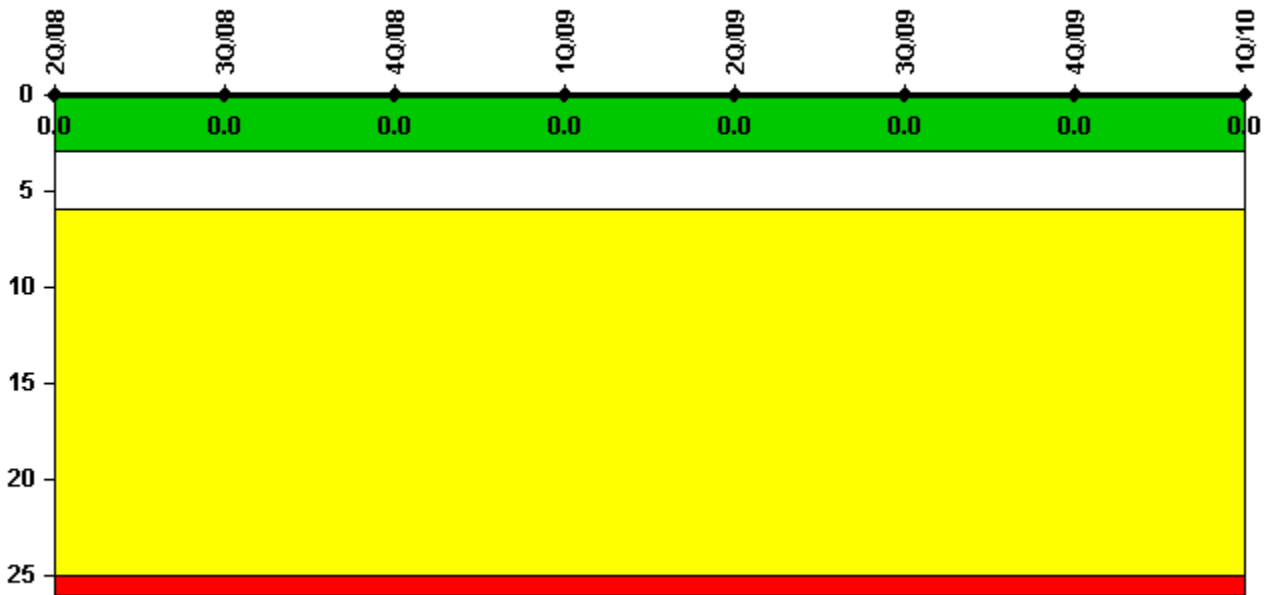


# Byron 2

## 1Q/2010 Performance Indicators

Licensee's General Comments: The NRC identified where an SSFF was reported but did not actually occur for: Unit 1 - Jun, Sept and Nov 2003 and for Unit 2 - Jun and Sept 2003. In June of 2006, the SSFF data field was incorrectly changed from "0" to "1". The data is now corrected.

### Unplanned Scrams per 7000 Critical Hrs



Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

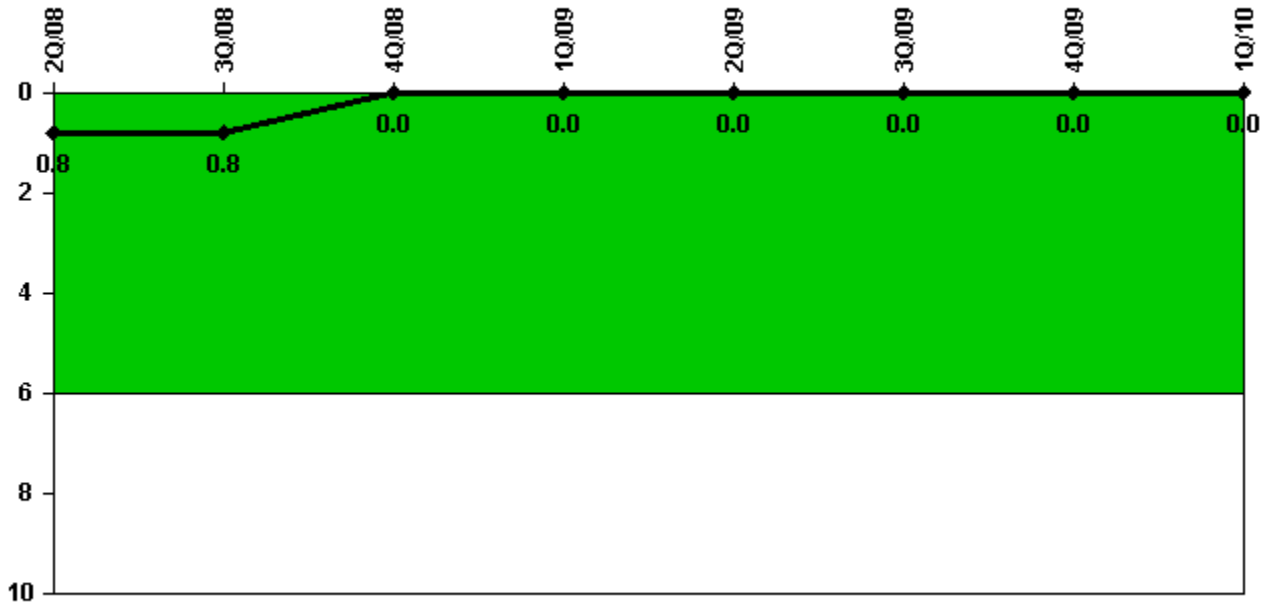
### Notes

Unplanned Scrams per 7000 Critical Hrs	2Q/08	3Q/08	4Q/08	1Q/09	2Q/09	3Q/09	4Q/09	1Q/10
Unplanned scrams	0	0	0	0	0	0	0	0
Critical hours	2184.0	2208.0	1774.2	2159.0	2184.0	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/08	3Q/08	4Q/08	1Q/09	2Q/09	3Q/09	4Q/09	1Q/10
Unplanned power changes	0	0	0	0	0	0	0	0
Critical hours	2184.0	2208.0	1774.2	2159.0	2184.0	2208.0	2209.0	2159.0
Indicator value	0.8	0.8	0	0	0	0	0	0

Licensee Comments: none

## Unplanned Scrams with Complications



Thresholds: White > 1.0

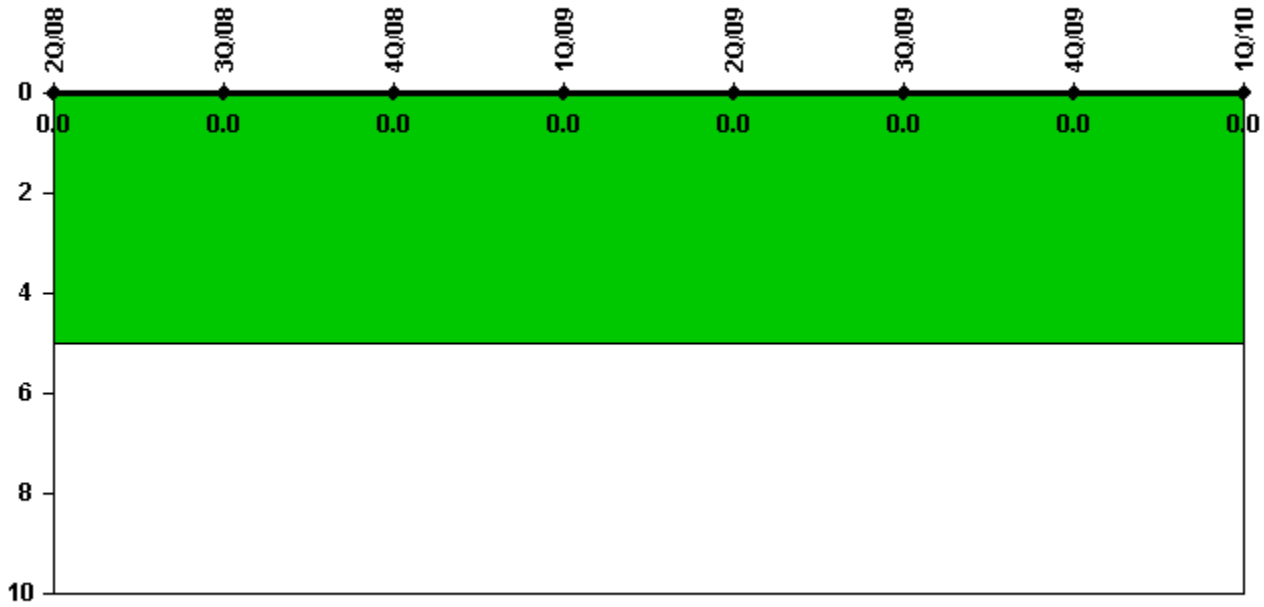
### Notes

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

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## Safety System Functional Failures (PWR)



Thresholds: White > 5.0

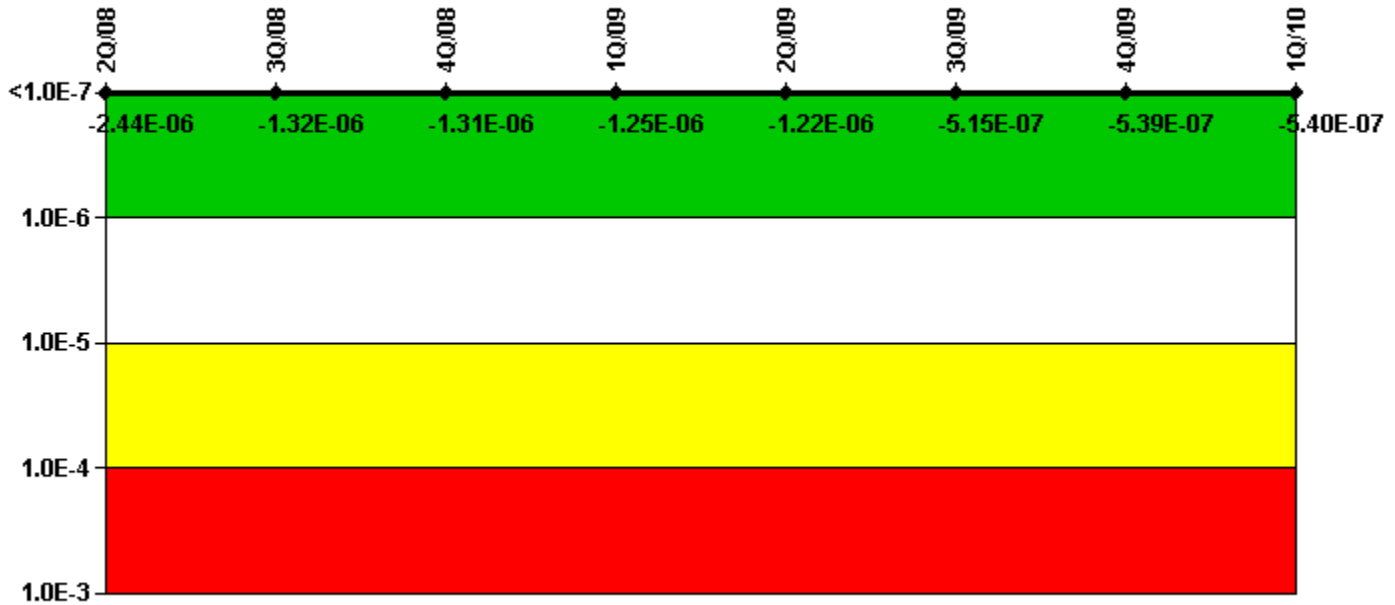
### Notes

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

Licensee Comments: none

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# Mitigating Systems Performance Index, Emergency AC Power System



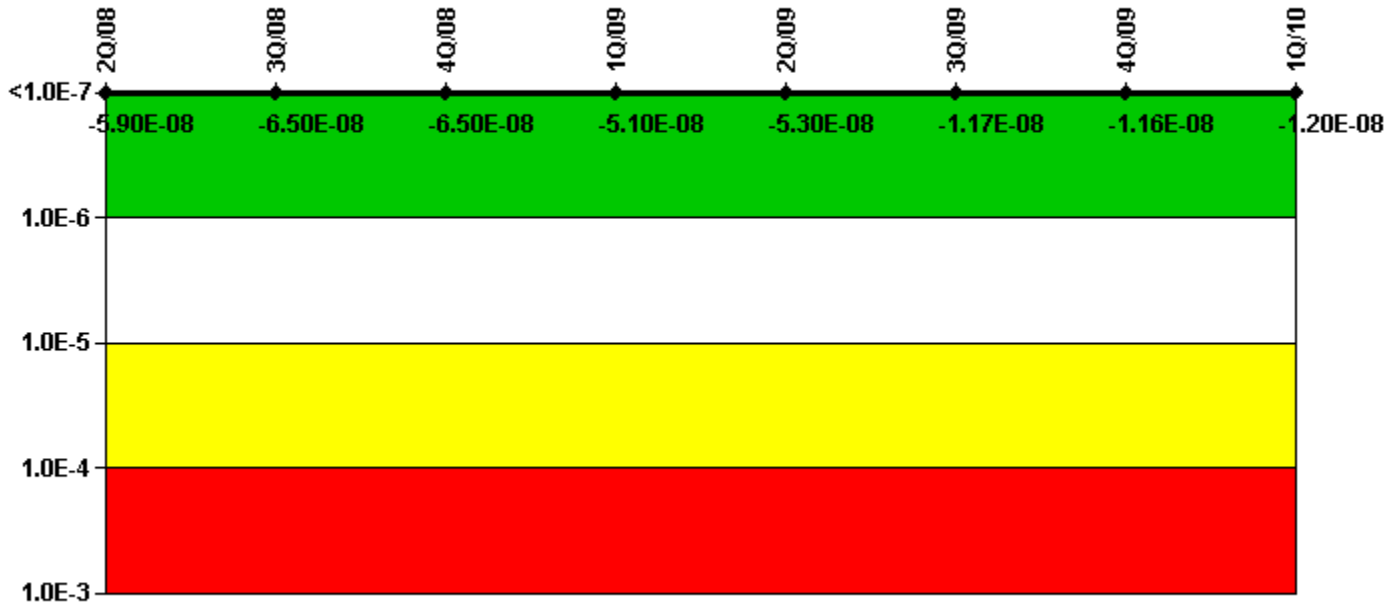
Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

## Notes

Mitigating Systems Performance Index, Emergency AC Power System	2Q/08	3Q/08	4Q/08	1Q/09	2Q/09	3Q/09	4Q/09	1Q/10
UAI ( $\Delta$ CDF)	-4.10E-08	-2.10E-08	-7.10E-09	5.30E-08	7.70E-08	5.50E-08	3.10E-08	2.95E-08
URI ( $\Delta$ CDF)	-2.40E-06	-1.30E-06	-1.30E-06	-1.30E-06	-1.30E-06	-5.70E-07	-5.70E-07	-5.70E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-2.44E-06	-1.32E-06	-1.31E-06	-1.25E-06	-1.22E-06	-5.15E-07	-5.39E-07	-5.40E-07

Licensee Comments: none

# Mitigating Systems Performance Index, High Pressure Injection System



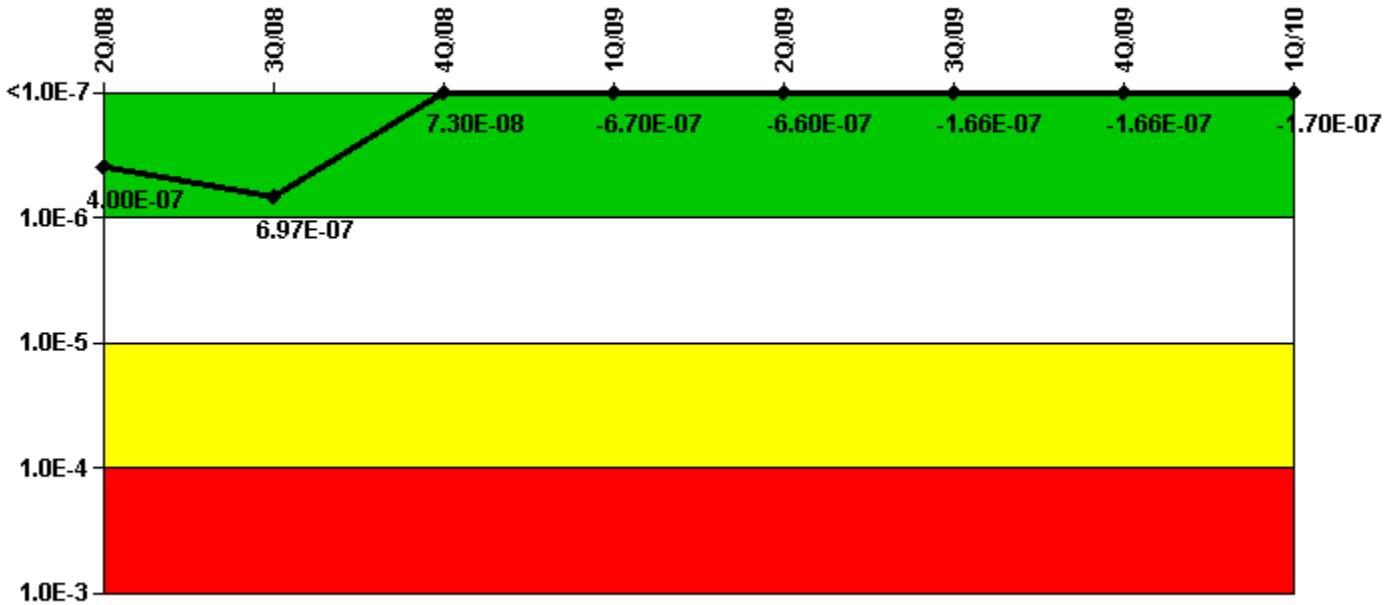
Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

## Notes

Mitigating Systems Performance Index, High Pressure Injection System	2Q/08	3Q/08	4Q/08	1Q/09	2Q/09	3Q/09	4Q/09	1Q/10
UAI ( $\Delta$ CDF)	-4.20E-08	-5.40E-08	-5.40E-08	-4.10E-08	-4.30E-08	-9.20E-09	-9.20E-09	-9.17E-09
URI ( $\Delta$ CDF)	-1.70E-08	-1.10E-08	-1.10E-08	-1.00E-08	-1.00E-08	-2.50E-09	-2.40E-09	-2.44E-09
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-5.90E-08	-6.50E-08	-6.50E-08	-5.10E-08	-5.30E-08	-1.17E-08	-1.16E-08	-1.20E-08

Licensee Comments: none

# Mitigating Systems Performance Index, Heat Removal System



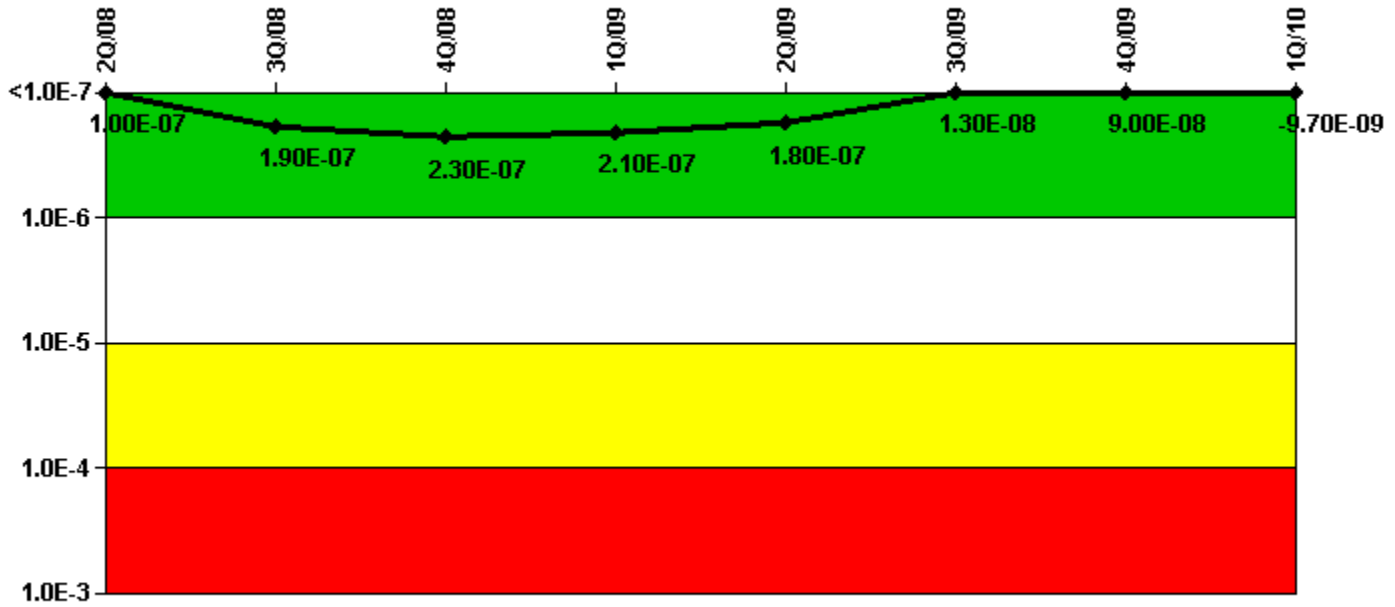
Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

## Notes

Mitigating Systems Performance Index, Heat Removal System	2Q/08	3Q/08	4Q/08	1Q/09	2Q/09	3Q/09	4Q/09	1Q/10
UAI ( $\Delta$ CDF)	-3.10E-07	-6.30E-08	-6.70E-08	-1.60E-07	-1.60E-07	7.40E-08	7.40E-08	7.37E-08
URI ( $\Delta$ CDF)	7.10E-07	7.60E-07	1.40E-07	-5.10E-07	-5.00E-07	-2.40E-07	-2.40E-07	-2.41E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	4.00E-07	6.97E-07	7.30E-08	-6.70E-07	-6.60E-07	-1.66E-07	-1.66E-07	-1.70E-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

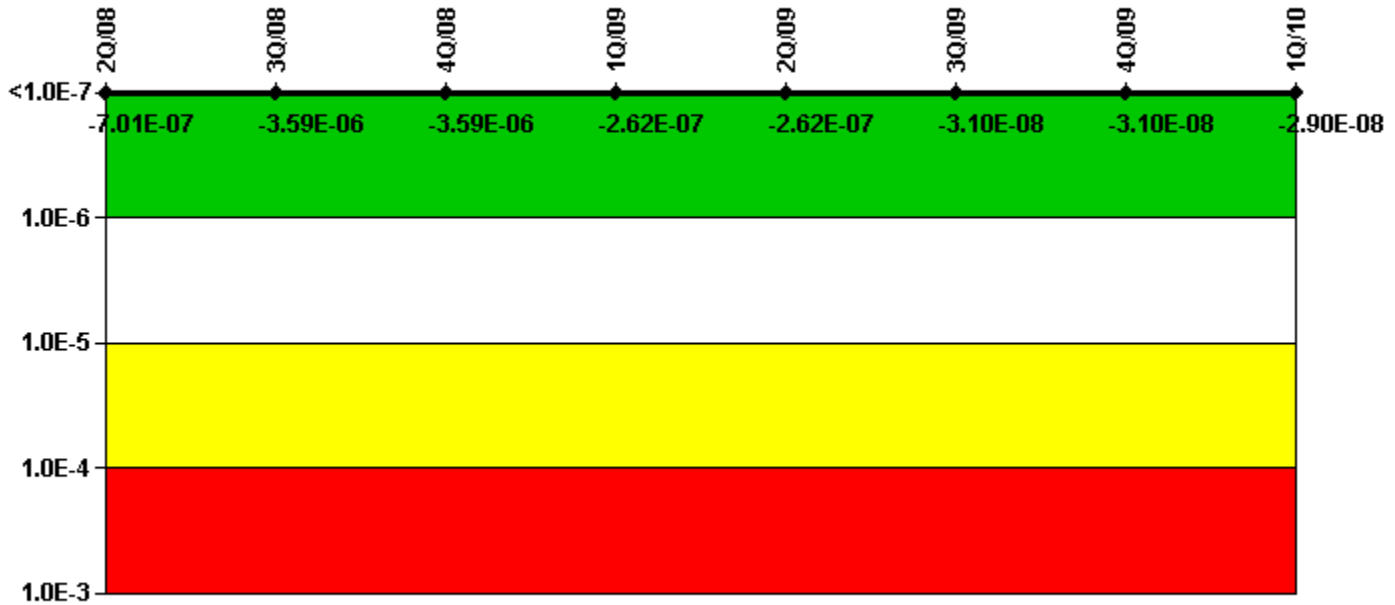
## Notes

Mitigating Systems Performance Index, Residual Heat Removal System	2Q/08	3Q/08	4Q/08	1Q/09	2Q/09	3Q/09	4Q/09	1Q/10
UAI ( $\Delta$ CDF)	2.60E-07	3.10E-07	3.70E-07	3.50E-07	3.20E-07	1.10E-07	1.90E-07	9.26E-08
URI ( $\Delta$ CDF)	-1.60E-07	-1.20E-07	-1.40E-07	-1.40E-07	-1.40E-07	-9.70E-08	-1.00E-07	-1.02E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	1.00E-07	1.90E-07	2.30E-07	2.10E-07	1.80E-07	1.30E-08	9.00E-08	-9.70E-09

Licensee Comments: none



# Mitigating Systems Performance Index, Cooling Water Systems



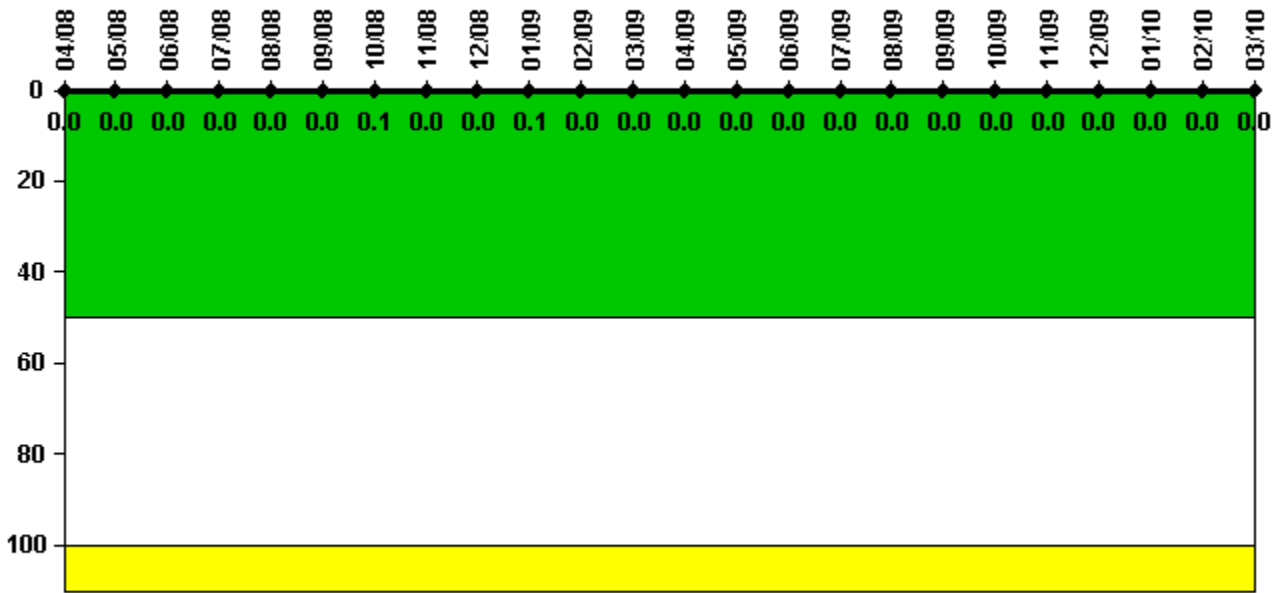
Thresholds: White >  $1.00E-6$  Yellow >  $1.00E-5$  Red >  $1.00E-4$

## Notes

Mitigating Systems Performance Index, Cooling Water Systems	2Q/08	3Q/08	4Q/08	1Q/09	2Q/09	3Q/09	4Q/09	1Q/10
UAI ( $\Delta$ CDF)	$9.10E-09$	$7.90E-09$	$8.00E-09$	$7.80E-09$	$7.80E-09$	$7.90E-08$	$7.90E-08$	$7.95E-08$
URI ( $\Delta$ CDF)	$-7.10E-07$	$-3.60E-06$	$-3.60E-06$	$-2.70E-07$	$-2.70E-07$	$-1.10E-07$	$-1.10E-07$	$-1.09E-07$
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	$-7.01E-07$	$-3.59E-06$	$-3.59E-06$	$-2.62E-07$	$-2.62E-07$	$-3.10E-08$	$-3.10E-08$	$-2.90E-08$

Licensee Comments: none

# Reactor Coolant System Activity



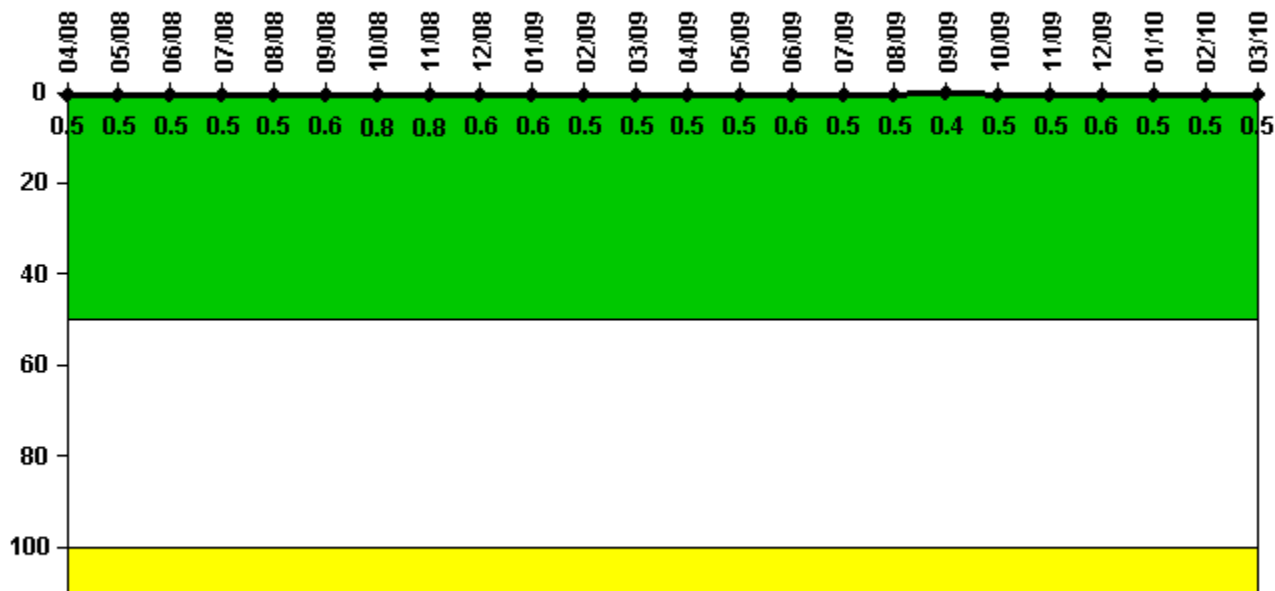
Thresholds: White > 50.0 Yellow > 100.0

## Notes

Reactor Coolant System Activity	4/08	5/08	6/08	7/08	8/08	9/08	10/08	11/08	12/08	1/09	2/09	3/09
Maximum activity	0.000383	0.000383	0.000399	0.000405	0.000405	0.000419	0.000635	0.000373	0.000315	0.000558	0.000334	0.000343
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	0.1	0	0	0.1	0	0
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

Licensee Comments: none

## Reactor Coolant System Leakage



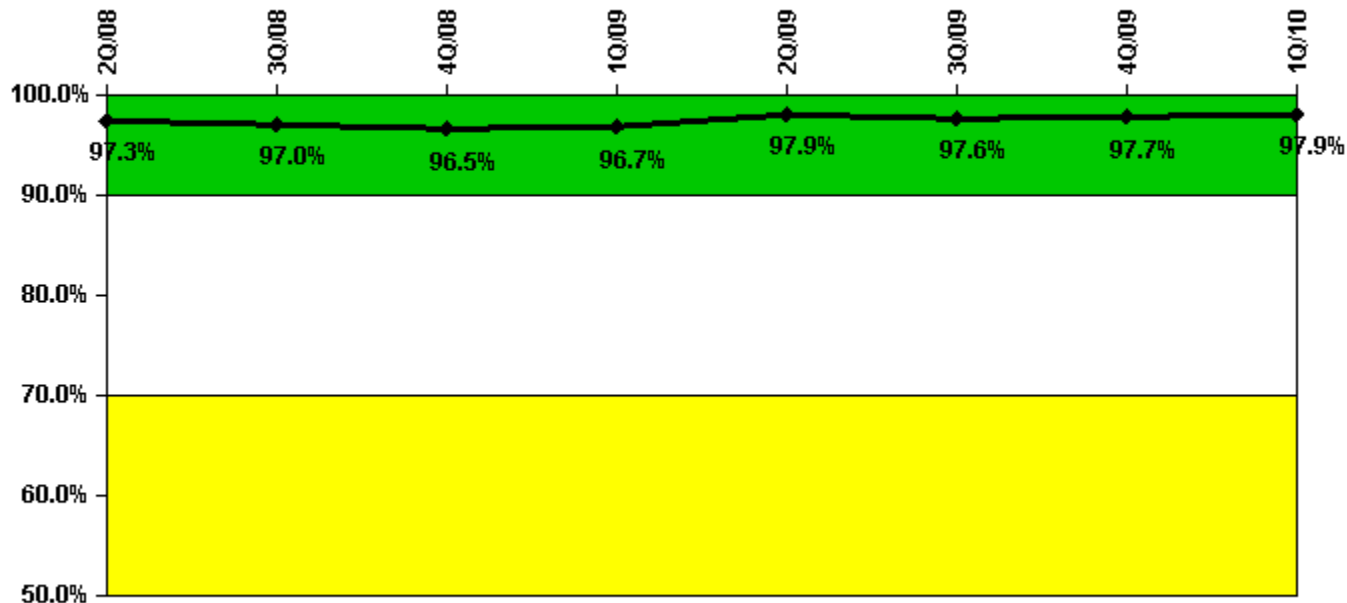
Thresholds: White > 50.0 Yellow > 100.0

### Notes

<b>Reactor Coolant System Leakage</b>	<b>4/08</b>	<b>5/08</b>	<b>6/08</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>
Maximum leakage	0.049	0.046	0.047	0.047	0.054	0.058	0.078	0.076	0.059	0.062	0.052	0.046
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	0.5	0.5	0.5	0.6	0.8	0.8	0.6	0.6	0.5	0.5
<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

Licensee Comments: none

## Drill/Exercise Performance



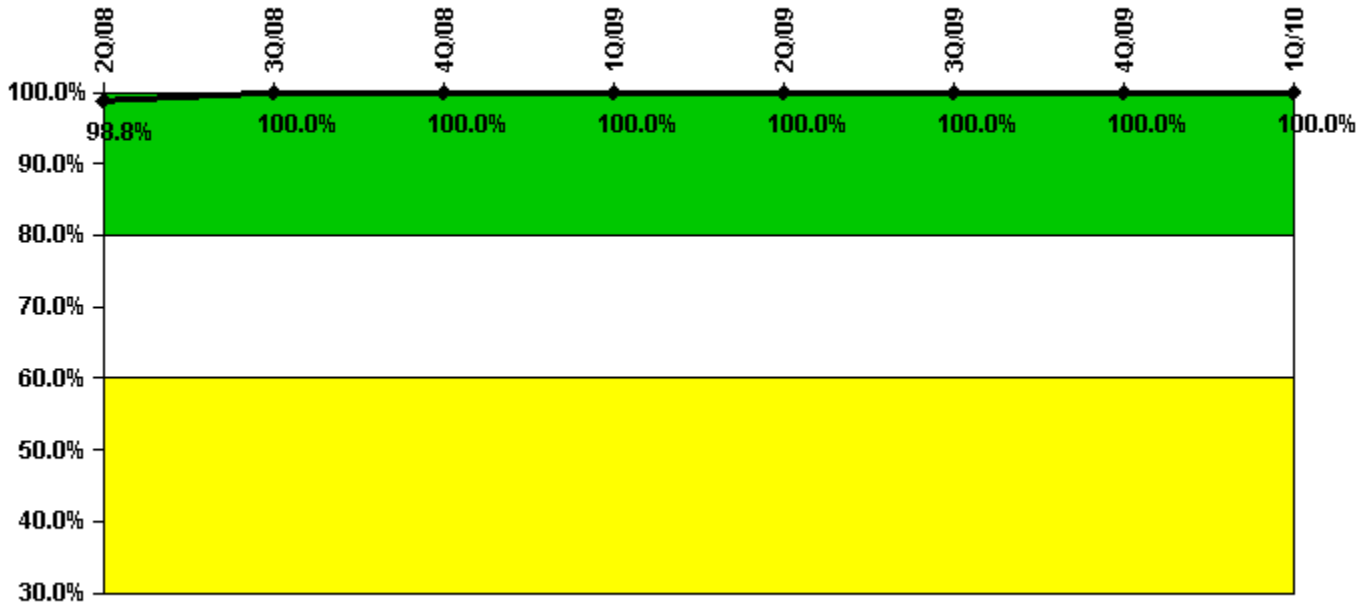
Thresholds: White < 90.0% Yellow < 70.0%

### Notes

Drill/Exercise Performance	2Q/08	3Q/08	4Q/08	1Q/09	2Q/09	3Q/09	4Q/09	1Q/10
Successful opportunities	27.0	62.0	51.0	30.0	62.0	40.0	64.0	34.0
Total opportunities	28.0	64.0	53.0	30.0	62.0	42.0	65.0	34.0
Indicator value	97.3%	97.0%	96.5%	96.7%	97.9%	97.6%	97.7%	97.9%

Licensee Comments: none

## ERO Drill Participation



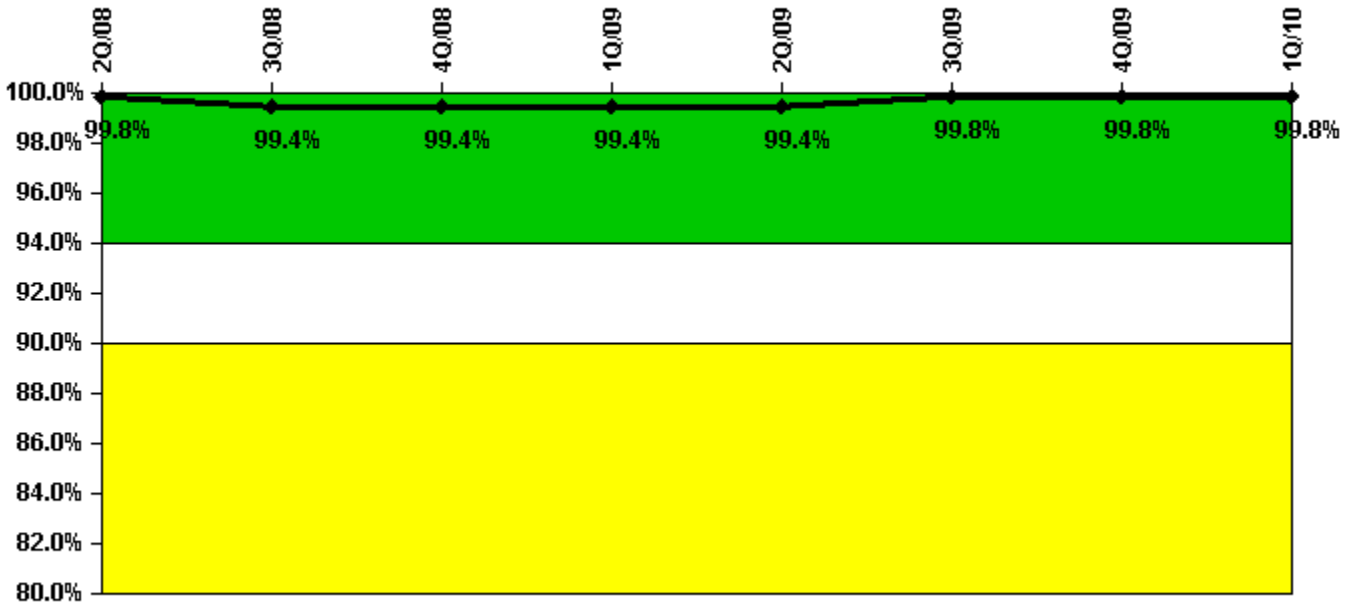
Thresholds: White < 80.0% Yellow < 60.0%

### Notes

ERO Drill Participation	2Q/08	3Q/08	4Q/08	1Q/09	2Q/09	3Q/09	4Q/09	1Q/10
Participating Key personnel	80.0	83.0	82.0	78.0	77.0	76.0	72.0	74.0
Total Key personnel	81.0	83.0	82.0	78.0	77.0	76.0	72.0	74.0
Indicator value	98.8%	100.0%	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%

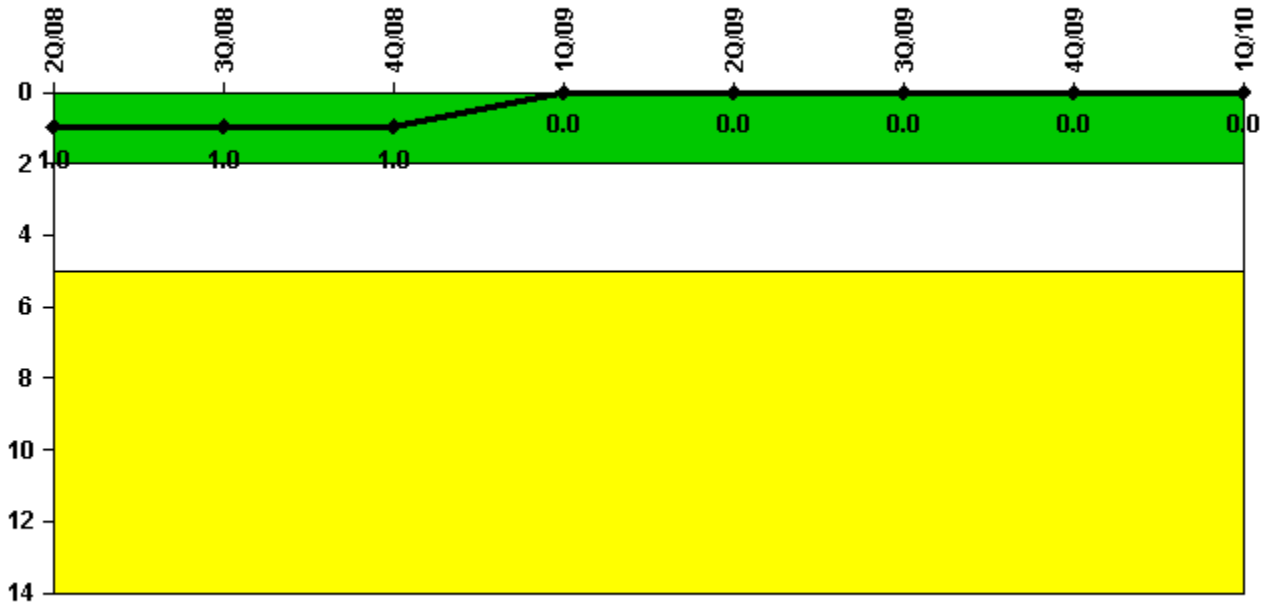
## Notes

Alert & Notification System	2Q/08	3Q/08	4Q/08	1Q/09	2Q/09	3Q/09	4Q/09	1Q/10
Successful siren-tests	6003	6006	5995	5915	6006	6106	5998	3841
Total sirens-tests	6016	6108	6016	5922	6016	6110	6016	3843
Indicator value	99.8%	99.4%	99.4%	99.4%	99.4%	99.8%	99.8%	99.8%

Licensee Comments:

1Q/10: The number of siren tests has been reduced compared to data in previous months due to a reduction of total sirens in the system. This upgrade was implemented in January 2010.

# Occupational Exposure Control Effectiveness



Thresholds: White > 2.0 Yellow > 5.0

## Notes

Occupational Exposure Control Effectiveness	2Q/08	3Q/08	4Q/08	1Q/09	2Q/09	3Q/09	4Q/09	1Q/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>1</b>	<b>1</b>	<b>1</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/08	3Q/08	4Q/08	1Q/09	2Q/09	3Q/09	4Q/09	1Q/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.