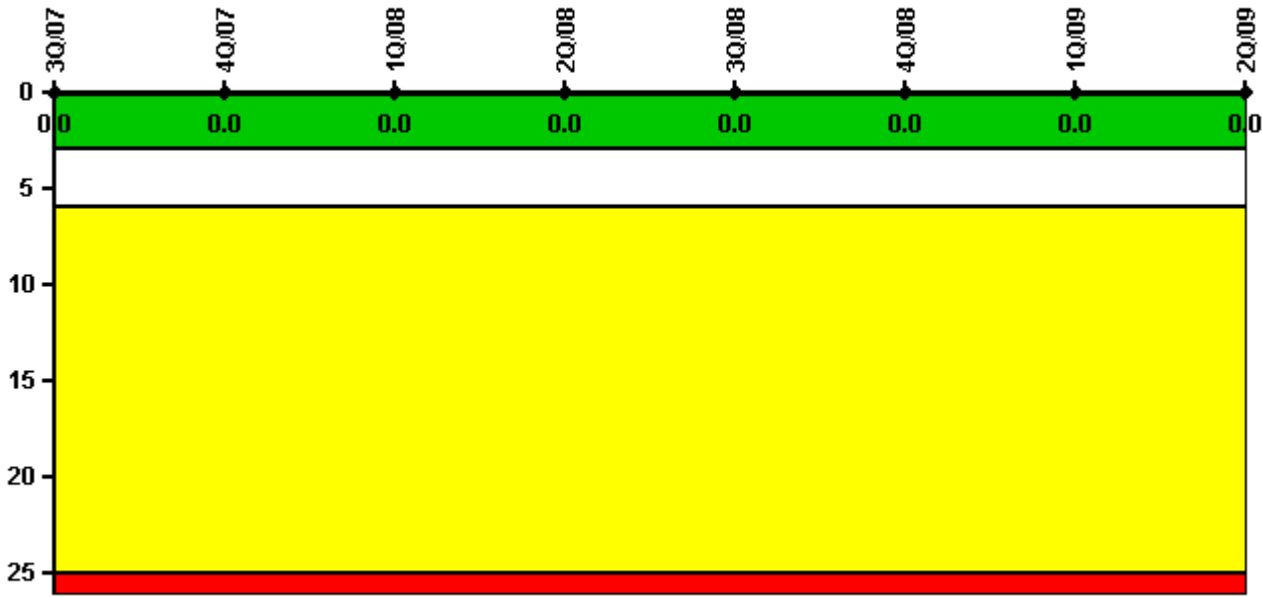


# Byron 1

## 2Q/2009 Performance Indicators

Licensee's General Comments: none

### Unplanned Scrams per 7000 Critical Hrs



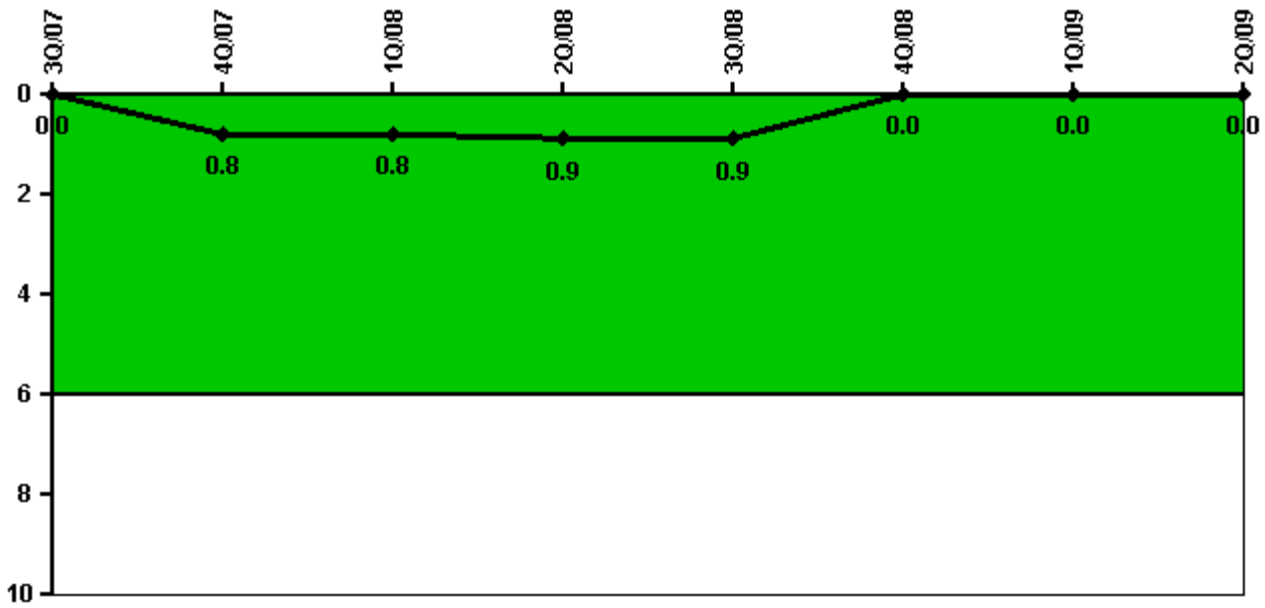
Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

### Notes

Unplanned Scrams per 7000 Critical Hrs	3Q/07	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09	2Q/09
Unplanned scrams	0	0	0	0	0	0	0	0
Critical hours	2208.0	1944.2	1990.0	1868.7	2208.0	2209.0	2159.0	2184.0
Indicator value	0	0	0	0	0	0	0	0

Licensee Comments: none

## Unplanned Power Changes per 7000 Critical Hrs



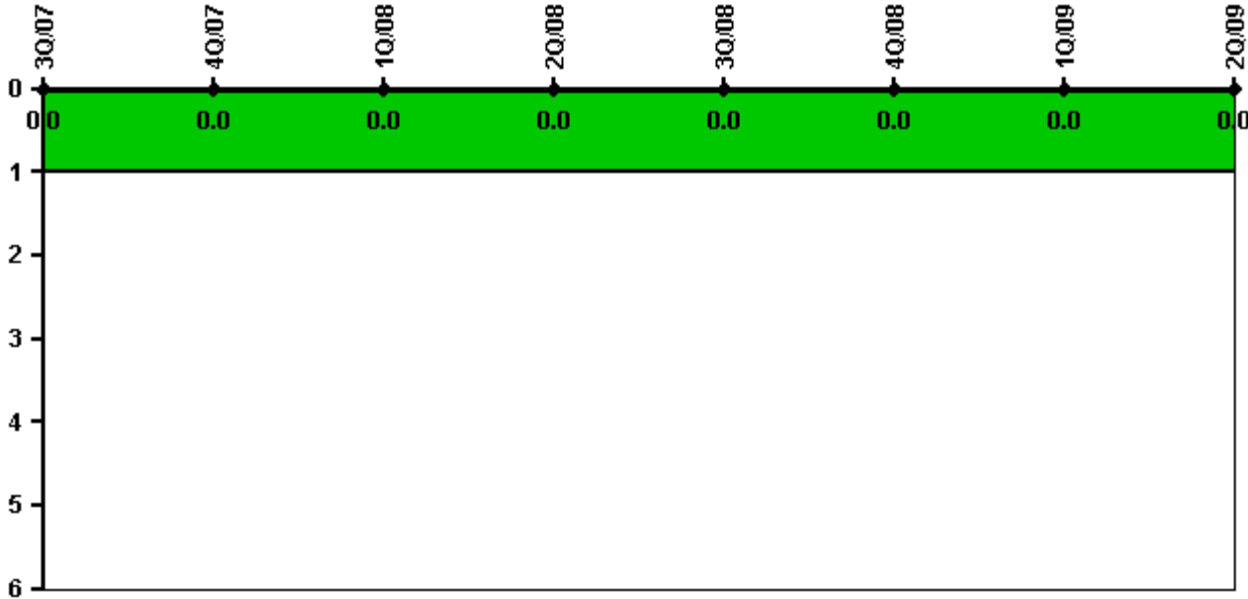
Thresholds: White > 6.0

### Notes

Unplanned Power Changes per 7000 Critical Hrs	3Q/07	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09	2Q/09
Unplanned power changes	0	1.0	0	0	0	0	0	0
Critical hours	2208.0	1944.2	1990.0	1868.7	2208.0	2209.0	2159.0	2184.0
Indicator value	0	0.8	0.8	0.9	0.9	0	0	0

Licensee Comments: none

# Unplanned Scrams with Complications



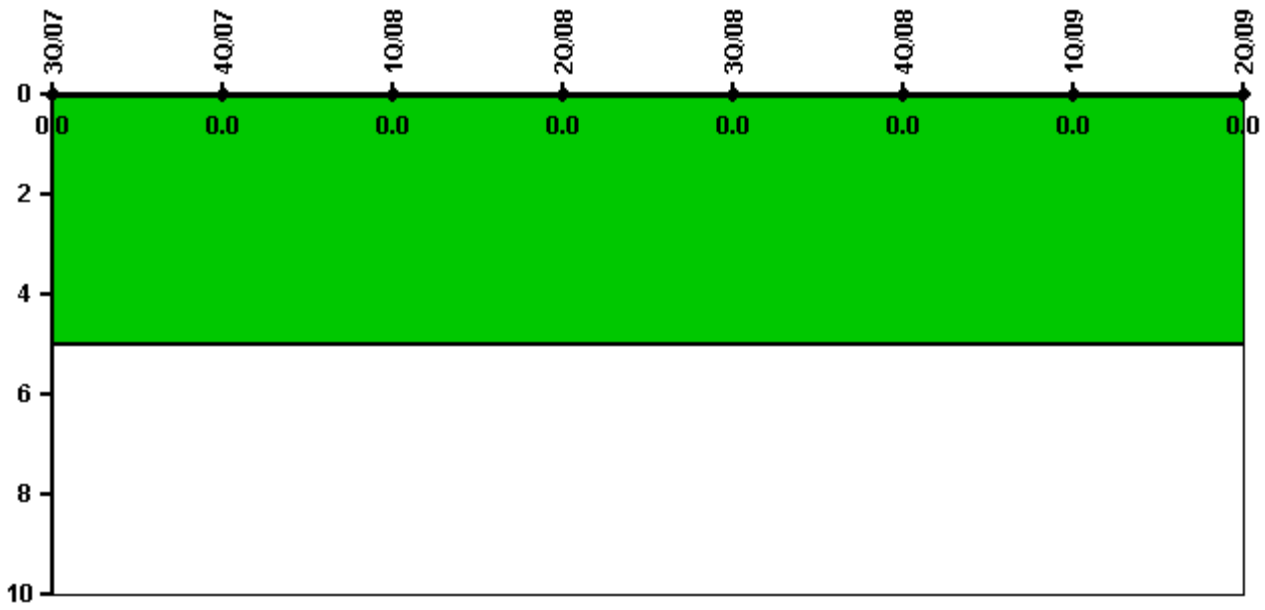
Thresholds: White > 1.0

**Notes**

Unplanned Scrams with Complications	3Q/07	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09	2Q/09
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)



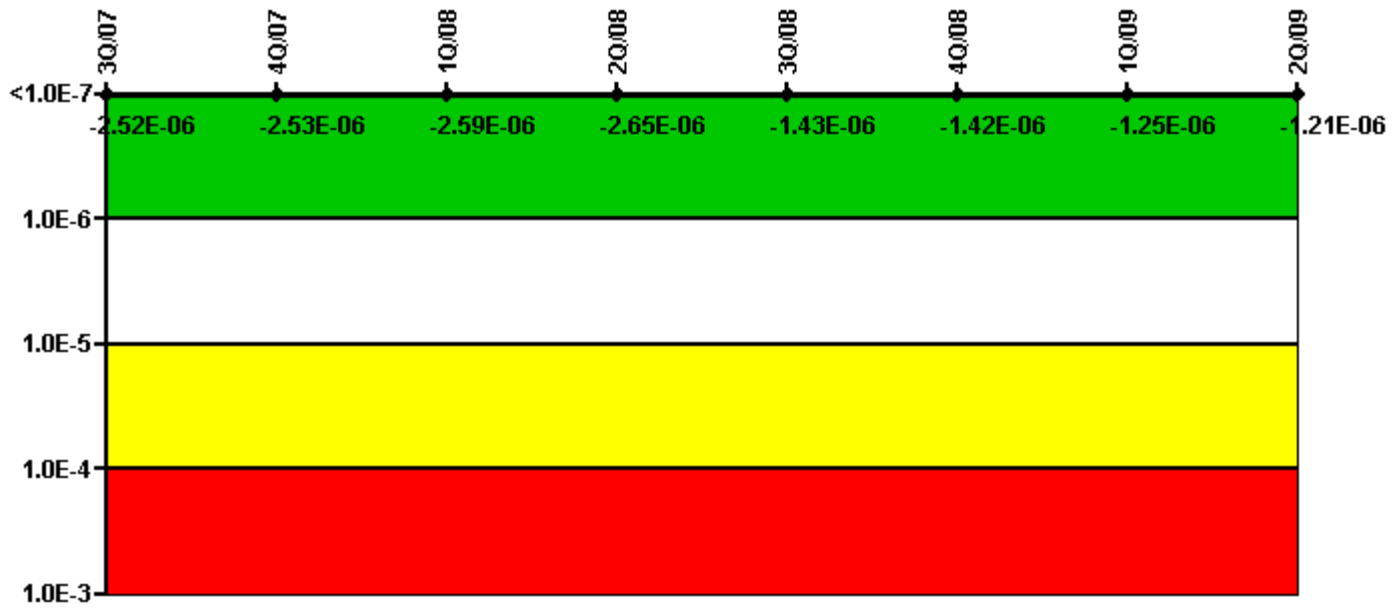
Thresholds: White > 5.0

### Notes

Safety System Functional Failures (PWR)	3Q/07	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09	2Q/09
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

# Mitigating Systems Performance Index, Emergency AC Power System



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

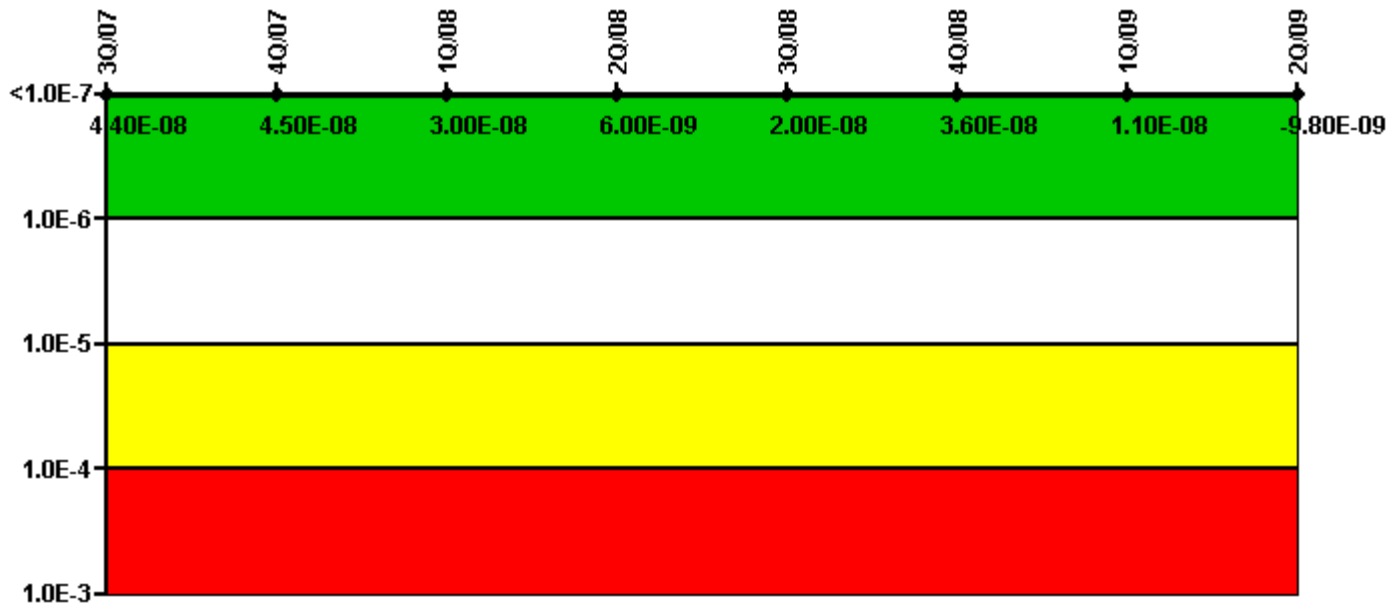
## Notes

Mitigating Systems Performance Index, Emergency AC Power System	3Q/07	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09	2Q/09
UAI ( $\Delta$ CDF)	7.80E-08	7.50E-08	8.30E-09	-4.50E-08	-2.90E-08	-1.90E-08	5.10E-08	8.70E-08
URI ( $\Delta$ CDF)	-2.60E-06	-2.60E-06	-2.60E-06	-2.60E-06	-1.40E-06	-1.40E-06	-1.30E-06	-1.30E-06
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-2.52E-06	-2.53E-06	-2.59E-06	-2.65E-06	-1.43E-06	-1.42E-06	-1.25E-06	-1.21E-06

Licensee Comments:

2Q/09: Changed PRA Parameter(s).

# Mitigating Systems Performance Index, High Pressure Injection System



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

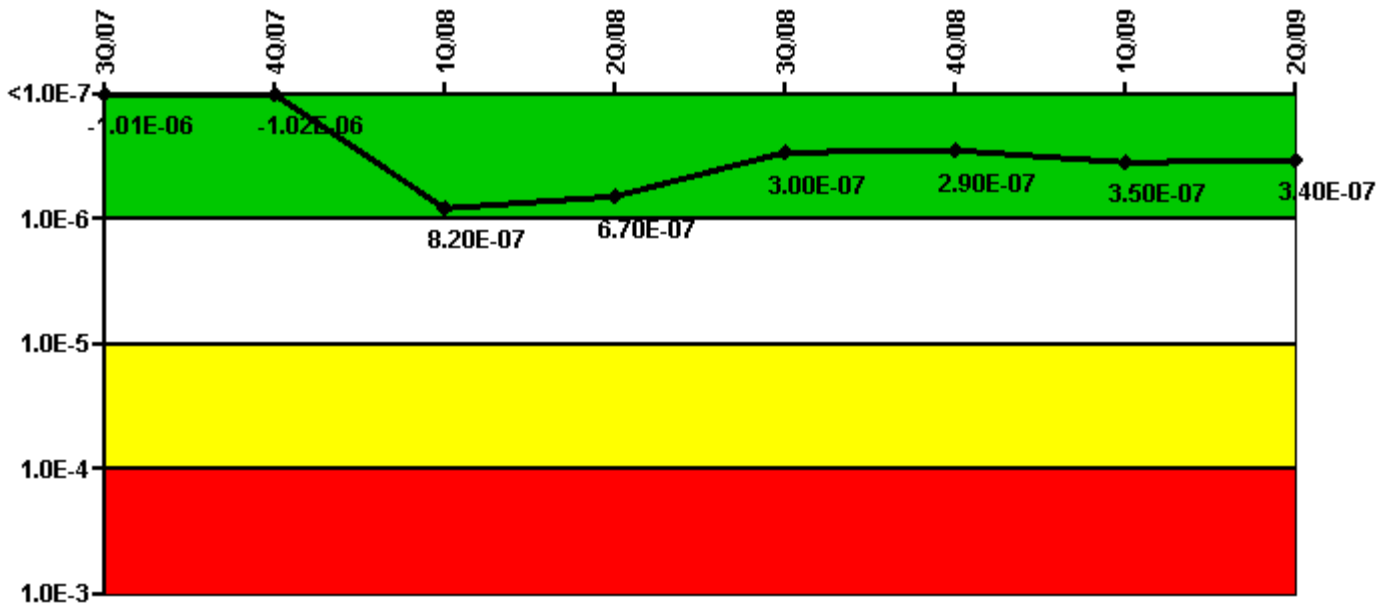
## Notes

Mitigating Systems Performance Index, High Pressure Injection System	3Q/07	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09	2Q/09
UAI ( $\Delta$ CDF)	5.80E-08	5.90E-08	4.40E-08	2.00E-08	4.20E-08	5.80E-08	2.20E-08	1.20E-09
URI ( $\Delta$ CDF)	-1.40E-08	-1.40E-08	-1.40E-08	-1.40E-08	-2.20E-08	-2.20E-08	-1.10E-08	-1.10E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	4.40E-08	4.50E-08	3.00E-08	6.00E-09	2.00E-08	3.60E-08	1.10E-08	9.80E-09

Licensee Comments:

2Q/09: Changed PRA Parameter(s).

# Mitigating Systems Performance Index, Heat Removal System



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

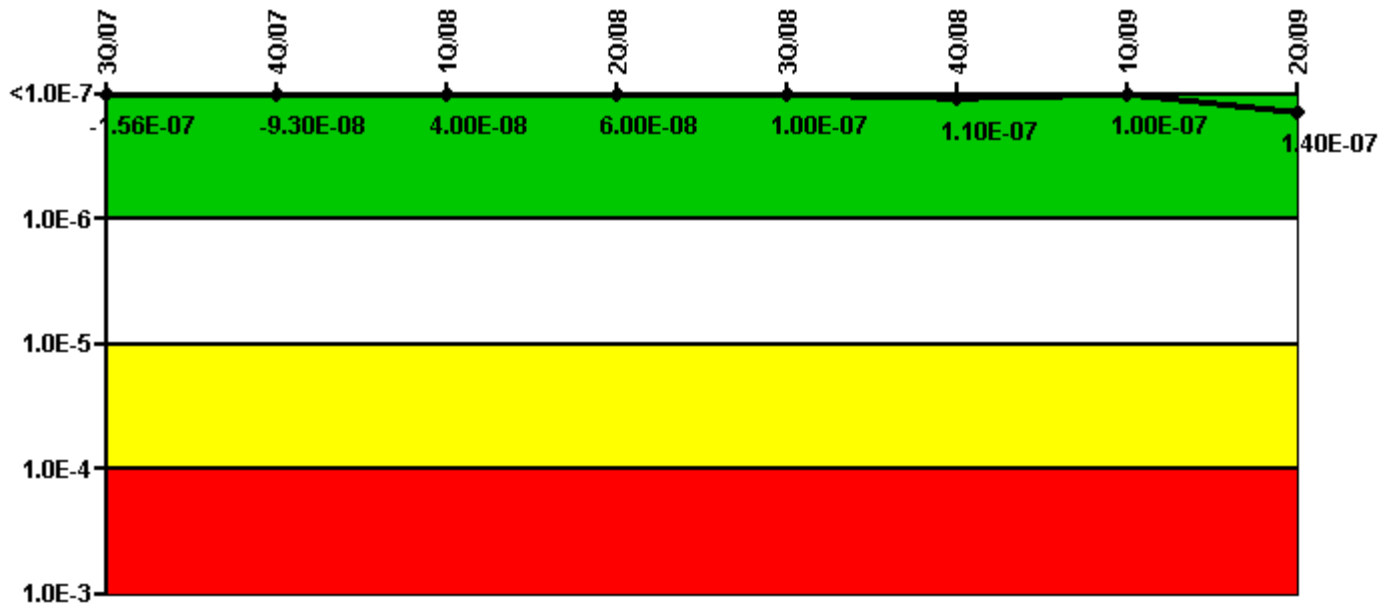
## Notes

Mitigating Systems Performance Index, Heat Removal System	3Q/07	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09	2Q/09
UAI ( $\Delta$ CDF)	8.80E-08	8.50E-08	3.20E-07	3.60E-07	1.30E-07	1.20E-07	2.10E-07	2.30E-07
URI ( $\Delta$ CDF)	-1.10E-06	-1.10E-06	5.00E-07	3.10E-07	1.70E-07	1.70E-07	1.40E-07	1.10E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-1.01E-06	-1.02E-06	8.20E-07	6.70E-07	3.00E-07	2.90E-07	3.50E-07	3.40E-07

Licensee Comments:

2Q/09: Changed PRA Parameter(s).

# Mitigating Systems Performance Index, Residual Heat Removal System



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

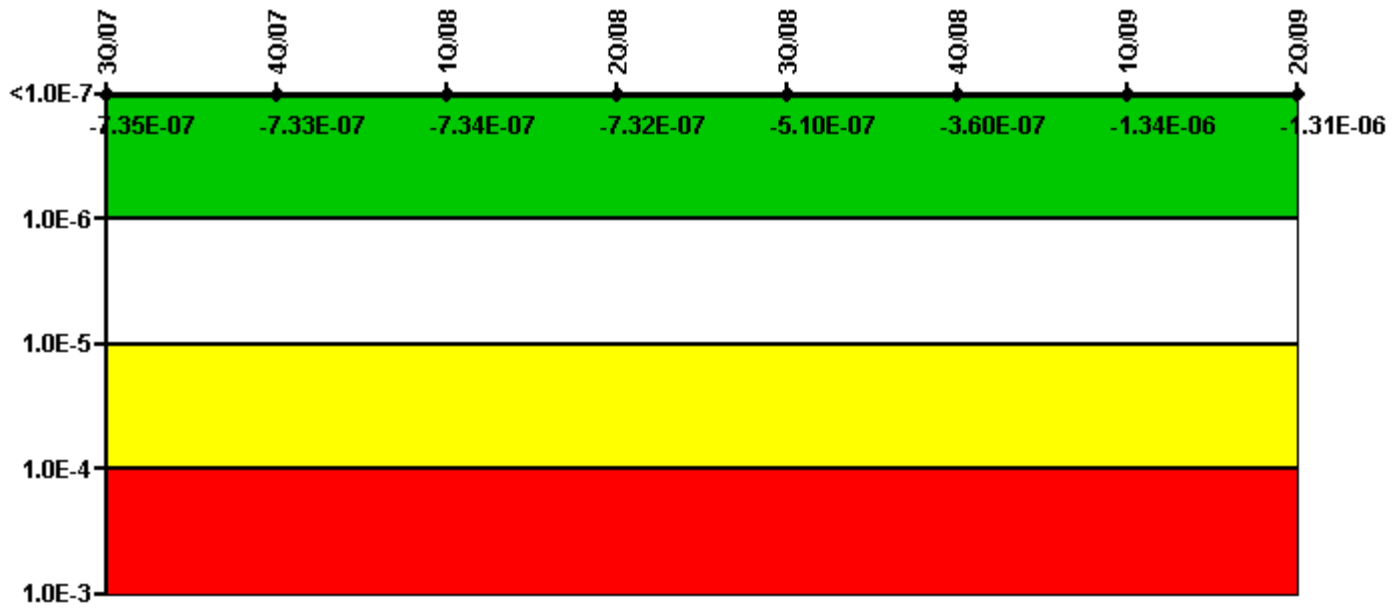
## Notes

Mitigating Systems Performance Index, Residual Heat Removal System	3Q/07	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09	2Q/09
UAI ( $\Delta$ CDF)	-2.60E-08	4.70E-08	1.60E-07	2.00E-07	2.50E-07	2.50E-07	2.50E-07	2.90E-07
URI ( $\Delta$ CDF)	-1.30E-07	-1.40E-07	-1.20E-07	-1.40E-07	-1.50E-07	-1.40E-07	-1.50E-07	-1.50E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-1.56E-07	-9.30E-08	4.00E-08	6.00E-08	1.00E-07	1.10E-07	1.00E-07	1.40E-07

Licensee Comments: none



# Mitigating Systems Performance Index, Cooling Water Systems



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

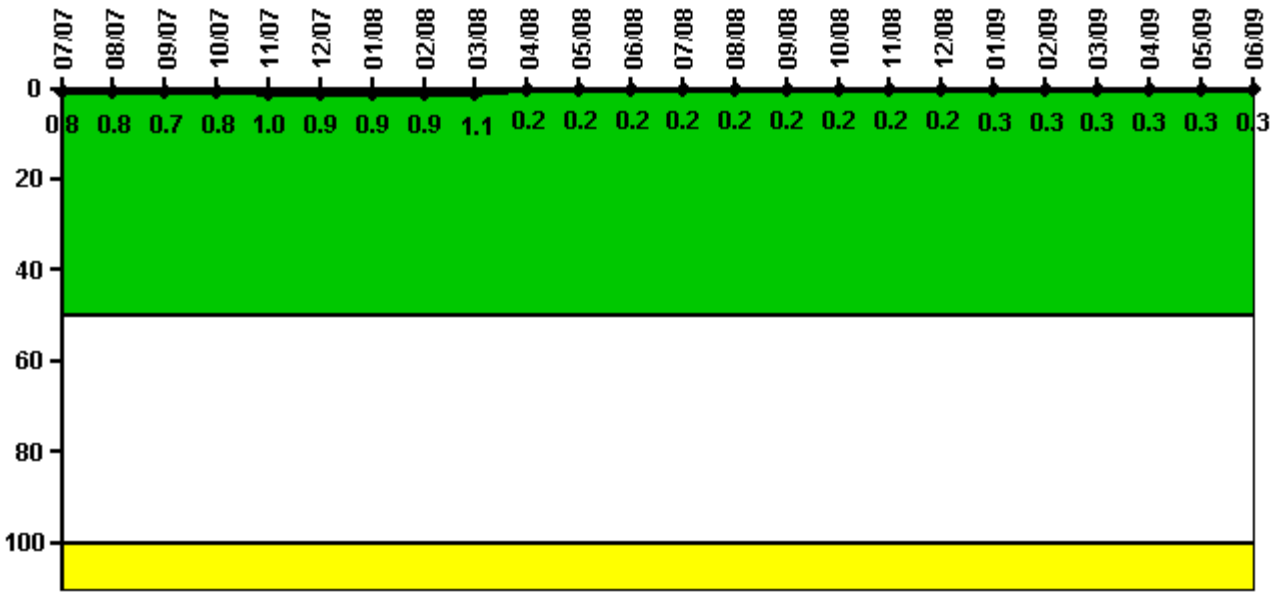
## Notes

Mitigating Systems Performance Index, Cooling Water Systems	3Q/07	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09	2Q/09
UAI ( $\Delta$ CDF)	1.50E-08	1.70E-08	1.60E-08	1.80E-08	2.00E-08	1.70E-07	6.40E-08	9.00E-08
URI ( $\Delta$ CDF)	-7.50E-07	-7.50E-07	-7.50E-07	-7.50E-07	-5.30E-07	-5.30E-07	-1.40E-06	-1.40E-06
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-7.35E-07	-7.33E-07	-7.34E-07	-7.32E-07	-5.10E-07	-3.60E-07	-1.34E-06	-1.31E-06

Licensee Comments:

2Q/09: Changed PRA Parameter(s).

## Reactor Coolant System Activity



Thresholds: White > 50.0 Yellow > 100.0

### Notes

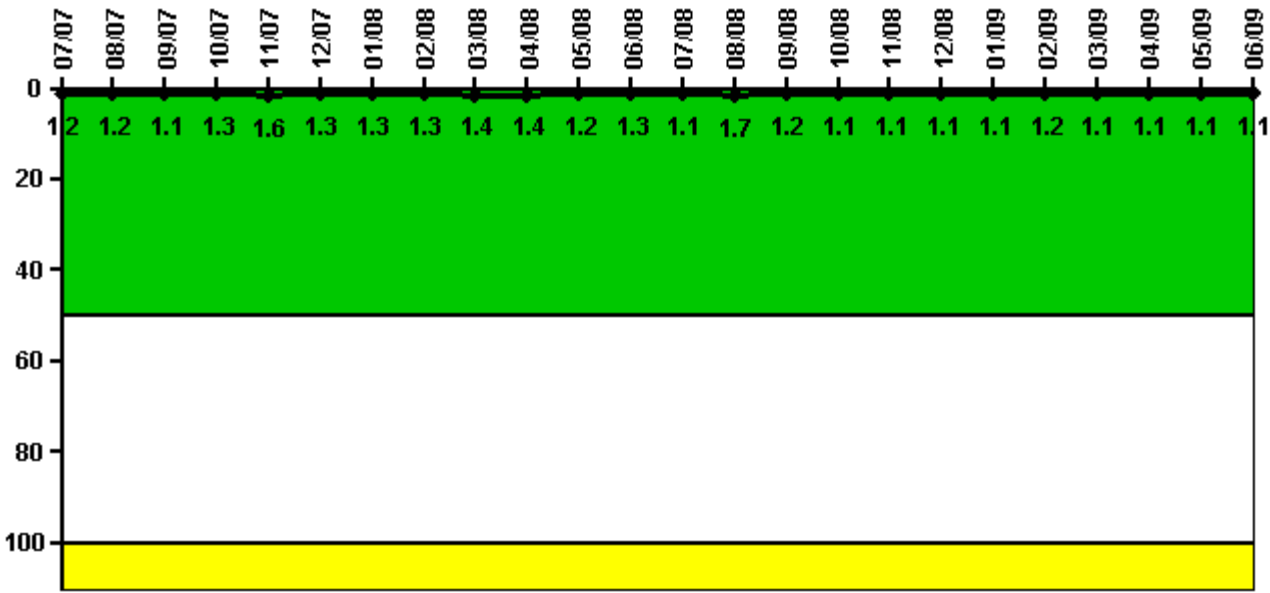
Reactor Coolant System Activity	7/07	8/07	9/07	10/07	11/07	12/07	1/08	2/08	3/08	4/08	5/08	6/08
Maximum activity	0.007640	0.007650	0.007380	0.008000	0.009550	0.008750	0.008660	0.008680	0.010500	0.001770	0.001850	0.001920
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	0.8	0.8	0.7	0.8	1.0	0.9	0.9	0.9	1.1	0.2	0.2	0.2

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	0.001970	0.002050	0.002140	0.002240	0.002400	0.002470	0.002840	0.002670	0.002690	0.002830	0.002890	0.002950
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	0.3	0.3	0.3	0.3	0.3	0.3

Licensee Comments: none

## Reactor Coolant System Leakage



Thresholds: White > 50.0 Yellow > 100.0

### Notes

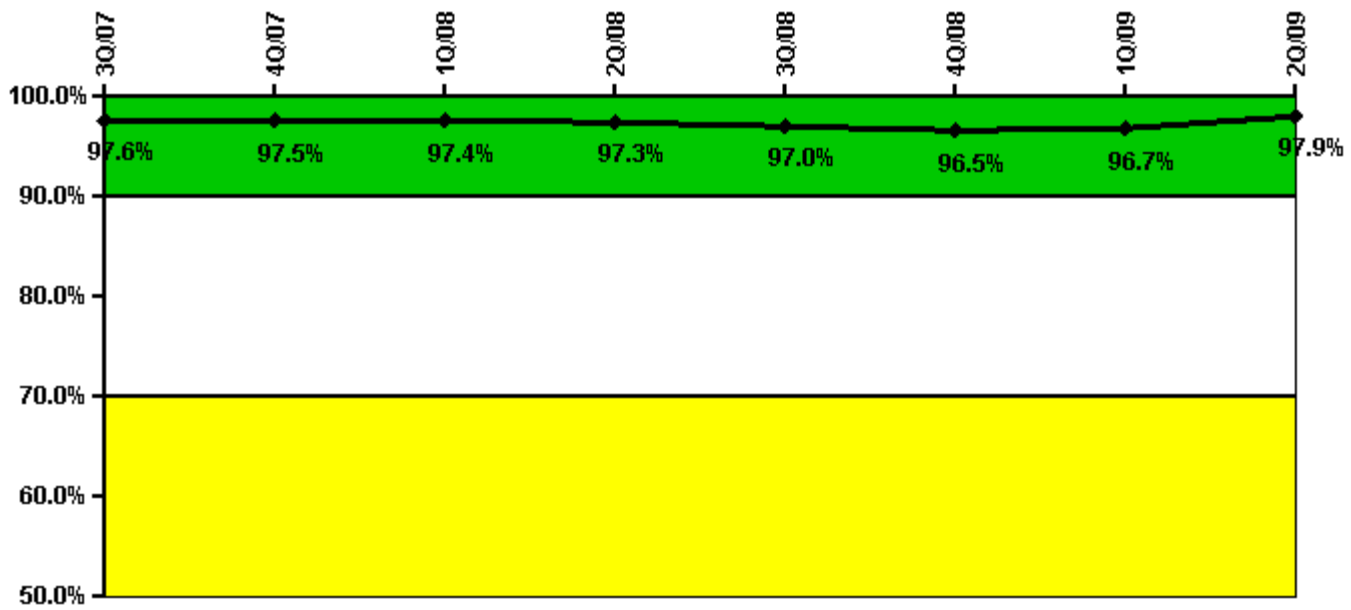
Reactor Coolant System Leakage	7/07	8/07	9/07	10/07	11/07	12/07	1/08	2/08	3/08	4/08	5/08	6/08
Maximum leakage	0.121	0.115	0.112	0.132	0.160	0.134	0.132	0.130	0.141	0.140	0.118	0.125
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	1.2	1.2	1.1	1.3	1.6	1.3	1.3	1.3	1.4	1.4	1.2	1.3

Reactor Coolant System Leakage	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 leakage	0.108	0.172	0.123	0.112	0.113	0.107	0.114	0.122	0.113	0.109	0.108	0.108
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	1.7	1.2	1.1	1.1	1.1	1.1	1.2	1.1	1.1	1.1	1.1

Licensee Comments: none

## Drill/Exercise Performance



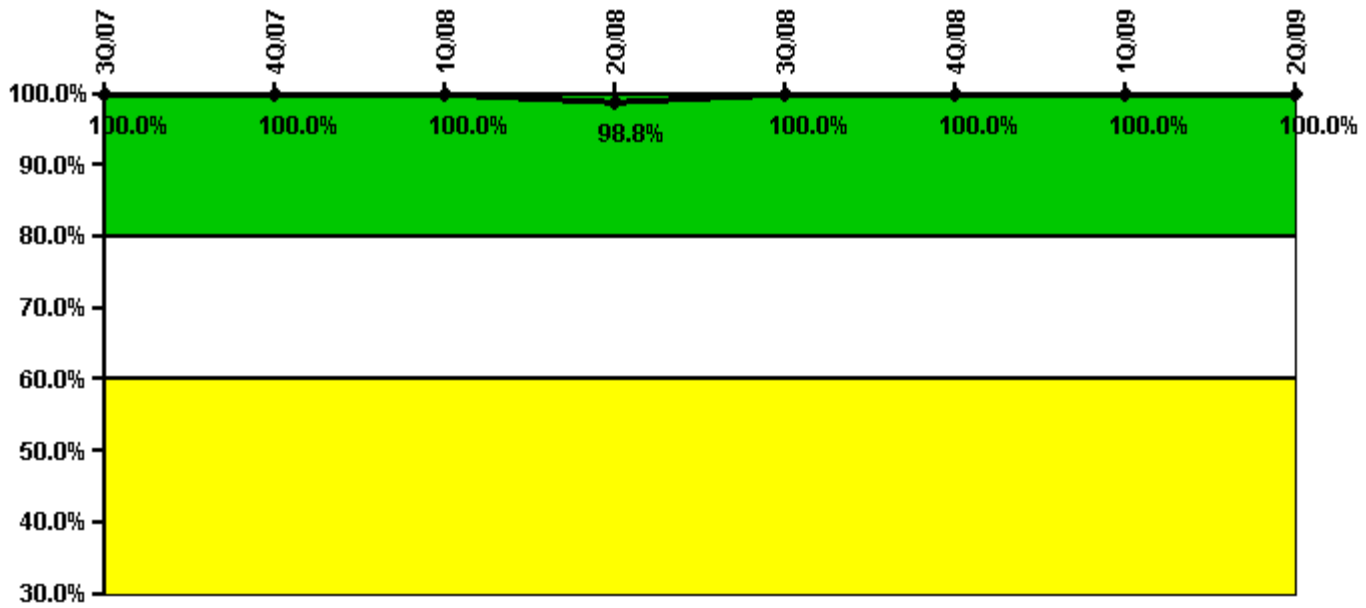
**Thresholds:** White < 90.0% Yellow < 70.0%

### Notes

Drill/Exercise Performance	3Q/07	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09	2Q/09
Successful opportunities	43.0	88.0	4.0	27.0	62.0	53.0	30.0	62.0
Total opportunities	44.0	90.0	4.0	28.0	64.0	55.0	30.0	62.0
Indicator value	97.6%	97.5%	97.4%	97.3%	97.0%	96.5%	96.7%	97.9%

Licensee Comments: none

## ERO Drill Participation



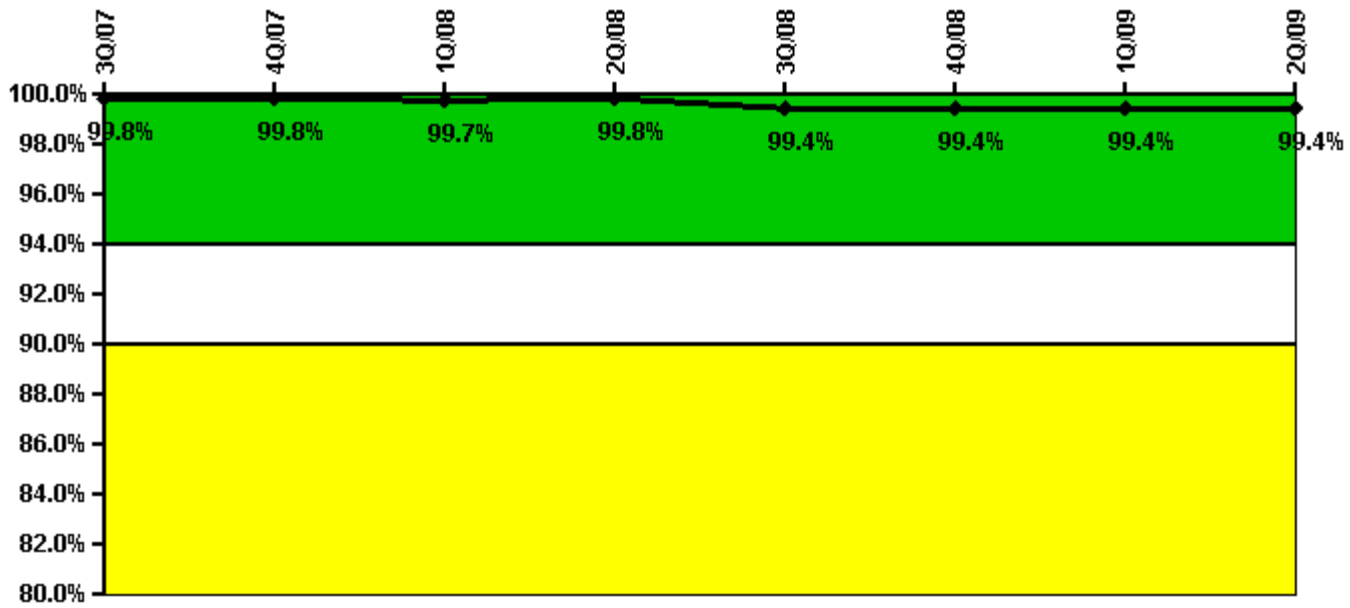
Thresholds: White < 80.0% Yellow < 60.0%

### Notes

ERO Drill Participation	3Q/07	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09	2Q/09
Participating Key personnel	75.0	75.0	74.0	80.0	83.0	82.0	78.0	77.0
Total Key personnel	75.0	75.0	74.0	81.0	83.0	82.0	78.0	77.0
Indicator value	100.0%	100.0%	100.0%	98.8%	100.0%	100.0%	100.0%	100.0%

Licensee Comments: none

## Alert & Notification System



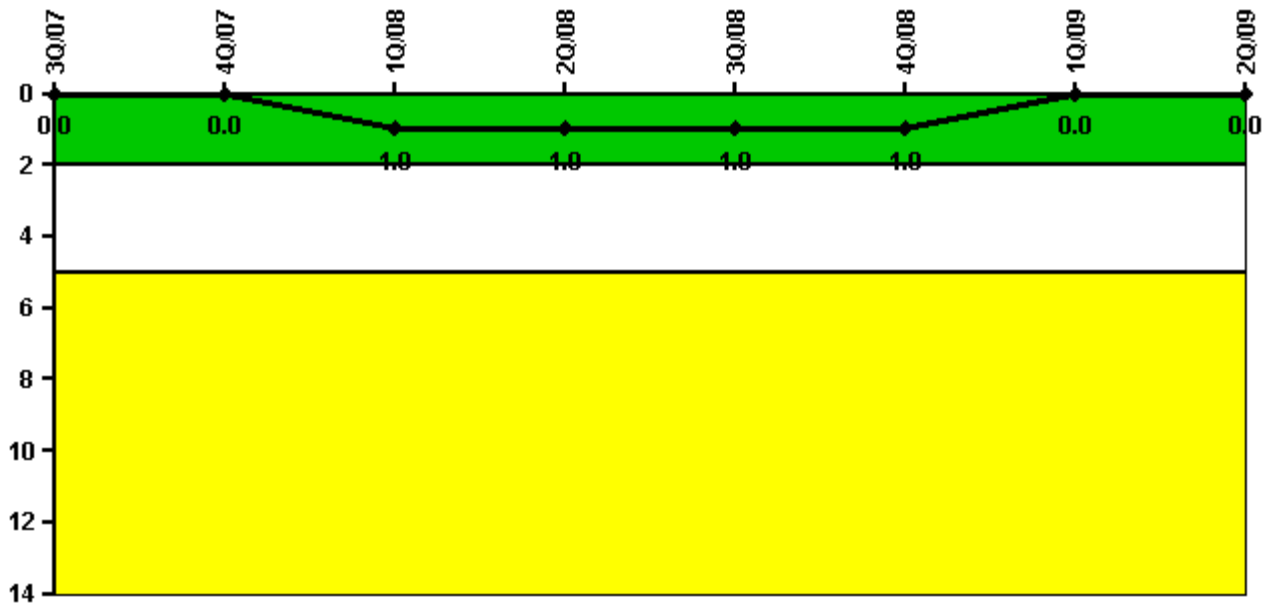
**Thresholds:** White < 94.0% Yellow < 90.0%

### Notes

Alert & Notification System	3Q/07	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09	2Q/09
Successful siren-tests	5988	5997	5996	6003	6006	5995	5915	6006
Total sirens-tests	6009	6007	6011	6016	6108	6016	5922	6016
Indicator value	99.8%	99.8%	99.7%	99.8%	99.4%	99.4%	99.4%	99.4%

Licensee Comments: none

## Occupational Exposure Control Effectiveness



Thresholds: White > 2.0 Yellow > 5.0

### Notes

Occupational Exposure Control Effectiveness	3Q/07	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09	2Q/09
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
Indicator value	0	0	1	1	1	1	0	0

Licensee Comments: none

## RETS/ODCM Radiological Effluent



Thresholds: White > 1.0 Yellow > 3.0

### Notes

RETS/ODCM Radiological Effluent	3Q/07	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09	2Q/09
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.