

# Byron 2

## 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

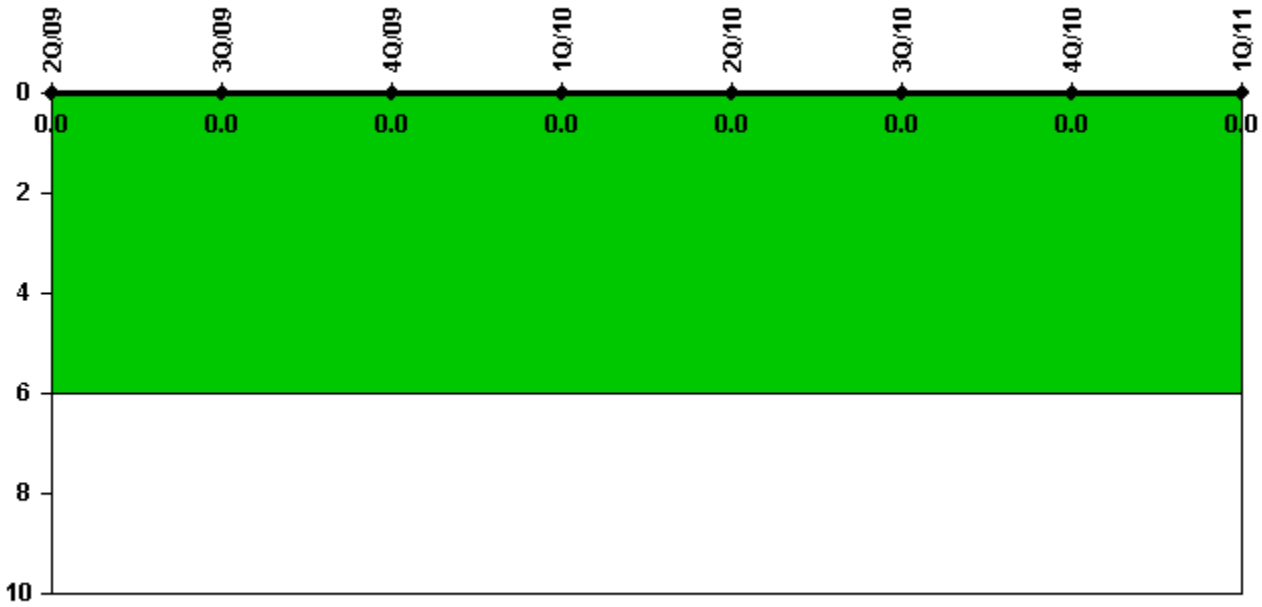
### Notes

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	0	0
Critical hours	2184.0	2208.0	2209.0	2159.0	1735.2	2208.0	2209.0	2159.0
Indicator value	0	0	0	0	0	0	0	0

Licensee Comments: none

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## Unplanned Power Changes per 7000 Critical Hrs



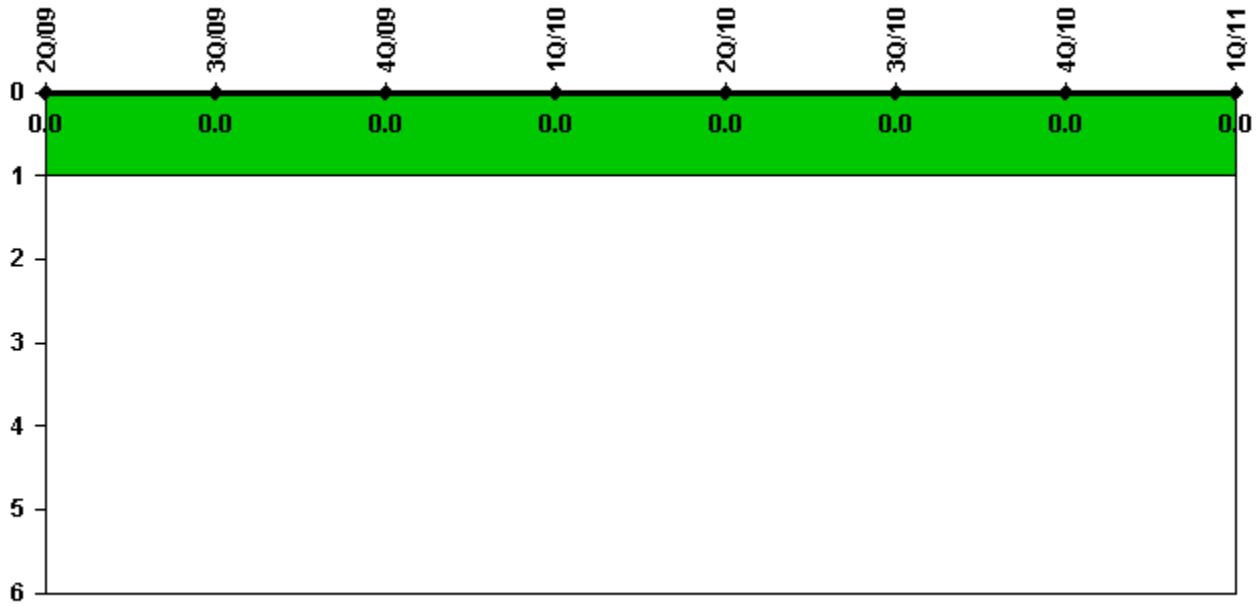
Thresholds: White > 6.0

### Notes

Unplanned Power Changes per 7000 Critical Hrs	2Q/09	3Q/09	4Q/09	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11
Unplanned power changes	0	0	0	0	0	0	0	0
Critical hours	2184.0	2208.0	2209.0	2159.0	1735.2	2208.0	2209.0	2159.0
Indicator value	0	0	0	0	0	0	0	0

Licensee Comments: none

# Unplanned Scrams with Complications



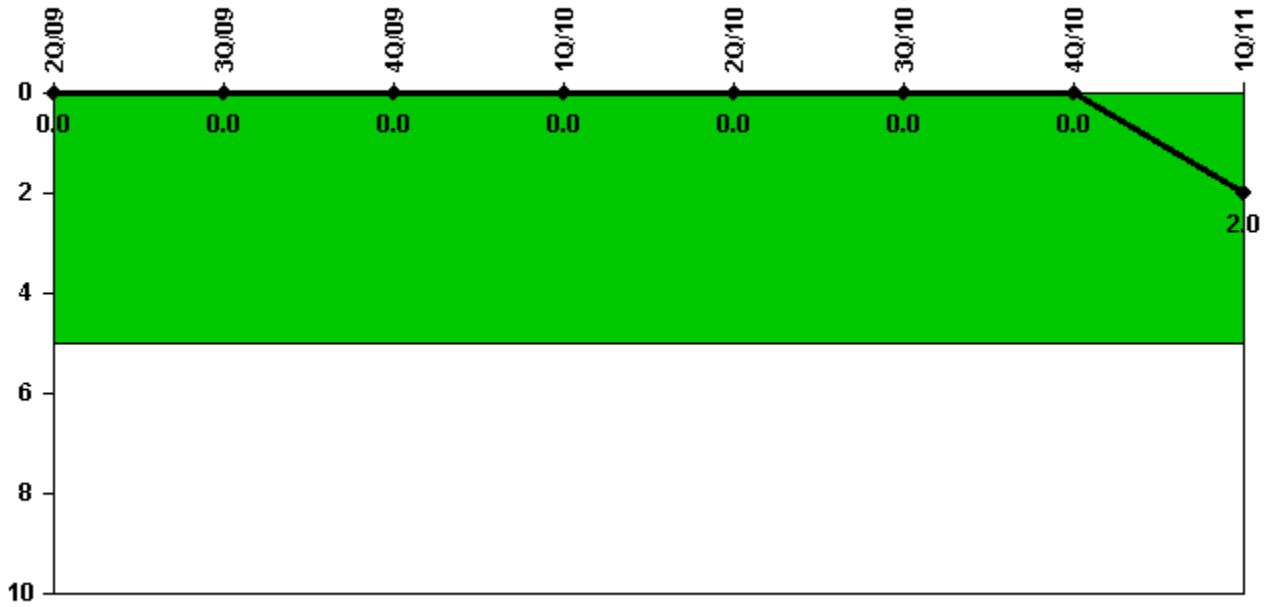
Thresholds: White > 1.0

## Notes

Unplanned Scrams with Complications	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

## Safety System Functional Failures (PWR)



Thresholds: White > 5.0

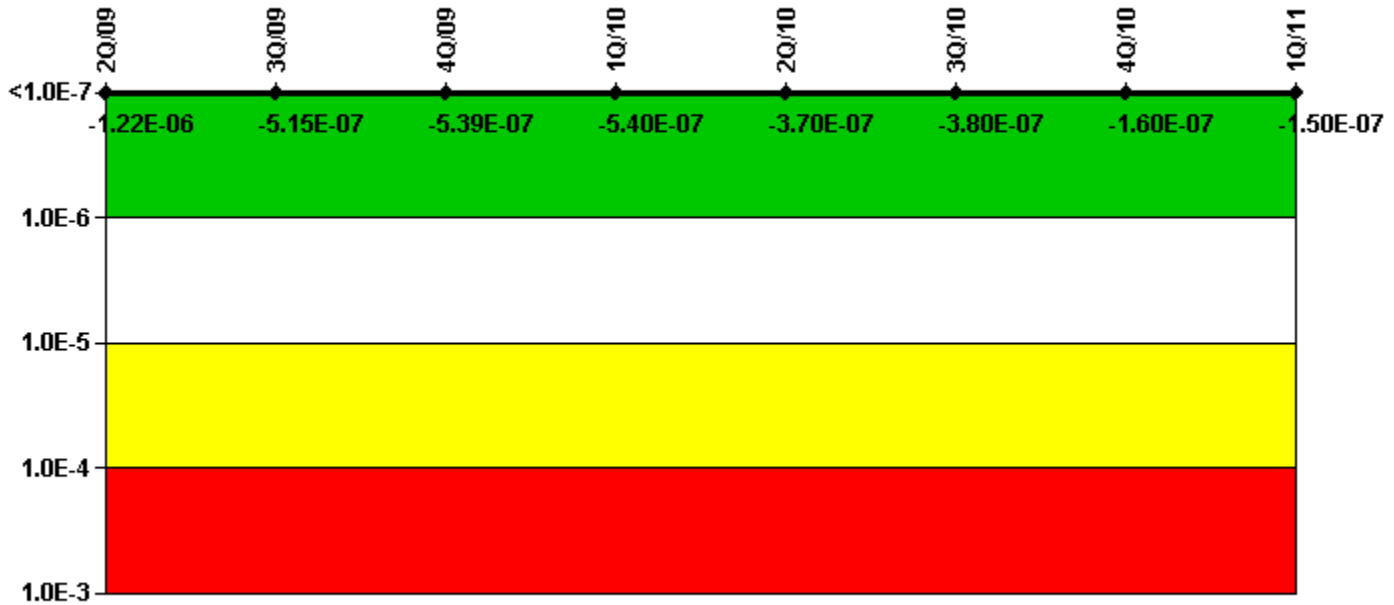
### Notes

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	0	0	2
Indicator value	0	0	0	0	0	0	0	2

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

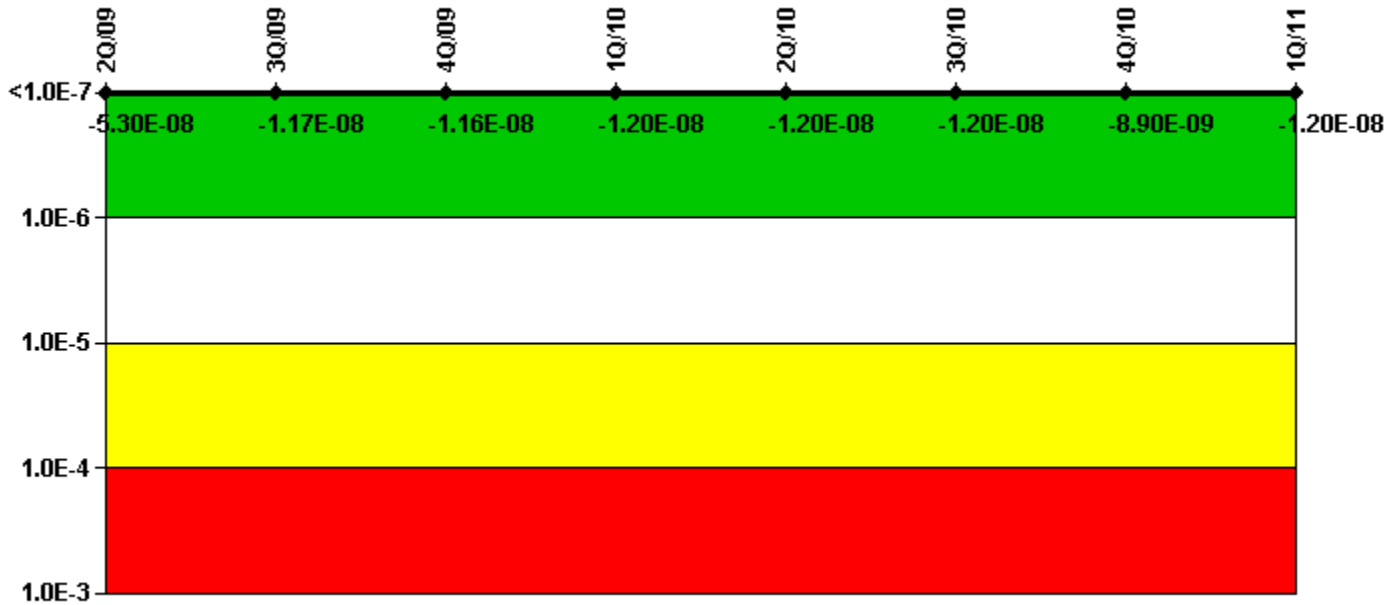
## Notes

Mitigating Systems Performance Index, Emergency AC Power System	2Q/09	3Q/09	4Q/09	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11
UAI ( $\Delta$ CDF)	7.70E-08	5.50E-08	3.10E-08	2.95E-08	3.31E-08	2.93E-08	7.83E-08	9.92E-08
URI ( $\Delta$ CDF)	-1.30E-06	-5.70E-07	-5.70E-07	-5.70E-07	-4.08E-07	-4.07E-07	-2.41E-07	-2.45E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-1.22E-06	-5.15E-07	-5.39E-07	-5.40E-07	-3.70E-07	-3.80E-07	-1.60E-07	-1.50E-07

Licensee Comments:

1Q/11: Due to typo on paperwork, UA for 1A DG was listed for 1B. This has been corrected.

# Mitigating Systems Performance Index, High Pressure Injection System



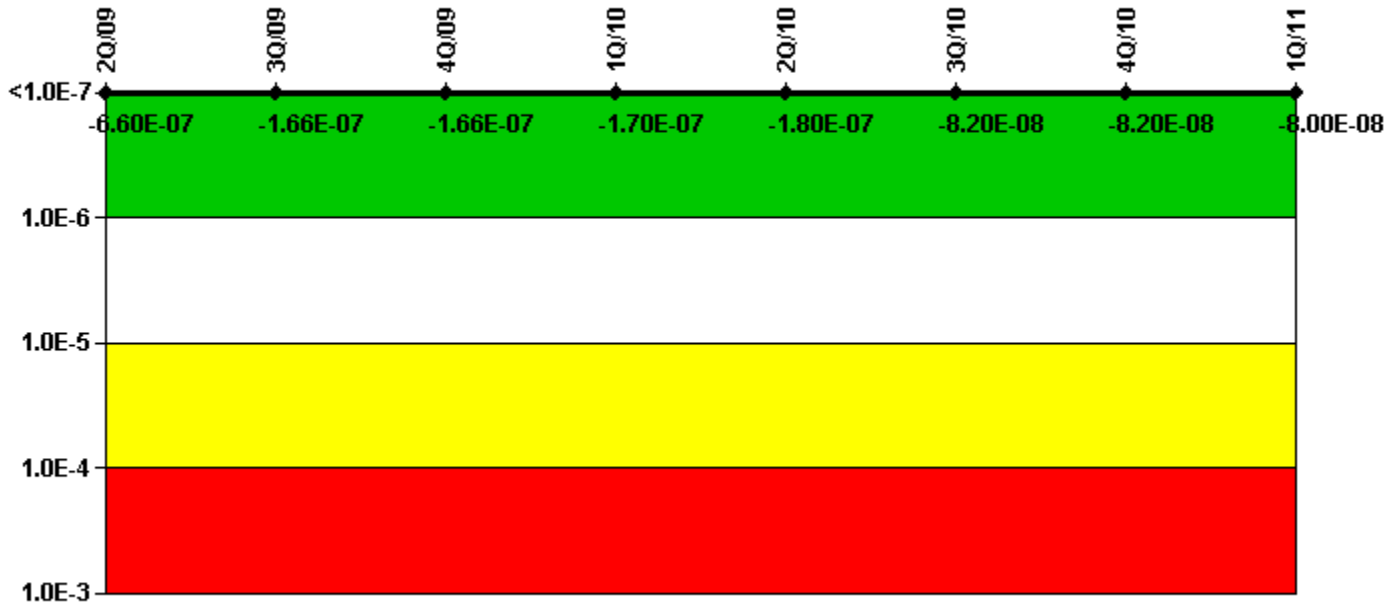
Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

## 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)	-4.30E-08	-9.20E-09	-9.20E-09	-9.17E-09	-9.41E-09	-9.41E-09	-6.51E-09	-1.00E-08
URI ( $\Delta$ CDF)	-1.00E-08	-2.50E-09	-2.40E-09	-2.44E-09	-2.39E-09	-2.41E-09	-2.40E-09	-2.40E-09
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-5.30E-08	-1.17E-08	-1.16E-08	-1.20E-08	-1.20E-08	-1.20E-08	-8.90E-09	-1.20E-08

Licensee Comments: none

# Mitigating Systems Performance Index, Heat Removal System



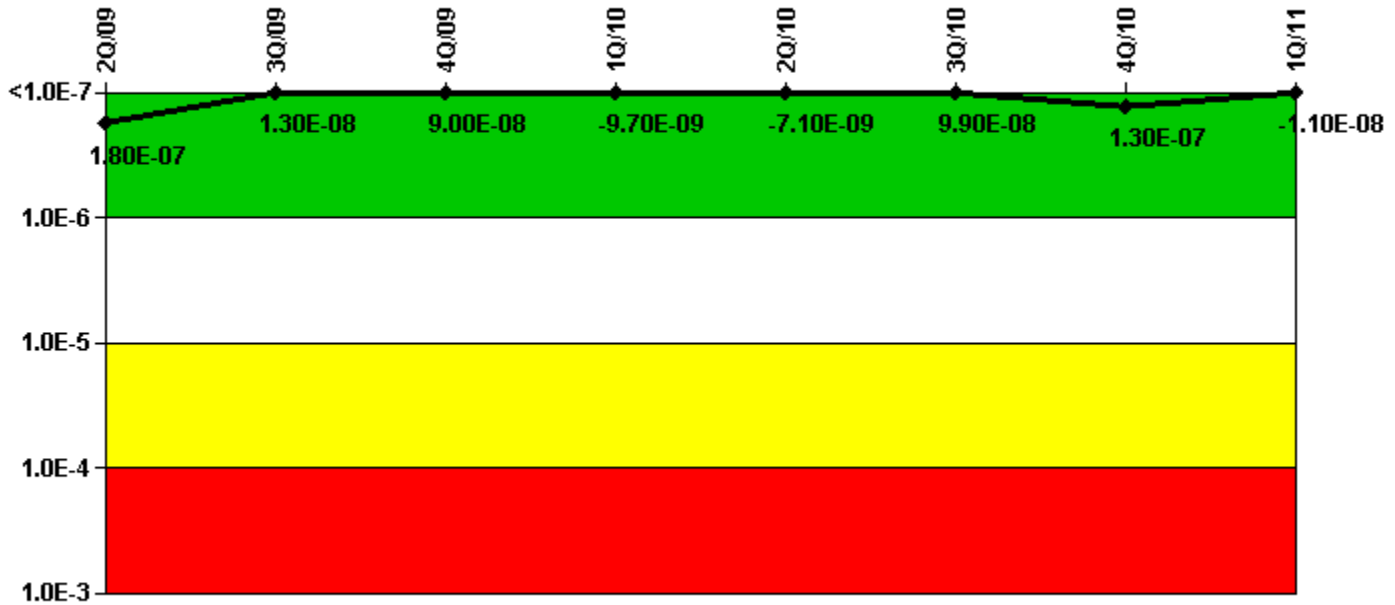
Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

## Notes

Mitigating Systems Performance Index, Heat Removal System	2Q/09	3Q/09	4Q/09	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11
UAI ( $\Delta$ CDF)	-1.60E-07	7.40E-08	7.40E-08	7.37E-08	7.17E-08	1.65E-07	1.63E-07	1.63E-07
URI ( $\Delta$ CDF)	-5.00E-07	-2.40E-07	-2.40E-07	-2.41E-07	-2.47E-07	-2.48E-07	-2.45E-07	-2.43E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-6.60E-07	-1.66E-07	-1.66E-07	-1.70E-07	-1.80E-07	-8.20E-08	-8.20E-08	-8.00E-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

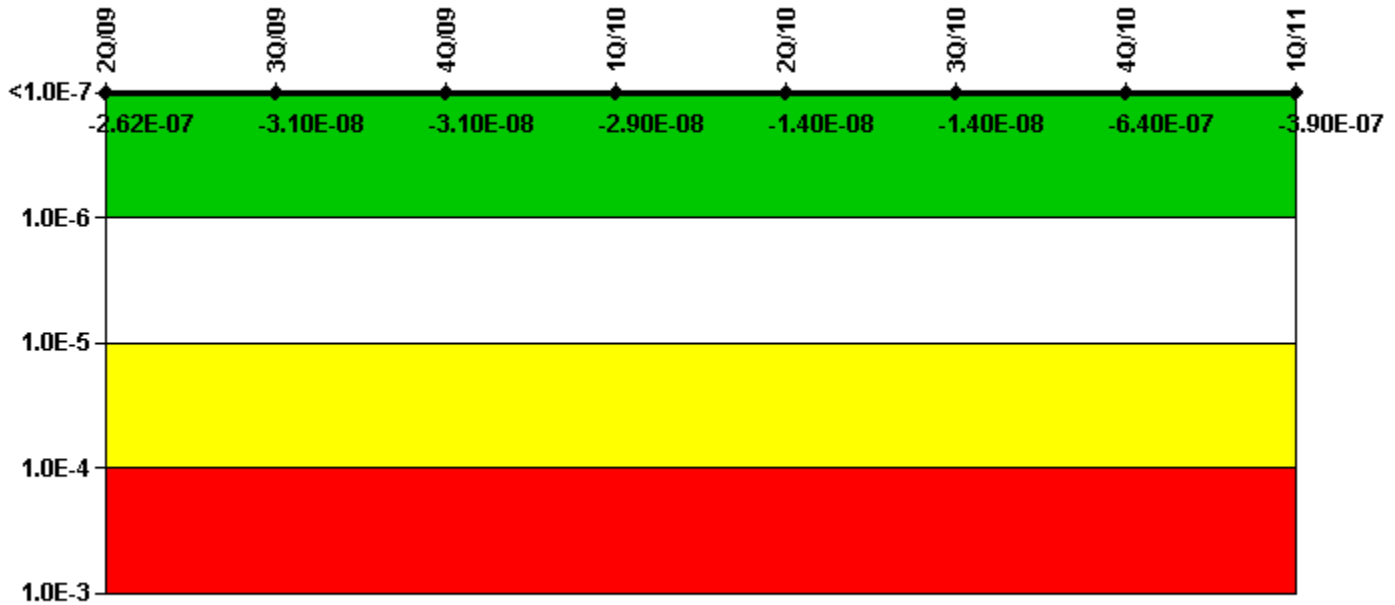
## Notes

Mitigating Systems Performance Index, Residual Heat Removal System	2Q/09	3Q/09	4Q/09	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11
UAI ( $\Delta$ CDF)	3.20E-07	1.10E-07	1.90E-07	9.26E-08	7.92E-08	1.88E-07	2.16E-07	7.97E-08
URI ( $\Delta$ CDF)	-1.40E-07	-9.70E-08	-1.00E-07	-1.02E-07	-8.63E-08	-8.90E-08	-8.67E-08	-9.03E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	1.80E-07	1.30E-08	9.00E-08	-9.70E-09	-7.10E-09	9.90E-08	1.30E-07	-1.10E-08

Licensee Comments: none



# Mitigating Systems Performance Index, Cooling Water Systems



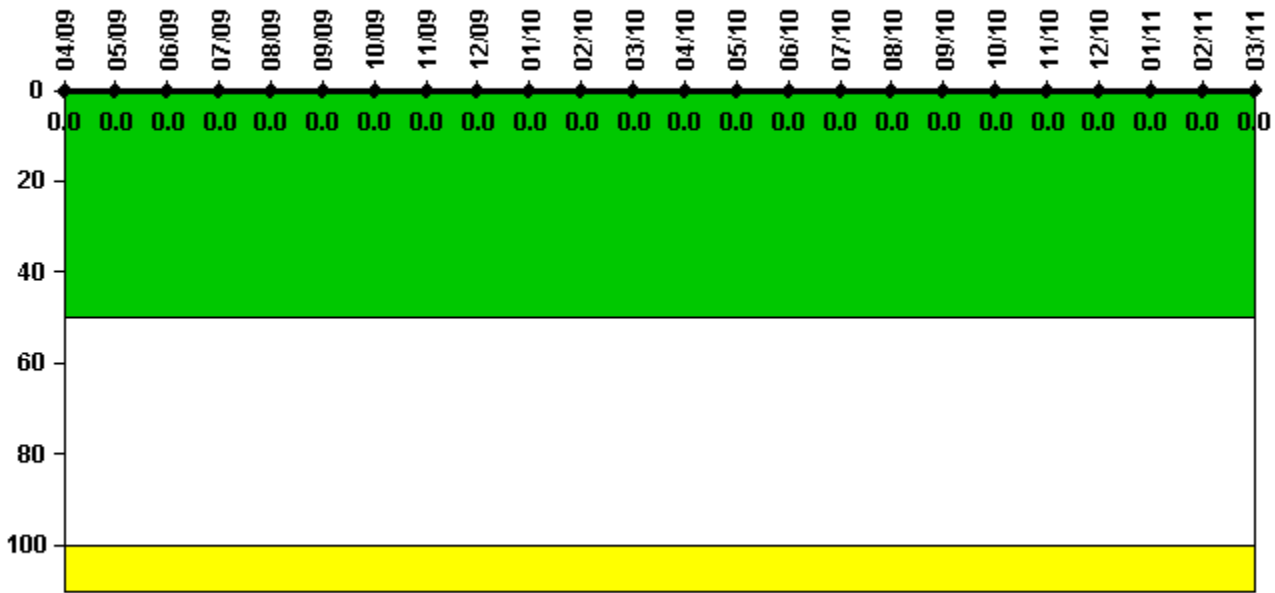
Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

## Notes

Mitigating Systems Performance Index, Cooling Water Systems	2Q/09	3Q/09	4Q/09	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11
UAI ( $\Delta$ CDF)	7.80E-09	7.90E-08	7.90E-08	7.95E-08	9.48E-08	9.48E-08	2.51E-07	4.91E-07
URI ( $\Delta$ CDF)	-2.70E-07	-1.10E-07	-1.10E-07	-1.09E-07	-1.08E-07	-1.09E-07	-8.89E-07	-8.85E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-2.62E-07	-3.10E-08	-3.10E-08	-2.90E-08	-1.40E-08	-1.40E-08	-6.40E-07	-3.90E-07

Licensee Comments: none

# Reactor Coolant System Activity



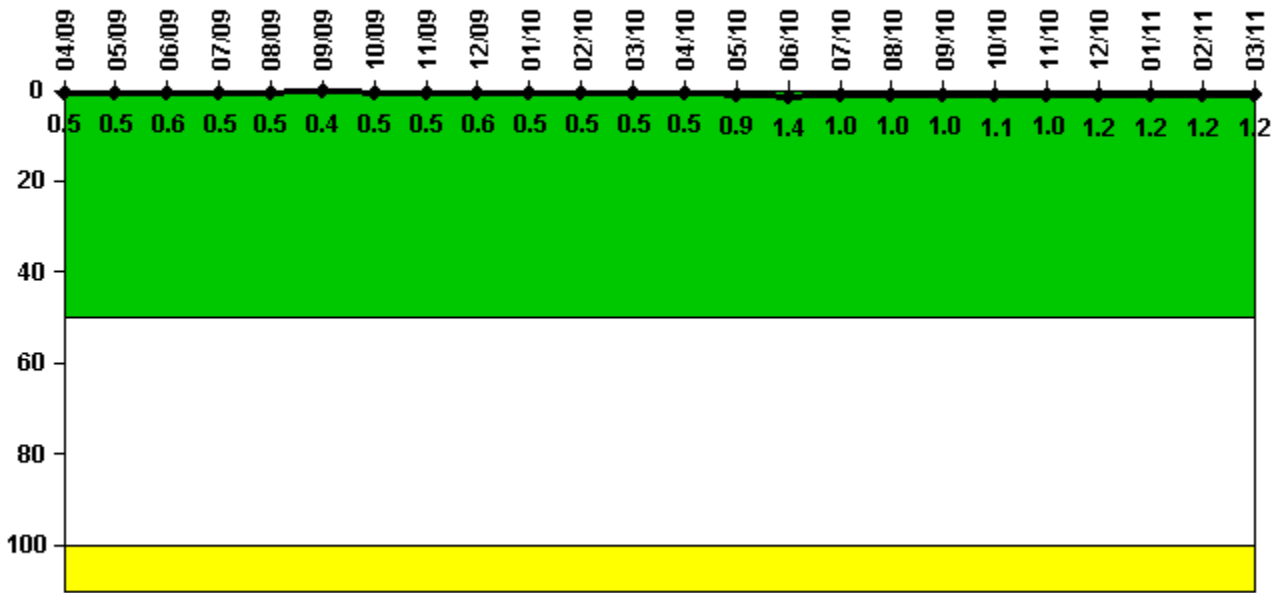
Thresholds: White > 50.0 Yellow > 100.0

## 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	0.000347	0.000369	0.000385	0.000406	0.000420	0.000443	0.000434	0.000443	0.000450	0.000459	0.000474	0.000276
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	0	0	0	0	0	0	0	0	0	0	0
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	0.000272	0.000096	0.000096	0.000099	0.000103	0.000106	0.000118	0.000120	0.000124	0.000142	0.000136	0.000140
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	0	0	0	0	0	0	0	0	0	0	0

Licensee Comments: none

## Reactor Coolant System Leakage



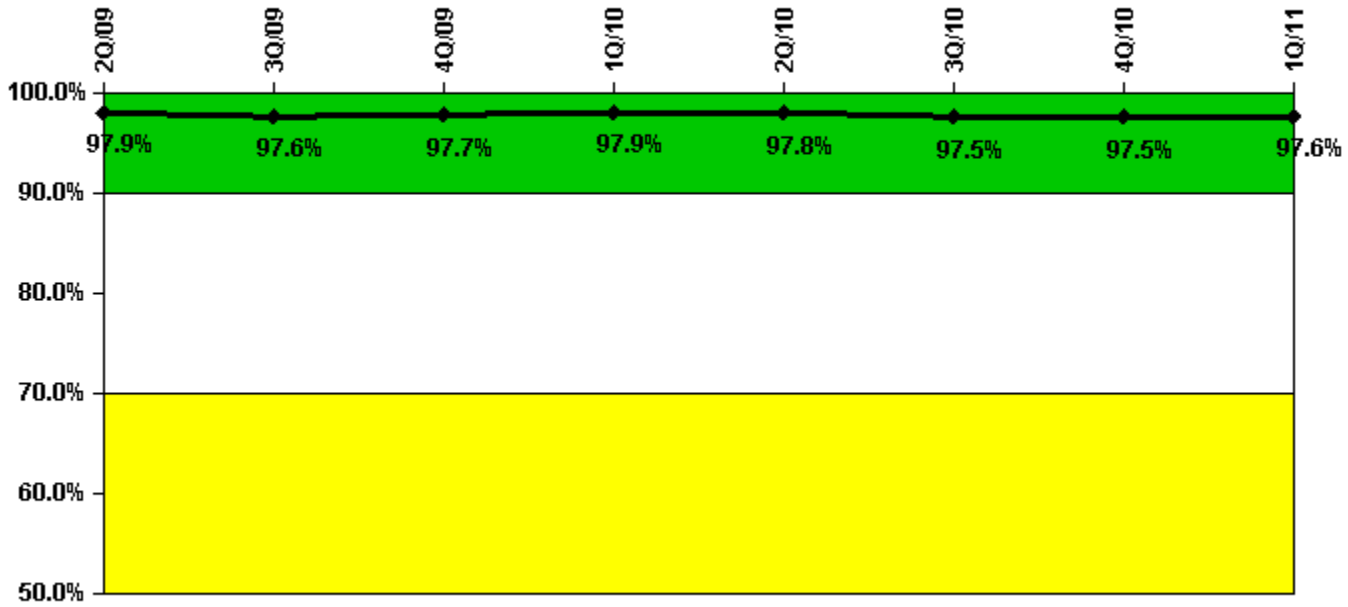
Thresholds: White > 50.0 Yellow > 100.0

### Notes

<b>Reactor Coolant System Leakage</b>	<b>4/09</b>	<b>5/09</b>	<b>6/09</b>	<b>7/09</b>	<b>8/09</b>	<b>9/09</b>	<b>10/09</b>	<b>11/09</b>	<b>12/09</b>	<b>1/10</b>	<b>2/10</b>	<b>3/10</b>
Maximum leakage	0.051	0.048	0.055	0.048	0.047	0.040	0.050	0.050	0.060	0.050	0.050	0.050
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	0.5	0.5	0.6	0.5	0.5	0.4	0.5	0.5	0.6	0.5	0.5	0.5
<b>Reactor Coolant System Leakage</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>	<b>1/11</b>	<b>2/11</b>	<b>3/11</b>
Maximum leakage	0.050	0.090	0.140	0.100	0.100	0.100	0.110	0.100	0.120	0.120	0.120	0.120
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	0.5	0.9	1.4	1.0	1.0	1.0	1.1	1.0	1.2	1.2	1.2	1.2

Licensee Comments: none

## Drill/Exercise Performance



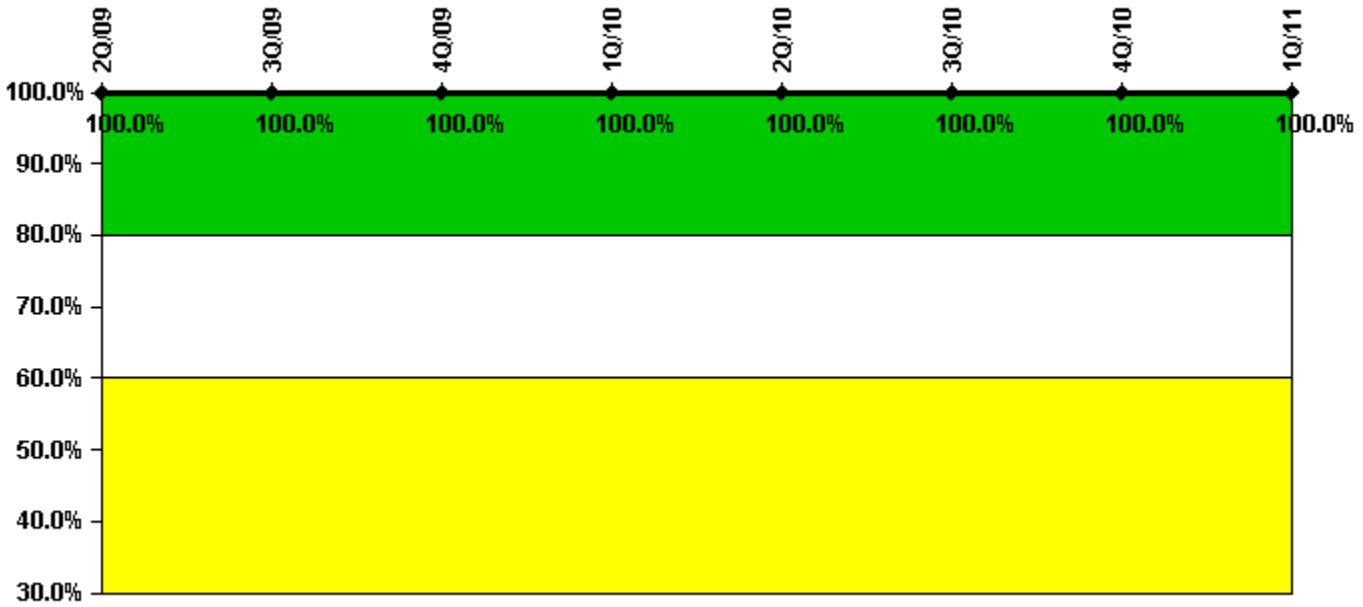
Thresholds: White < 90.0% Yellow < 70.0%

### Notes

Drill/Exercise Performance	2Q/09	3Q/09	4Q/09	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11
Successful opportunities	62.0	40.0	64.0	34.0	9.0	58.0	12.0	51.0
Total opportunities	62.0	42.0	65.0	34.0	10.0	61.0	13.0	51.0
Indicator value	97.9%	97.6%	97.7%	97.9%	97.8%	97.5%	97.5%	97.6%

Licensee Comments: none

## ERO Drill Participation



Thresholds: White < 80.0% Yellow < 60.0%

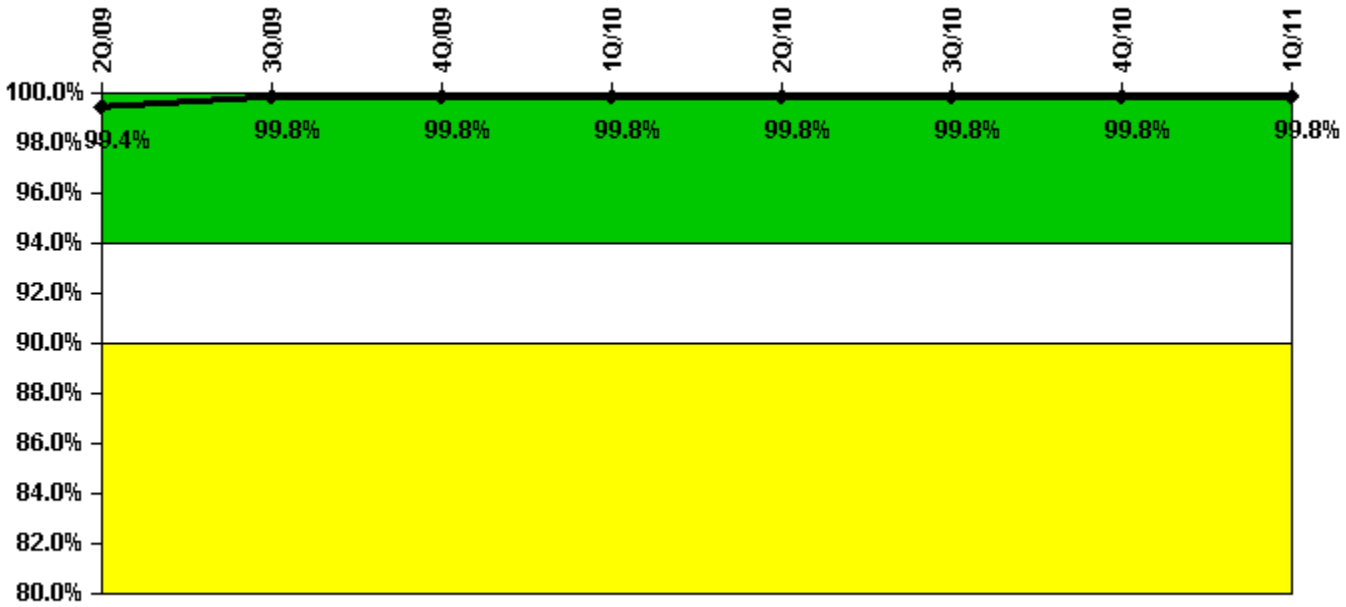
### Notes

ERO Drill Participation	2Q/09	3Q/09	4Q/09	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11
Participating Key personnel	77.0	74.0	72.0	74.0	74.0	72.0	74.0	76.0
Total Key personnel	77.0	74.0	72.0	74.0	74.0	72.0	74.0	76.0
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



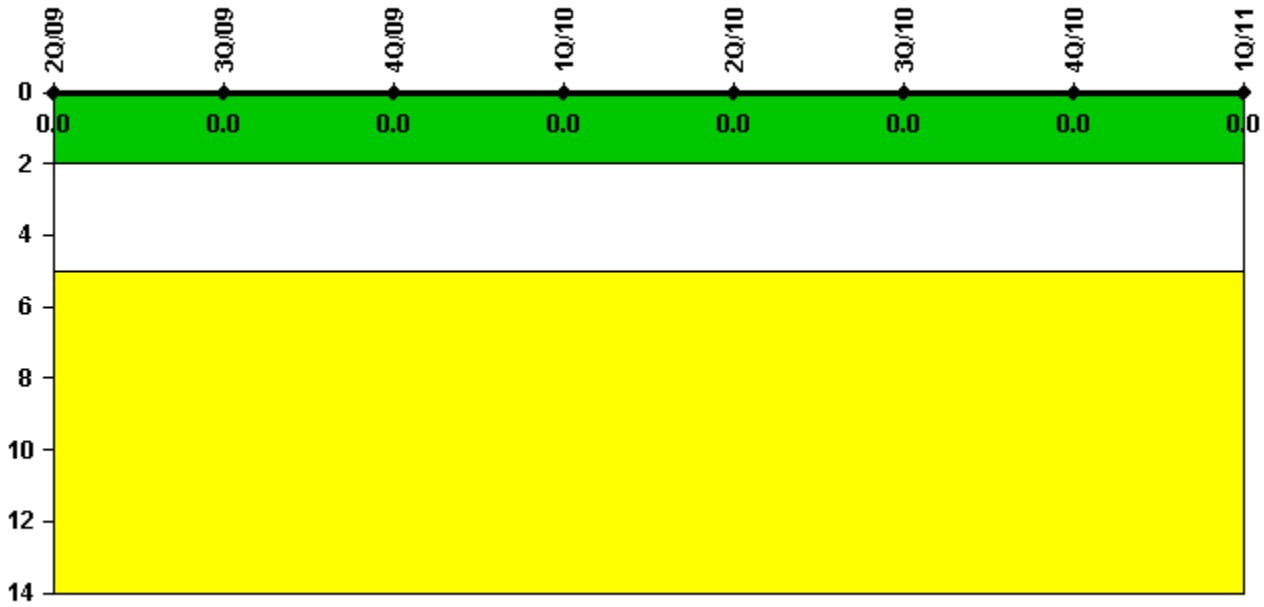
**Thresholds:** White < 94.0% Yellow < 90.0%

## Notes

Alert & Notification System	2Q/09	3Q/09	4Q/09	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11
Successful siren-tests	6006	6106	5998	3841	3890	3959	3956	3902
Total sirens-tests	6016	6110	6016	3843	3904	3965	3965	3904
Indicator value	99.4%	99.8%	99.8%	99.8%	99.8%	99.8%	99.8%	99.8%

Licensee Comments: none

# Occupational Exposure Control Effectiveness



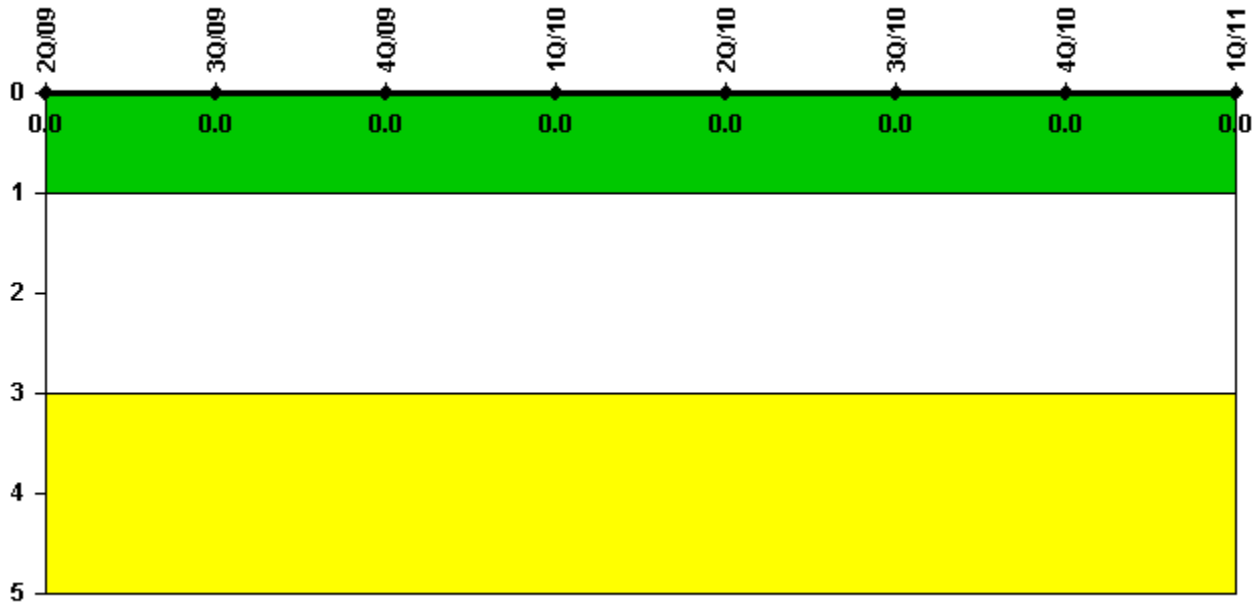
Thresholds: White > 2.0 Yellow > 5.0

## 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	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	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.