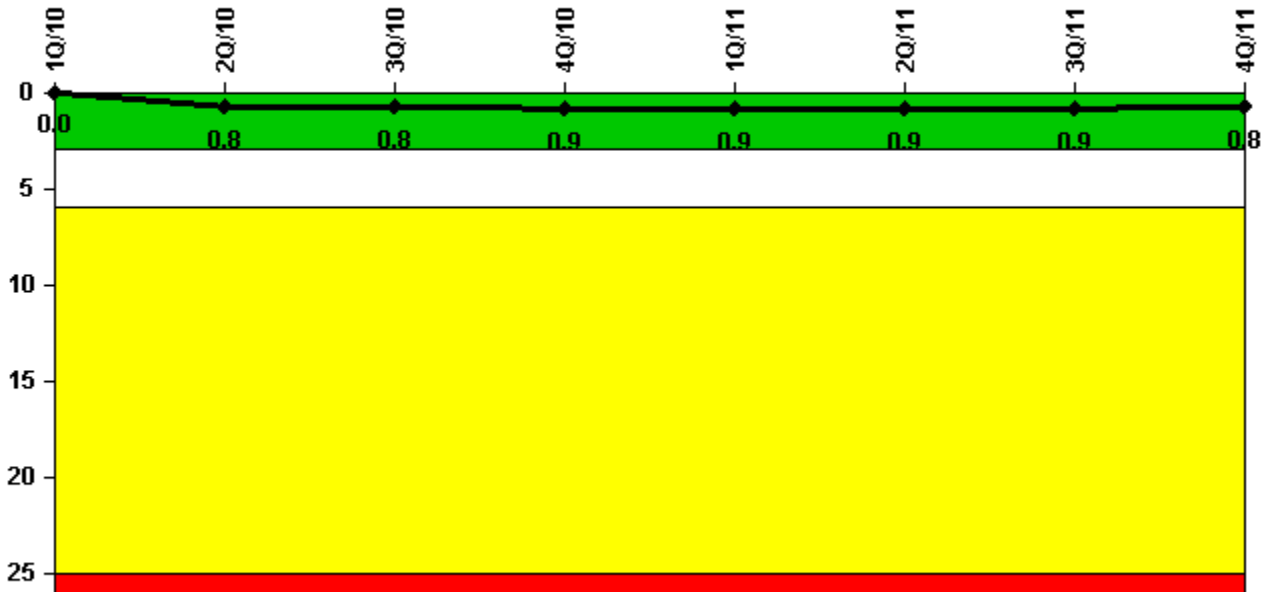


# Surry 1

## 4Q/2011 Performance Indicators

Licensee's General Comments: none

### Unplanned Scrams per 7000 Critical Hrs



Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

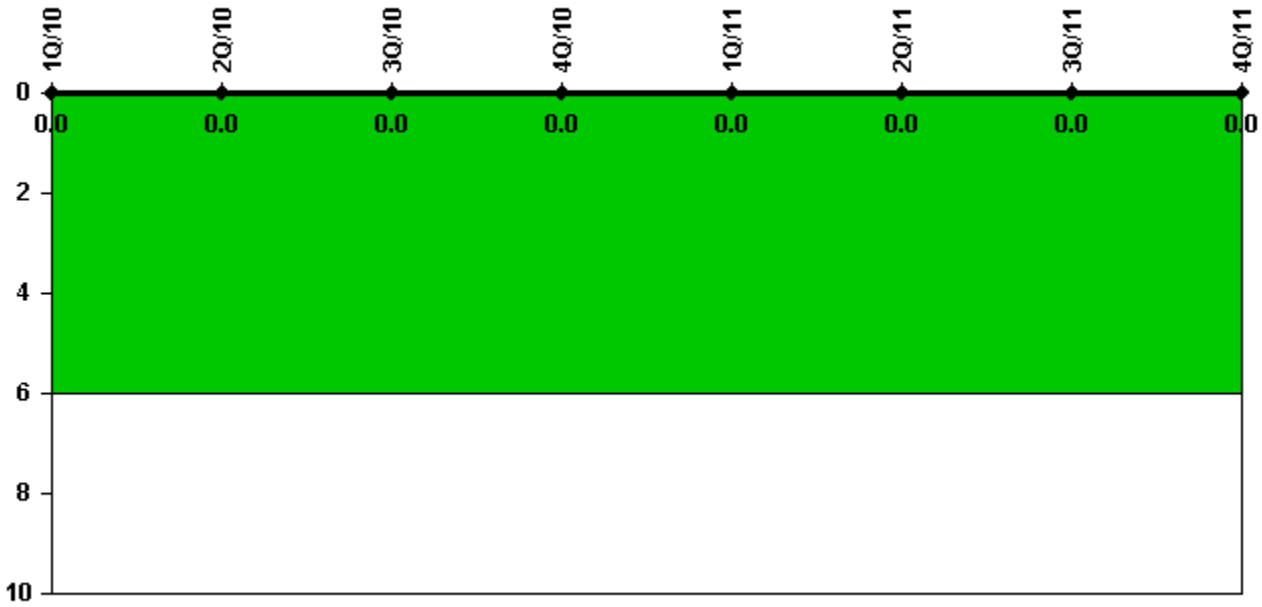
### Notes

Unplanned Scrams per 7000 Critical Hrs	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11
Unplanned scrams	0	1.0	0	0	0	1.0	0	0
Critical hours	2159.0	2107.0	2208.0	1290.0	2159.0	2027.6	2208.0	2209.0
Indicator value	0	0.8	0.8	0.9	0.9	0.9	0.9	0.8

Licensee Comments: none

---

## Unplanned Power Changes per 7000 Critical Hrs



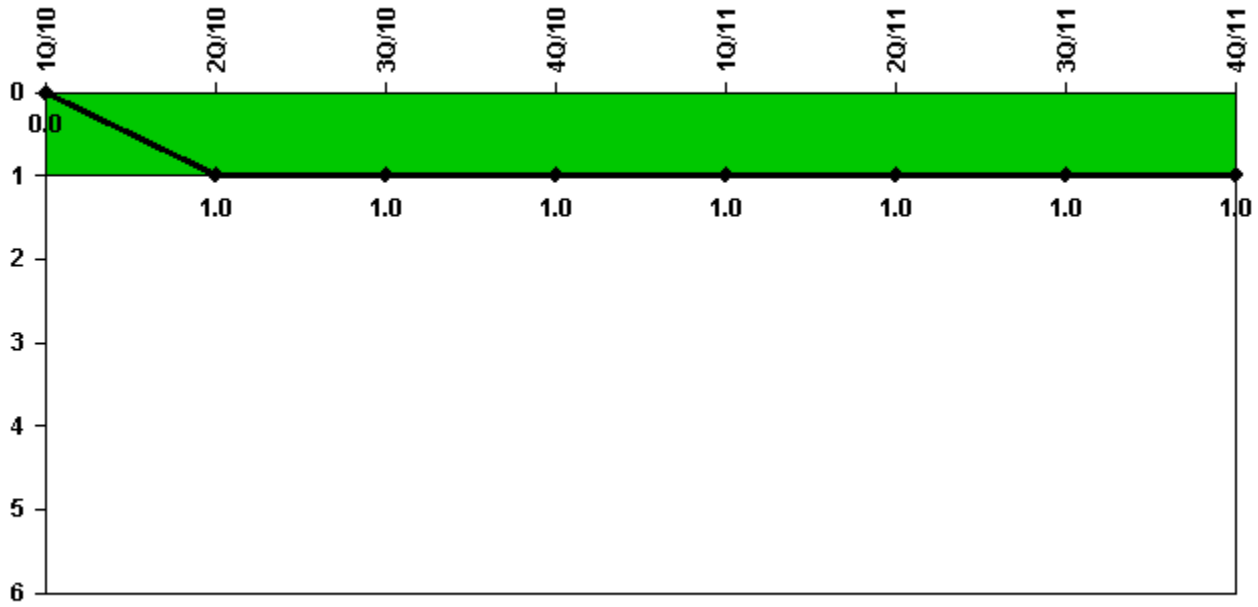
Thresholds: White > 6.0

### Notes

Unplanned Power Changes per 7000 Critical Hrs	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11
Unplanned power changes	0	0	0	0	0	0	0	0
Critical hours	2159.0	2107.0	2208.0	1290.0	2159.0	2027.6	2208.0	2209.0
Indicator value	0	0	0	0	0	0	0	0

Licensee Comments: none

## Unplanned Scrams with Complications



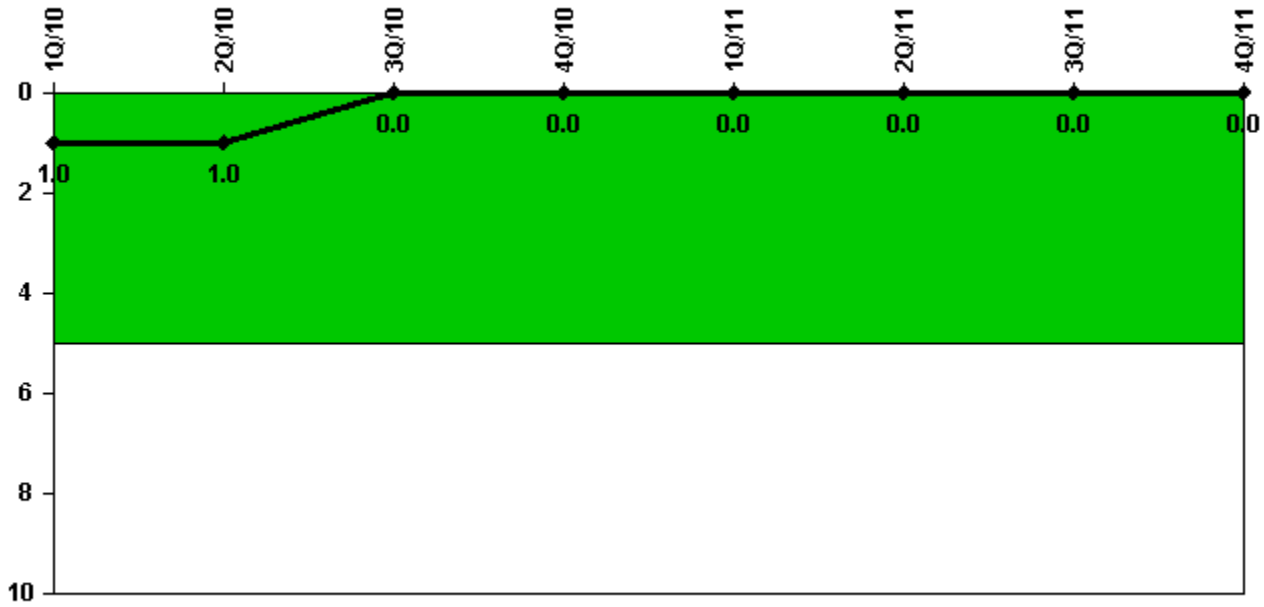
Thresholds: White > 1.0

### Notes

Unplanned Scrams with Complications	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11
Scrams with complications	0	1.0	0	0	0	1.0	0	0
Indicator value	0.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0

Licensee Comments: none

## Safety System Functional Failures (PWR)



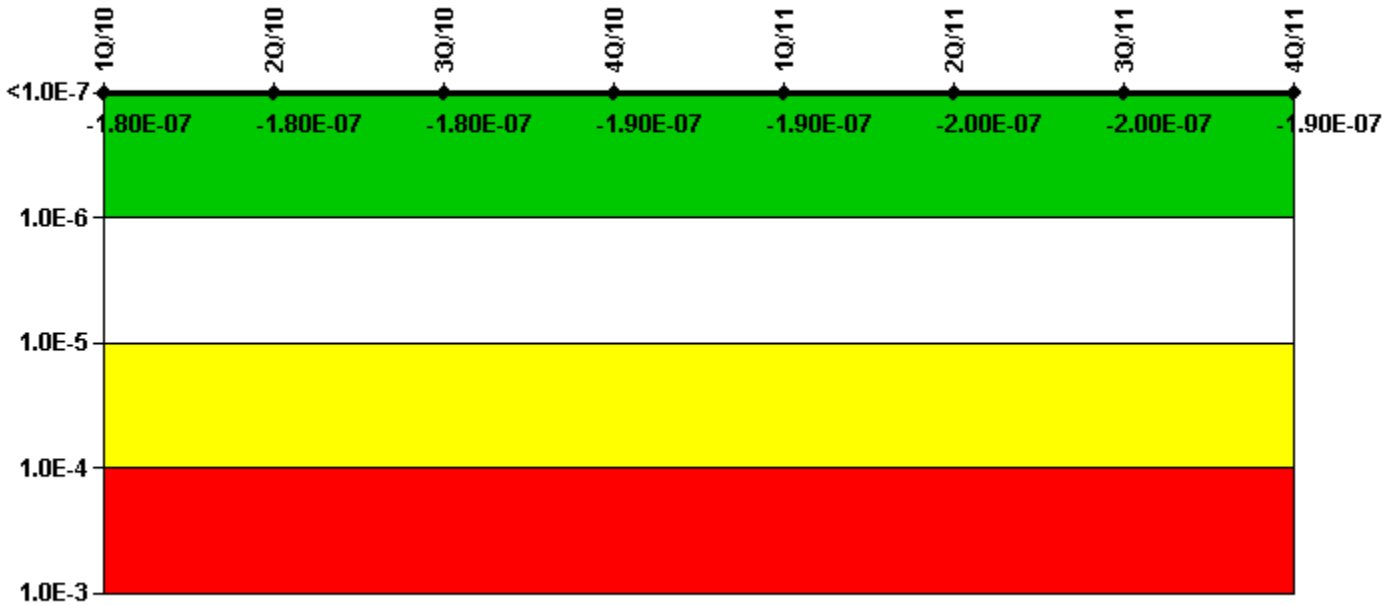
Thresholds: White > 5.0

### Notes

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

Licensee Comments: none

# Mitigating Systems Performance Index, Emergency AC Power System



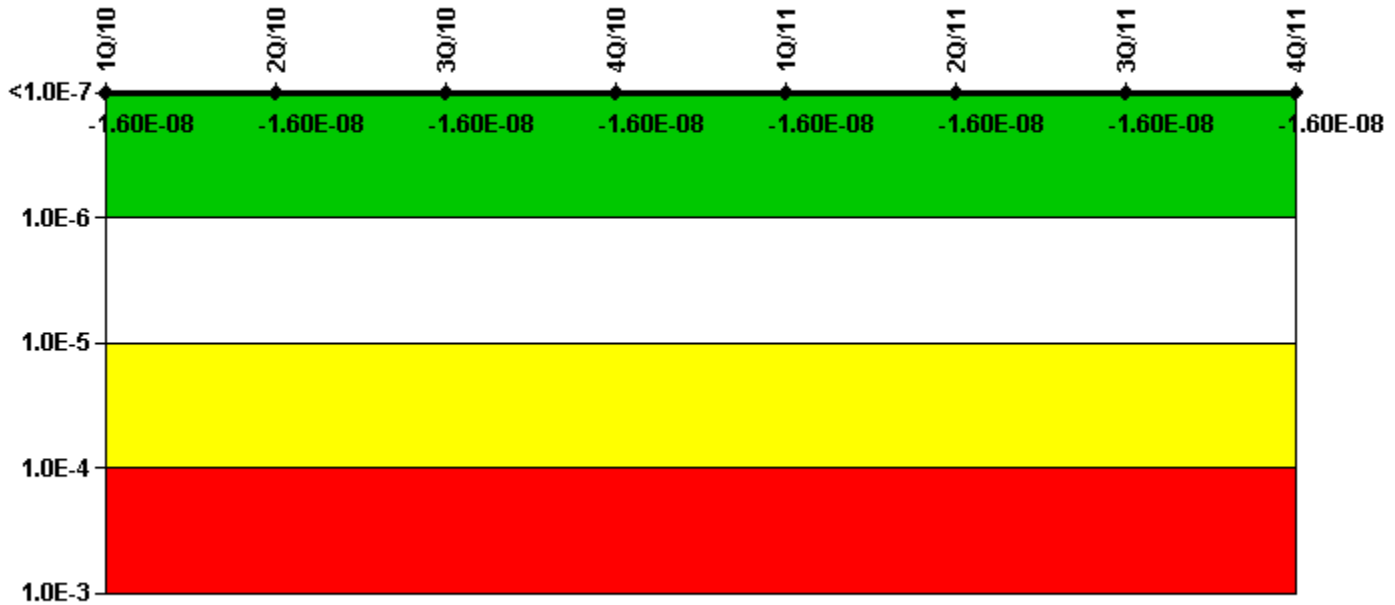
Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

## Notes

Mitigating Systems Performance Index, Emergency AC Power System	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11
UAI ( $\Delta$ CDF)	-1.35E-08	-9.41E-09	-1.65E-08	-1.66E-08	-1.66E-08	-1.66E-08	-1.66E-08	-1.66E-08
URI ( $\Delta$ CDF)	-1.67E-07	-1.71E-07	-1.67E-07	-1.69E-07	-1.70E-07	-1.80E-07	-1.80E-07	-1.77E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-1.80E-07	-1.80E-07	-1.80E-07	-1.90E-07	-1.90E-07	-2.00E-07	-2.00E-07	-1.90E-07

Licensee Comments: none

# Mitigating Systems Performance Index, High Pressure Injection System



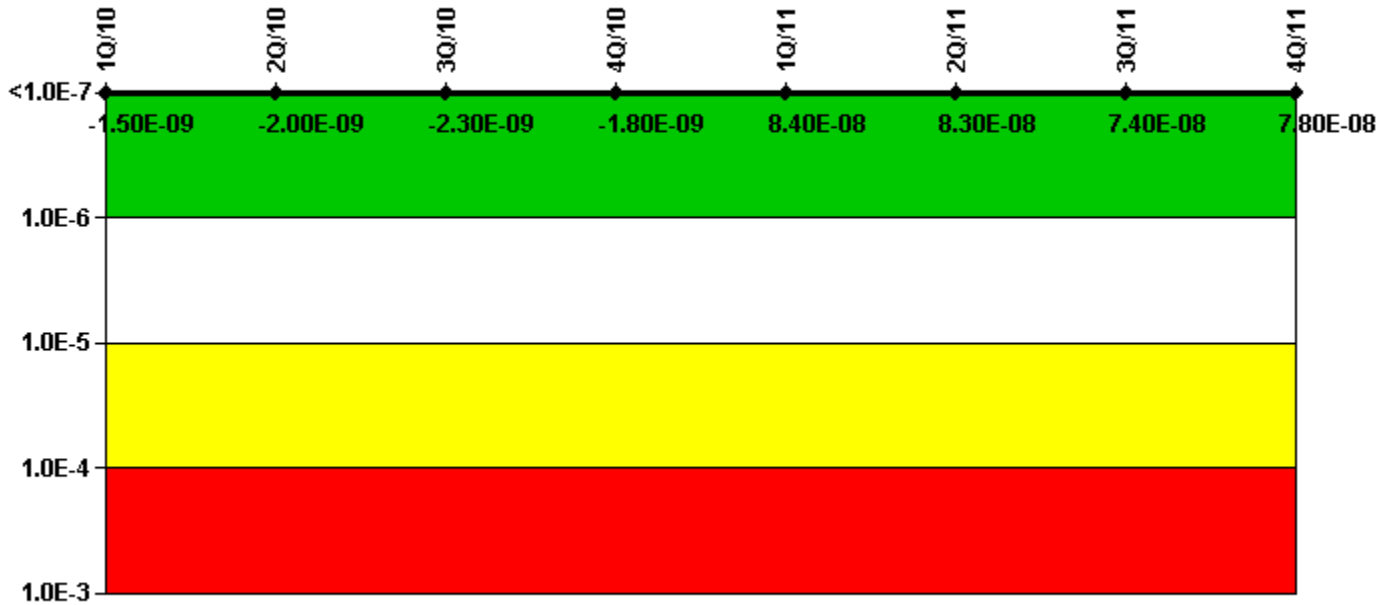
Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

## Notes

Mitigating Systems Performance Index, High Pressure Injection System	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11
UAI ( $\Delta$ CDF)	-8.32E-10	-8.32E-10	-8.32E-10	-8.32E-10	-8.32E-10	-8.38E-10	-8.38E-10	-9.26E-10
URI ( $\Delta$ CDF)	-1.48E-08	-1.50E-08	-1.52E-08	-1.50E-08	-1.50E-08	-1.52E-08	-1.52E-08	-1.52E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-1.60E-08	-1.60E-08	-1.60E-08	-1.60E-08	-1.60E-08	-1.60E-08	-1.60E-08	-1.60E-08

Licensee Comments: none

# Mitigating Systems Performance Index, Heat Removal System



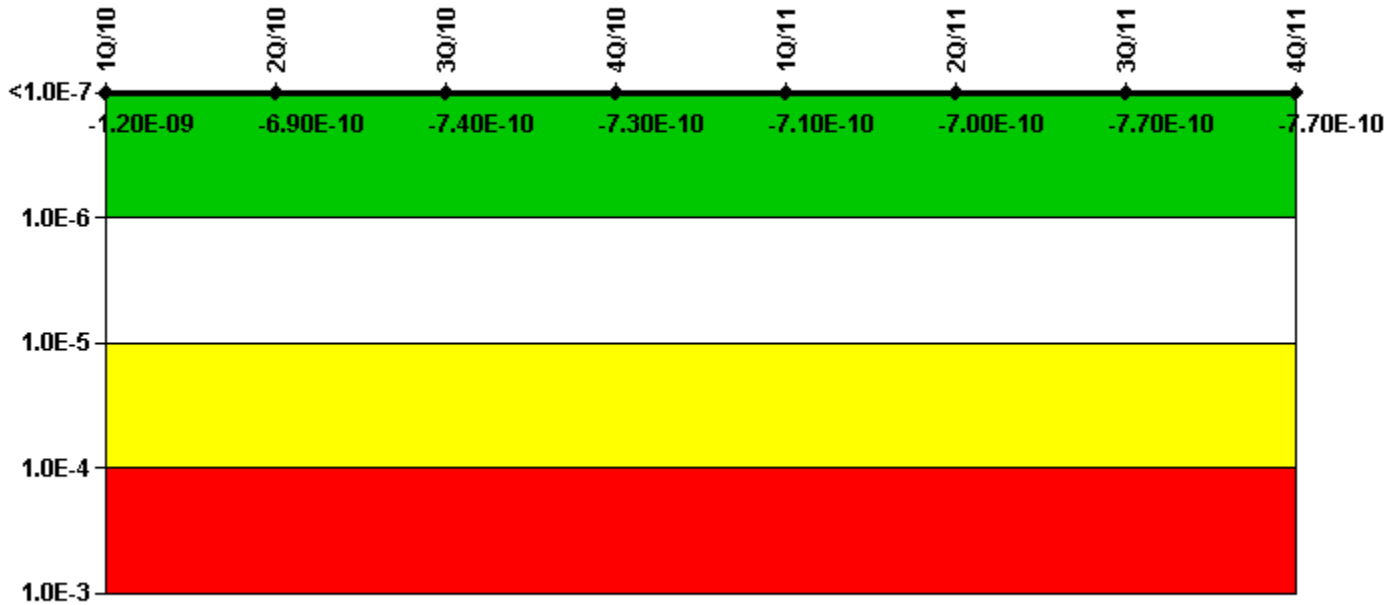
Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

## Notes

Mitigating Systems Performance Index, Heat Removal System	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11
UAI ( $\Delta$ CDF)	1.37E-08	1.45E-08	1.36E-08	1.35E-08	1.44E-08	1.51E-08	6.57E-09	1.04E-08
URI ( $\Delta$ CDF)	-1.53E-08	-1.65E-08	-1.59E-08	-1.53E-08	6.97E-08	6.79E-08	6.79E-08	6.79E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-1.50E-09	-2.00E-09	-2.30E-09	-1.80E-09	8.40E-08	8.30E-08	7.40E-08	7.80E-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

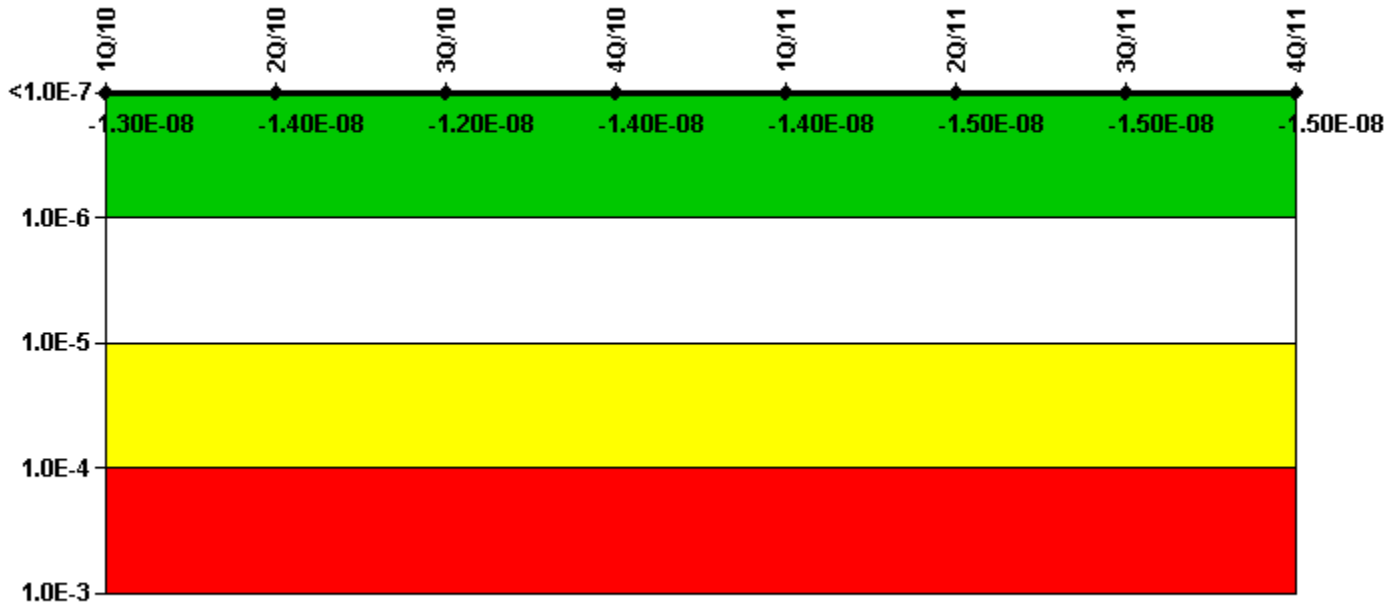
## Notes

Mitigating Systems Performance Index, Residual Heat Removal System	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11
UAI ( $\Delta$ CDF)	-2.70E-10	2.71E-10	2.14E-10	2.07E-10	2.25E-10	2.34E-10	1.68E-10	1.66E-10
URI ( $\Delta$ CDF)	-9.10E-10	-9.57E-10	-9.57E-10	-9.35E-10	-9.35E-10	-9.35E-10	-9.35E-10	-9.35E-10
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-1.20E-09	-6.90E-10	-7.40E-10	-7.30E-10	-7.10E-10	-7.00E-10	-7.70E-10	-7.70E-10

Licensee Comments: none



# Mitigating Systems Performance Index, Cooling Water Systems



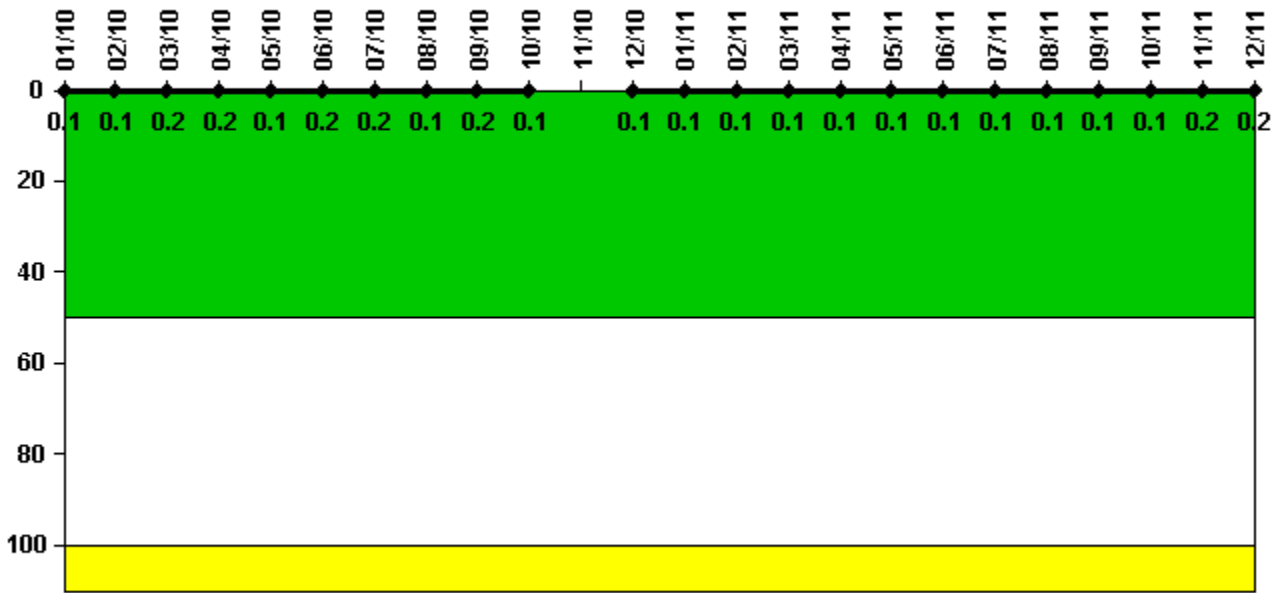
Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

## Notes

Mitigating Systems Performance Index, Cooling Water Systems	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11
UAI ( $\Delta$ CDF)	6.88E-09	6.40E-09	7.35E-09	5.24E-09	5.56E-09	5.83E-09	5.39E-09	5.15E-09
URI ( $\Delta$ CDF)	-1.98E-08	-2.01E-08	-1.94E-08	-1.97E-08	-1.97E-08	-2.04E-08	-2.04E-08	-2.04E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-1.30E-08	-1.40E-08	-1.20E-08	-1.40E-08	-1.40E-08	-1.50E-08	-1.50E-08	-1.50E-08

Licensee Comments: none

# Reactor Coolant System Activity



Thresholds: White > 50.0 Yellow > 100.0

## Notes

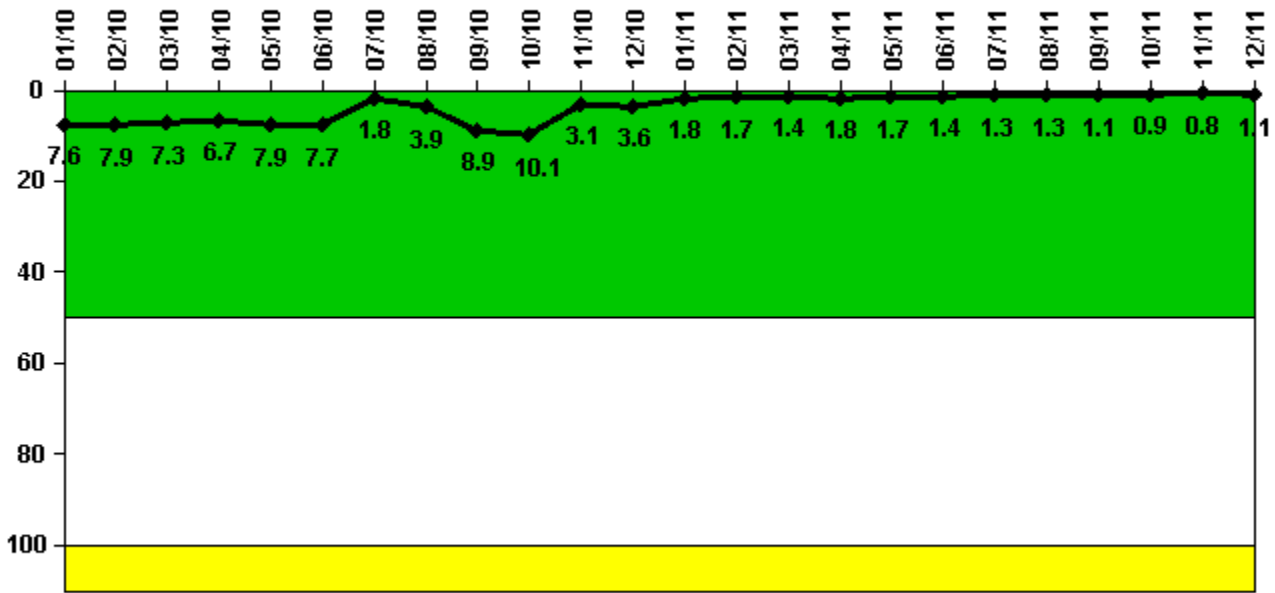
Reactor Coolant System Activity	1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	10/10	11/10	12/10
Maximum activity	0.001250	0.001270	0.001720	0.001550	0.001370	0.001510	0.001550	0.001420	0.002170	0.001350	N/A	0.000958
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	0.1	0.1	0.2	0.2	0.1	0.2	0.2	0.1	0.2	0.1	N/A	0.1

Reactor Coolant System Activity	1/11	2/11	3/11	4/11	5/11	6/11	7/11	8/11	9/11	10/11	11/11	12/11
Maximum activity	0.001130	0.000738	0.000849	0.000756	0.000998	0.000949	0.000985	0.000998	0.001030	0.001110	0.001550	0.001760
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	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2

Licensee Comments: none

## Reactor Coolant System Leakage



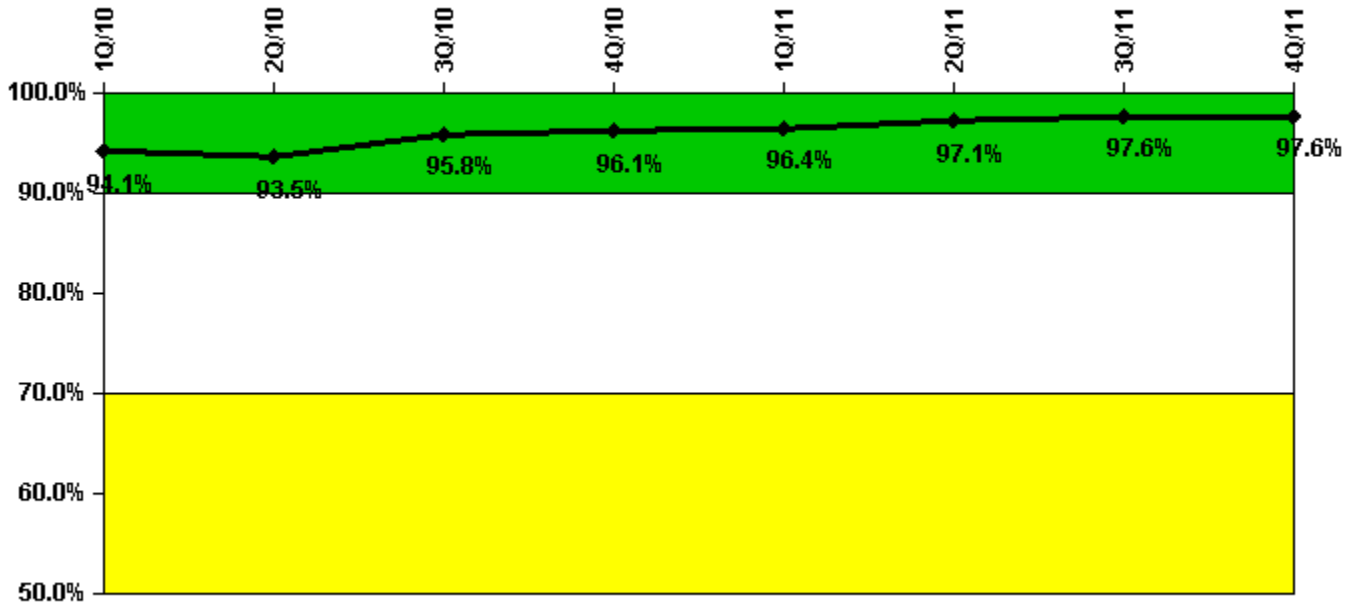
Thresholds: White > 50.0 Yellow > 100.0

### Notes

<b>Reactor Coolant System Leakage</b>	<b>1/10</b>	<b>2/10</b>	<b>3/10</b>	<b>4/10</b>	<b>5/10</b>	<b>6/10</b>	<b>7/10</b>	<b>8/10</b>	<b>9/10</b>	<b>10/10</b>	<b>11/10</b>	<b>12/10</b>
Maximum leakage	0.760	0.790	0.730	0.670	0.790	0.770	0.180	0.390	0.890	1.010	0.310	0.360
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	7.6	7.9	7.3	6.7	7.9	7.7	1.8	3.9	8.9	10.1	3.1	3.6
<b>Reactor Coolant System Leakage</b>	<b>1/11</b>	<b>2/11</b>	<b>3/11</b>	<b>4/11</b>	<b>5/11</b>	<b>6/11</b>	<b>7/11</b>	<b>8/11</b>	<b>9/11</b>	<b>10/11</b>	<b>11/11</b>	<b>12/11</b>
Maximum leakage	0.180	0.170	0.140	0.180	0.170	0.140	0.130	0.130	0.110	0.090	0.080	0.110
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	1.8	1.7	1.4	1.8	1.7	1.4	1.3	1.3	1.1	0.9	0.8	1.1

Licensee Comments: none

## Drill/Exercise Performance



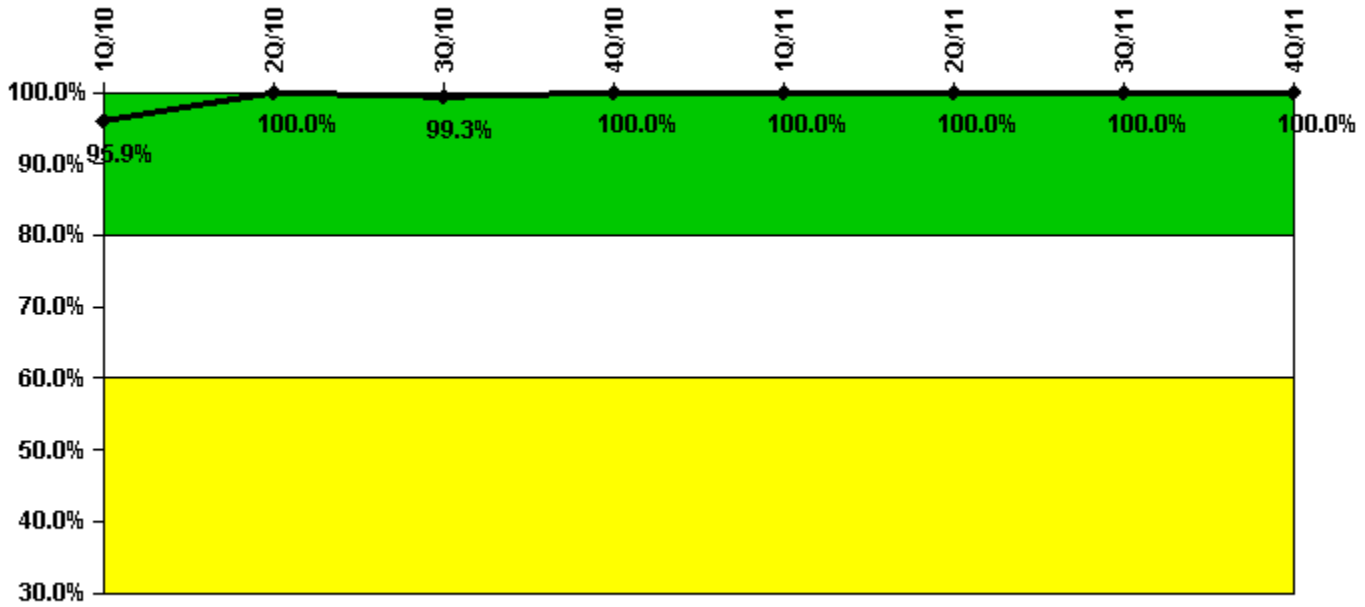
Thresholds: White < 90.0% Yellow < 70.0%

### Notes

Drill/Exercise Performance	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11
Successful opportunities	38.0	33.0	41.0	15.0	31.0	27.0	31.0	27.0
Total opportunities	40.0	35.0	41.0	15.0	32.0	28.0	31.0	27.0
Indicator value	94.1%	93.5%	95.8%	96.1%	96.4%	97.1%	97.6%	97.6%

Licensee Comments: none

## ERO Drill Participation



Thresholds: White < 80.0% Yellow < 60.0%

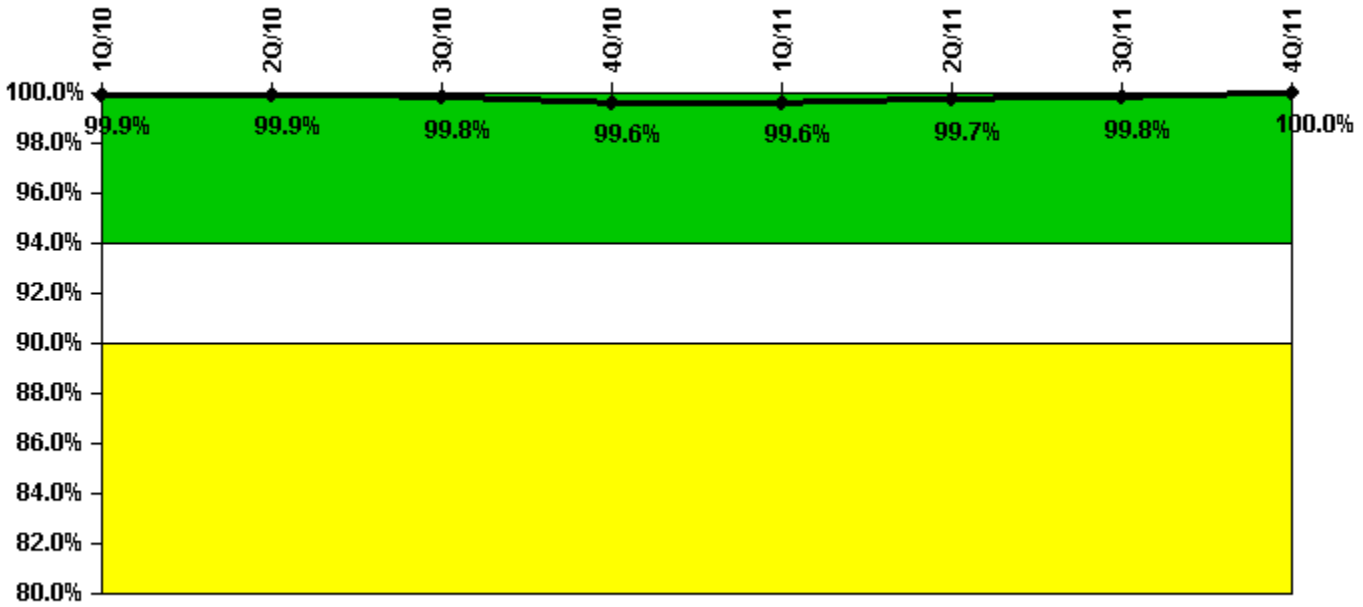
### Notes

ERO Drill Participation	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11
Participating Key personnel	142.0	145.0	143.0	128.0	132.0	139.0	138.0	141.0
Total Key personnel	148.0	145.0	144.0	128.0	132.0	139.0	138.0	141.0
Indicator value	95.9%	100.0%	99.3%	100.0%	100.0%	100.0%	100.0%	100.0%

Licensee Comments: none

---

# Alert & Notification System



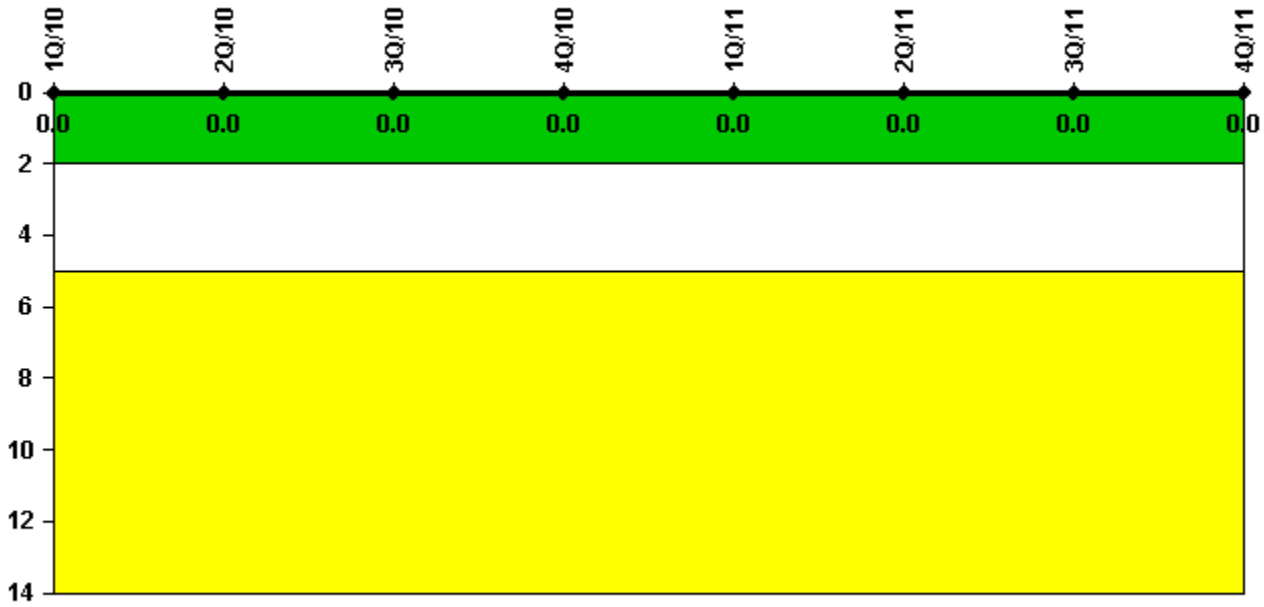
Thresholds: White < 94.0% Yellow < 90.0%

## Notes

Alert & Notification System	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11
Successful siren-tests	476	542	473	540	476	544	476	544
Total sirens-tests	476	544	476	544	476	544	476	544
Indicator value	99.9%	99.9%	99.8%	99.6%	99.6%	99.7%	99.8%	100.0%

Licensee Comments: none

# Occupational Exposure Control Effectiveness



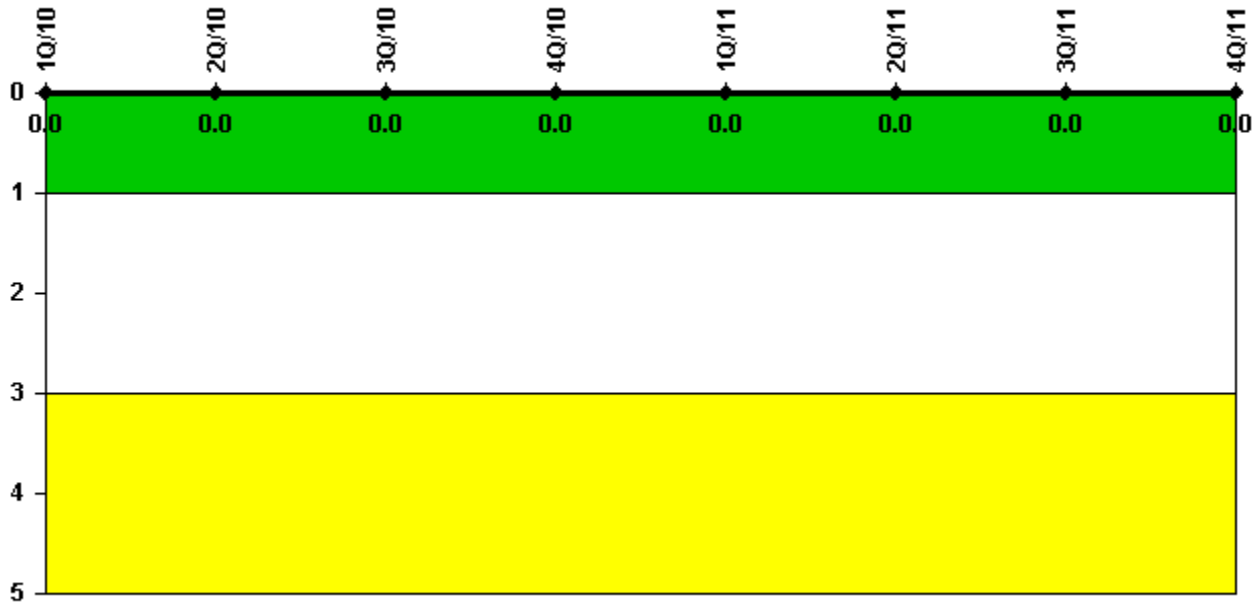
Thresholds: White > 2.0 Yellow > 5.0

## Notes

Occupational Exposure Control Effectiveness	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11
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

# RETS/ODCM Radiological Effluent



Thresholds: White > 1.0 Yellow > 3.0

## Notes

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