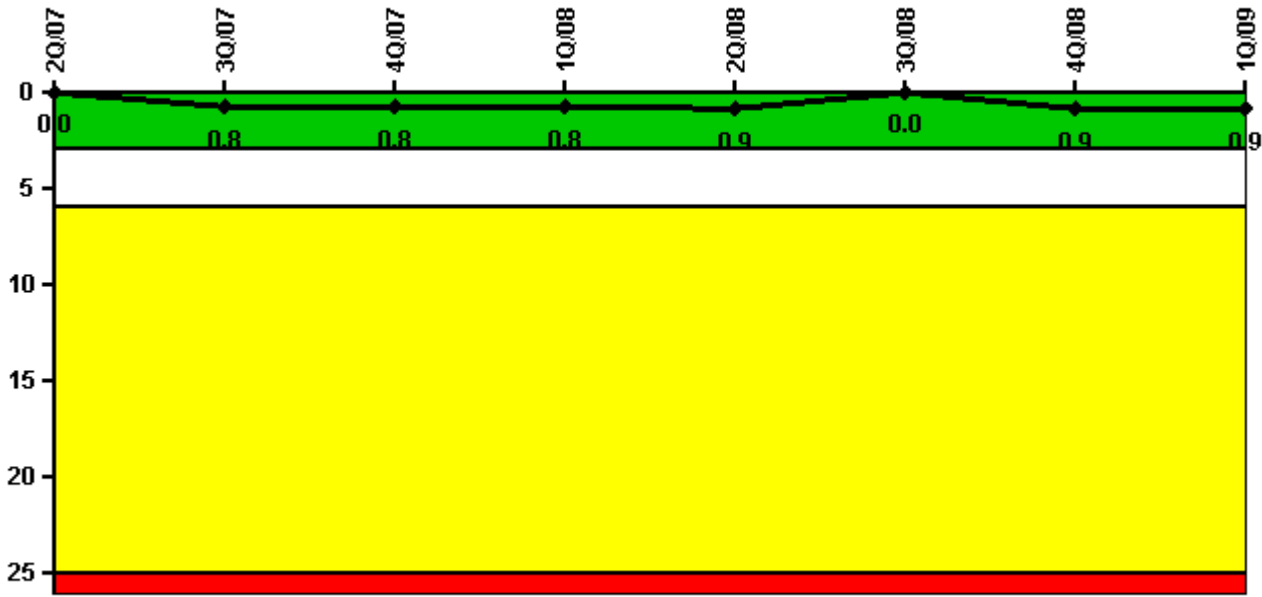


# Braidwood 2

## 1Q/2009 Performance Indicators

Licensee's General Comments: none

### Unplanned Scrams per 7000 Critical Hrs



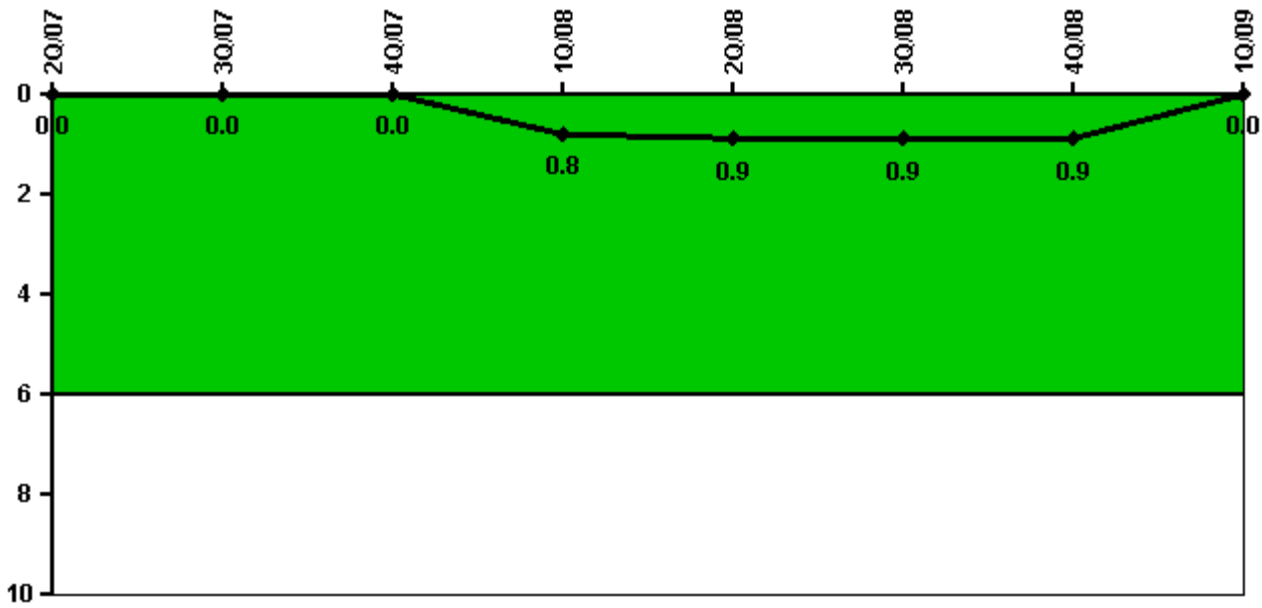
Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

### Notes

Unplanned Scrams per 7000 Critical Hrs	2Q/07	3Q/07	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09
Unplanned scrams	0	1.0	0	0	0	0	1.0	0
Critical hours	2184.0	2181.0	2209.0	2183.0	1567.6	2208.0	2174.3	2159.0
Indicator value	0	0.8	0.8	0.8	0.9	0	0.9	0.9

Licensee Comments: none

## Unplanned Power Changes per 7000 Critical Hrs



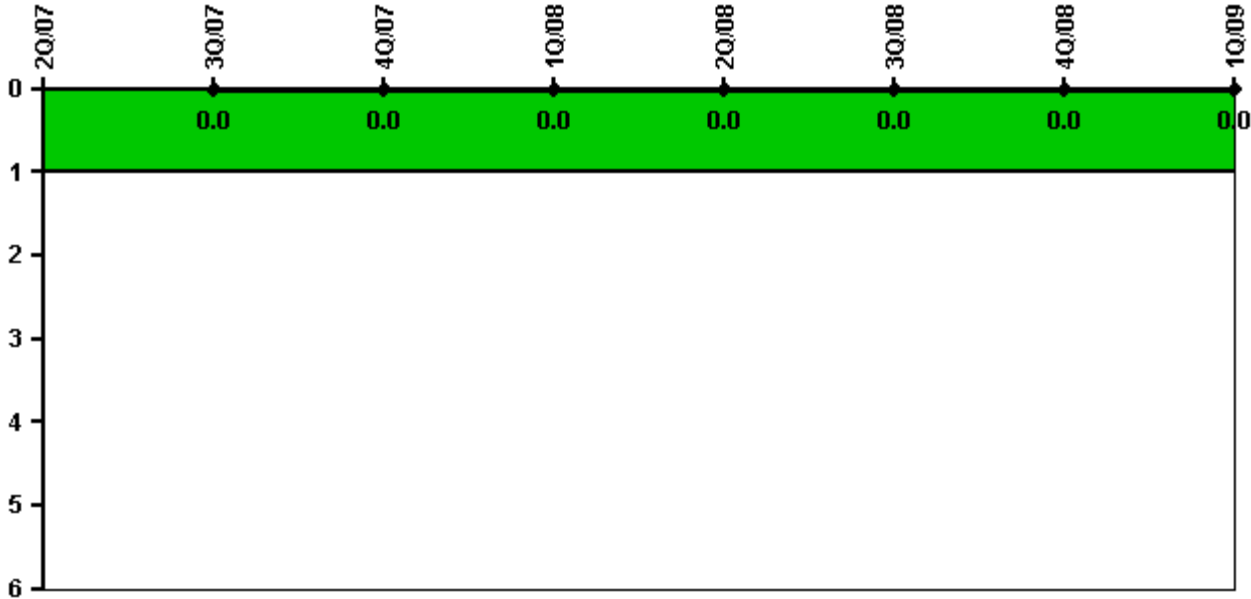
Thresholds: White > 6.0

### 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	0	0	1.0	0	0	0	0
Critical hours	2184.0	2181.0	2209.0	2183.0	1567.6	2208.0	2174.3	2159.0
Indicator value	0	0	0	0.8	0.9	0.9	0.9	0

Licensee Comments: none

# Unplanned Scrams with Complications



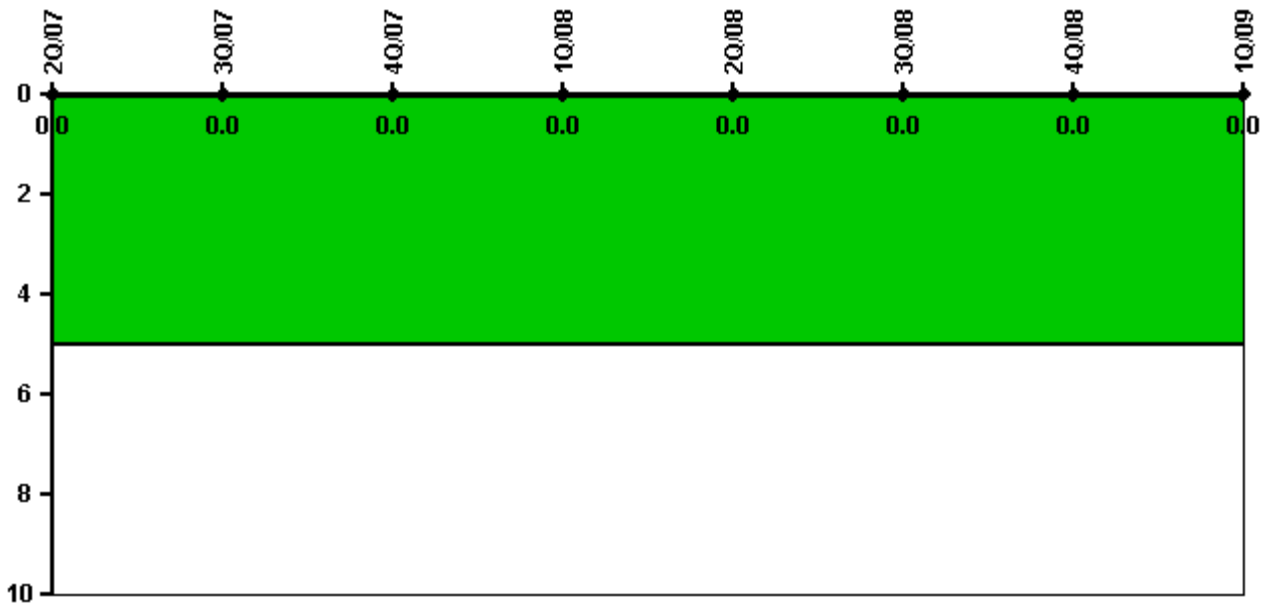
Thresholds: White > 1.0

**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 (PWR)



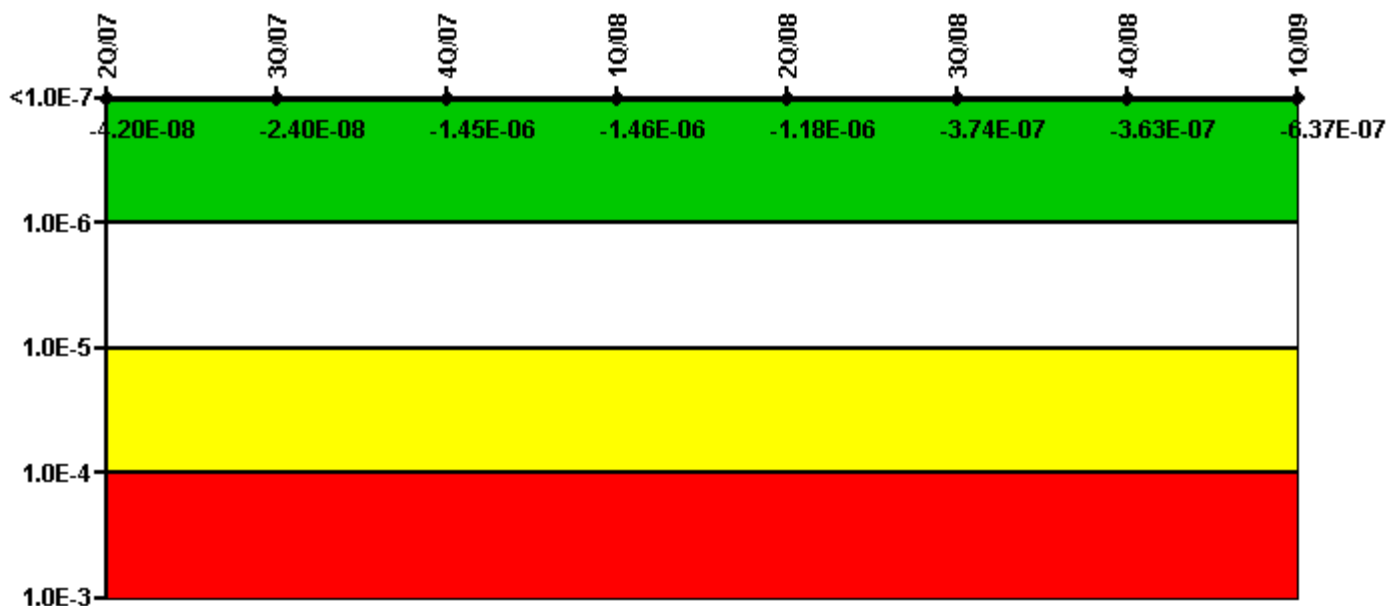
Thresholds: White > 5.0

### Notes

Safety System Functional Failures (PWR)	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	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

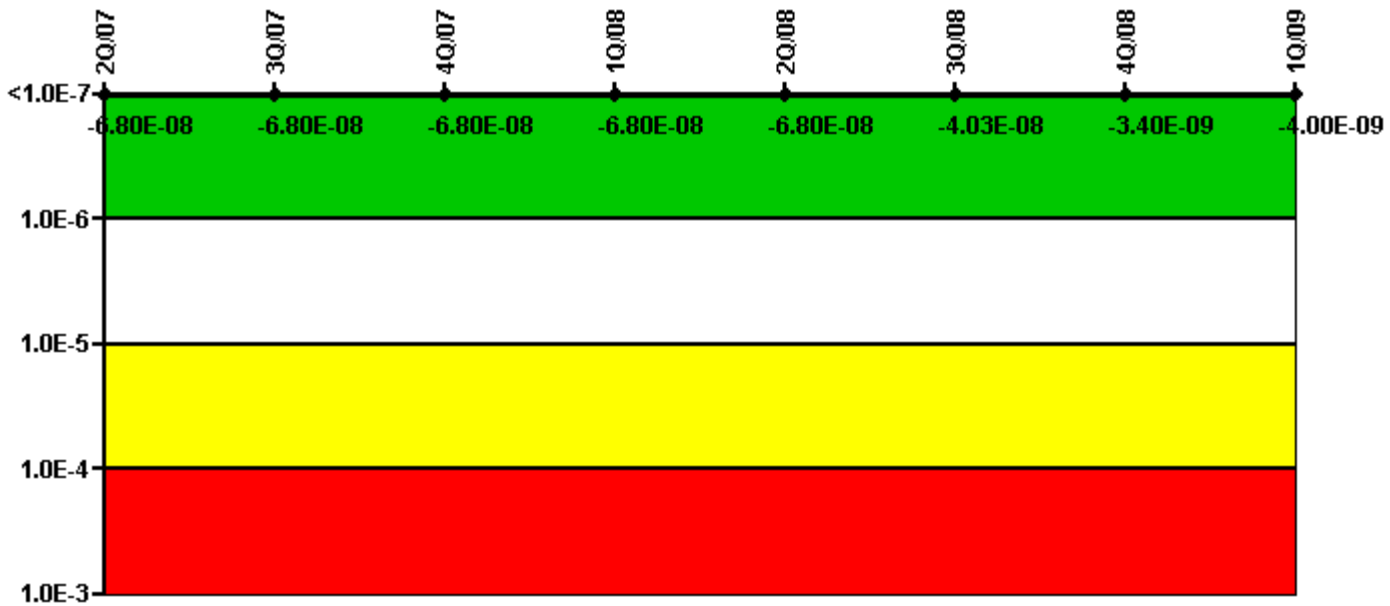
### Notes

Mitigating Systems Performance Index, Emergency AC Power System	2Q/07	3Q/07	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09
UAI ( $\Delta$ CDF)	1.30E-08	2.30E-08	4.70E-08	4.00E-08	2.40E-08	5.90E-09	6.80E-09	1.30E-08
URI ( $\Delta$ CDF)	-5.50E-08	-4.70E-08	-1.50E-06	-1.50E-06	-1.20E-06	-3.80E-07	-3.70E-07	-6.50E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-4.20E-08	-2.40E-08	-1.45E-06	-1.46E-06	-1.18E-06	-3.74E-07	-3.63E-07	-6.37E-07

Licensee Comments:

1Q/09: Changed PRA Parameter(s). The PRA values for all systems were updated to reflect Rev 6D of the Braidwood PRA model, approved on 12/23/08 and incorporated into the Braidwood MSPI basis document (BW-MSPI-001 Rev 1, dated 3/13/09). This model revision removed conservatisms associated with RCP Seal LOCA modeling for transient events.

# Mitigating Systems Performance Index, High Pressure Injection System



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

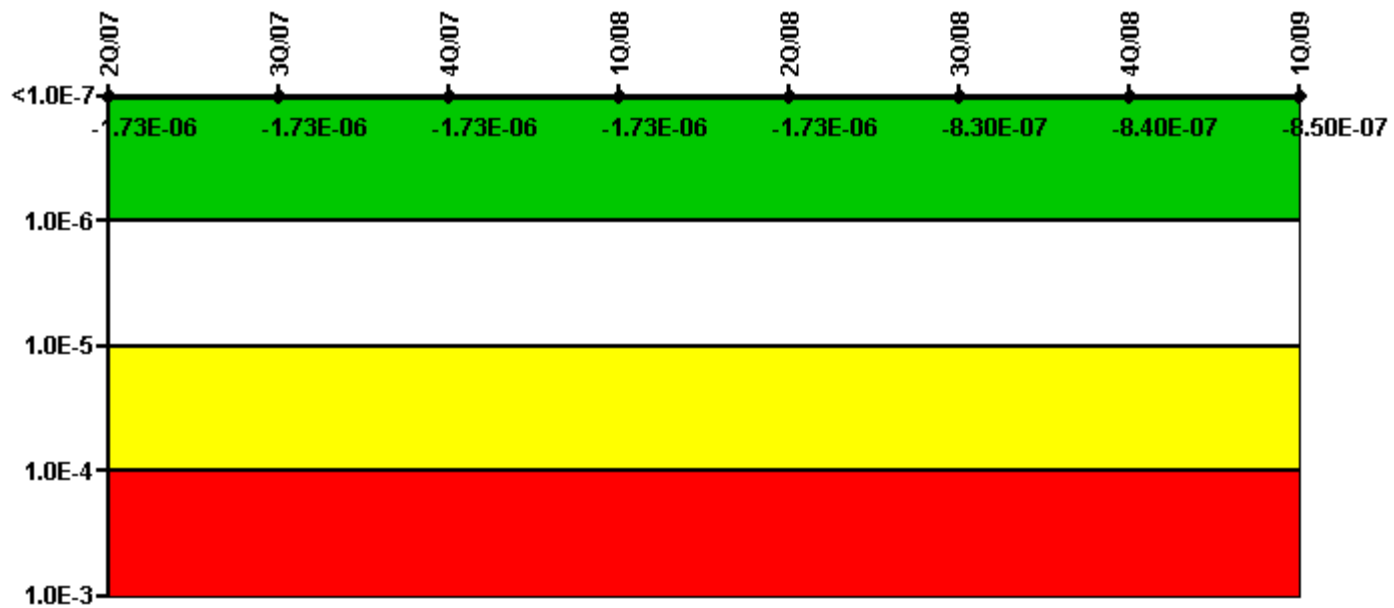
## Notes

Mitigating Systems Performance Index, High Pressure Injection System	2Q/07	3Q/07	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09
UAI ( $\Delta$ CDF)	-5.40E-08	-5.40E-08	-5.40E-08	-5.40E-08	-5.40E-08	-3.10E-08	5.90E-09	1.10E-08
URI ( $\Delta$ CDF)	-1.40E-08	-1.40E-08	-1.40E-08	-1.40E-08	-1.40E-08	-9.30E-09	-9.30E-09	-1.50E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-6.80E-08	-6.80E-08	-6.80E-08	-6.80E-08	-6.80E-08	-4.03E-08	-3.40E-09	-4.00E-09

## Licensee Comments:

1Q/09: Changed PRA Parameter(s). The PRA values for all systems were updated to reflect Rev 6D of the Braidwood PRA model, approved on 12/23/08 and incorporated into the Braidwood MSPI basis document (BW-MSPI-001 Rev 1, dated 3/13/09). This model revision removed conservatisms associated with RCP Seal LOCA modeling for transient events.

## Mitigating Systems Performance Index, Heat Removal System



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

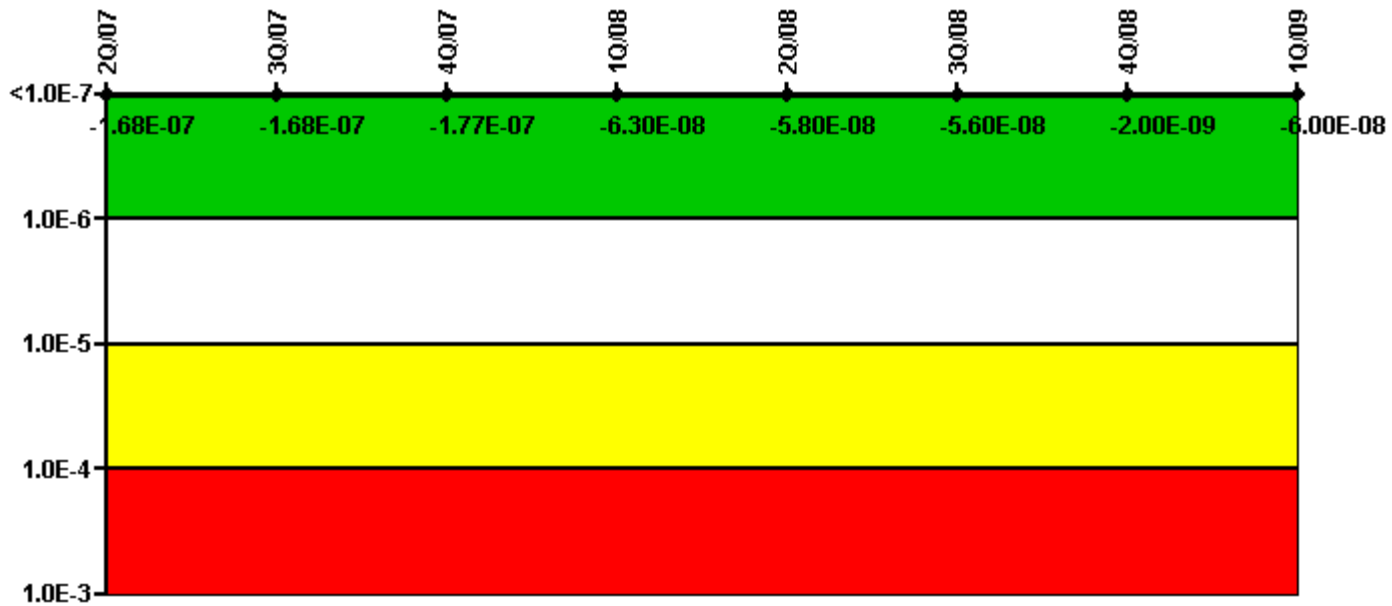
### Notes

Mitigating Systems Performance Index, Heat Removal System	2Q/07	3Q/07	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09
UAI ( $\Delta$ CDF)	-6.30E-07	-6.30E-07	-6.30E-07	-6.30E-07	-6.30E-07	-2.20E-07	-2.20E-07	-2.20E-07
URI ( $\Delta$ CDF)	-1.10E-06	-1.10E-06	-1.10E-06	-1.10E-06	-1.10E-06	-6.10E-07	-6.20E-07	-6.30E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-1.73E-06	-1.73E-06	-1.73E-06	-1.73E-06	-1.73E-06	-8.30E-07	-8.40E-07	-8.50E-07

Licensee Comments:

1Q/09: Changed PRA Parameter(s). The PRA values for all systems were updated to reflect Rev 6D of the Braidwood PRA model, approved on 12/23/08 and incorporated into the Braidwood MSPI basis document (BW-MSPI-001 Rev 1, dated 3/13/09). This model revision removed conservatisms associated with RCP Seal LOCA modeling for transient events.

# Mitigating Systems Performance Index, Residual Heat Removal System



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

## Notes

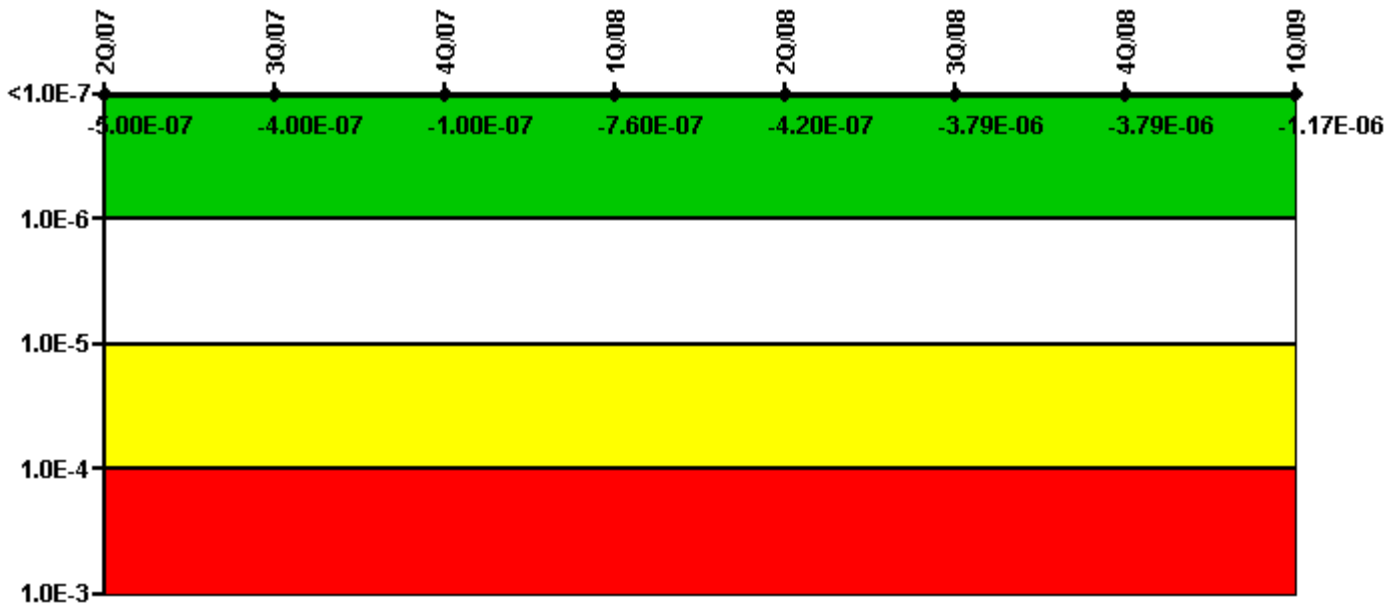
Mitigating Systems Performance Index, Residual Heat Removal System	2Q/07	3Q/07	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09
UAI ( $\Delta$ CDF)	-3.80E-08	-3.80E-08	-4.70E-08	6.70E-08	7.20E-08	3.60E-08	9.20E-08	1.10E-07
URI ( $\Delta$ CDF)	-1.30E-07	-1.30E-07	-1.30E-07	-1.30E-07	-1.30E-07	-9.20E-08	-9.40E-08	-1.70E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-1.68E-07	-1.68E-07	-1.77E-07	-6.30E-08	-5.80E-08	-5.60E-08	-2.00E-09	-6.00E-08

## Licensee Comments:

1Q/09: Changed PRA Parameter(s). The PRA values for all systems were updated to reflect Rev 6D of the Braidwood PRA model, approved on 12/23/08 and incorporated into the Braidwood MSPI basis document (BW-MSPI-001 Rev 1, dated 3/13/09). This model revision removed conservatisms associated with RCP Seal LOCA modeling for transient events.



# Mitigating Systems Performance Index, Cooling Water Systems



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

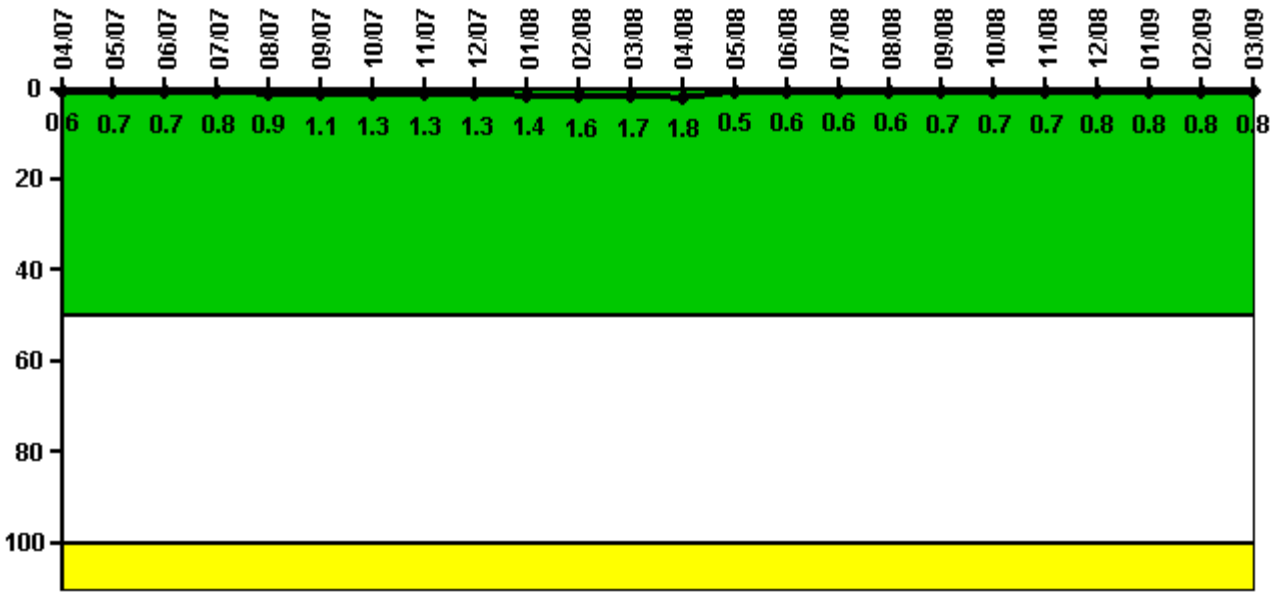
## Notes

Mitigating Systems Performance Index, Cooling Water Systems	2Q/07	3Q/07	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09
UAI ( $\Delta$ CDF)	1.00E-06	1.10E-06	1.20E-06	5.40E-07	6.80E-07	2.10E-07	2.10E-07	1.30E-07
URI ( $\Delta$ CDF)	-1.50E-06	-1.50E-06	-1.30E-06	-1.30E-06	-1.10E-06	-4.00E-06	-4.00E-06	-1.30E-06
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-5.00E-07	-4.00E-07	-1.00E-07	-7.60E-07	-4.20E-07	-3.79E-06	-3.79E-06	-1.17E-06

## Licensee Comments:

1Q/09: Changed PRA Parameter(s). The PRA values for all systems were updated to reflect Rev 6D of the Braidwood PRA model, approved on 12/23/08 and incorporated into the Braidwood MSPI basis document (BW-MSPI-001 Rev 1, dated 3/13/09). This model revision removed conservatisms associated with RCP Seal LOCA modeling for transient events. Additionally, a data entry error for the Unit 2 MSPI Cooling water system was corrected. This error impacted the unavailability index intermediate calculations for Unit 2, but had no impact on the MSPI values or results reported for any previous quarter.

## Reactor Coolant System Activity



Thresholds: White > 50.0 Yellow > 100.0

### Notes

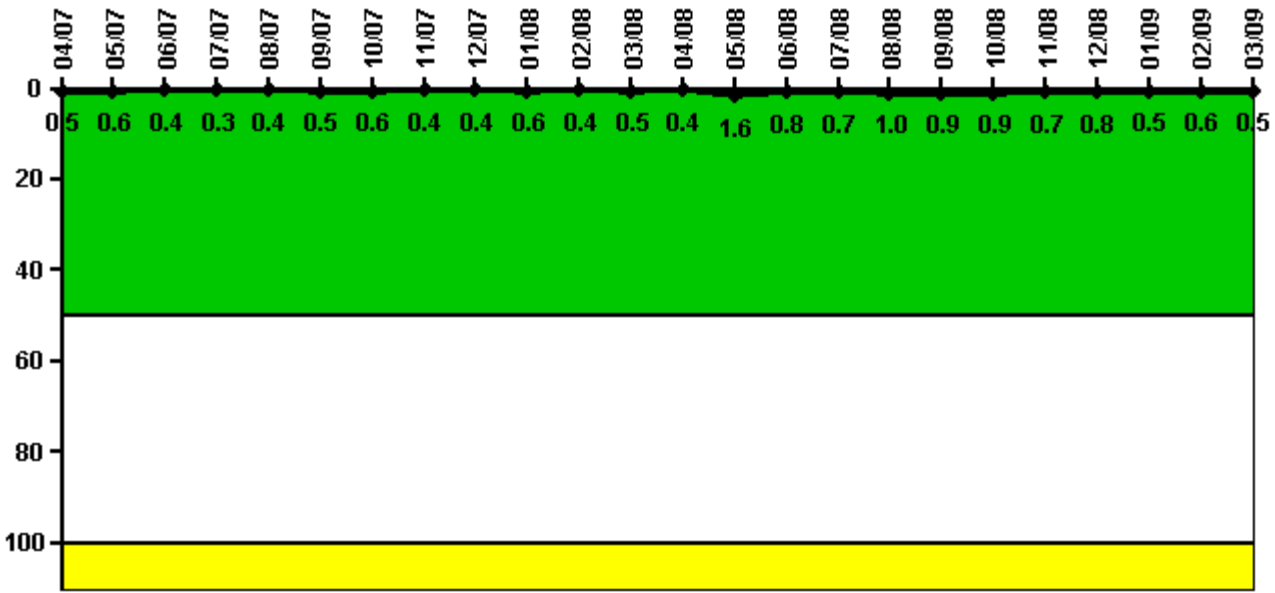
Reactor Coolant System Activity	4/07	5/07	6/07	7/07	8/07	9/07	10/07	11/07	12/07	1/08	2/08	3/08
Maximum activity	0.006300	0.007320	0.007360	0.008130	0.008740	0.010600	0.012700	0.012600	0.013200	0.013600	0.015600	0.016800
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	0.6	0.7	0.7	0.8	0.9	1.1	1.3	1.3	1.3	1.4	1.6	1.7

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	0.017500	0.005090	0.005760	0.005880	0.006260	0.007050	0.006880	0.007080	0.007670	0.007790	0.007950	0.008320
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	1.8	0.5	0.6	0.6	0.6	0.7	0.7	0.7	0.8	0.8	0.8	0.8

Licensee Comments: none

## Reactor Coolant System Leakage



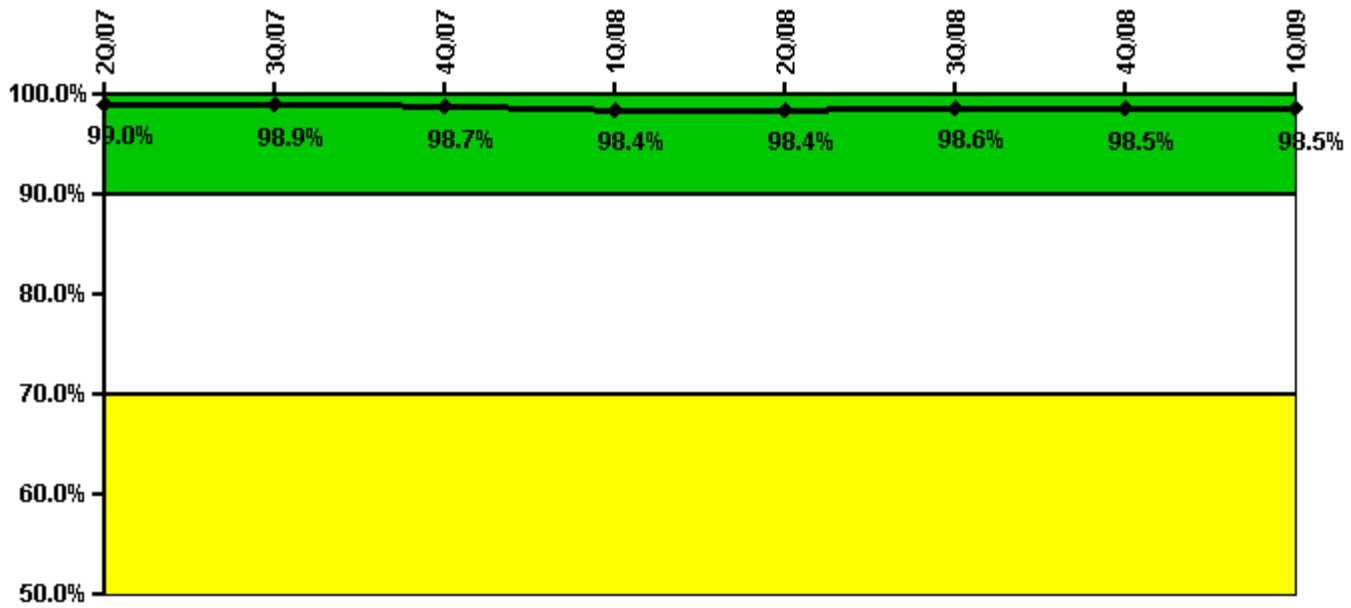
Thresholds: White > 50.0 Yellow > 100.0

### 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	0.045	0.056	0.036	0.034	0.035	0.045	0.056	0.040	0.043	0.062	0.042	0.045
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	0.6	0.4	0.3	0.4	0.5	0.6	0.4	0.4	0.6	0.4	0.5
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	0.038	0.159	0.075	0.065	0.100	0.094	0.088	0.071	0.081	0.054	0.060	0.053
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	0.4	1.6	0.8	0.7	1.0	0.9	0.9	0.7	0.8	0.5	0.6	0.5

Licensee Comments: none

## Drill/Exercise Performance



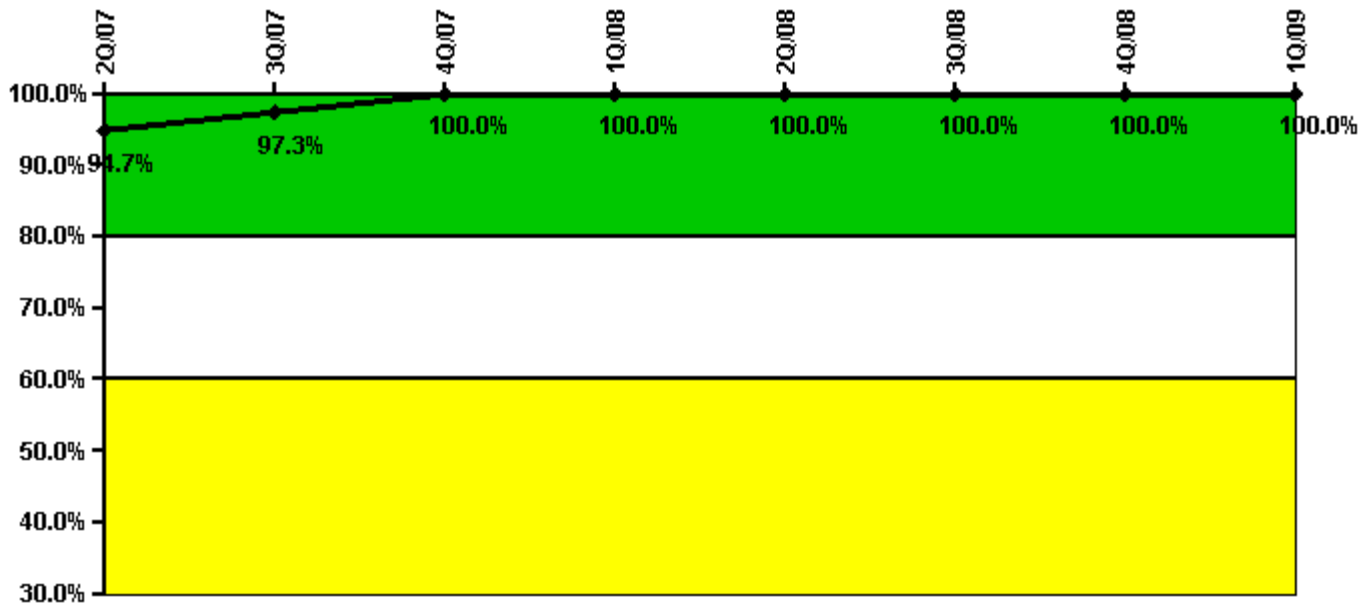
Thresholds: White < 90.0% Yellow < 70.0%

### Notes

Drill/Exercise Performance	2Q/07	3Q/07	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09
Successful opportunities	105.0	84.0	18.0	20.0	26.0	134.0	45.0	24.0
Total opportunities	106.0	84.0	19.0	22.0	26.0	136.0	46.0	24.0
Indicator value	99.0%	98.9%	98.7%	98.4%	98.4%	98.6%	98.5%	98.5%

Licensee Comments: none

## ERO Drill Participation



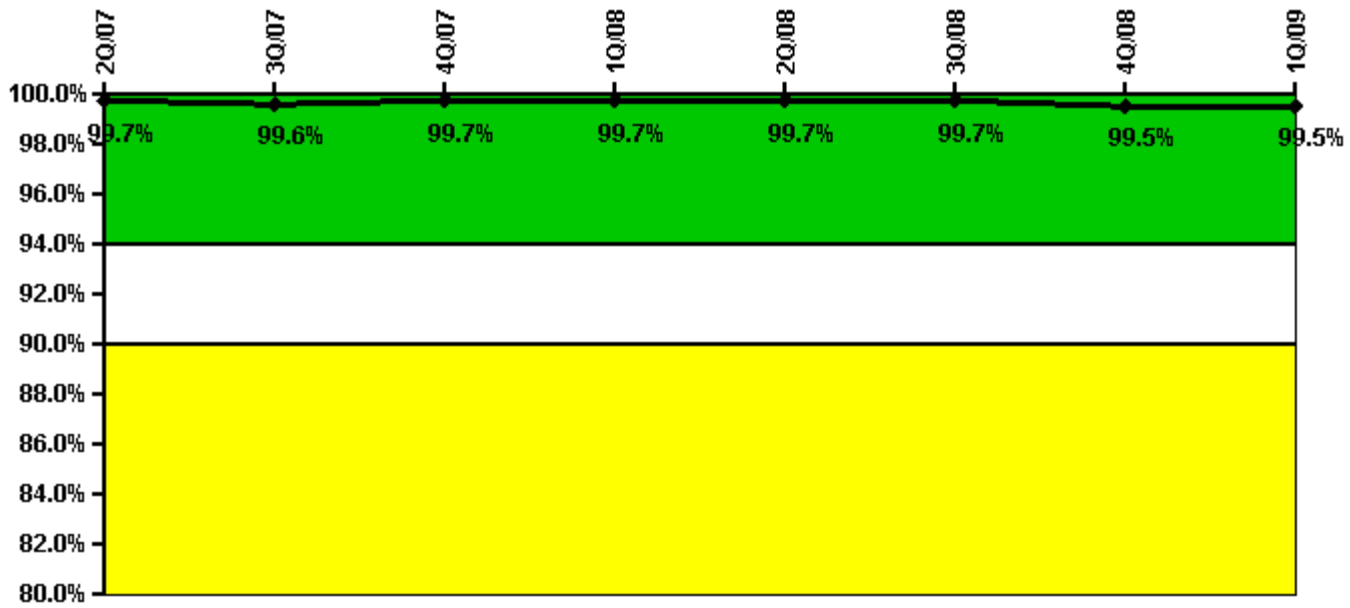
**Thresholds: White < 80.0% Yellow < 60.0%**

### Notes

ERO Drill Participation	2Q/07	3Q/07	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09
Participating Key personnel	72.0	73.0	75.0	71.0	69.0	67.0	65.0	68.0
Total Key personnel	76.0	75.0	75.0	71.0	69.0	67.0	65.0	68.0
Indicator value	94.7%	97.3%	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/07	3Q/07	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09
Successful siren-tests	4466	4448	4474	4473	4465	4516	4438	4405
Total sirens-tests	4478	4480	4480	4478	4479	4550	4480	4410
Indicator value	99.7%	99.6%	99.7%	99.7%	99.7%	99.7%	99.5%	99.5%

Licensee Comments: none

## Occupational Exposure Control Effectiveness



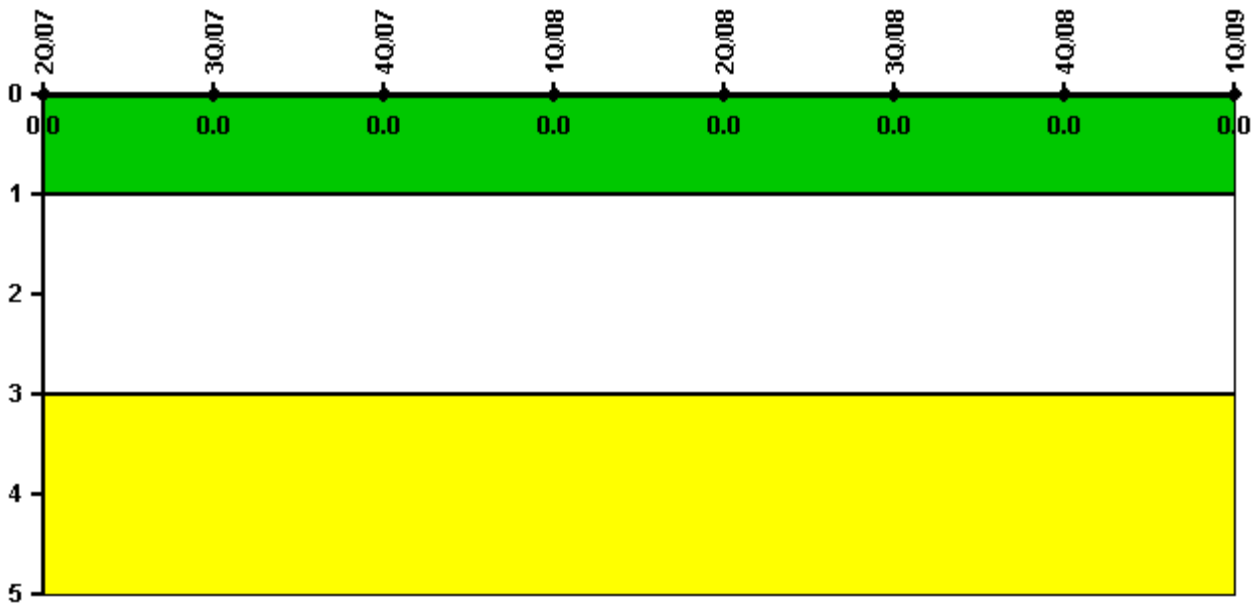
Thresholds: White > 2.0 Yellow > 5.0

### 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.