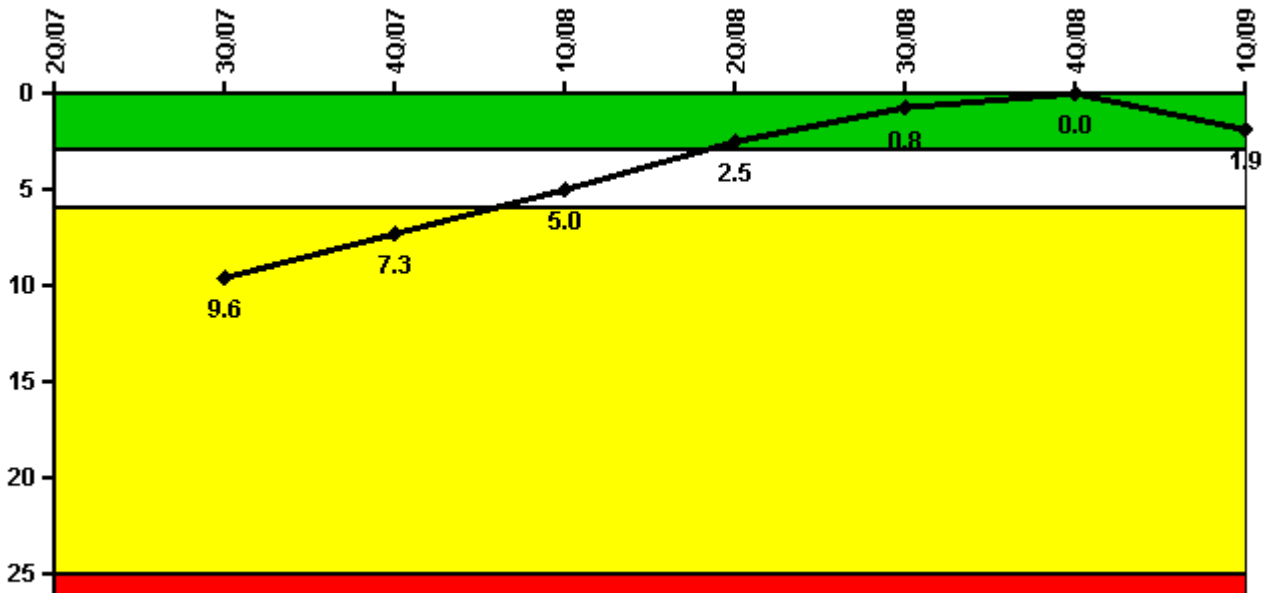


# Browns Ferry 1

## 1Q/2009 Performance Indicators

Licensee's General Comments: Beginning in the 2nd quarter 2008, the data reported reflects a lack of historical operational data needed to maintain the adequate degree of accuracy required by this PI. Until further notice, MSPI performance threshold crossings will be assessed by the NRC Unit 1 augmented baseline inspection plan.

### Unplanned Scrams per 7000 Critical Hrs



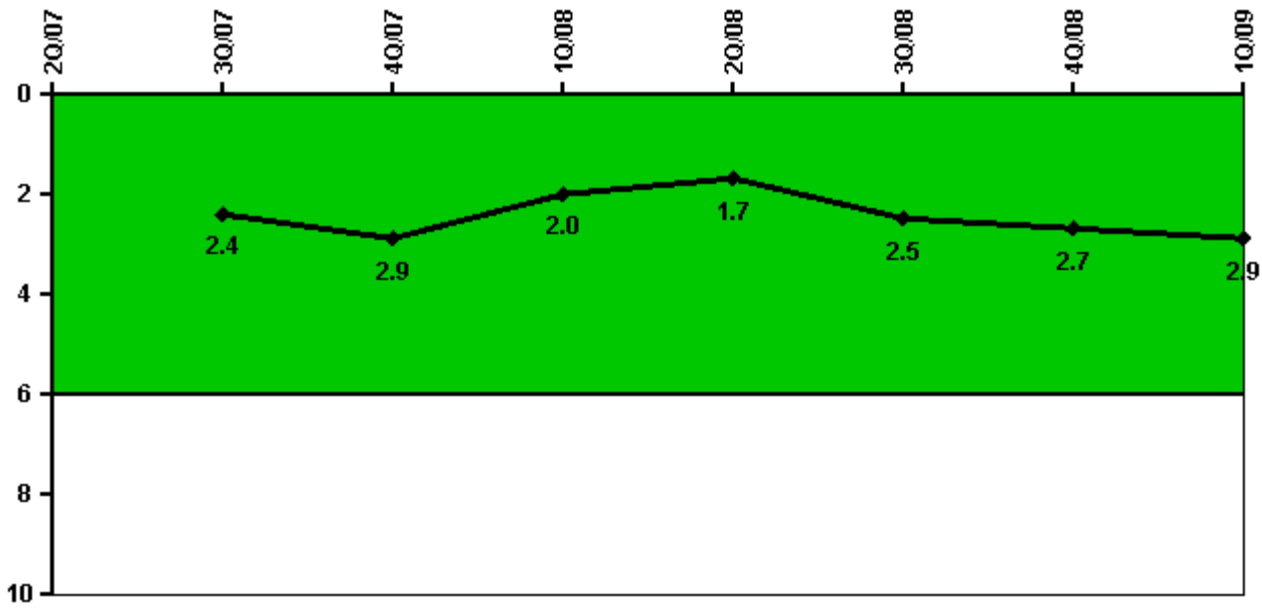
Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

### Notes

Unplanned Scrams per 7000 Critical Hrs	2Q/07	3Q/07	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09
Unplanned scrams	2.0	2.0	1.0	0	0	0	0	2.0
Critical hours	773.5	2137.5	1877.4	2183.0	2184.0	2069.3	1322.9	1618.6
Indicator value	N/A	9.6	7.3	5.0	2.5	0.8	0	1.9

Licensee Comments: none

## Unplanned Power Changes per 7000 Critical Hrs



Thresholds: White > 6.0

### Notes

Unplanned Power Changes per 7000 Critical Hrs	2Q/07	3Q/07	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09
Unplanned power changes	0	1.0	1.0	0	0	2.0	1.0	0
Critical hours	773.5	2137.5	1877.4	2183.0	2184.0	2069.3	1322.9	1618.6
Indicator value	N/A	2.4	2.9	2.0	1.7	2.5	2.7	2.9

Licensee Comments: none

# Unplanned Scrams with Complications



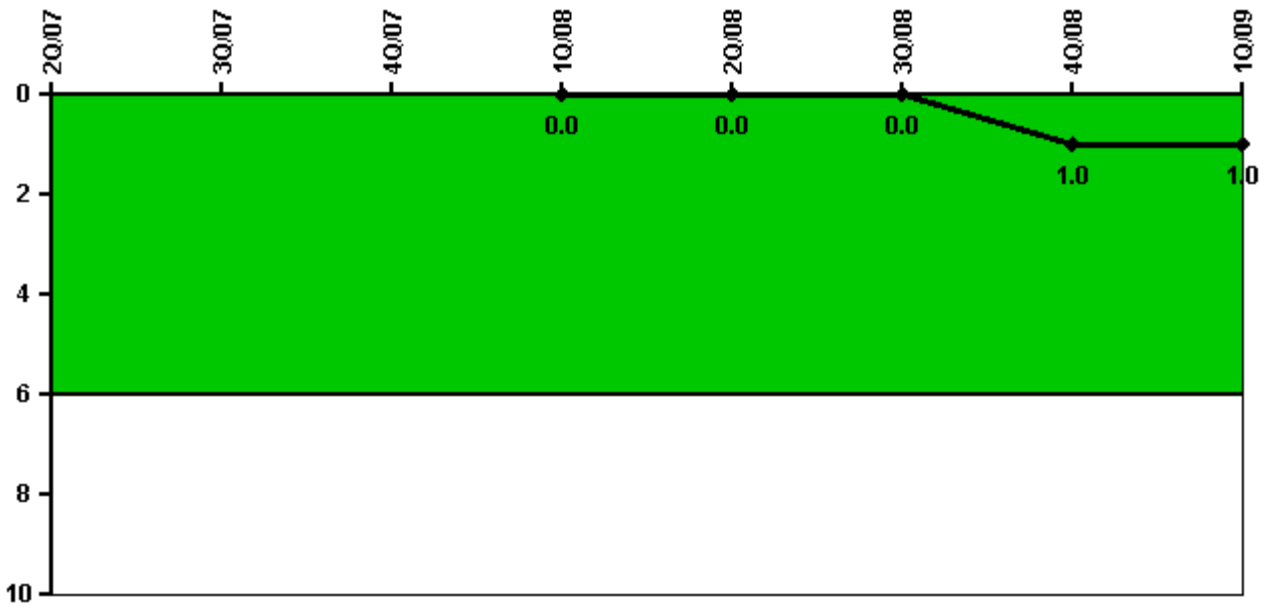
Thresholds: White > 1.0

**Notes**

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

Licensee Comments: none

## Safety System Functional Failures (BWR)



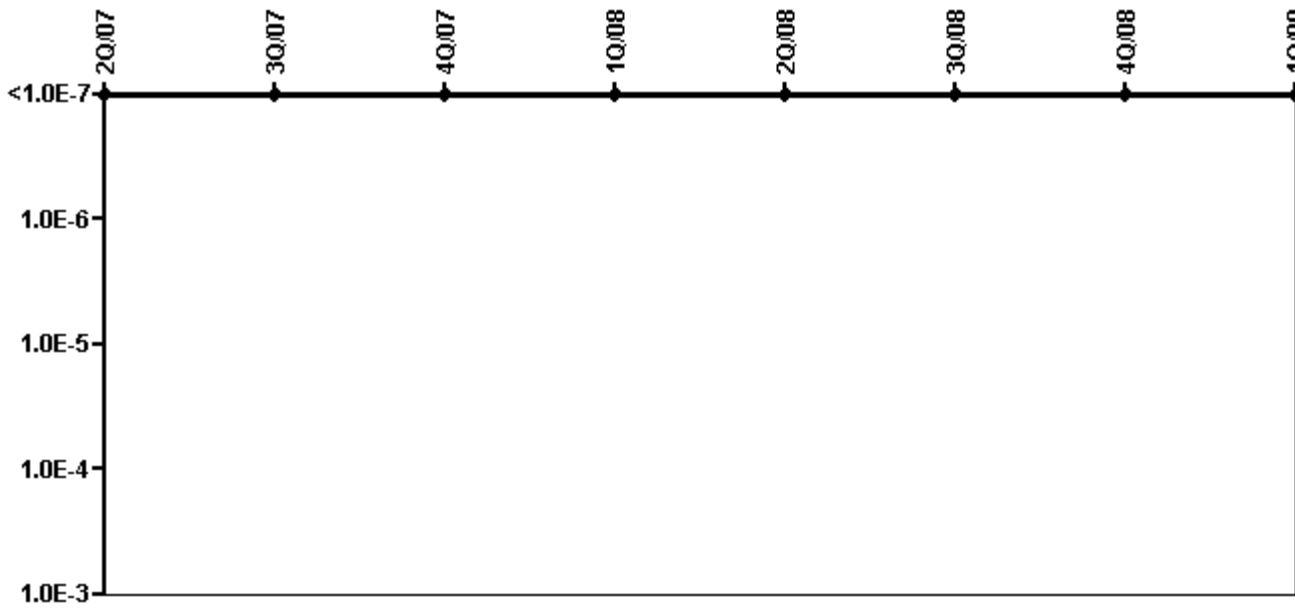
Thresholds: White > 6.0

### Notes

Safety System Functional Failures (BWR)	2Q/07	3Q/07	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09
Safety System Functional Failures	0	0	0	0	0	0	1	0
Indicator value				0	0	0	1	1

Licensee Comments: none

# Mitigating Systems Performance Index, Emergency AC Power System



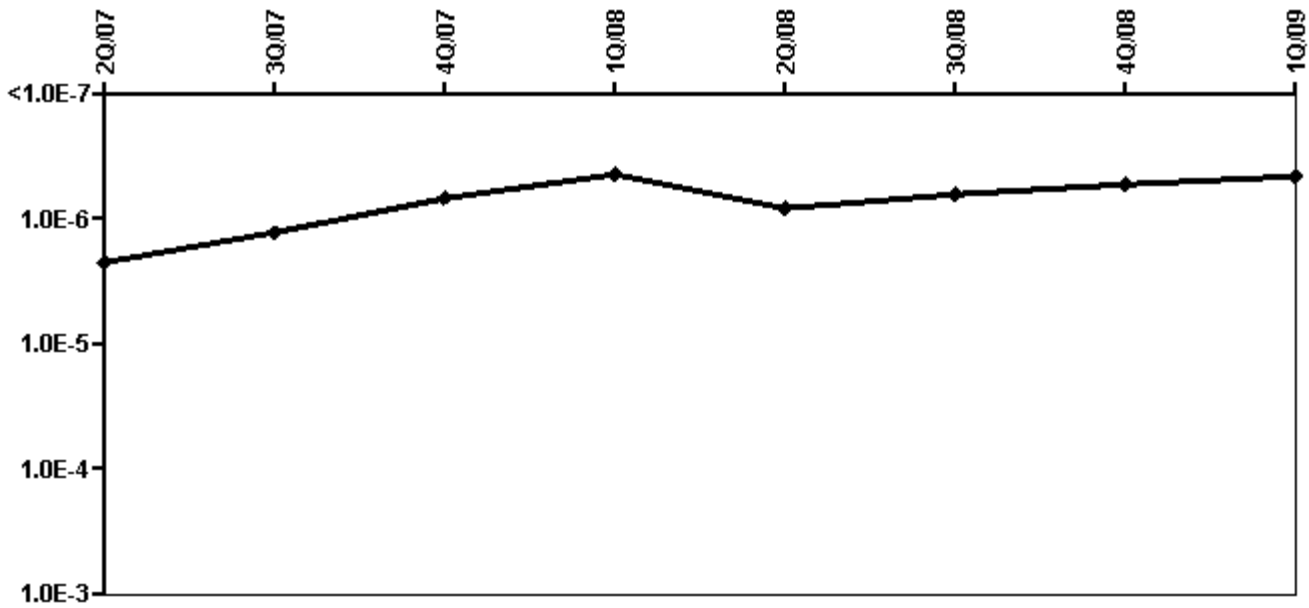
Thresholds:

## Notes

Mitigating Systems Performance Index, Emergency AC Power System	2Q/07	3Q/07	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09
UAI ( $\Delta$ CDF)	-9.60E-09	-9.60E-09	-9.60E-09	-7.40E-09	4.50E-09	-3.30E-09	1.50E-08	1.00E-08
URI ( $\Delta$ CDF)	-1.10E-07	-1.10E-07	-1.10E-07	-8.50E-08	-8.50E-08	-8.50E-08	-8.50E-08	-8.50E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-1.20E-07	-1.20E-07	-1.20E-07	-9.24E-08	-8.05E-08	-8.83E-08	-7.00E-08	-7.50E-08

Licensee Comments: none

# Mitigating Systems Performance Index, High Pressure Injection System



Thresholds:

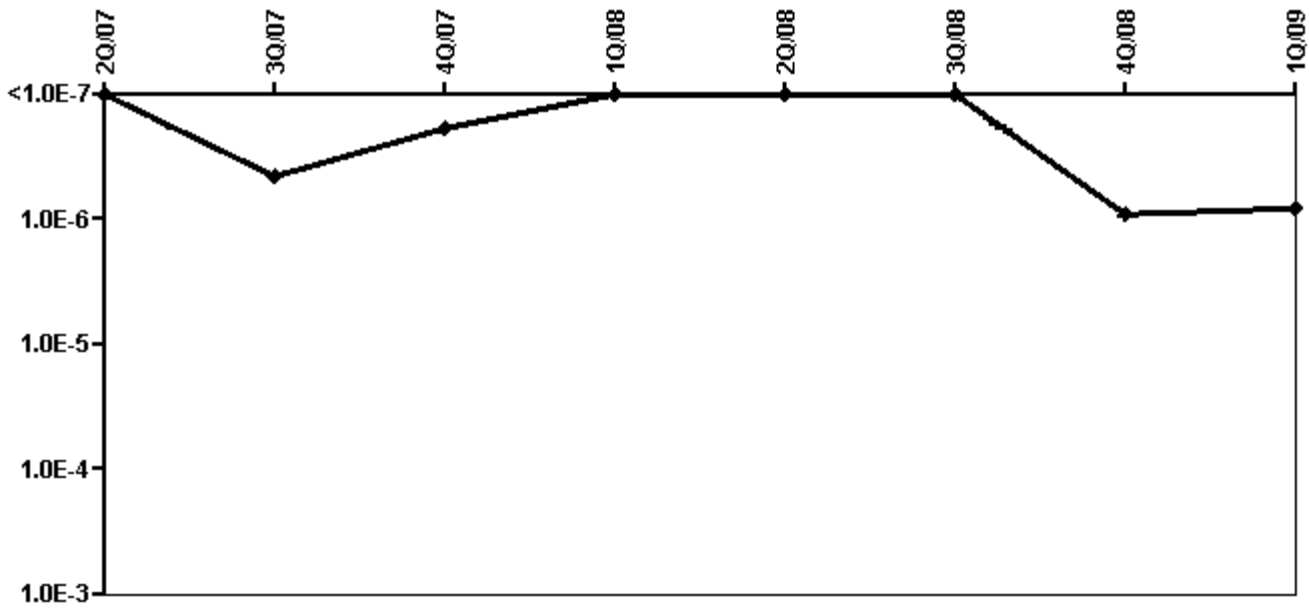
## Notes

Mitigating Systems Performance Index, High Pressure Injection System	2Q/07	3Q/07	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09
UAI (ΔCDF)	2.30E-06	1.30E-06	7.10E-07	4.80E-07	8.70E-07	6.90E-07	6.00E-07	5.20E-07
URI (ΔCDF)	-6.40E-09	-1.50E-08	-2.40E-08	-3.20E-08	-4.30E-08	-5.00E-08	-5.70E-08	-6.20E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	2.29E-06	1.29E-06	6.86E-07	4.48E-07	8.27E-07	6.40E-07	5.43E-07	4.58E-07

Licensee Comments:

2Q/06: Data unlocked to input failure report into EPIX for 1-FCV-73-26. 3-23-09 mwo. Data unlocked to revise PRA parameters that were incorrectly entered in the database (CDF) and those incorrectly entered in the U1 MSPI basis document (FVURC and URPC). Reference PER 148995 JAY 9/17/08

# Mitigating Systems Performance Index, Heat Removal System



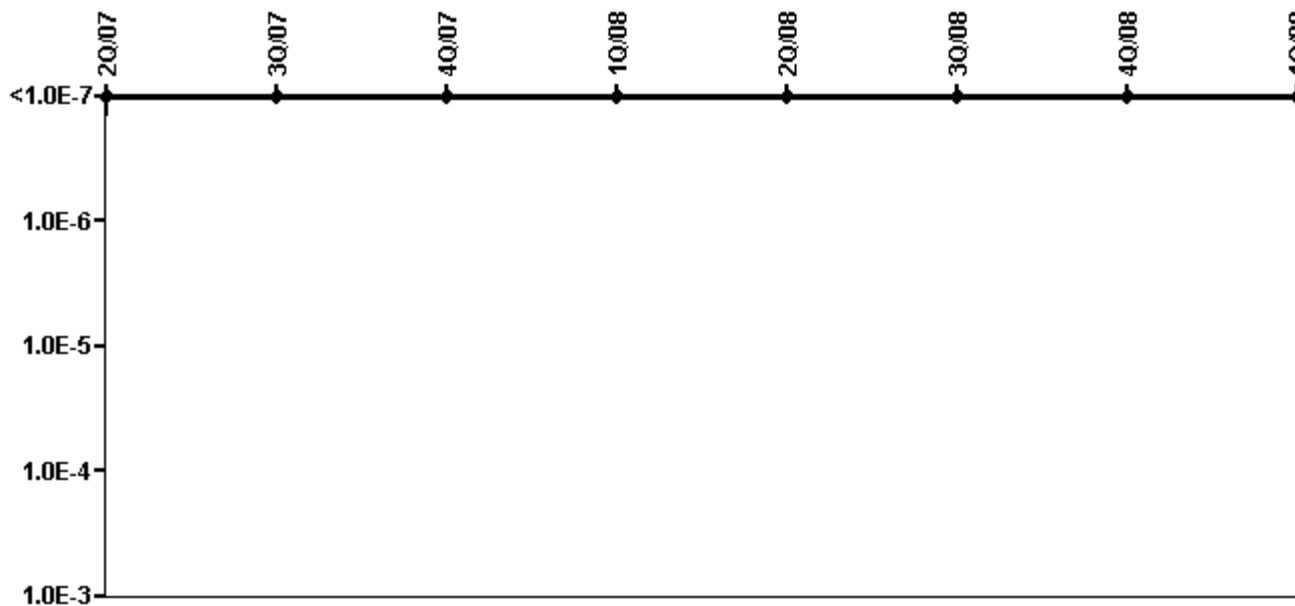
Thresholds:

## Notes

Mitigating Systems Performance Index, Heat Removal System	2Q/07	3Q/07	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09
UAI (ΔCDF)	-1.50E-08	4.80E-07	2.30E-07	8.70E-08	1.00E-07	3.80E-08	4.40E-07	3.60E-07
URI (ΔCDF)	-1.00E-08	-2.50E-08	-3.80E-08	-5.00E-08	-6.20E-08	-7.30E-08	5.00E-07	4.70E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-2.50E-08	4.55E-07	1.92E-07	3.70E-08	3.80E-08	-3.50E-08	9.40E-07	8.30E-07

Licensee Comments: none

## Mitigating Systems Performance Index, Residual Heat Removal System



Thresholds:

### Notes

Mitigating Systems Performance Index, Residual Heat Removal System	2Q/07	3Q/07	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09
UAI ( $\Delta$ CDF)	-1.30E-07	-1.30E-07	2.00E-07	4.00E-08	-1.80E-08	1.50E-07	7.90E-08	2.40E-07
URI ( $\Delta$ CDF)	-8.90E-08	-9.90E-08	-1.10E-07	-1.10E-07	-1.20E-07	-1.20E-07	-1.30E-07	-1.40E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-2.19E-07	-2.29E-07	9.00E-08	-7.00E-08	-1.38E-07	3.00E-08	-5.10E-08	1.00E-07

Licensee Comments:

1Q/09: Changed PRA Parameter(s).

4Q/08: Changed PRA Parameter(s). Beginning in the 2nd quarter 2008, the data reported reflects a lack of historical operational data needed to maintain the adequate degree of accuracy required by this PI. Until further notice, MSPI performance threshold crossings will be assessed by the NRC Unit 1 augmented baseline inspection plan.

3Q/08: Changed PRA Parameter(s).

2Q/08: Changed PRA Parameter(s). Beginning in the 2nd quarter 2008, the data reported reflects a lack of historical operational data needed to maintain the adequate degree of accuracy required by this PI. Until further notice, MSPI performance threshold crossings will be assessed by the NRC Unit 1 augmented baseline inspection plan.

1Q/08: Changed PRA Parameter(s). Browns Ferry Unit 1 quarterly data entry began with 3rd Quarter 2007. Unavailability and Unreliability Indices values will be calculated and reported when sufficient quarterly data has been entered to support valid calculations of time averaged indices.

4Q/07: Changed PRA Parameter(s). Browns Ferry Unit 1 quarterly data entry began with 3rd Quarter 2007. Unavailability and Unreliability Indices values will be calculated and reported when sufficient quarterly data has been entered to support valid calculations of time averaged indices.

3Q/07: Changed PRA Parameter(s). Browns Ferry Unit 1 quarterly data entry began with 3rd Quarter 2007.



Unavailability and Unreliability Indices will be calculated and reported when sufficient quarterly data has been entered to support valid calculation of time-averaged indices.

2Q/07: Changed PRA Parameter(s). Unit 1 was restarted on 5/22/07. Per NRC's 5/16/07 letter to TVA on Unit 1 full transition to the Reactor Oversight Process (ADAMS accession ML0713603010), the PI data for the BF1 IE, MS, and BI cornerstones should be submitted, according to IMC 0608 and industry guidance, commencing with the third quarter of CY 2007.

1Q/07: Changed PRA Parameter(s).

4Q/06: Changed PRA Parameter(s).

3Q/06: Changed PRA Parameter(s).

2Q/06: Changed PRA Parameter(s). Unlocked to correct 1-PMP-74-28 TM PRA value from 3.0 to 24.0 (PER 164005) mwo 3/30/09. Data unlocked to revise PRA parameters that were incorrectly entered in the database (CDF). Reference PER 148995 JAY 9/17/08

### Mitigating Systems Performance Index, Cooling Water Systems



**Thresholds:**

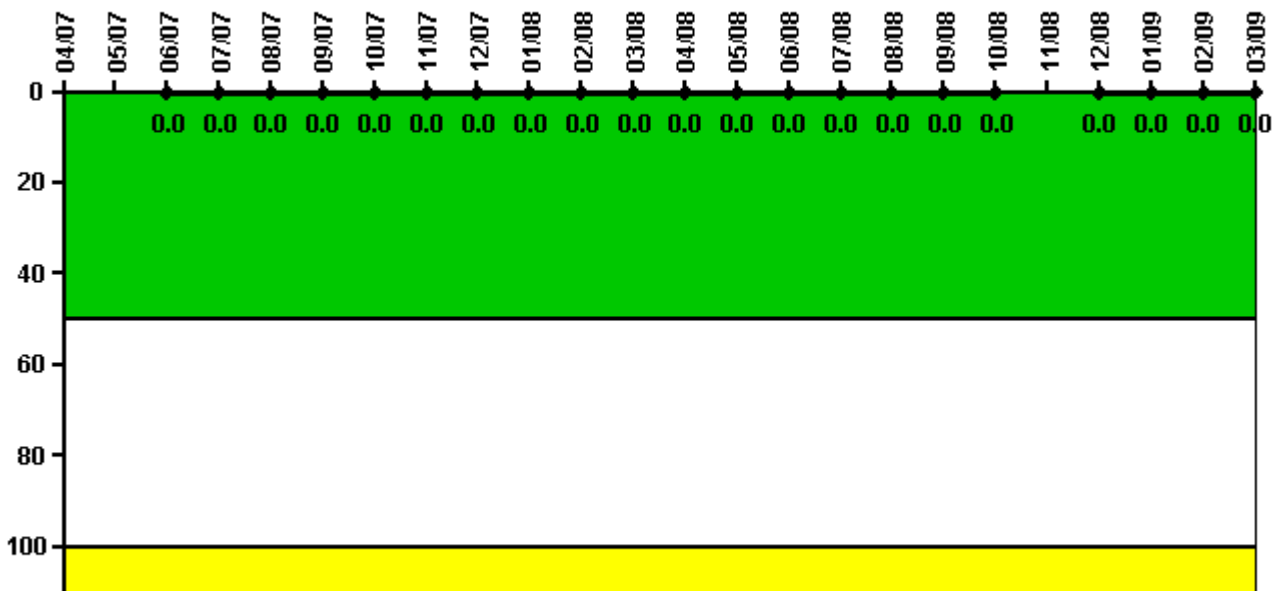
**Notes**

Mitigating Systems Performance Index, Cooling Water Systems	2Q/07	3Q/07	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09
UAI ( $\Delta$ CDF)	-1.60E-08	9.70E-08	4.90E-08	2.50E-08	3.00E-08	2.40E-08	1.90E-08	1.40E-08
URI ( $\Delta$ CDF)	-2.00E-07	-2.00E-07	-2.00E-07	-2.00E-07	-2.00E-07	-2.00E-07	-2.00E-07	-2.00E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-2.16E-07	-1.03E-07	-1.51E-07	-1.75E-07	-1.70E-07	-1.76E-07	-1.81E-07	-1.86E-07

Licensee Comments:

2Q/06: Data unlocked to correct TM parameter (from 3.0 to 24.0) from beginning to future (PER 164005). mwo 3/30/09. Data unlocked to revise PRA parameters that were incorrectly entered in the database (CDF). Reference PER 148995 JAY 9/17/08

### Reactor Coolant System Activity



Thresholds: White > 50.0 Yellow > 100.0

Notes

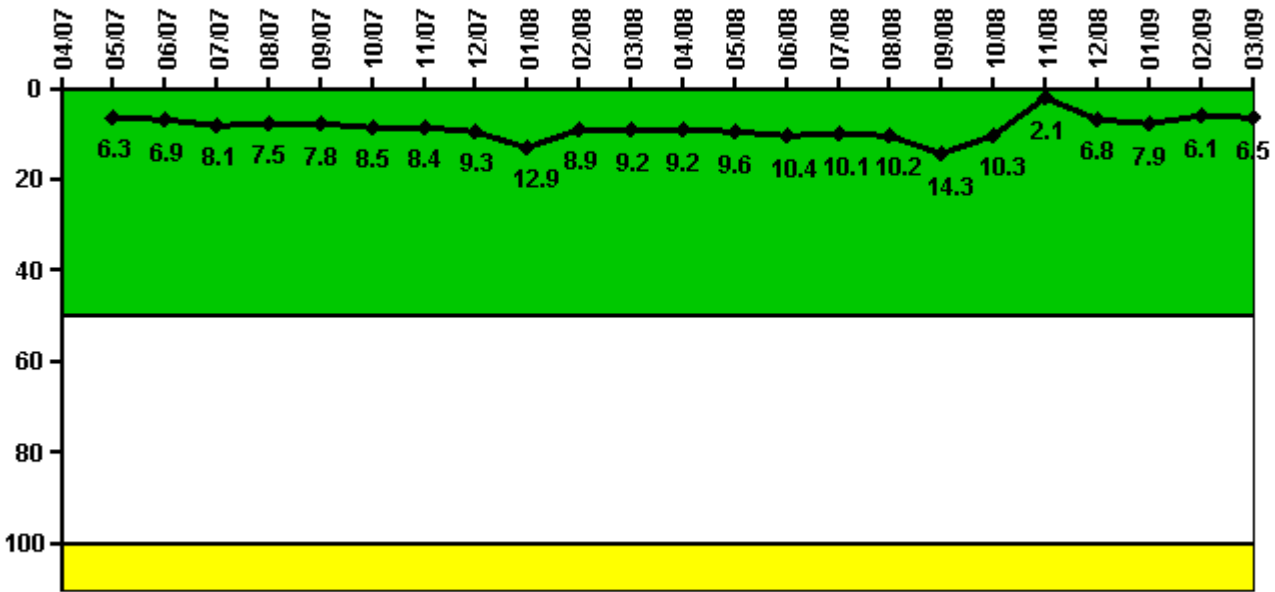
Reactor Coolant System Activity	4/07	5/07	6/07	7/07	8/07	9/07	10/07	11/07	12/07	1/08	2/08	3/08
Maximum activity		N/A	0.000119	0.000133	0.000108	0.000083	0.000078	0.000081	0.000119	0.000099	0.000094	0.000081
Technical specification limit	0	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
Indicator value		N/A	0	0	0	0	0	0	0	0	0	0

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	0.000085	0.000045	0.000049	0.000079	0.000098	0.000089	0.000064	N/A	0.000109	0.000062	0.000036	0.000091
Technical specification limit	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
Indicator value	0	0	0	0	0	0	0	N/A	0	0	0	0

Licensee Comments: none

## Reactor Coolant System Leakage



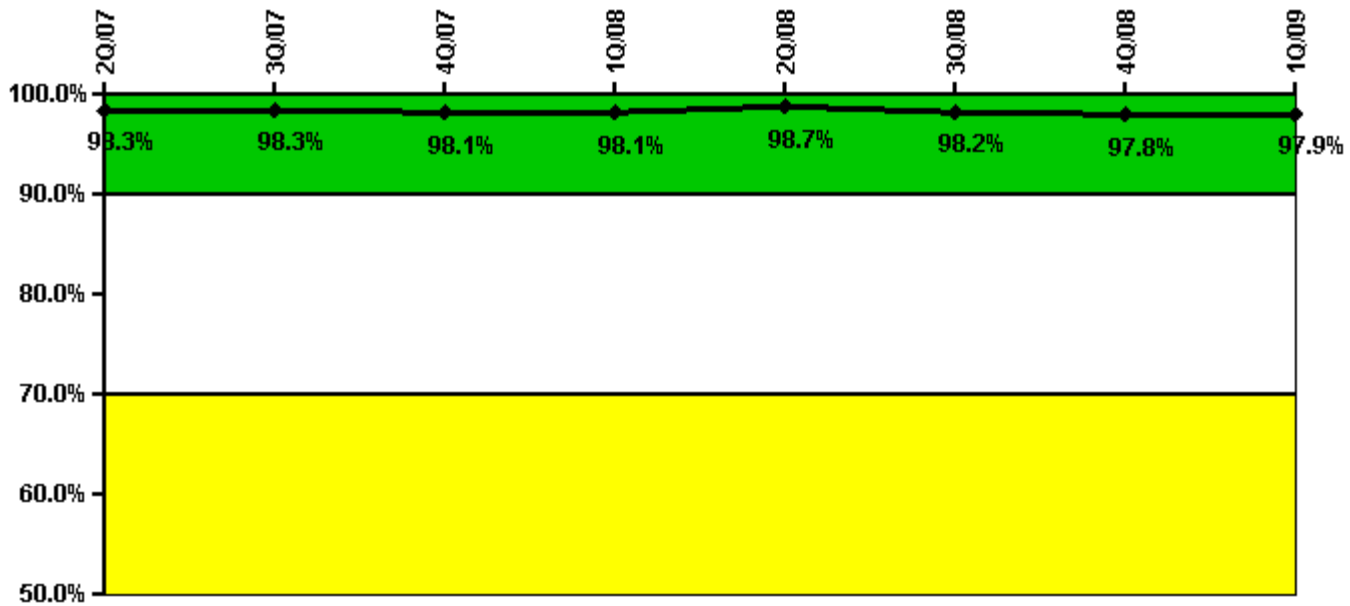
Thresholds: White > 50.0 Yellow > 100.0

### Notes

Reactor Coolant System Leakage	4/07	5/07	6/07	7/07	8/07	9/07	10/07	11/07	12/07	1/08	2/08	3/08
Maximum leakage		1.900	2.080	2.430	2.260	2.330	2.560	2.530	2.790	3.880	2.670	2.760
Technical specification limit		30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0
Indicator value		6.3	6.9	8.1	7.5	7.8	8.5	8.4	9.3	12.9	8.9	9.2
Reactor Coolant System Leakage	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 leakage	2.770	2.890	3.110	3.020	3.050	4.280	3.100	0.630	2.030	2.380	1.840	1.940
Technical specification limit	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0
Indicator value	9.2	9.6	10.4	10.1	10.2	14.3	10.3	2.1	6.8	7.9	6.1	6.5

Licensee Comments: none

## Drill/Exercise Performance



Thresholds: White < 90.0% Yellow < 70.0%

### Notes

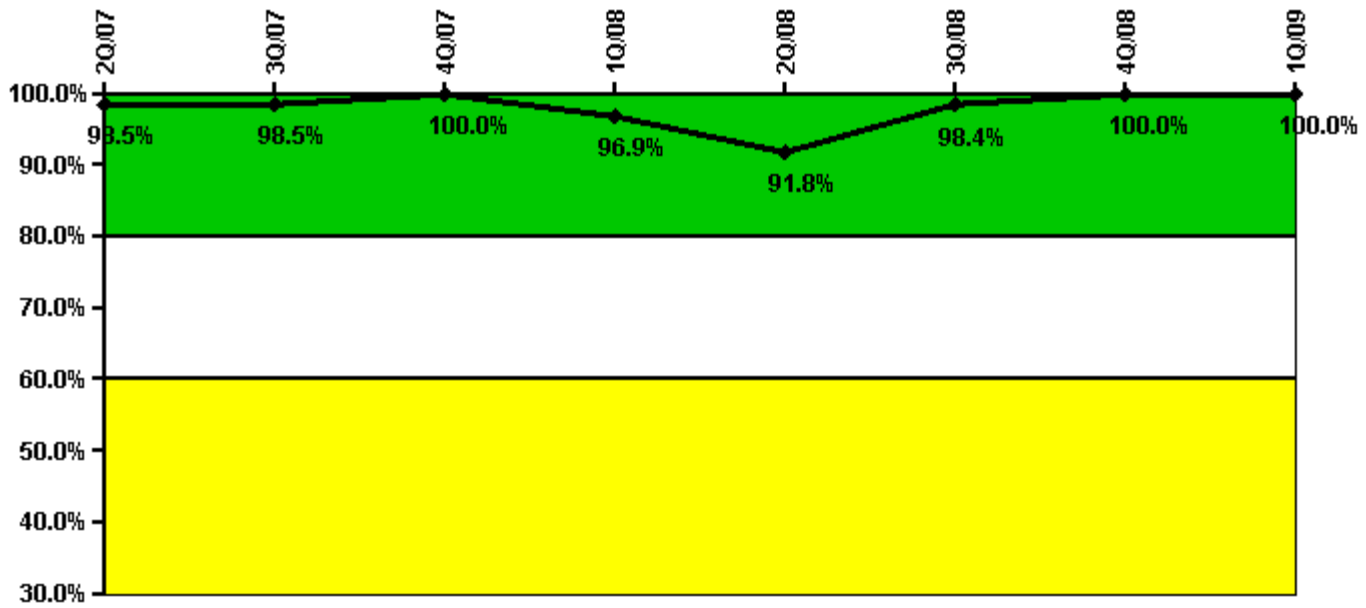
Drill/Exercise Performance	2Q/07	3Q/07	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09
Successful opportunities	7.0	8.0	55.0	6.0	6.0	4.0	47.0	10.0
Total opportunities	8.0	8.0	56.0	6.0	6.0	4.0	48.0	10.0
Indicator value	98.3%	98.3%	98.1%	98.1%	98.7%	98.2%	97.8%	97.9%

Licensee Comments:

4Q/08: PER 165549: Assessment BFN-EP-S-09-002. DEP PI opportunity classification review determined that it was correctly identified but outside the timeliness goal of 15 minutes. Results in no PI color change. BFN DEP PI changes from 98.5% to 97.8%.

2Q/08: PER 165546: Assessment BFN-EP-S-09-002 -DEP PI values not correctly entered. 3 classifications opportunities counted without the inclusion of the notification opportunity - should reflect 6 opportunities & 6 successes - results in BFN PI DEP still 98.7%.

## ERO Drill Participation



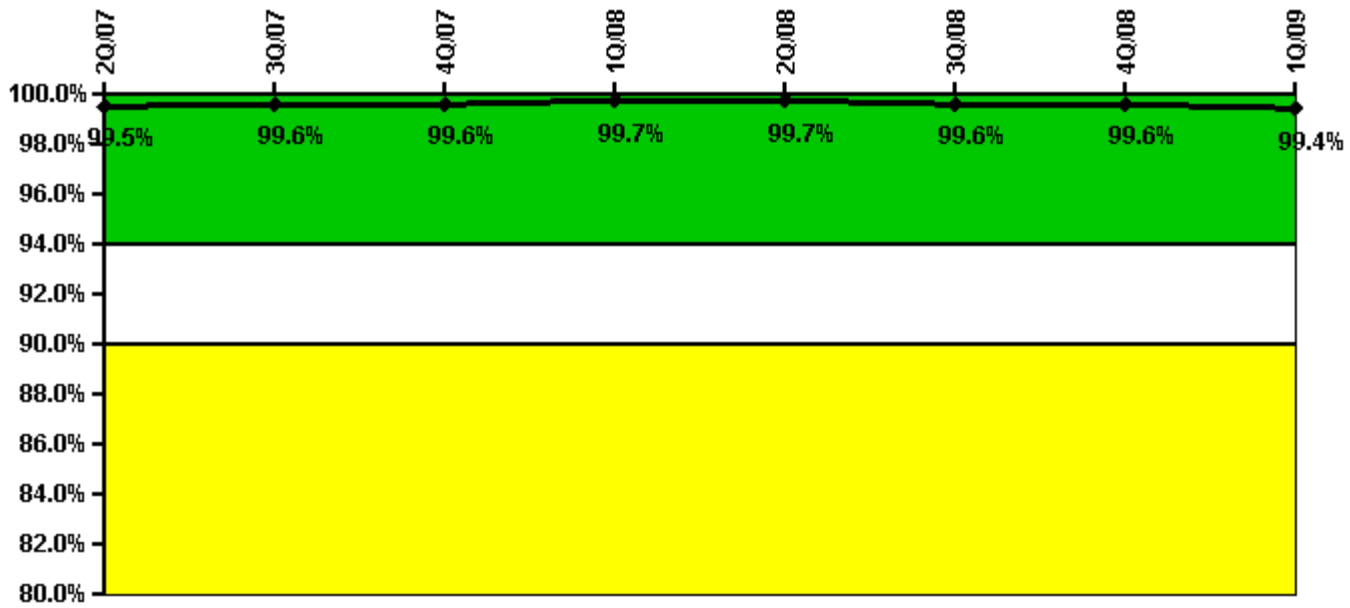
Thresholds: White < 80.0% Yellow < 60.0%

### Notes

ERO Drill Participation	2Q/07	3Q/07	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09
Participating Key personnel	66.0	66.0	68.0	62.0	56.0	63.0	67.0	73.0
Total Key personnel	67.0	67.0	68.0	64.0	61.0	64.0	67.0	73.0
Indicator value	98.5%	98.5%	100.0%	96.9%	91.8%	98.4%	100.0%	100.0%

Licensee Comments: none

## Alert & Notification System



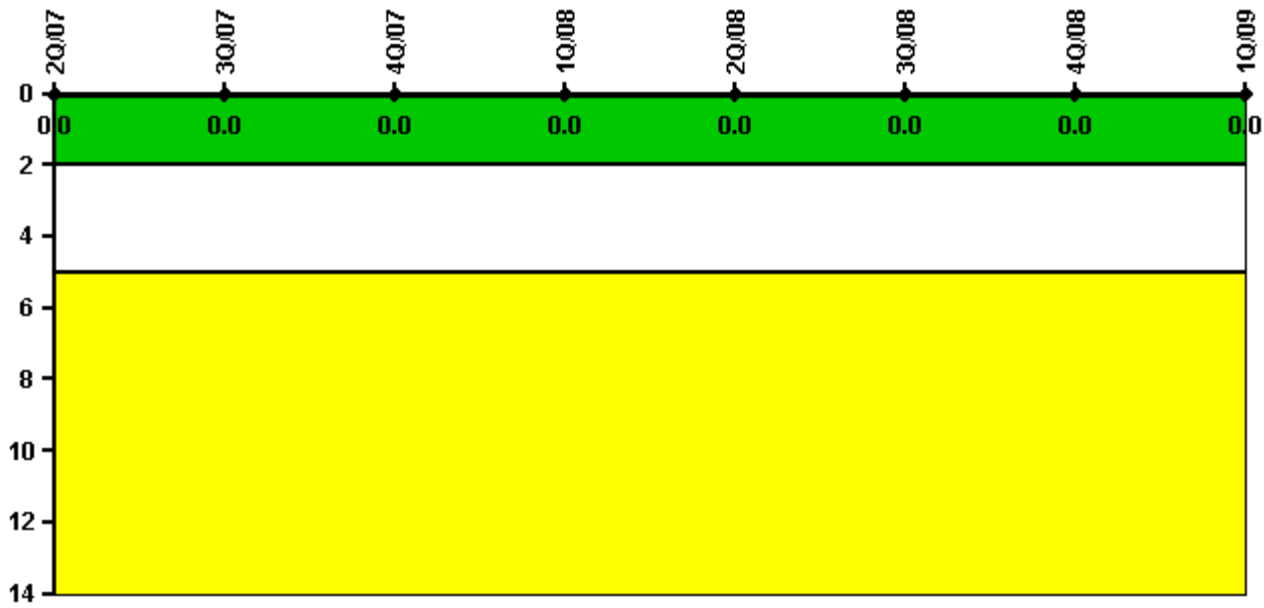
Thresholds: White < 94.0% Yellow < 90.0%

### Notes

Alert & Notification System	2Q/07	3Q/07	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09
Successful siren-tests	795	798	698	999	596	994	597	893
Total sirens-tests	800	800	700	1000	600	1000	600	900
Indicator value	99.5%	99.6%	99.6%	99.7%	99.7%	99.6%	99.6%	99.4%

Licensee Comments: none

# Occupational Exposure Control Effectiveness



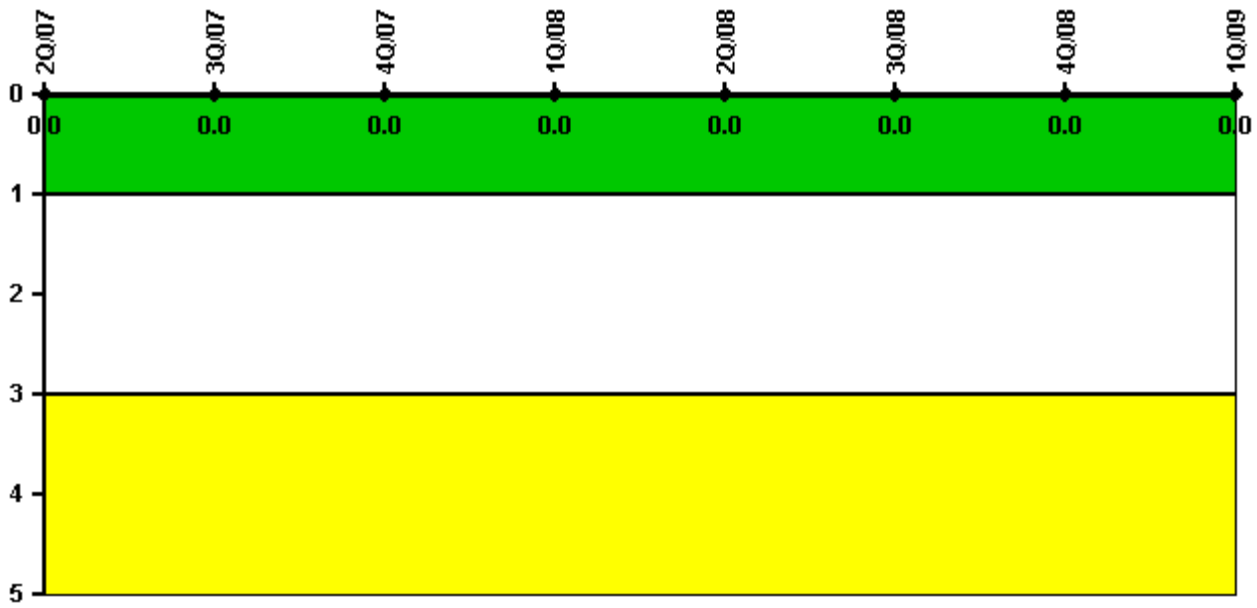
Thresholds: White > 2.0 Yellow > 5.0

## Notes

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

Licensee Comments: none

## RETS/ODCM Radiological Effluent



Thresholds: White > 1.0 Yellow > 3.0

### Notes

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