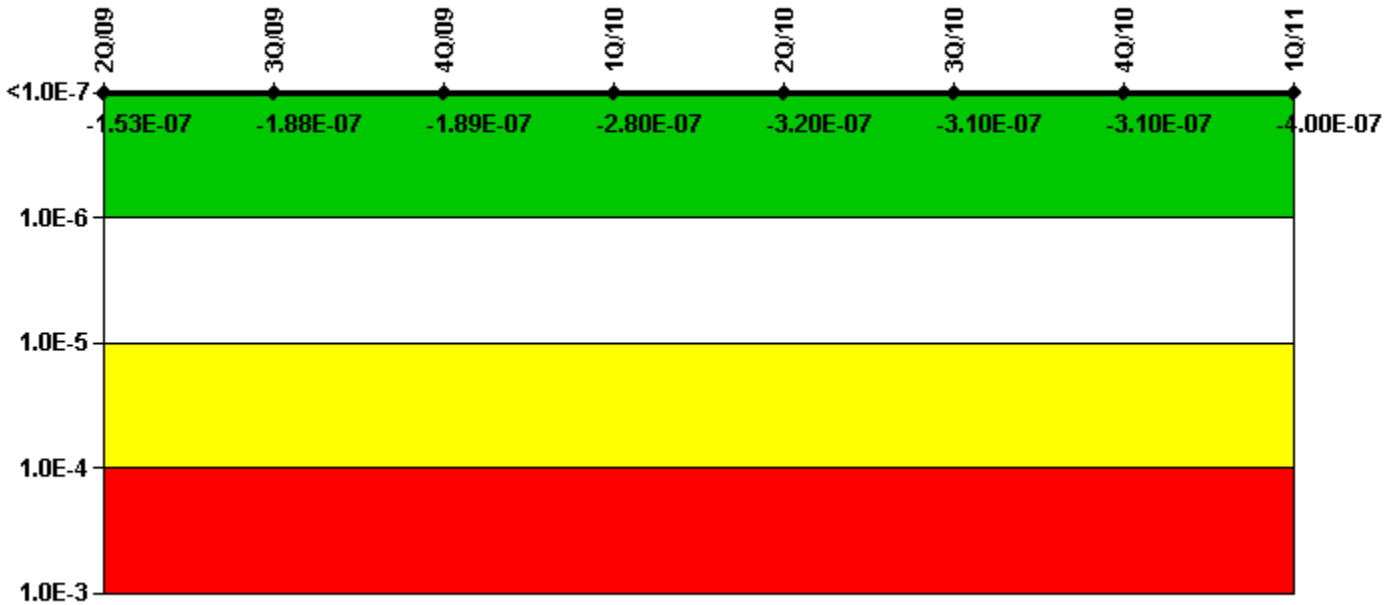
## Notes

Mitigating Systems Performance Index, Residual Heat Removal System	2Q/09	3Q/09	4Q/09	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11
UAI ( $\Delta$ CDF)	-6.80E-08	-7.70E-08	-7.80E-08	-7.77E-08	-8.67E-08	-8.67E-08	-8.65E-08	-5.36E-08
URI ( $\Delta$ CDF)	4.80E-07	4.90E-07	-5.00E-08	-5.08E-08	-6.53E-08	-6.45E-08	-6.48E-08	-6.51E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	4.12E-07	4.13E-07	-1.28E-07	-1.30E-07	-1.50E-07	-1.50E-07	-1.50E-07	-1.20E-07

Licensee Comments: none



# Mitigating Systems Performance Index, Cooling Water Systems



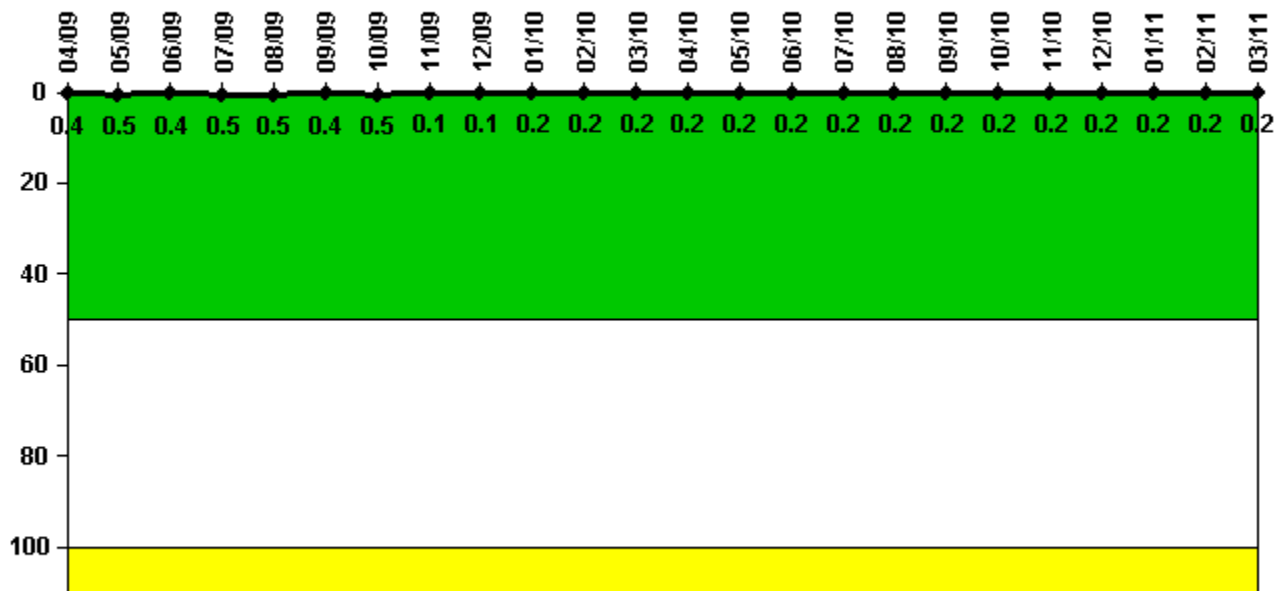
Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

## Notes

Mitigating Systems Performance Index, Cooling Water Systems	2Q/09	3Q/09	4Q/09	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11
UAI ( $\Delta$ CDF)	-2.40E-07	-2.60E-07	-2.40E-07	-2.84E-07	-3.22E-07	-3.14E-07	-2.95E-07	-3.52E-07
URI ( $\Delta$ CDF)	8.70E-08	7.20E-08	5.10E-08	4.07E-09	4.58E-09	4.96E-09	-1.98E-08	-4.71E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-1.53E-07	-1.88E-07	-1.89E-07	-2.80E-07	-3.20E-07	-3.10E-07	-3.10E-07	-4.00E-07

Licensee Comments: none

## Reactor Coolant System Activity



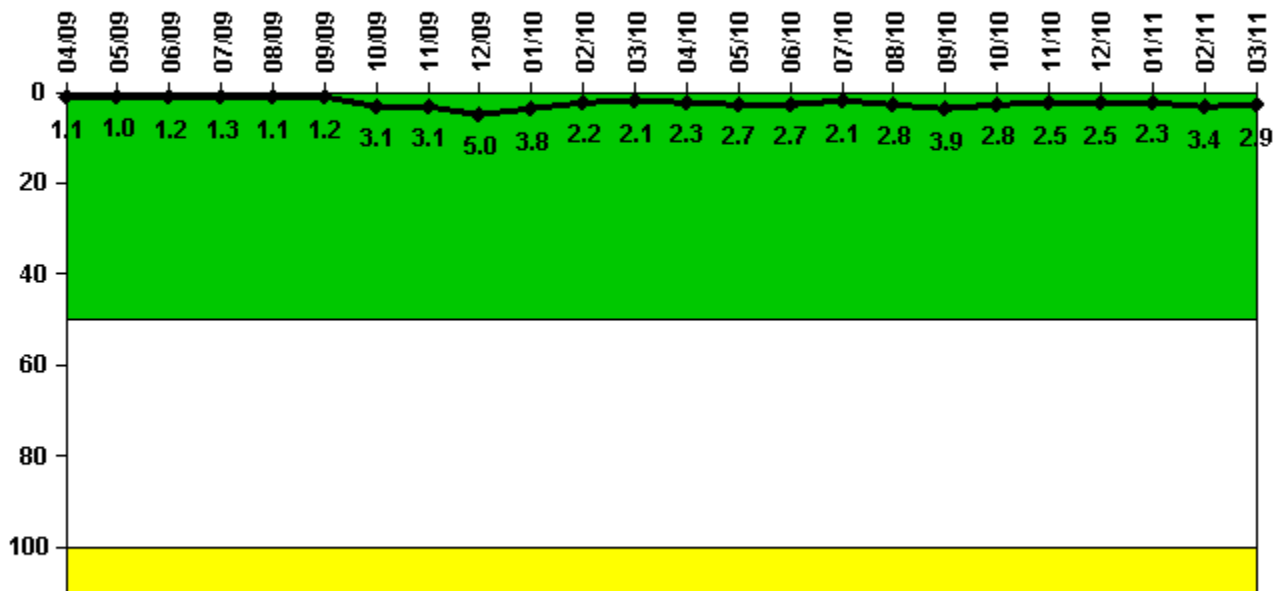
Thresholds: White > 50.0 Yellow > 100.0

### Notes

Reactor Coolant System Activity	4/09	5/09	6/09	7/09	8/09	9/09	10/09	11/09	12/09	1/10	2/10	3/10
Maximum activity	0.004320	0.004500	0.004350	0.004590	0.004620	0.004470	0.004690	0.000973	0.001130	0.001530	0.001590	0.001640
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	0.4	0.5	0.4	0.5	0.5	0.4	0.5	0.1	0.1	0.2	0.2	0.2
Reactor Coolant System Activity	4/10	5/10	6/10	7/10	8/10	9/10	10/10	11/10	12/10	1/11	2/11	3/11
Maximum activity	0.001710	0.001760	0.002170	0.001780	0.001950	0.001990	0.001960	0.002010	0.002140	0.002140	0.002110	0.002290
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

Licensee Comments: none

## Reactor Coolant System Leakage



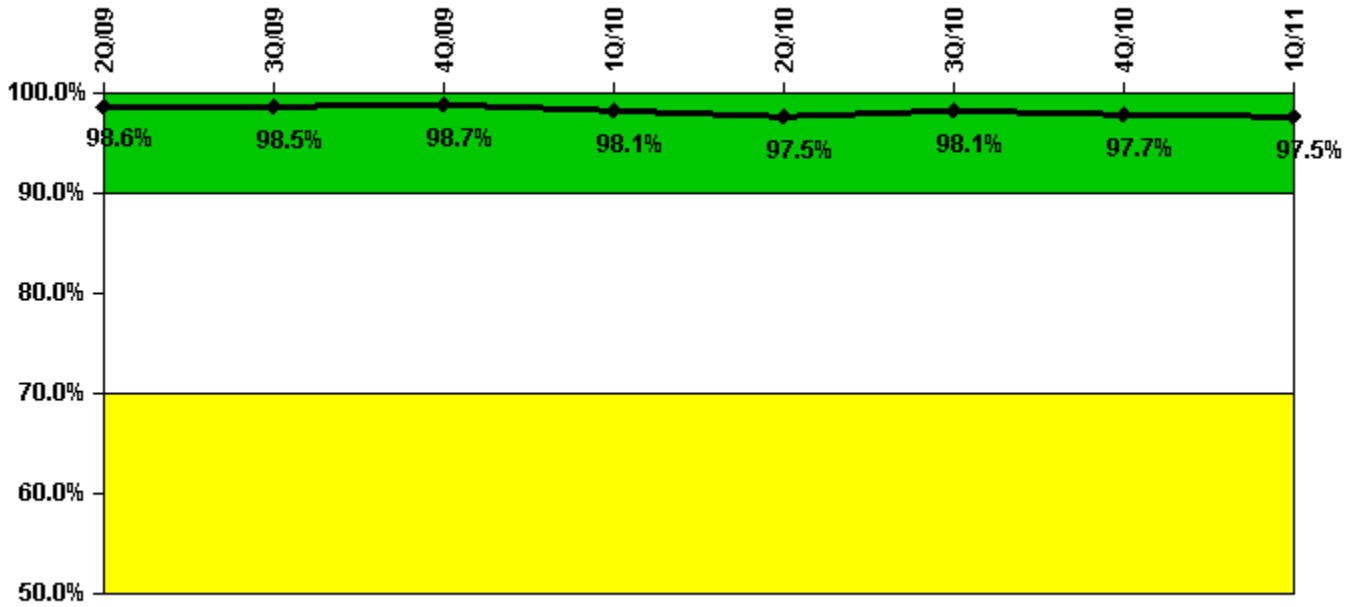
Thresholds: White > 50.0 Yellow > 100.0

### Notes

Reactor Coolant System Leakage	4/09	5/09	6/09	7/09	8/09	9/09	10/09	11/09	12/09	1/10	2/10	3/10
Maximum leakage	0.105	0.100	0.119	0.126	0.112	0.123	0.307	0.307	0.496	0.380	0.224	0.207
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	1.1	1.0	1.2	1.3	1.1	1.2	3.1	3.1	5.0	3.8	2.2	2.1
Reactor Coolant System Leakage	4/10	5/10	6/10	7/10	8/10	9/10	10/10	11/10	12/10	1/11	2/11	3/11
Maximum leakage	0.231	0.269	0.273	0.213	0.277	0.386	0.284	0.248	0.245	0.231	0.336	0.286
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	2.3	2.7	2.7	2.1	2.8	3.9	2.8	2.5	2.5	2.3	3.4	2.9

Licensee Comments: none

## Drill/Exercise Performance



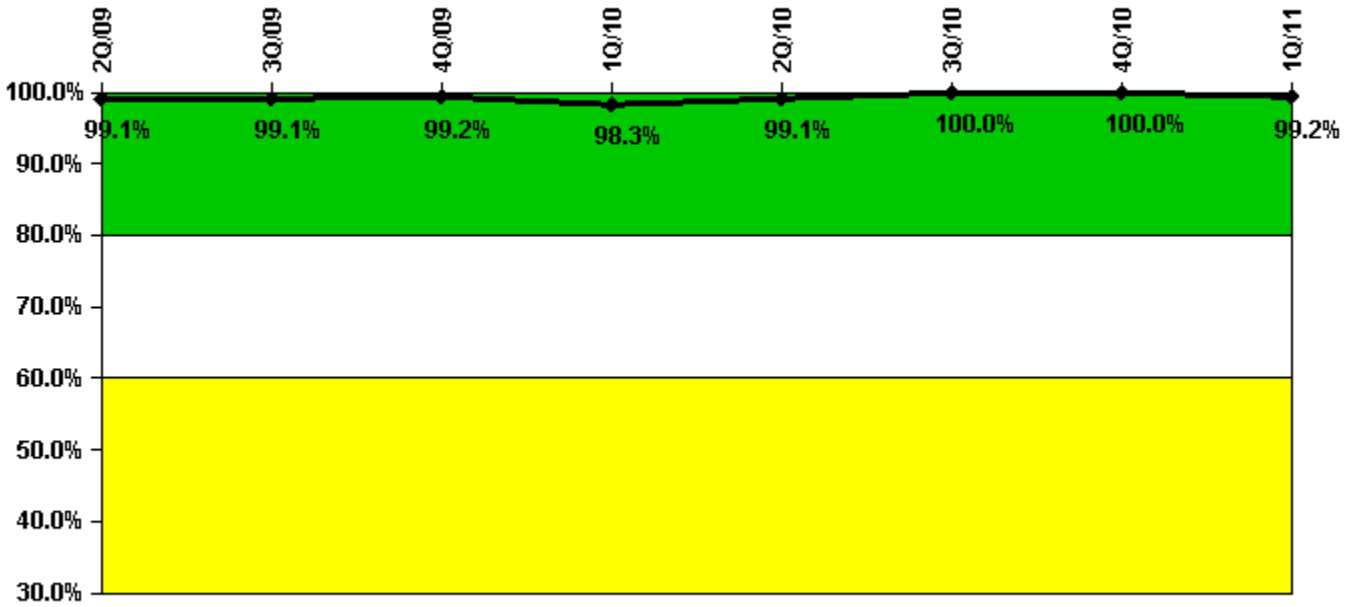
Thresholds: White < 90.0% Yellow < 70.0%

### Notes

Drill/Exercise Performance	2Q/09	3Q/09	4Q/09	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11
Successful opportunities	42.0	39.0	4.0	23.0	57.0	73.0	49.0	61.0
Total opportunities	42.0	41.0	4.0	25.0	60.0	73.0	50.0	62.0
Indicator value	98.6%	98.5%	98.7%	98.1%	97.5%	98.1%	97.7%	97.5%

Licensee Comments: none

## ERO Drill Participation



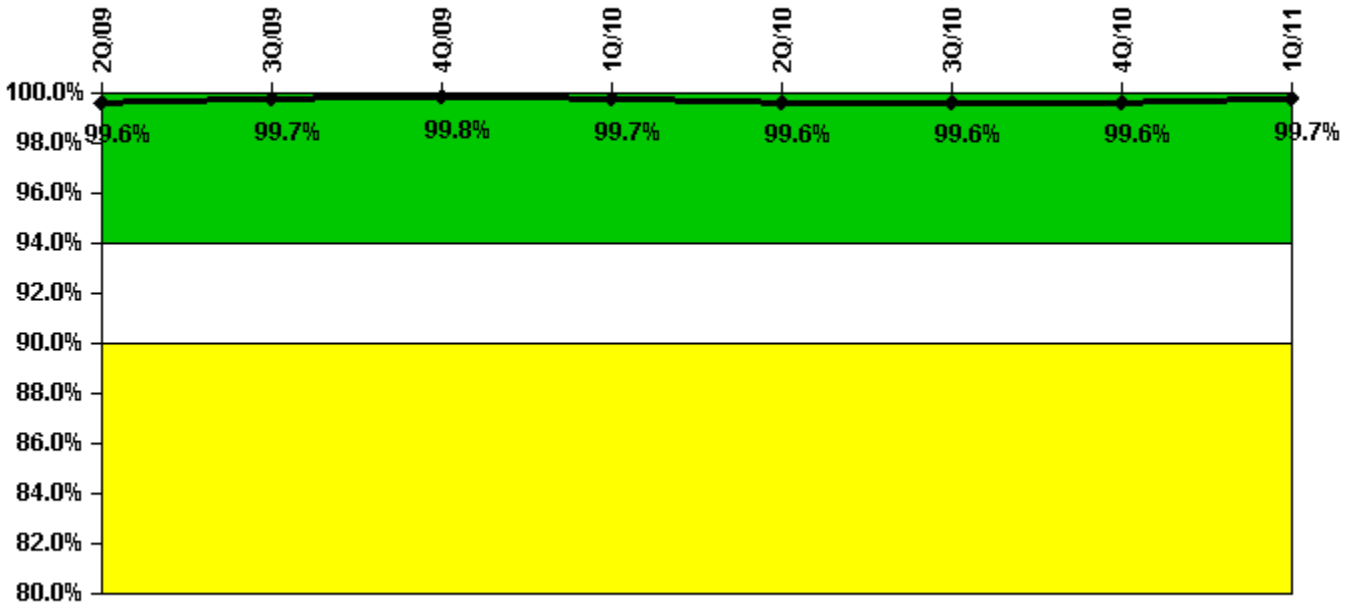
Thresholds: White < 80.0% Yellow < 60.0%

### Notes

ERO Drill Participation	2Q/09	3Q/09	4Q/09	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11
Participating Key personnel	110.0	116.0	117.0	116.0	116.0	122.0	118.0	123.0
Total Key personnel	111.0	117.0	118.0	118.0	117.0	122.0	118.0	124.0
Indicator value	99.1%	99.1%	99.2%	98.3%	99.1%	100.0%	100.0%	99.2%

Licensee Comments: none

# Alert & Notification System



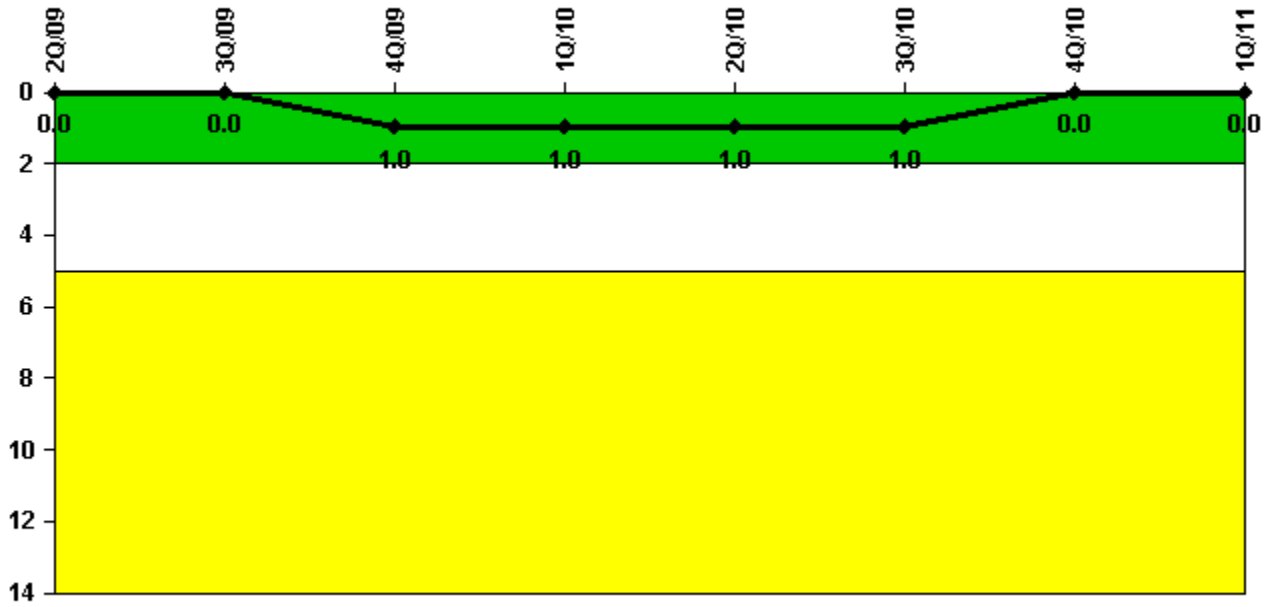
Thresholds: White < 94.0% Yellow < 90.0%

## Notes

Alert & Notification System	2Q/09	3Q/09	4Q/09	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11
Successful siren-tests	807	805	808	703	803	804	808	707
Total sirens-tests	808	808	808	707	808	808	808	707
Indicator value	99.6%	99.7%	99.8%	99.7%	99.6%	99.6%	99.6%	99.7%

Licensee Comments: none

## Occupational Exposure Control Effectiveness



Thresholds: White > 2.0 Yellow > 5.0

### Notes

Occupational Exposure Control Effectiveness	2Q/09	3Q/09	4Q/09	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11
High radiation area occurrences	0	0	1	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>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>0</b>

Licensee Comments: none

# RETS/ODCM Radiological Effluent



Thresholds: White > 1.0 Yellow > 3.0

## Notes

RETS/ODCM Radiological Effluent	2Q/09	3Q/09	4Q/09	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11
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.