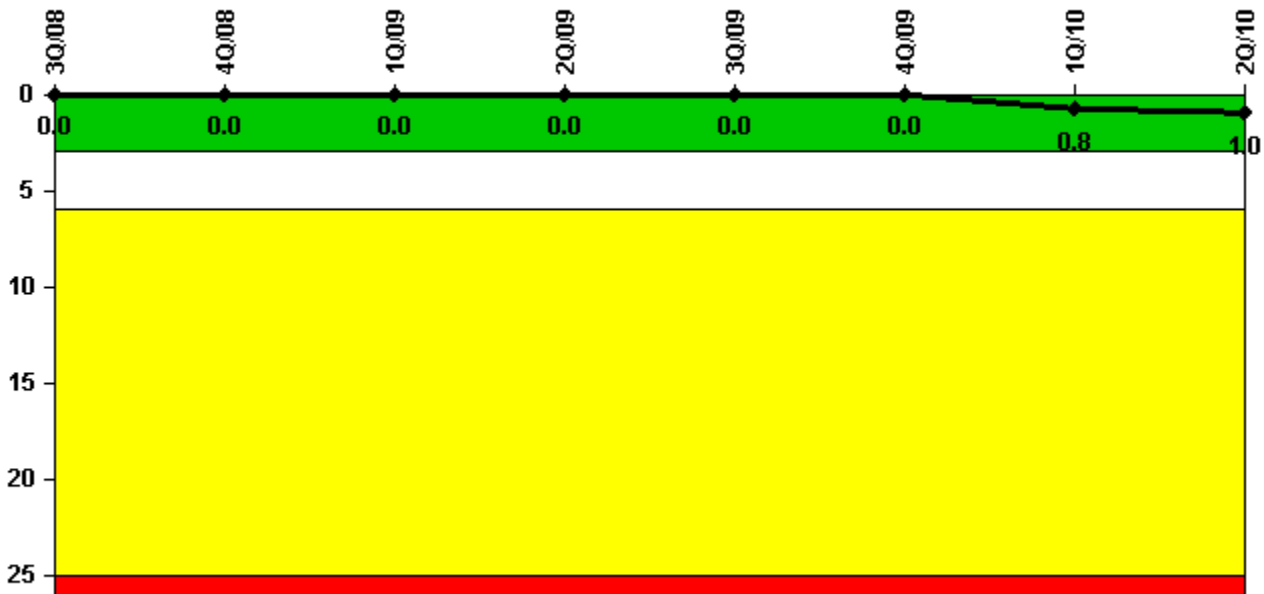


# Palo Verde 1

## 2Q/2010 Performance Indicators

Licensee's General Comments: none

### Unplanned Scrams per 7000 Critical Hrs



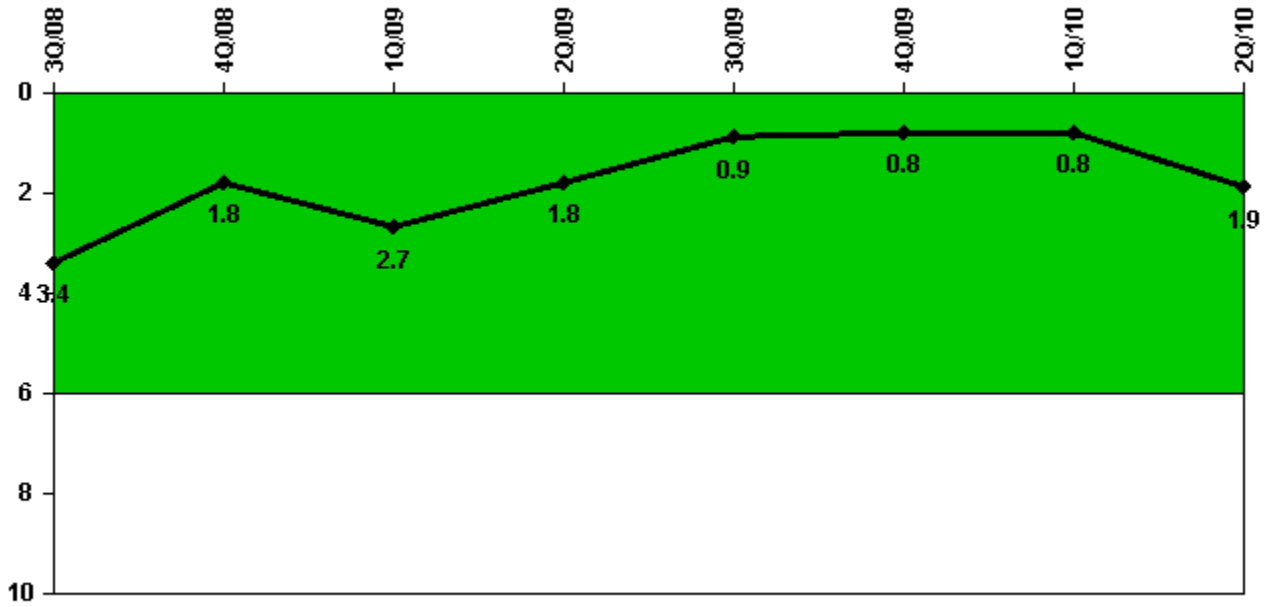
Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

### Notes

Unplanned Scrams per 7000 Critical Hrs	3Q/08	4Q/08	1Q/09	2Q/09	3Q/09	4Q/09	1Q/10	2Q/10
Unplanned scrams	0	0	0	0	0	0	1.0	0
Critical hours	2208.0	1155.6	2160.0	2184.0	2208.0	2208.0	1880.6	1006.6
Indicator value	0	0	0	0	0	0	0.8	1.0

Licensee Comments: none

## Unplanned Power Changes per 7000 Critical Hrs



Thresholds: White > 6.0

### Notes

Unplanned Power Changes per 7000 Critical Hrs	3Q/08	4Q/08	1Q/09	2Q/09	3Q/09	4Q/09	1Q/10	2Q/10
Unplanned power changes	1.0	0	1.0	0	0	0	1.0	1.0
Critical hours	2208.0	1155.6	2160.0	2184.0	2208.0	2208.0	1880.6	1006.6
Indicator value	3.4	1.8	2.7	1.8	0.9	0.8	0.8	1.9

Licensee Comments: none

# Unplanned Scrams with Complications



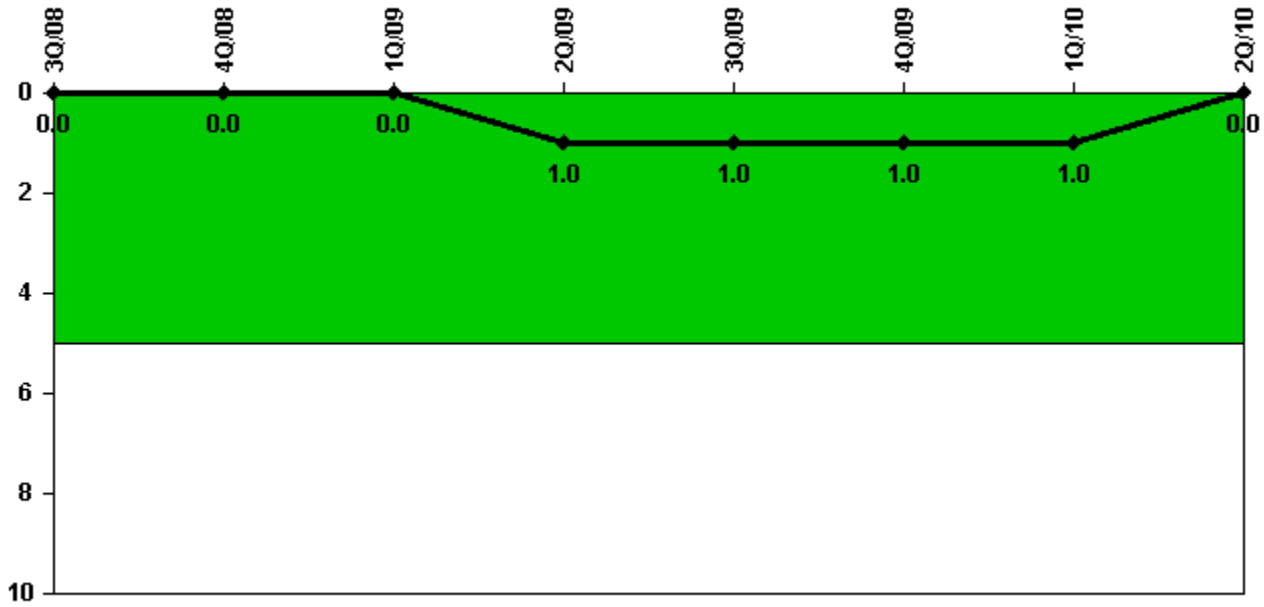
Thresholds: White > 1.0

## Notes

Unplanned Scrams with Complications	3Q/08	4Q/08	1Q/09	2Q/09	3Q/09	4Q/09	1Q/10	2Q/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)



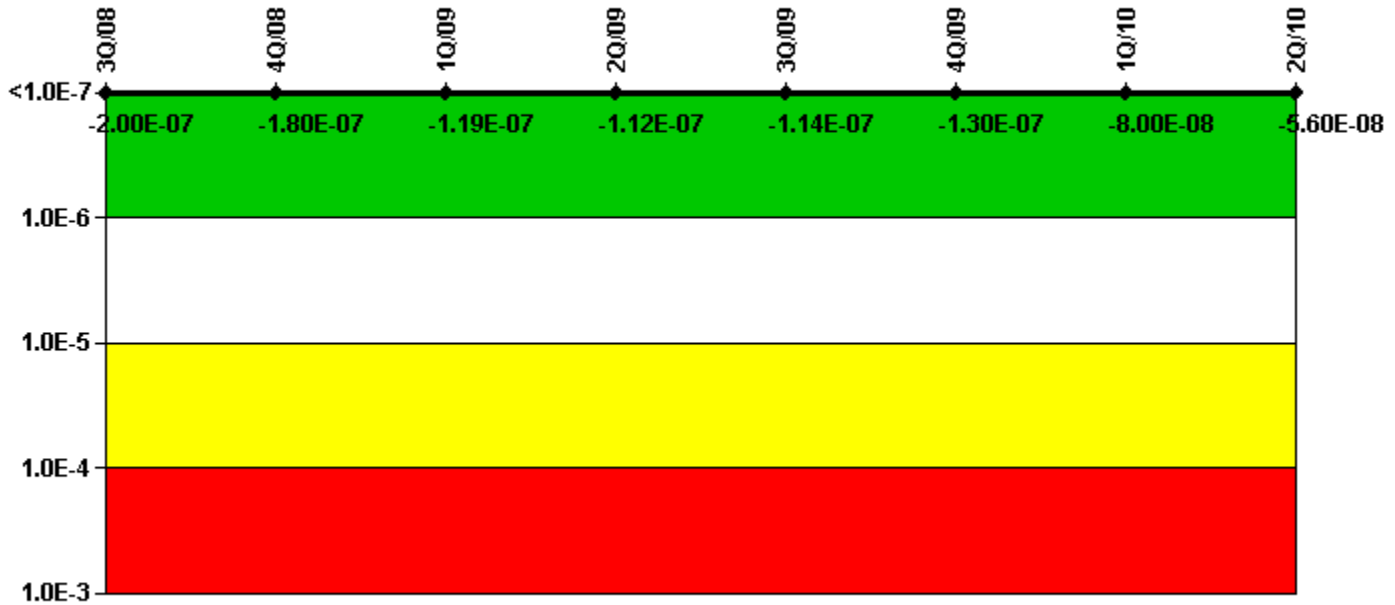
Thresholds: White > 5.0

### Notes

Safety System Functional Failures (PWR)	3Q/08	4Q/08	1Q/09	2Q/09	3Q/09	4Q/09	1Q/10	2Q/10
Safety System Functional Failures	0	0	0	1	0	0	0	0
Indicator value	0	0	0	1	1	1	1	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

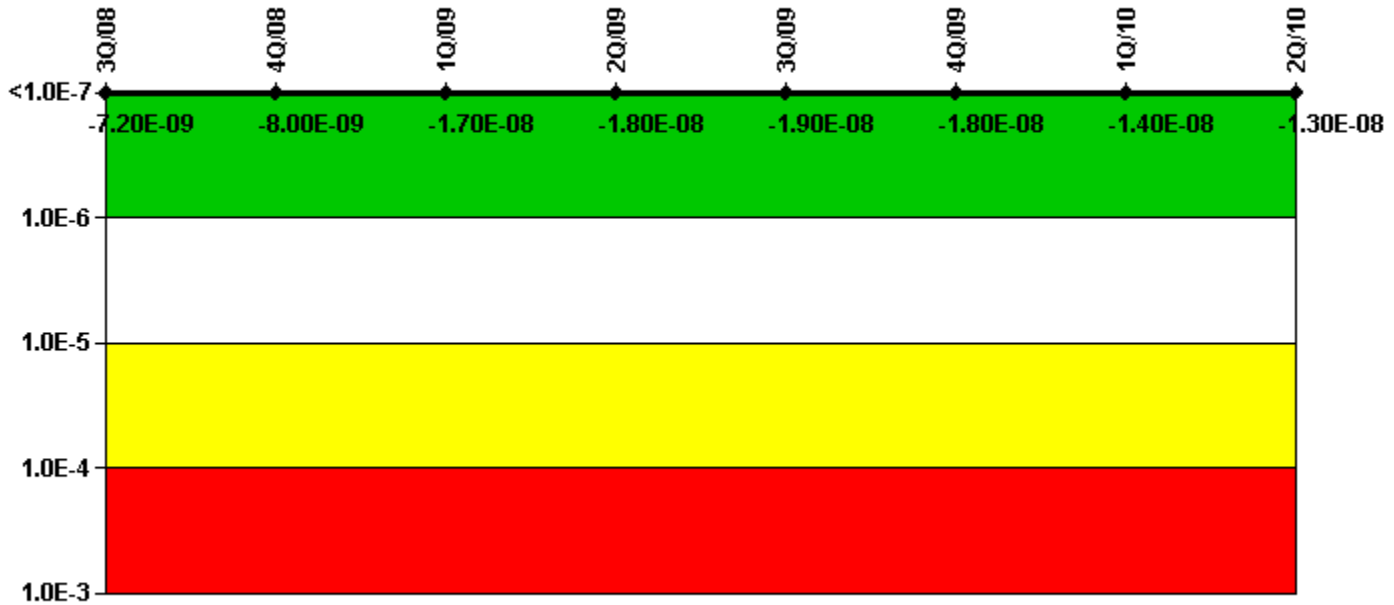
## Notes

Mitigating Systems Performance Index, Emergency AC Power System	3Q/08	4Q/08	1Q/09	2Q/09	3Q/09	4Q/09	1Q/10	2Q/10
UAI ( $\Delta$ CDF)	1.80E-07	2.00E-07	5.10E-08	5.80E-08	5.60E-08	4.13E-08	2.92E-09	2.37E-09
URI ( $\Delta$ CDF)	-3.80E-07	-3.80E-07	-1.70E-07	-1.70E-07	-1.70E-07	-1.67E-07	-8.32E-08	-5.88E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-2.00E-07	-1.80E-07	-1.19E-07	-1.12E-07	-1.14E-07	-1.30E-07	-8.00E-08	-5.60E-08

Licensee Comments:

2Q/10: PRA model was revised March 25, 2010 with corresponding MSPI Model revision. This resulted in revision to plant base CDF values and corresponding Fussel-Vessely, Unavailability, and Unreliability values for monitored systems.

# Mitigating Systems Performance Index, High Pressure Injection System



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

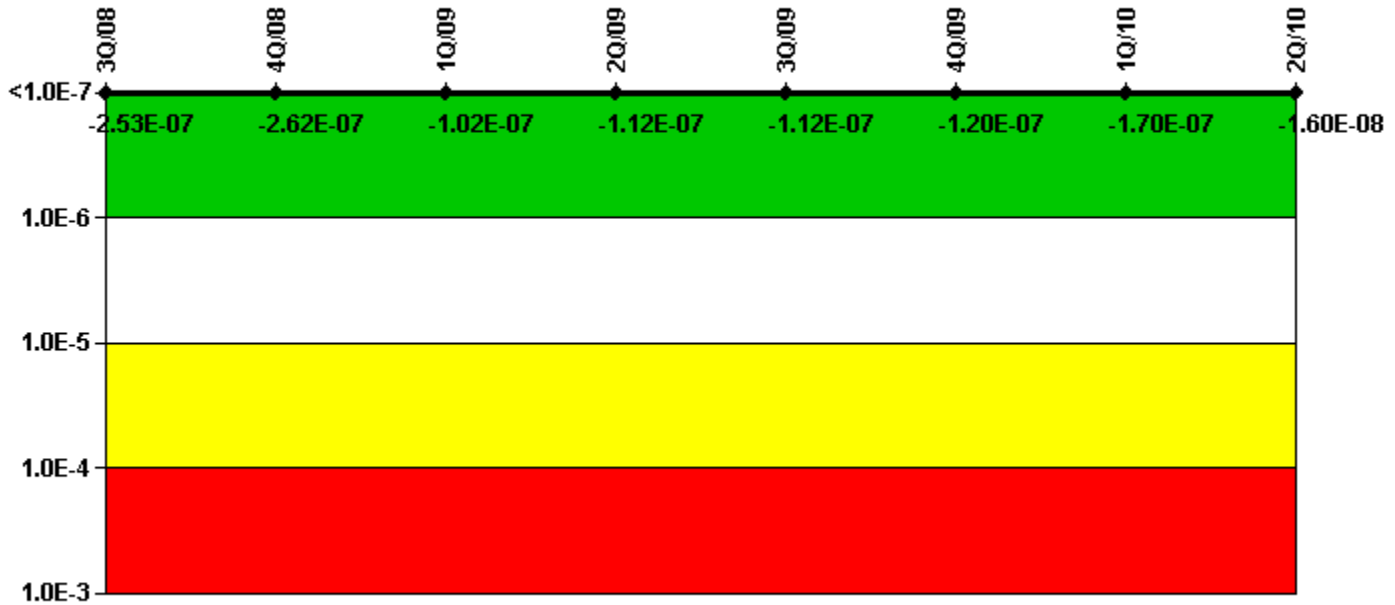
## Notes

Mitigating Systems Performance Index, High Pressure Injection System	3Q/08	4Q/08	1Q/09	2Q/09	3Q/09	4Q/09	1Q/10	2Q/10
UAI ( $\Delta$ CDF)	8.24E-09	7.39E-09	6.10E-09	4.67E-09	3.82E-09	3.59E-09	-3.98E-10	6.78E-10
URI ( $\Delta$ CDF)	-1.54E-08	-1.54E-08	-2.33E-08	-2.29E-08	-2.24E-08	-2.20E-08	-1.40E-08	-1.34E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-7.20E-09	-8.00E-09	-1.70E-08	-1.80E-08	-1.90E-08	-1.80E-08	-1.40E-08	-1.30E-08

Licensee Comments:

2Q/10: PRA model was revised March 25, 2010 with corresponding MSPI Model revision. This resulted in revision to plant base CDF values and corresponding Fussel-Vessely, Unavailability, and Unreliability values for monitored systems.

# Mitigating Systems Performance Index, Heat Removal System



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

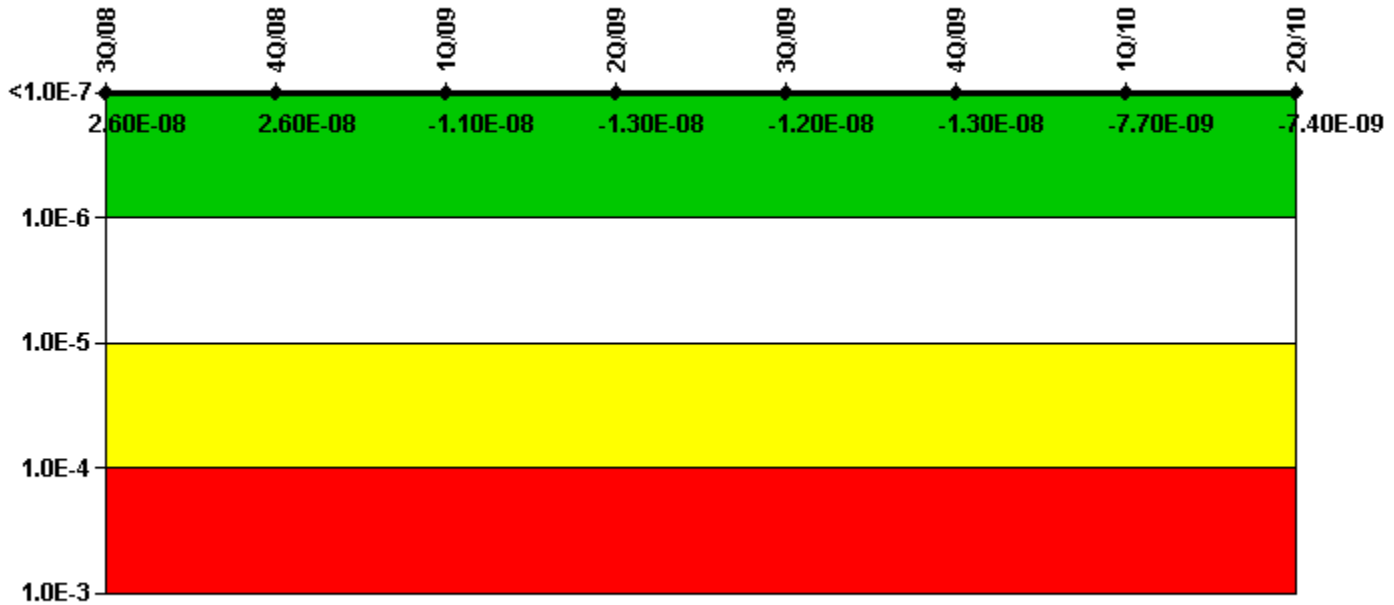
## Notes

Mitigating Systems Performance Index, Heat Removal System	3Q/08	4Q/08	1Q/09	2Q/09	3Q/09	4Q/09	1Q/10	2Q/10
UAI ( $\Delta$ CDF)	-2.30E-08	-3.20E-08	-3.80E-09	-1.40E-08	-1.40E-08	-1.71E-08	-2.45E-08	4.18E-08
URI ( $\Delta$ CDF)	-2.30E-07	-2.30E-07	-9.80E-08	-9.80E-08	-9.80E-08	-9.96E-08	-1.42E-07	-5.81E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-2.53E-07	-2.62E-07	-1.02E-07	-1.12E-07	-1.12E-07	-1.20E-07	-1.70E-07	-1.60E-08

Licensee Comments:

2Q/10: PRA model was revised March 25, 2010 with corresponding MSPI Model revision. This resulted in revision to plant base CDF values and corresponding Fussel-Vessely, Unavailability, and Unreliability values for monitored systems.

# Mitigating Systems Performance Index, Residual Heat Removal System



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

## Notes

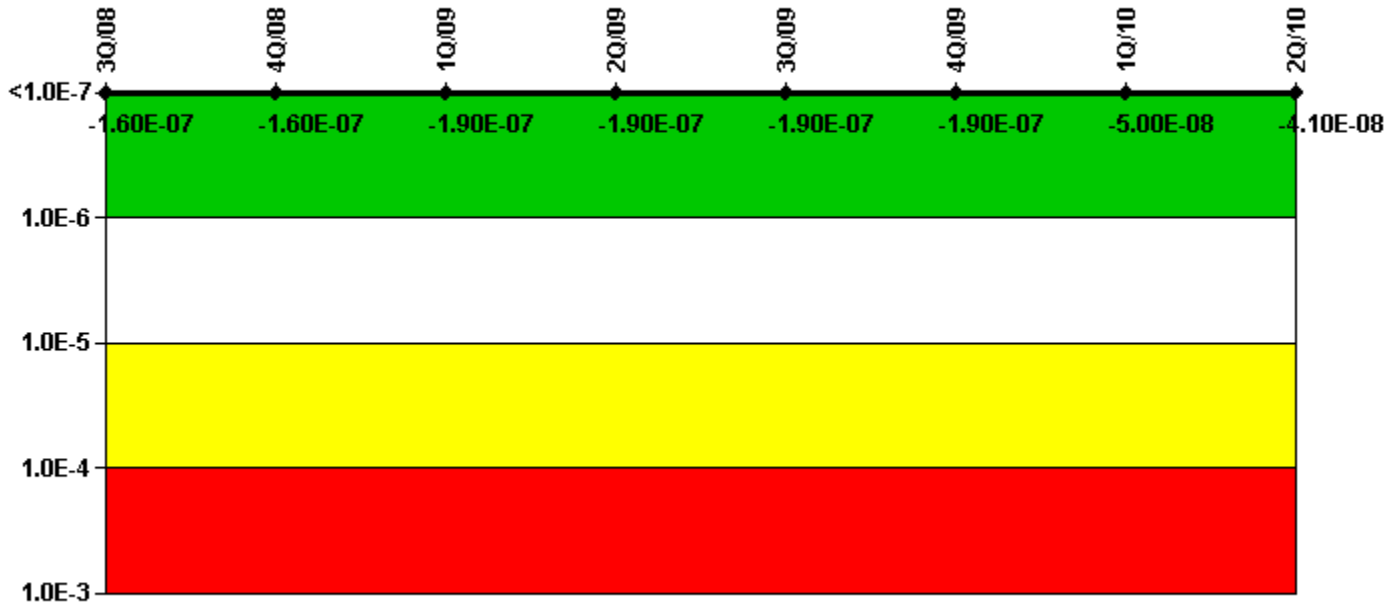
Mitigating Systems Performance Index, Residual Heat Removal System	3Q/08	4Q/08	1Q/09	2Q/09	3Q/09	4Q/09	1Q/10	2Q/10
UAI ( $\Delta$ CDF)	3.50E-08	3.45E-08	1.16E-08	1.01E-08	1.03E-08	9.83E-09	-5.24E-10	-4.94E-10
URI ( $\Delta$ CDF)	-8.96E-09	-8.96E-09	-2.31E-08	-2.28E-08	-2.25E-08	-2.23E-08	-7.14E-09	-6.90E-09
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	2.60E-08	2.60E-08	-1.10E-08	-1.30E-08	-1.20E-08	-1.30E-08	-7.70E-09	-7.40E-09

Licensee Comments:

2Q/10: PRA model was revised March 25, 2010 with corresponding MSPI Model revision. This resulted in revision to plant base CDF values and corresponding Fussel-Vessely, Unavailability, and Unreliability values for monitored systems.



# Mitigating Systems Performance Index, Cooling Water Systems



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

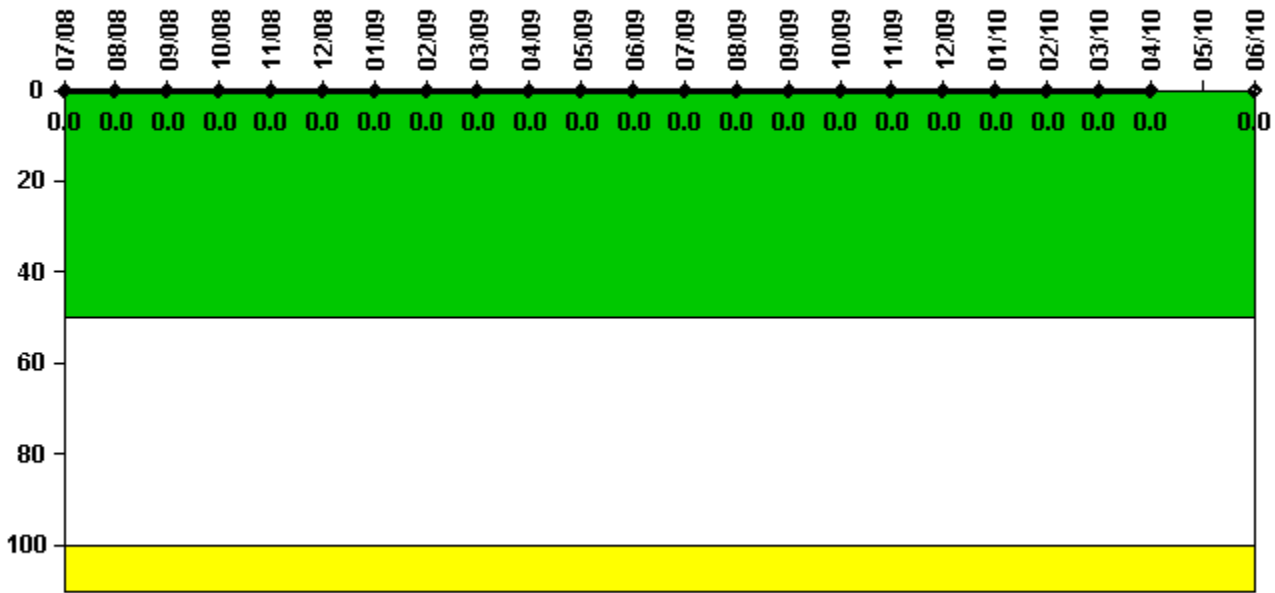
## Notes

Mitigating Systems Performance Index, Cooling Water Systems	3Q/08	4Q/08	1Q/09	2Q/09	3Q/09	4Q/09	1Q/10	2Q/10
UAI ( $\Delta$ CDF)	-5.20E-11	-5.20E-11	-1.50E-11	-1.50E-11	-1.50E-11	-1.47E-11	0.00E+00	0.00E+00
URI ( $\Delta$ CDF)	-1.60E-07	-1.60E-07	-1.90E-07	-1.90E-07	-1.90E-07	-1.94E-07	-4.99E-08	-4.06E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-1.60E-07	-1.60E-07	-1.90E-07	-1.90E-07	-1.90E-07	-1.90E-07	-5.00E-08	-4.10E-08

Licensee Comments:

2Q/10: PRA model was revised March 25, 2010 with corresponding MSPI Model revision. This resulted in revision to plant base CDF values and corresponding Fussel-Vessely, Unavailability, and Unreliability values for monitored systems.

## Reactor Coolant System Activity



Thresholds: White > 50.0 Yellow > 100.0

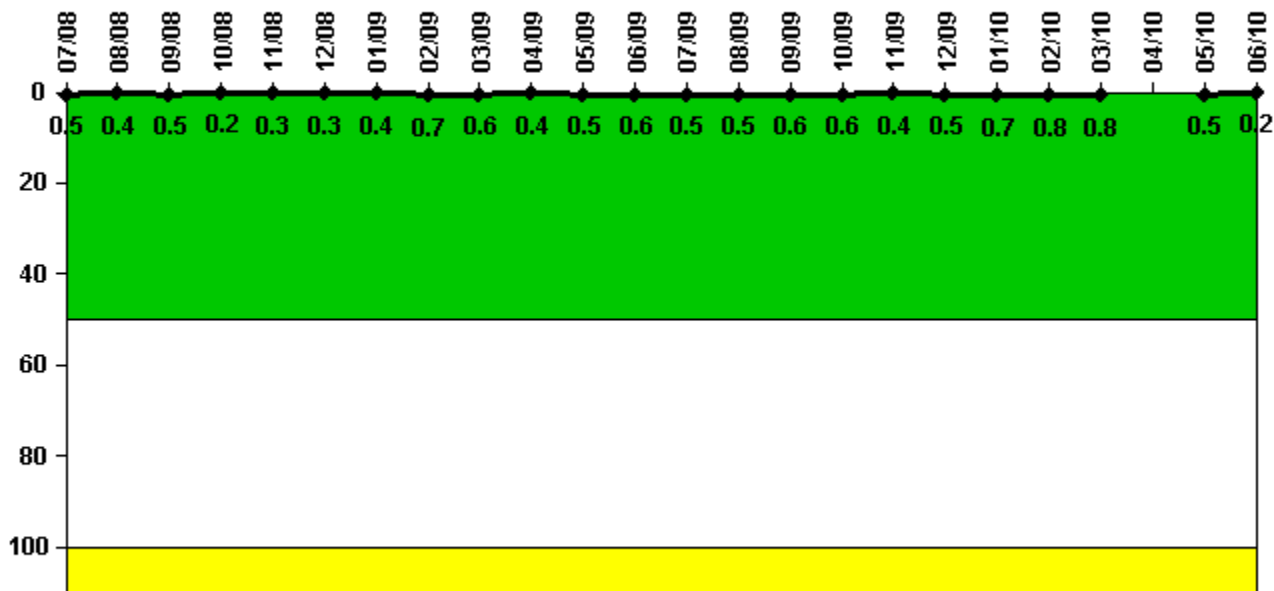
### Notes

Reactor Coolant System Activity	7/08	8/08	9/08	10/08	11/08	12/08	1/09	2/09	3/09	4/09	5/09	6/09
Maximum activity	0.000386	0.000388	0.000405	0.000385	0.000225	0.000246	0.000262	0.000265	0.000277	0.000289	0.000298	0.000307
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	7/09	8/09	9/09	10/09	11/09	12/09	1/10	2/10	3/10	4/10	5/10	6/10
Maximum activity	0.000399	0.000313	0.000332	0.000340	0.000339	0.000344	0.000349	0.000370	0.000363	0.000332	N/A	0.000257
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	N/A	0

Licensee Comments:

6/10: Unit 1 Maximum I-131 activity was not obtained in May 2010 because of the refueling outage.

## Reactor Coolant System Leakage



Thresholds: White > 50.0 Yellow > 100.0

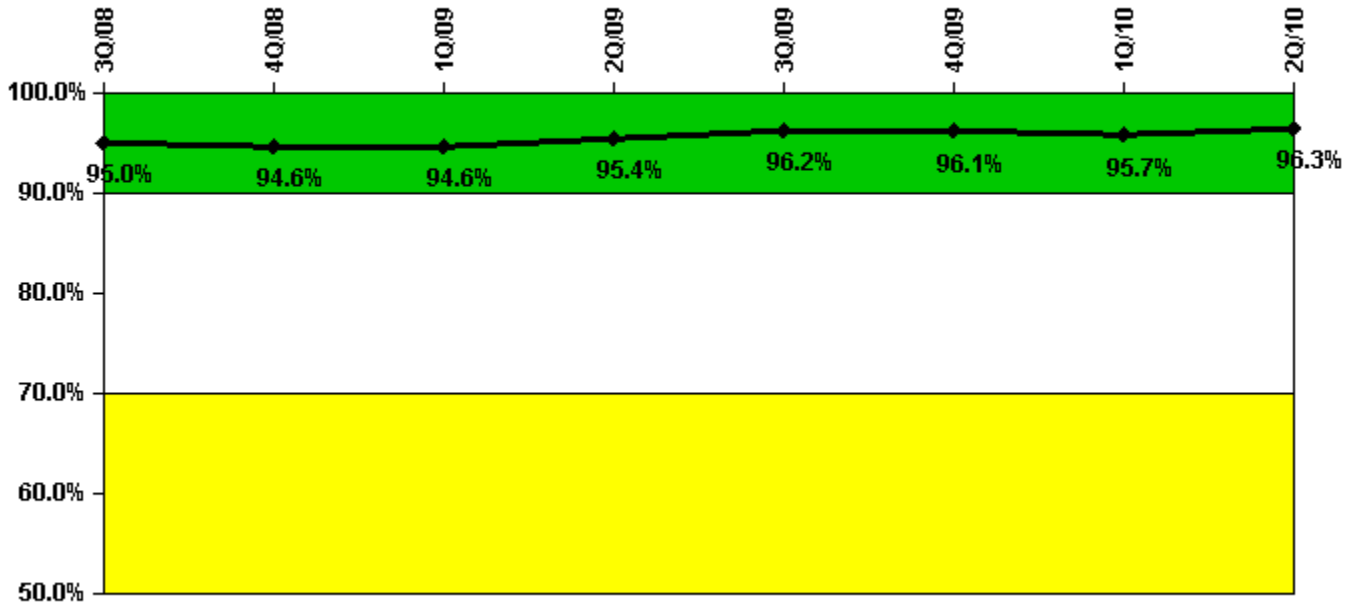
### Notes

<b>Reactor Coolant System Leakage</b>	<b>7/08</b>	<b>8/08</b>	<b>9/08</b>	<b>10/08</b>	<b>11/08</b>	<b>12/08</b>	<b>1/09</b>	<b>2/09</b>	<b>3/09</b>	<b>4/09</b>	<b>5/09</b>	<b>6/09</b>
Maximum leakage	0.052	0.035	0.048	0.024	0.028	0.025	0.044	0.067	0.058	0.038	0.047	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	0.5	0.4	0.5	0.2	0.3	0.3	0.4	0.7	0.6	0.4	0.5	0.6
<b>Reactor Coolant System Leakage</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>	<b>4/10</b>	<b>5/10</b>	<b>6/10</b>
Maximum leakage	0.045	0.054	0.055	0.056	0.043	0.049	0.071	0.076	0.079	N/A	0.046	0.021
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	0.6	0.4	0.5	0.7	0.8	0.8	N/A	0.5	0.2

Licensee Comments:

6/10: Unit 1 RCS leak rate was not obtained in April 2010 because of the refueling outage.

## Drill/Exercise Performance



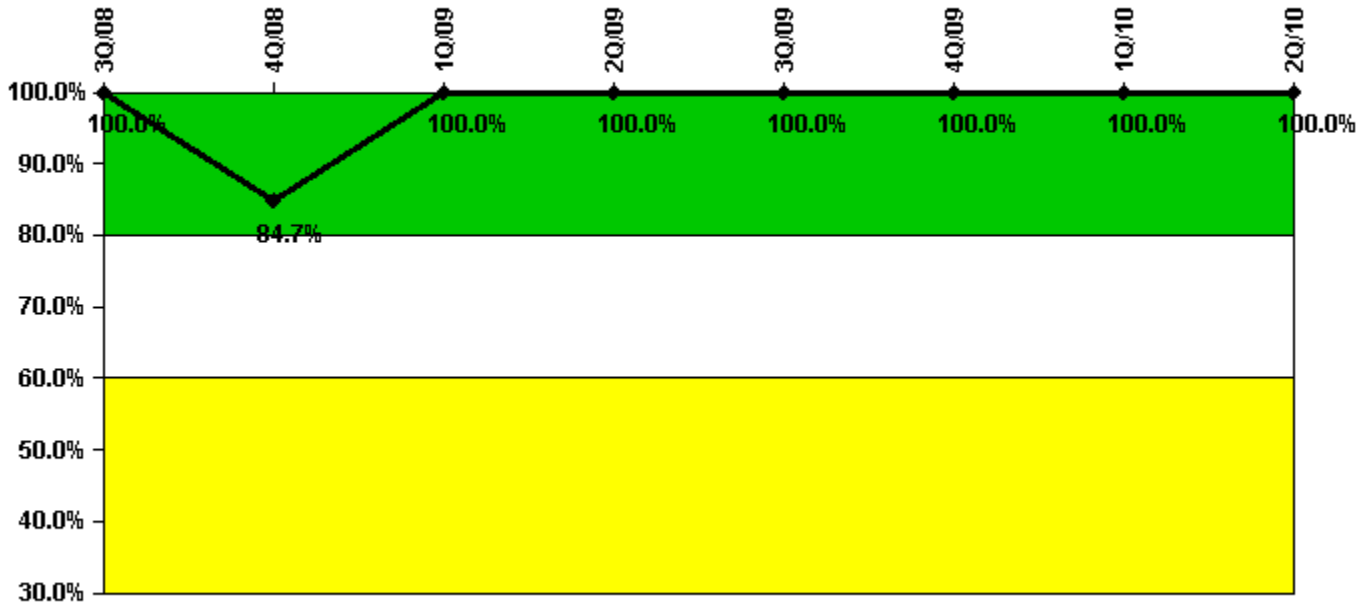
**Thresholds: White < 90.0% Yellow < 70.0%**

### Notes

Drill/Exercise Performance	3Q/08	4Q/08	1Q/09	2Q/09	3Q/09	4Q/09	1Q/10	2Q/10
Successful opportunities	43.0	35.0	75.0	109.0	49.0	13.0	87.0	81.0
Total opportunities	43.0	39.0	79.0	112.0	50.0	14.0	90.0	84.0
Indicator value	95.0%	94.6%	94.6%	95.4%	96.2%	96.1%	95.7%	96.3%

Licensee Comments: none

# ERO Drill Participation



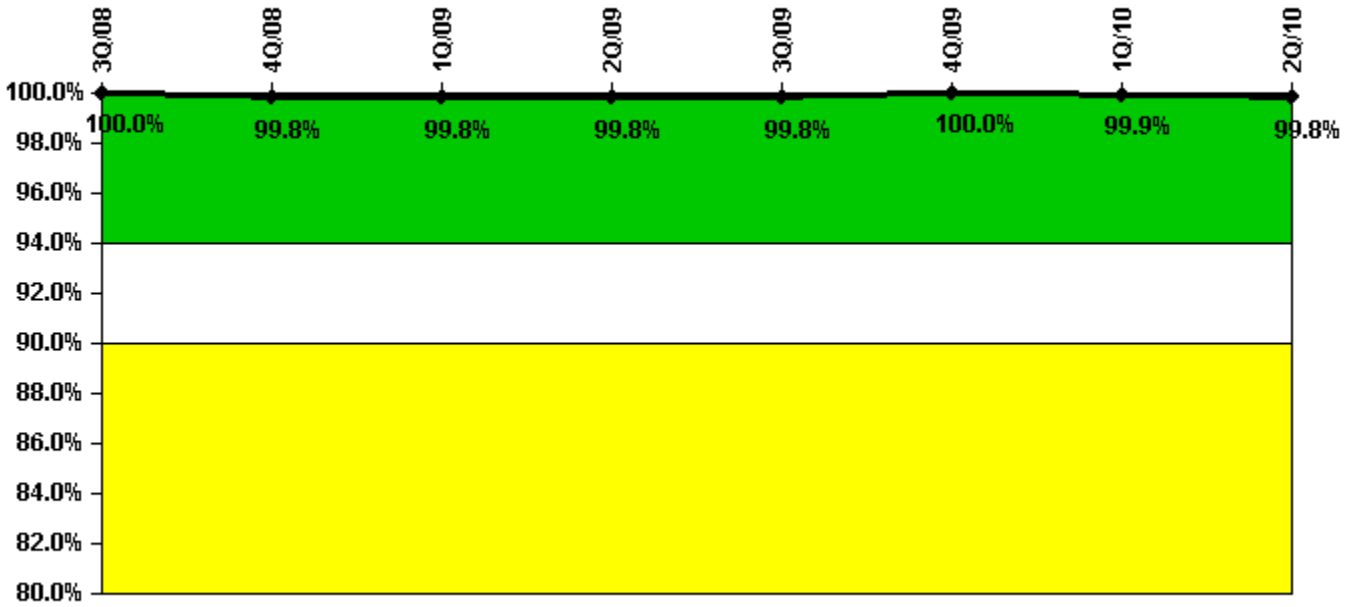
Thresholds: White < 80.0% Yellow < 60.0%

## Notes

ERO Drill Participation	3Q/08	4Q/08	1Q/09	2Q/09	3Q/09	4Q/09	1Q/10	2Q/10
Participating Key personnel	183.0	72.0	78.0	87.0	95.0	92.0	97.0	102.0
Total Key personnel	183.0	85.0	78.0	87.0	95.0	92.0	97.0	102.0
Indicator value	100.0%	84.7%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Licensee Comments: none

# Alert & Notification System



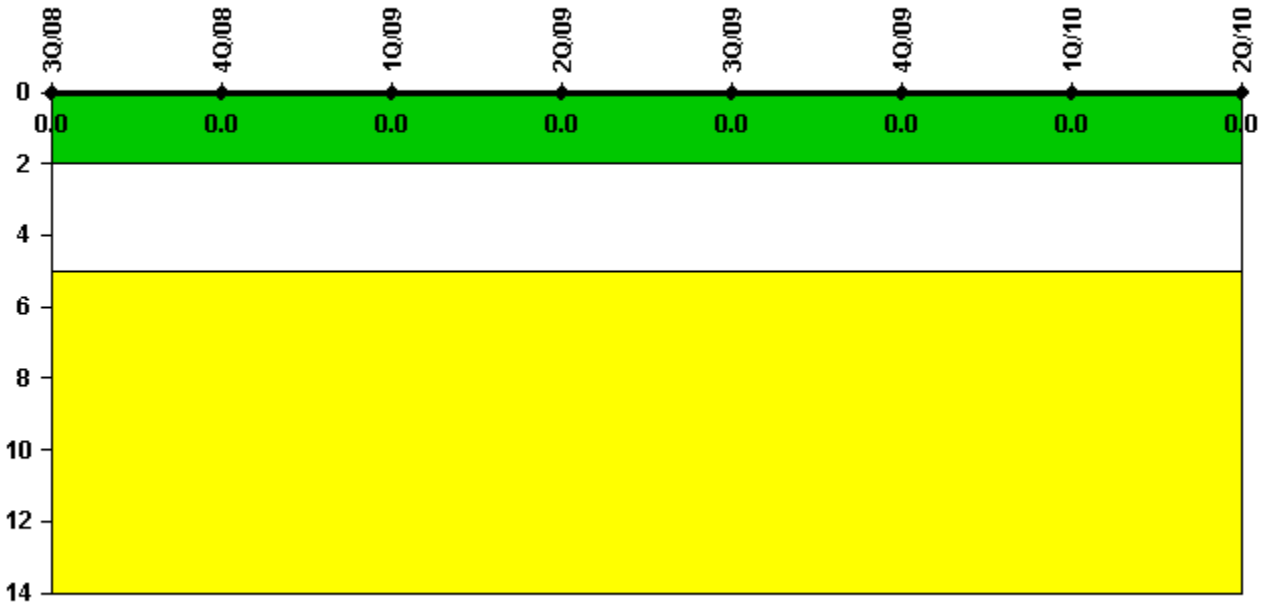
Thresholds: White < 94.0% Yellow < 90.0%

## Notes

Alert & Notification System	3Q/08	4Q/08	1Q/09	2Q/09	3Q/09	4Q/09	1Q/10	2Q/10
Successful siren-tests	296	331	296	296	296	333	959	909
Total sirens-tests	296	333	296	296	296	333	960	912
Indicator value	100.0%	99.8%	99.8%	99.8%	99.8%	100.0%	99.9%	99.8%

Licensee Comments: none

# Occupational Exposure Control Effectiveness



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

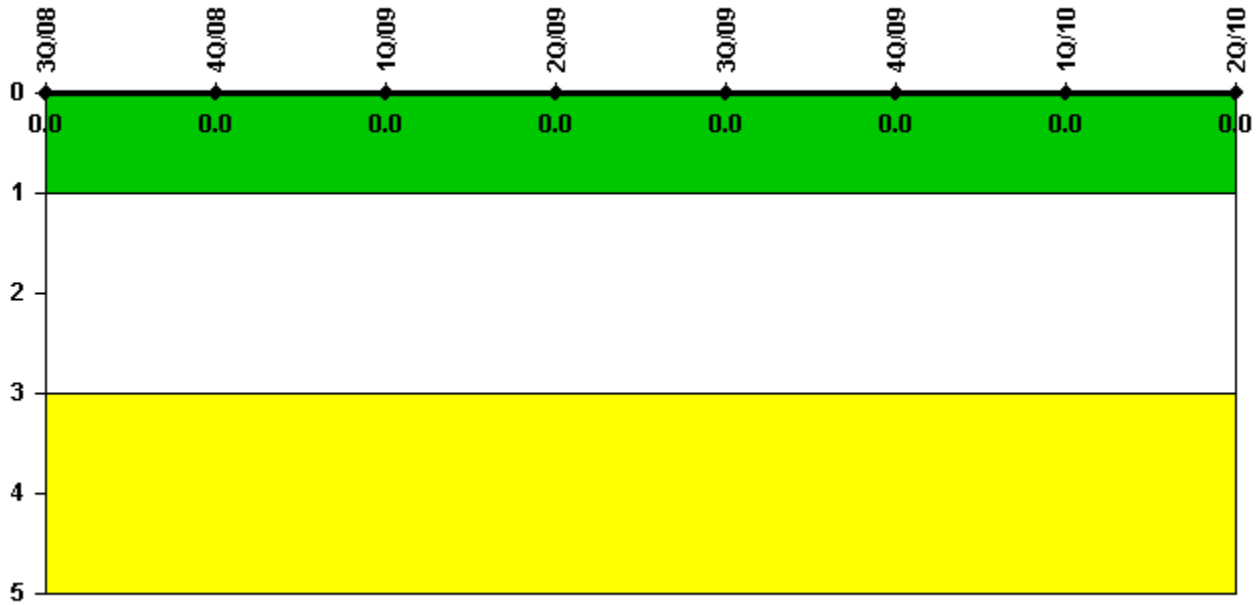
## Notes

Occupational Exposure Control Effectiveness	3Q/08	4Q/08	1Q/09	2Q/09	3Q/09	4Q/09	1Q/10	2Q/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	3Q/08	4Q/08	1Q/09	2Q/09	3Q/09	4Q/09	1Q/10	2Q/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.