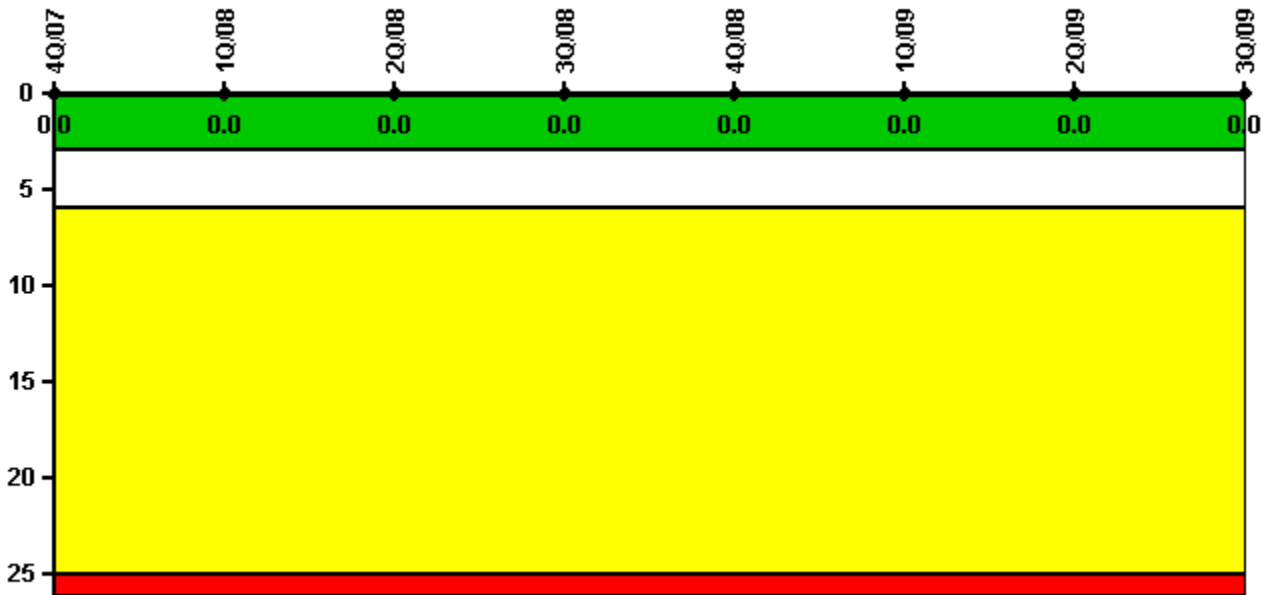


# San Onofre 3

## 3Q/2009 Performance Indicators

Licensee's General Comments: none

### Unplanned Scrams per 7000 Critical Hrs



Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

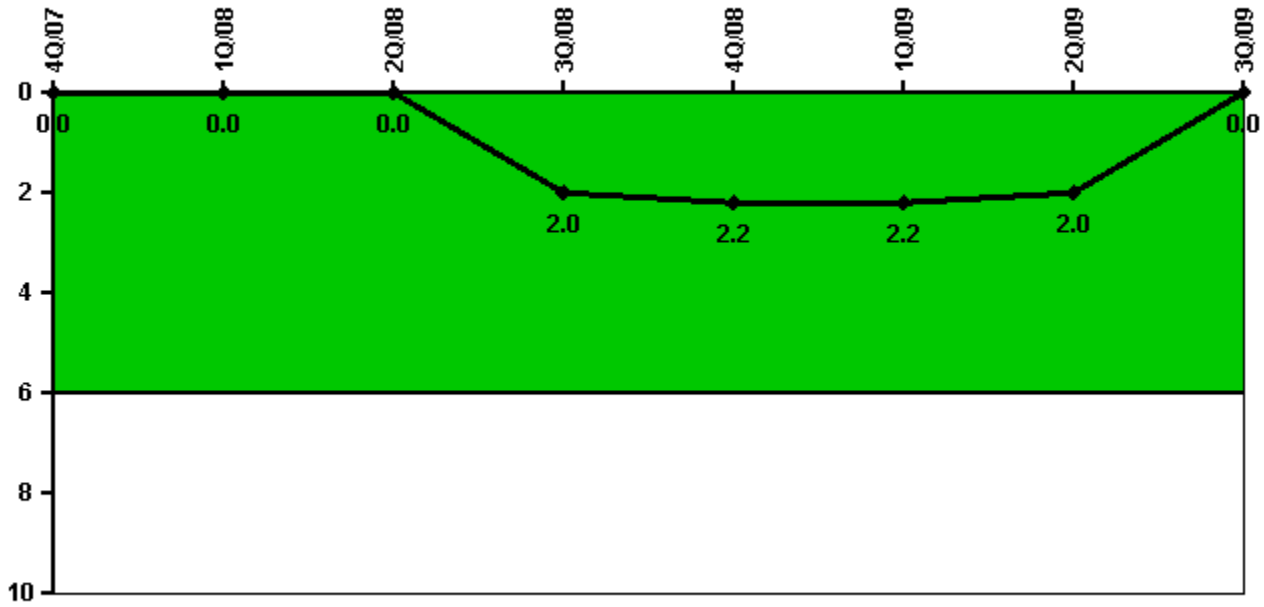
### Notes

Unplanned Scrams per 7000 Critical Hrs	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09	2Q/09	3Q/09
Unplanned scrams	0	0	0	0	0	0	0	0
Critical hours	1474.5	2183.0	1546.7	1970.1	682.2	2159.0	2184.0	2208.0
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	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09	2Q/09	3Q/09
Unplanned power changes	0	0	0	2.0	0	0	0	0
Critical hours	1474.5	2183.0	1546.7	1970.1	682.2	2159.0	2184.0	2208.0
Indicator value	0	0	0	2.0	2.2	2.2	2.0	0

Licensee Comments: none

## Unplanned Scrams with Complications



Thresholds: White > 1.0

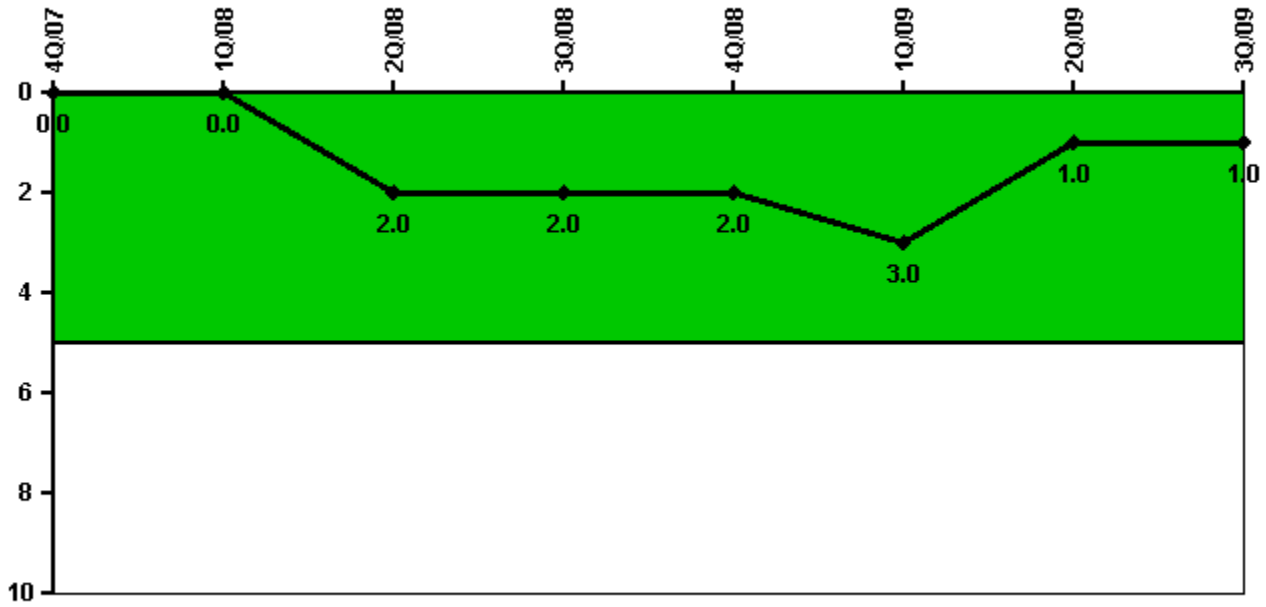
### Notes

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

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## Safety System Functional Failures (PWR)



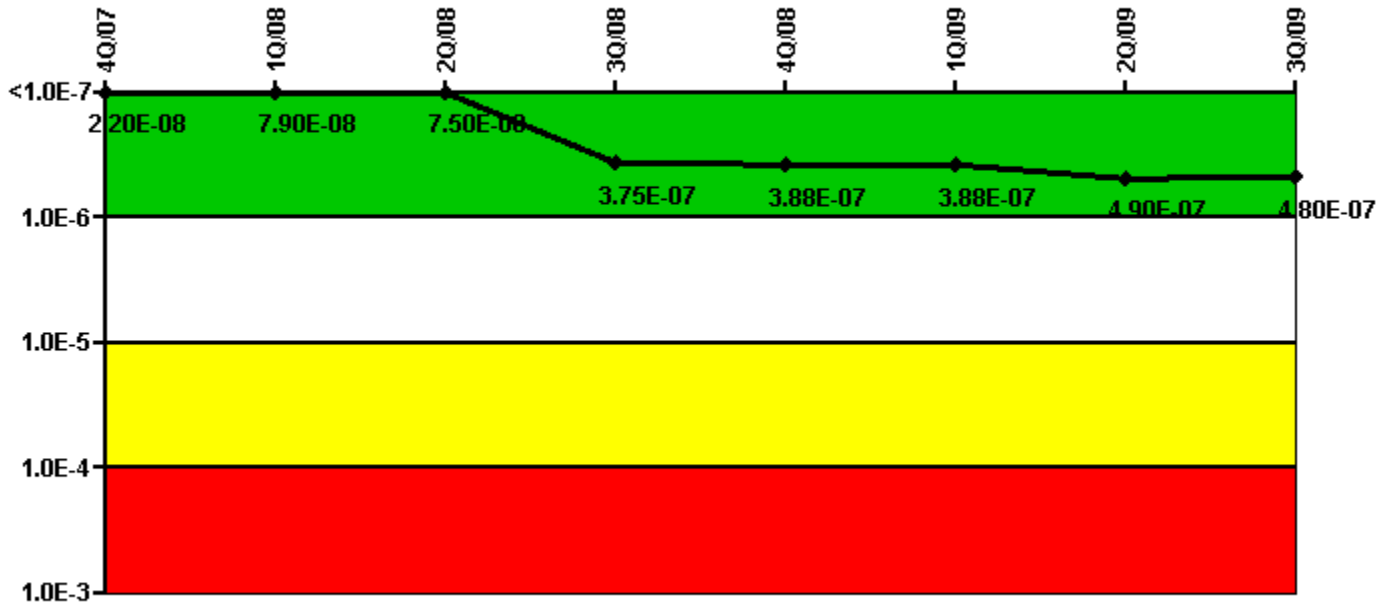
Thresholds: White > 5.0

### Notes

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

Licensee Comments: none

# Mitigating Systems Performance Index, Emergency AC Power System



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

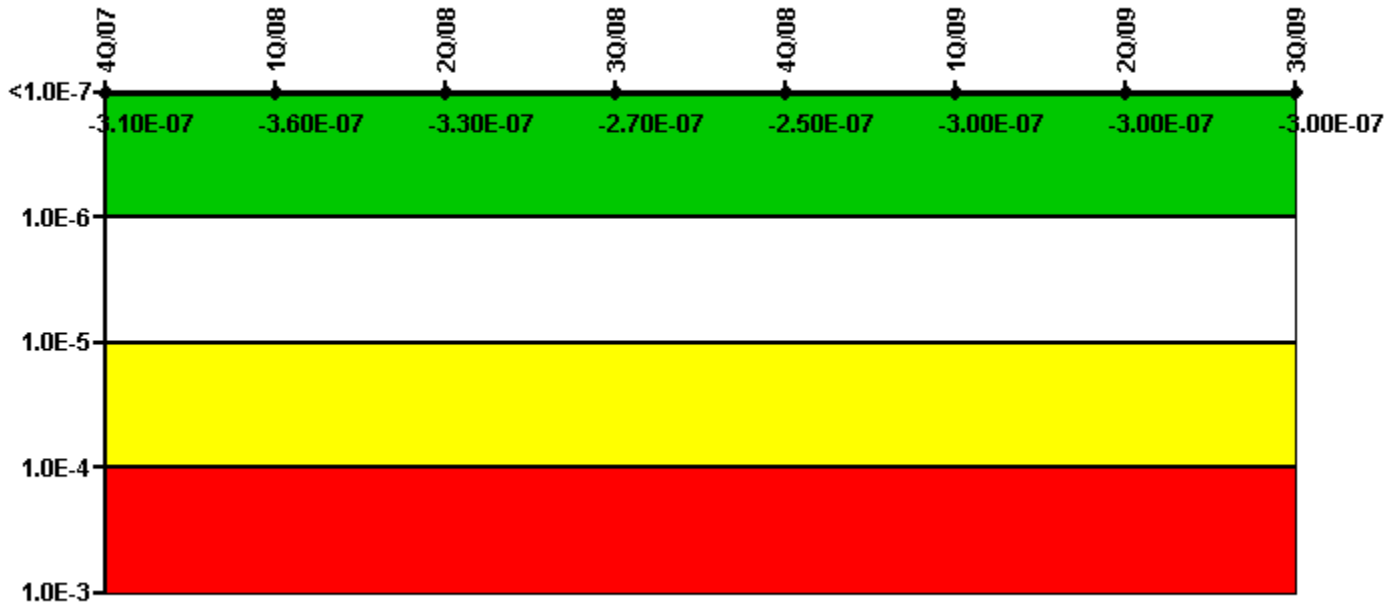
## Notes

Mitigating Systems Performance Index, Emergency AC Power System	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09	2Q/09	3Q/09
UAI (ΔCDF)	3.50E-08	4.70E-08	4.30E-08	8.50E-08	9.80E-08	9.80E-08	1.60E-07	1.10E-07
URI (ΔCDF)	-1.30E-08	3.20E-08	3.20E-08	2.90E-07	2.90E-07	2.90E-07	3.30E-07	3.70E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	2.20E-08	7.90E-08	7.50E-08	3.75E-07	3.88E-07	3.88E-07	4.90E-07	4.80E-07

## Licensee Comments:

3Q/09: Changed PRA Parameter(s). MSPI coefficients were changed for 3Q09 to be consistent with the Probabilistic Risk Assessment model revision dated 6/30/09. This revision added modeling of equipment dependency on HVAC and introduced two new initiators: Loss of Control Room HVAC and Loss of Switchgear/Inverter Room HVAC. Resulting Birnbaum changes of greater than 5% for the Emergency AC Power System (EDG) included unreliability Birnbaum increases of 5% and 8% respectively for Train B EDG and its cross tie. In addition, starting in 3Q09, Baseline Planned Unavailability values were reset to the initial values that were based on plant specific actual planned unavailability during the period 2002-2004. Plant maintenance philosophy has not changed substantially since that period; therefore, this change is in accordance with NEI 99-02, Appendix F. In previous quarters, the Baseline Planned Unavailability values had been updated each quarter to reflect planned unavailability for the following quarter.

# Mitigating Systems Performance Index, High Pressure Injection System



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

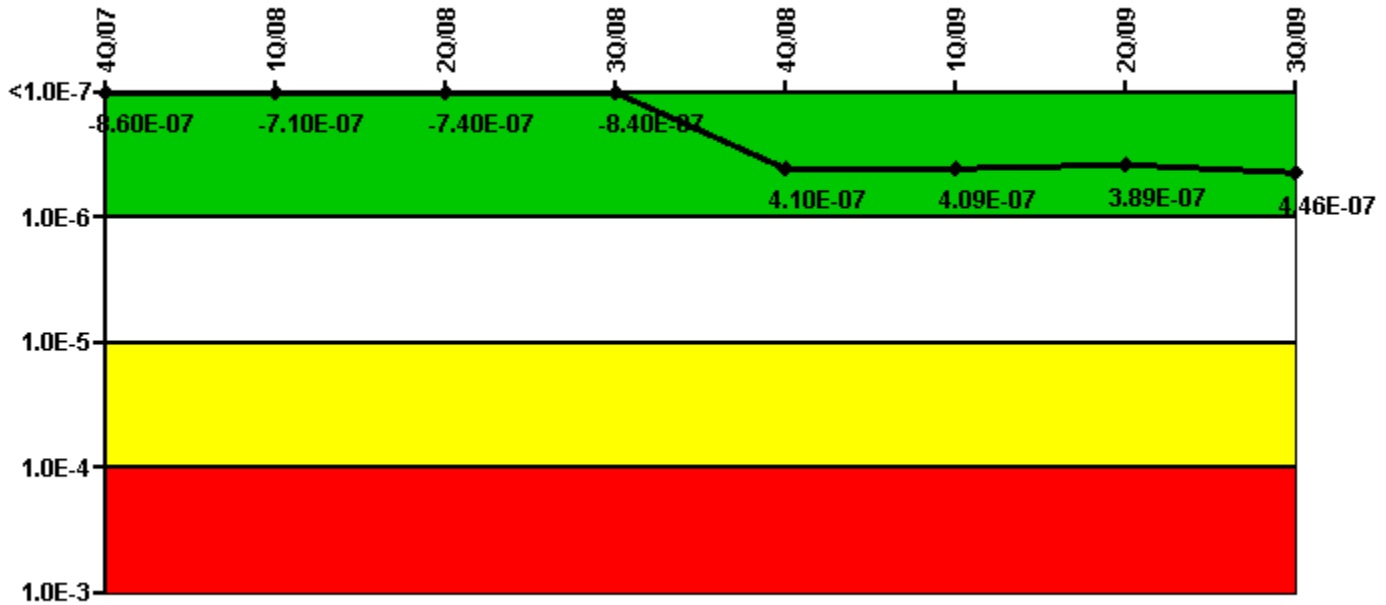
## Notes

Mitigating Systems Performance Index, High Pressure Injection System	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09	2Q/09	3Q/09
UAI ( $\Delta$ CDF)	-1.80E-07	-2.30E-07	-2.00E-07	-1.30E-07	-1.20E-07	-1.70E-07	-1.70E-07	-1.70E-07
URI ( $\Delta$ CDF)	-1.30E-07	-1.30E-07	-1.30E-07	-1.40E-07	-1.30E-07	-1.30E-07	-1.30E-07	-1.30E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-3.10E-07	-3.60E-07	-3.30E-07	-2.70E-07	-2.50E-07	-3.00E-07	-3.00E-07	-3.00E-07

## Licensee Comments:

3Q/09: Changed PRA Parameter(s). MSPI coefficients were changed for 3Q09 to be consistent with the Probabilistic Risk Assessment model revision dated 6/30/09. This revision added modeling of equipment dependency on HVAC and introduced two new initiators: Loss of Control Room HVAC and Loss of Switchgear/Inverter Room HVAC. Resulting Birnbaum changes of greater than 5% for the HPSI MSPI included HPSI pumps unreliability Birnbaum decreases of 2 - 5% and HPSI valves unreliability Birnbaum decreases of 1 - 8%. In addition, starting in 3Q09, Baseline Planned Unavailability values were reset to the initial values that were based on plant specific actual planned unavailability during the period 2002-2004. Plant maintenance philosophy has not changed substantially since that period; therefore, this change is in accordance with NEI 99-02, Appendix F. In previous quarters, the Baseline Planned Unavailability values had been updated each quarter to reflect planned unavailability for the following quarter.

# Mitigating Systems Performance Index, Heat Removal System



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

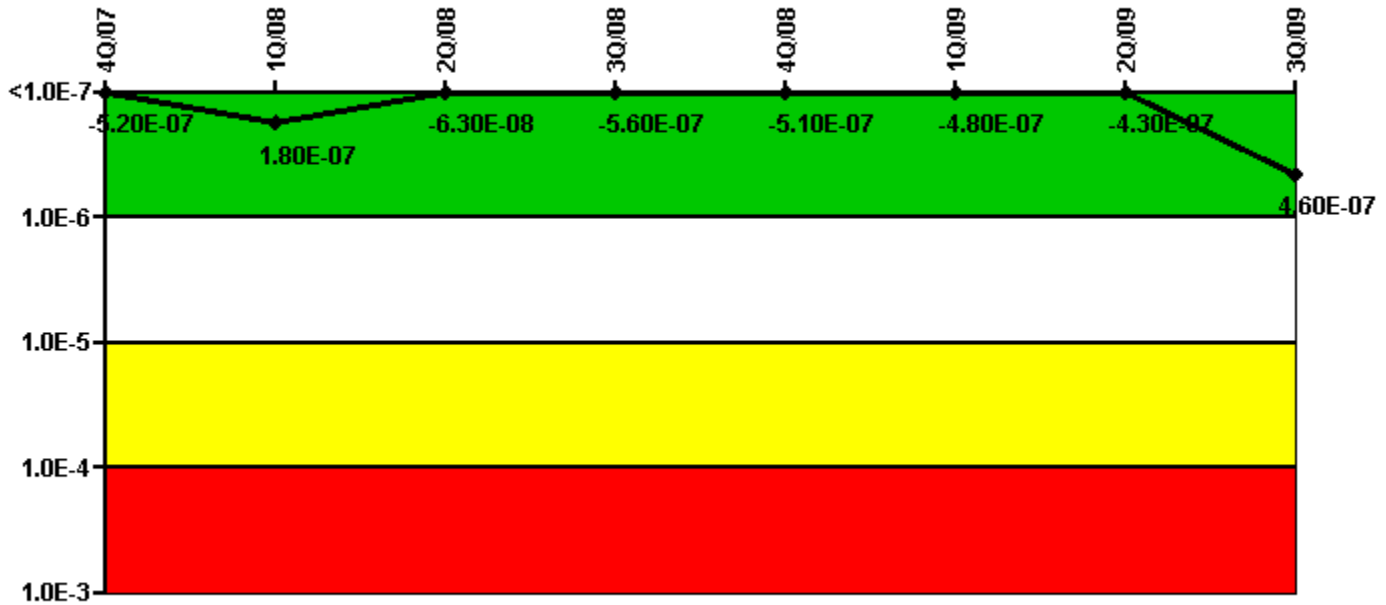
## Notes

Mitigating Systems Performance Index, Heat Removal System	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09	2Q/09	3Q/09
UAI ( $\Delta$ CDF)	-2.30E-07	-1.10E-07	-1.40E-07	-1.40E-07	-5.00E-08	-5.10E-08	-7.10E-08	-7.40E-08
URI ( $\Delta$ CDF)	-6.30E-07	-6.00E-07	-6.00E-07	-7.00E-07	4.60E-07	4.60E-07	4.60E-07	5.20E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-8.60E-07	-7.10E-07	-7.40E-07	-8.40E-07	4.10E-07	4.09E-07	3.89E-07	4.46E-07

## Licensee Comments:

3Q/09: Changed PRA Parameter(s). MSPI coefficients were changed for 3Q09 to be consistent with the Probabilistic Risk Assessment model revision dated 6/30/09. This revision added modeling of equipment dependency on HVAC and introduced two new initiators: Loss of Control Room HVAC and Loss of Switchgear/Inverter Room HVAC. Resulting Birnbaum changes of greater than 5% included the following for the Auxiliary Feed Water (AFW) system MSPI: (1) turbine driven pump train unavailability Birnbaum increased about 6% and unreliability Birnbaum increased about 9%, (2) motor driven pumps unavailability Birnbaums decreased about 11% and unreliability Birnbaums decreased by about 11 and 9%, and (3) valves unreliability Birnbaums increased by 5 - 8%. In addition, starting in 3Q09, Baseline Planned Unavailability values were reset to the initial values that were based on plant specific actual planned unavailability during the period 2002-2004. Plant maintenance philosophy has not changed substantially since that period; therefore, this change is in accordance with NEI 99-02, Appendix F. In previous quarters, the Baseline Planned Unavailability values had been updated each quarter to reflect planned unavailability for the following quarter.

# Mitigating Systems Performance Index, Residual Heat Removal System



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

## Notes

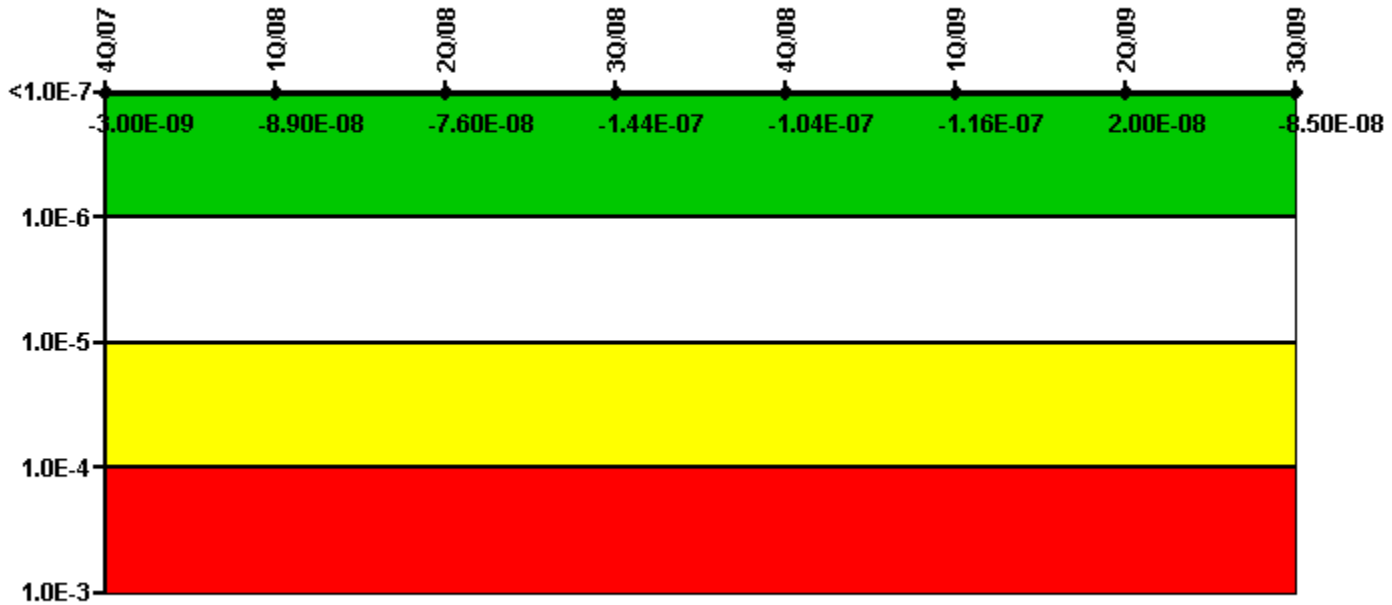
Mitigating Systems Performance Index, Residual Heat Removal System	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09	2Q/09	3Q/09
UAI ( $\Delta$ CDF)	$-4.10E-07$	$2.90E-07$	$4.70E-08$	$-4.40E-07$	$-3.90E-07$	$-3.60E-07$	$-3.10E-07$	$5.80E-07$
URI ( $\Delta$ CDF)	$-1.10E-07$	$-1.10E-07$	$-1.10E-07$	$-1.20E-07$	$-1.20E-07$	$-1.20E-07$	$-1.20E-07$	$-1.20E-07$
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	$-5.20E-07$	$1.80E-07$	$-6.30E-08$	$-5.60E-07$	$-5.10E-07$	$-4.80E-07$	$-4.30E-07$	$4.60E-07$

## Licensee Comments:

3Q/09: Changed PRA Parameter(s). MSPI coefficients were changed for 3Q09 to be consistent with the Probabilistic Risk Assessment model revision dated 6/30/09. This revision added modeling of equipment dependency on HVAC and introduced two new initiators: Loss of Control Room HVAC and Loss of Switchgear/Inverter Room HVAC. There were no resulting Birnbaum changes of greater than 5% for the Residual Heat Removal MSPI. In addition, starting in 3Q09, Baseline Planned Unavailability values were reset to the initial values that were based on plant specific actual planned unavailability during the period 2002-2004. Plant maintenance philosophy has not changed substantially since that period; therefore, this change is in accordance with NEI 99-02, Appendix F. In previous quarters, the Baseline Planned Unavailability values had been updated each quarter to reflect planned unavailability for the following quarter.



# Mitigating Systems Performance Index, Cooling Water Systems



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

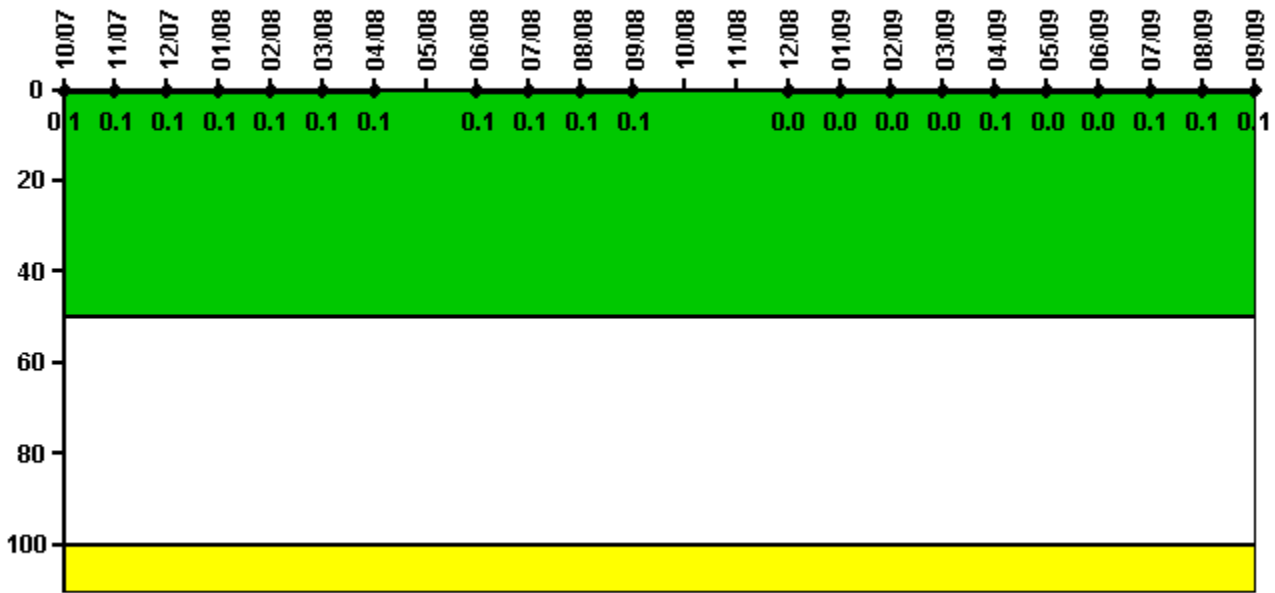
## Notes

Mitigating Systems Performance Index, Cooling Water Systems	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09	2Q/09	3Q/09
UAI ( $\Delta$ CDF)	7.30E-08	-3.80E-11	1.30E-08	1.60E-08	4.60E-08	3.40E-08	1.70E-07	6.50E-08
URI ( $\Delta$ CDF)	-7.60E-08	-8.90E-08	-8.90E-08	-1.60E-07	-1.50E-07	-1.50E-07	-1.50E-07	-1.50E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-3.00E-09	-8.90E-08	-7.60E-08	-1.44E-07	-1.04E-07	-1.16E-07	2.00E-08	-8.50E-08

Licensee Comments:

3Q/09: Changed PRA Parameter(s). MSPI coefficients were changed for 3Q09 to be consistent with the Probabilistic Risk Assessment model revision dated 6/30/09. This revision added modeling of equipment dependency on HVAC and introduced two new initiators: Loss of Control Room HVAC and Loss of Switchgear/Inverter Room HVAC. There were no resulting Birnbaum changes of greater than 5% for the Cooling Water System MSPI. In addition, starting in 3Q09, Baseline Planned Unavailability values were reset to the initial values that were based on plant specific actual planned unavailability during the period 2002-2004. Plant maintenance philosophy has not changed substantially since that period; therefore, this change is in accordance with NEI 99-02, Appendix F. In previous quarters, the Baseline Planned Unavailability values had been updated each quarter to reflect planned unavailability for the following quarter.

# Reactor Coolant System Activity



Thresholds: White > 50.0 Yellow > 100.0

## Notes

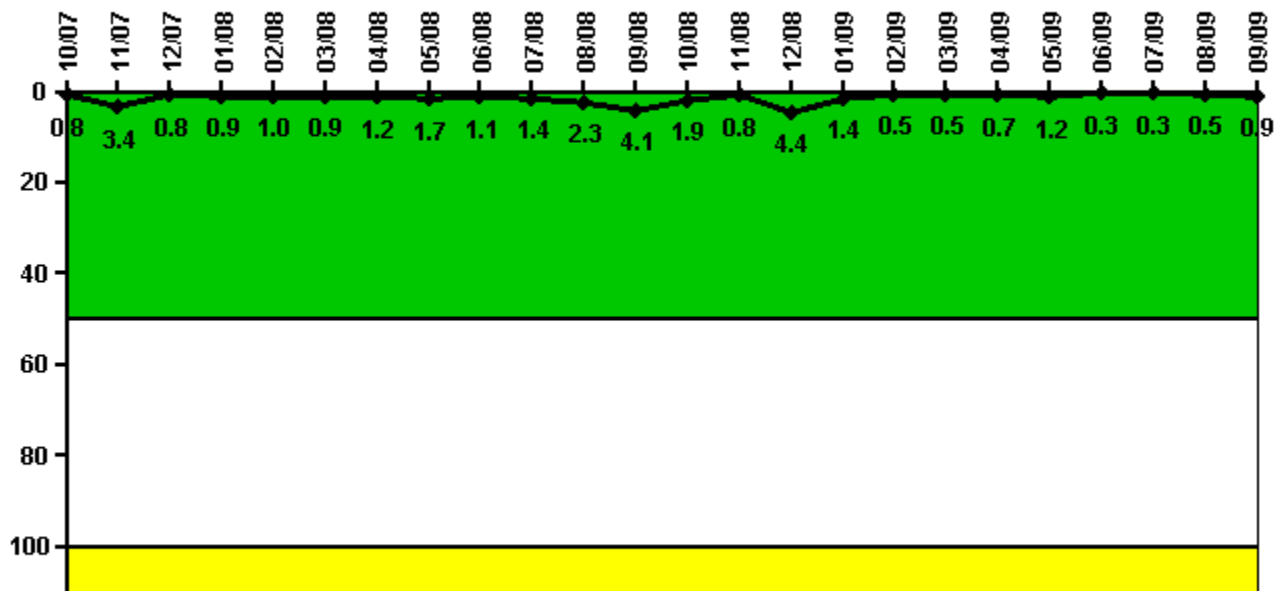
Reactor Coolant System Activity	10/07	11/07	12/07	1/08	2/08	3/08	4/08	5/08	6/08	7/08	8/08	9/08
Maximum activity	0.000716	0.000626	0.000755	0.000800	0.000821	0.000795	0.000725	N/A	0.000979	0.000921	0.000845	0.001060
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	0.1	0.1	0.1	0.1	0.1	0.1	0.1	N/A	0.1	0.1	0.1	0.1

Reactor Coolant System Activity	10/08	11/08	12/08	1/09	2/09	3/09	4/09	5/09	6/09	7/09	8/09	9/09
Maximum activity	N/A	N/A	0.000309	0.000369	0.000342	0.000442	0.000509	0.000444	0.000480	0.000523	0.000579	0.000687
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	N/A	N/A	0	0	0	0	0.1	0	0	0.1	0.1	0.1

Licensee Comments: none

## Reactor Coolant System Leakage



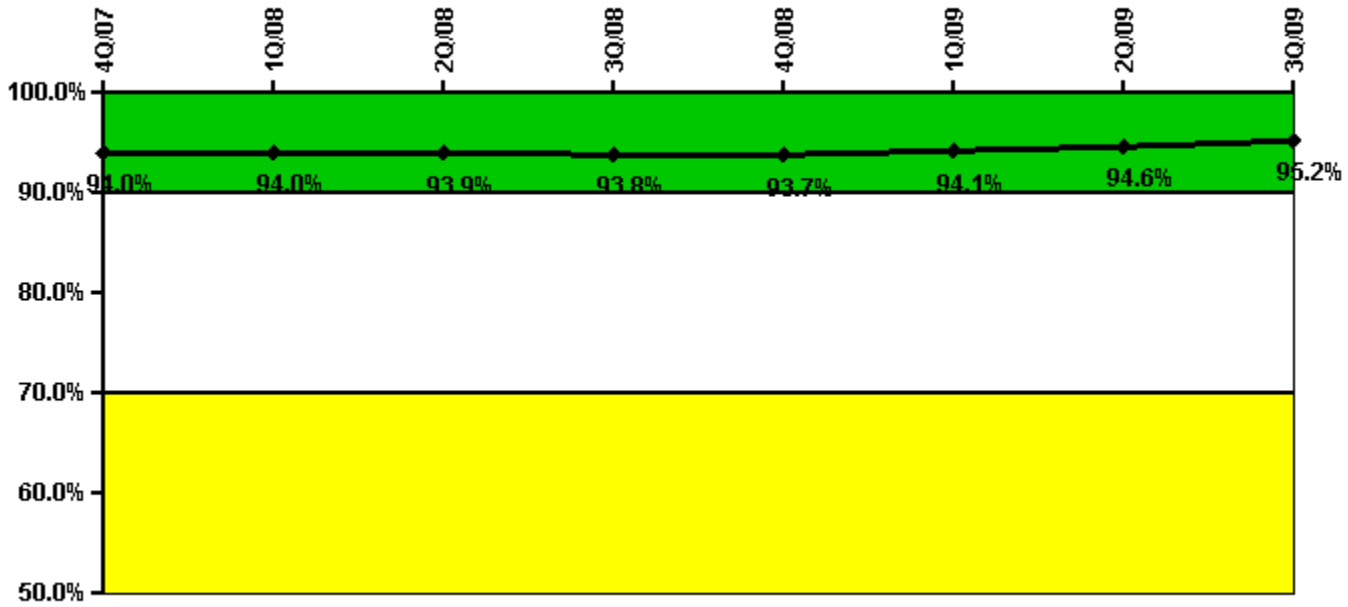
Thresholds: White > 50.0 Yellow > 100.0

### Notes

<b>Reactor Coolant System Leakage</b>	<b>10/07</b>	<b>11/07</b>	<b>12/07</b>	<b>1/08</b>	<b>2/08</b>	<b>3/08</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>
Maximum leakage	0.080	0.340	0.080	0.090	0.100	0.090	0.120	0.170	0.110	0.140	0.230	0.410
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	0.8	3.4	0.8	0.9	1.0	0.9	1.2	1.7	1.1	1.4	2.3	4.1
<b>Reactor Coolant System Leakage</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>	<b>7/09</b>	<b>8/09</b>	<b>9/09</b>
Maximum leakage	0.190	0.080	0.440	0.140	0.050	0.050	0.070	0.120	0.030	0.030	0.050	0.090
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	1.9	0.8	4.4	1.4	0.5	0.5	0.7	1.2	0.3	0.3	0.5	0.9

Licensee Comments: none

## Drill/Exercise Performance



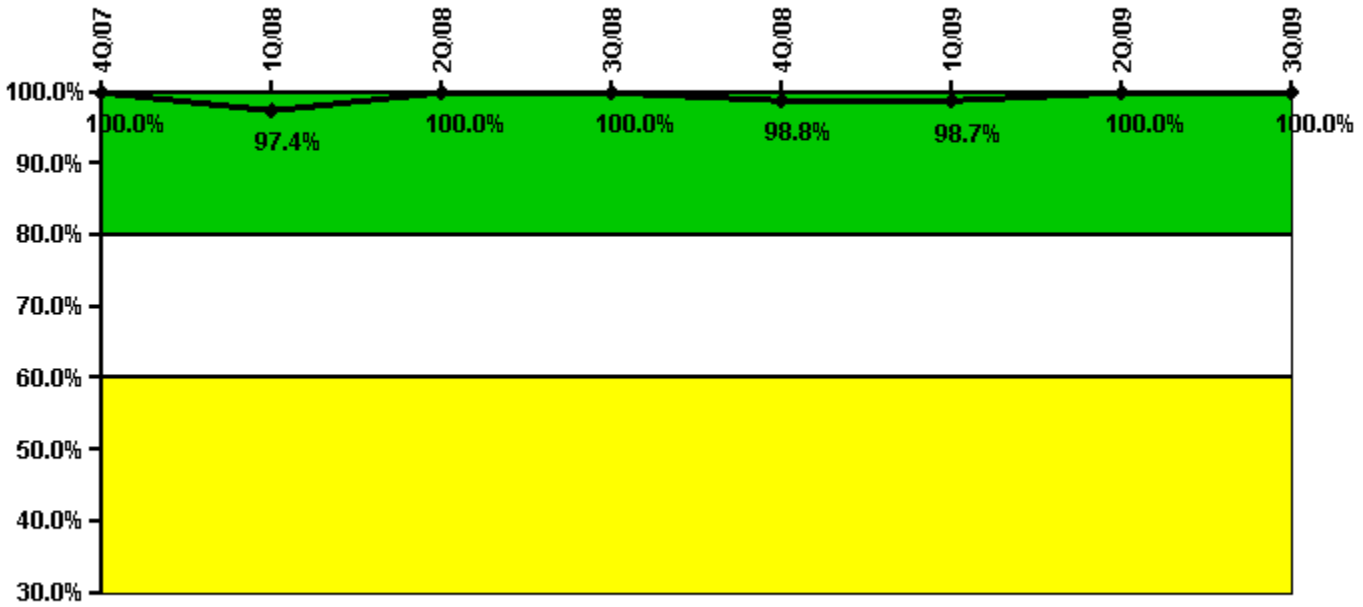
Thresholds: White < 90.0% Yellow < 70.0%

### Notes

Drill/Exercise Performance	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09	2Q/09	3Q/09
Successful opportunities	78.0	0	31.0	28.0	60.0	15.0	89.0	33.0
Total opportunities	79.0	0	34.0	29.0	63.0	15.0	93.0	38.0
Indicator value	94.0%	94.0%	93.9%	93.8%	93.7%	94.1%	94.6%	95.2%

Licensee Comments: none

## ERO Drill Participation



Thresholds: White < 80.0% Yellow < 60.0%

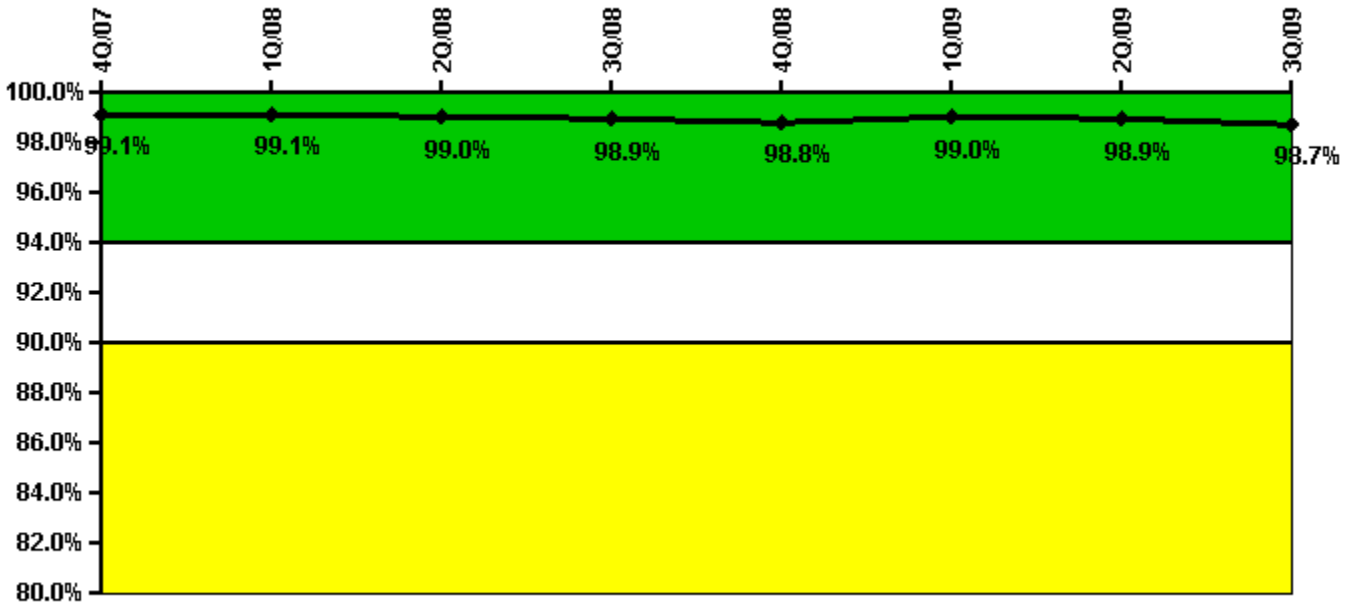
### Notes

ERO Drill Participation	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09	2Q/09	3Q/09
Participating Key personnel	76.0	74.0	77.0	77.0	80.0	76.0	74.0	74.0
Total Key personnel	76.0	76.0	77.0	77.0	81.0	77.0	74.0	74.0
Indicator value	100.0%	97.4%	100.0%	100.0%	98.8%	98.7%	100.0%	100.0%

Licensee Comments: none

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# Alert & Notification System



Thresholds: White < 94.0% Yellow < 90.0%

## Notes

Alert & Notification System	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09	2Q/09	3Q/09
Successful siren-tests	451	404	414	413	457	415	360	359
Total sirens-tests	459	409	416	416	468	416	364	364
Indicator value	99.1%	99.1%	99.0%	98.9%	98.8%	99.0%	98.9%	98.7%

Licensee Comments: none

## Occupational Exposure Control Effectiveness



Thresholds: White > 2.0 Yellow > 5.0

### Notes

Occupational Exposure Control Effectiveness	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09	2Q/09	3Q/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
<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	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09	2Q/09	3Q/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.