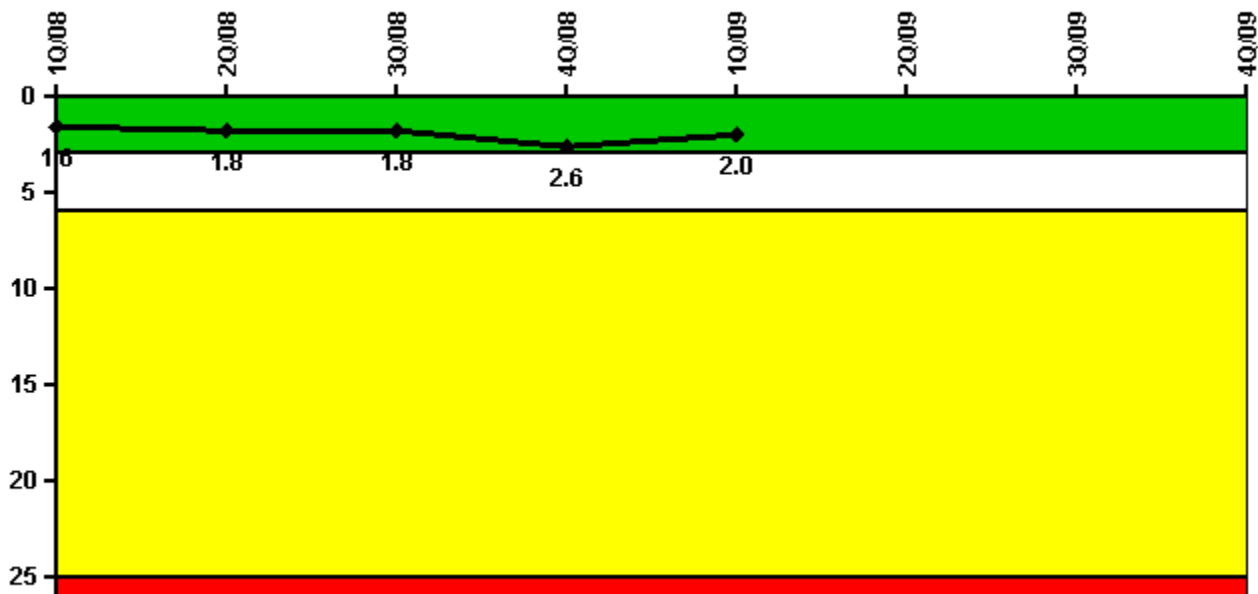


# D.C. Cook 1

## 4Q/2009 Performance Indicators

Licensee's General Comments: none

### Unplanned Scrams per 7000 Critical Hrs



Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

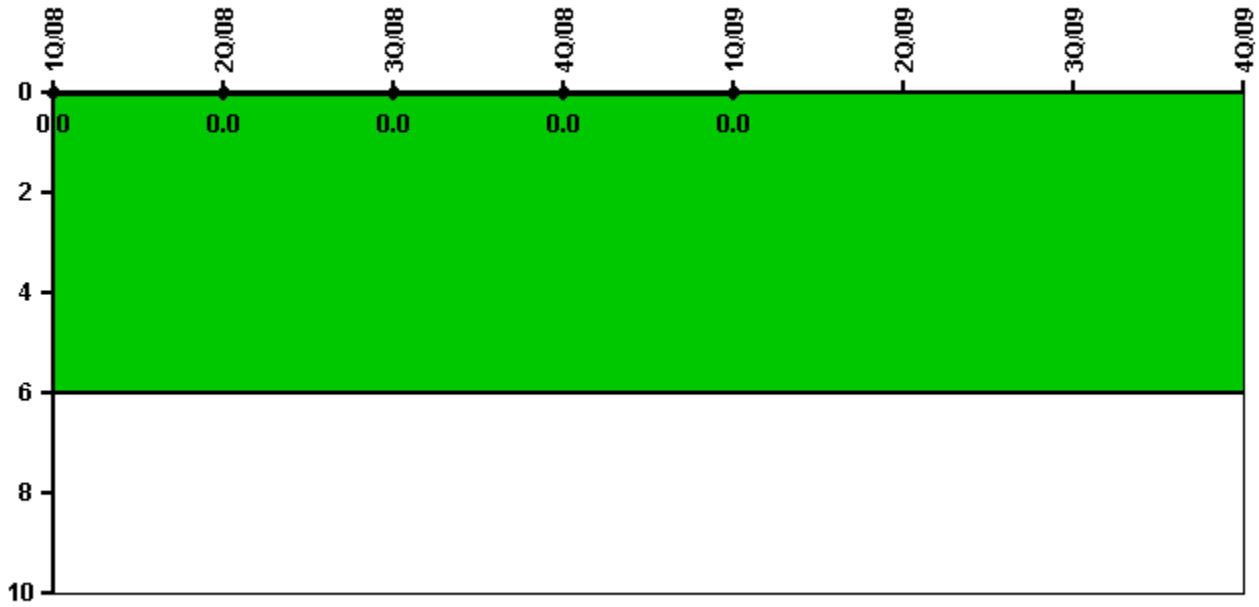
### Notes

Unplanned Scrams per 7000 Critical Hrs	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09	2Q/09	3Q/09	4Q/09
Unplanned scrams	1.0	0	1.0	0	0	0	0	0
Critical hours	2006.3	1497.5	1964.1	0	0	0	0	335.1
Indicator value	1.6	1.8	1.8	2.6	2.0	N/A	N/A	N/A

Licensee Comments:

4Q/09: Less than 2400 critical hours in previous 4 quarters due to extended forced outage. Reactor resumed critical operation on December 18, 2009.

## Unplanned Power Changes per 7000 Critical Hrs



Thresholds: White > 6.0

### Notes

Unplanned Power Changes per 7000 Critical Hrs	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09	2Q/09	3Q/09	4Q/09
Unplanned power changes	0	0	0	0	0	0	0	0
Critical hours	2006.3	1497.5	1964.1	0	0	0	0	335.1
Indicator value	0	0	0	0	0	N/A	N/A	N/A

Licensee Comments:

4Q/09: Less than 2400 critical hours in previous 4 quarters due to extended forced outage. Reactor resumed critical operation on December 18, 2009.

## Unplanned Scrams with Complications



Thresholds: White > 1.0

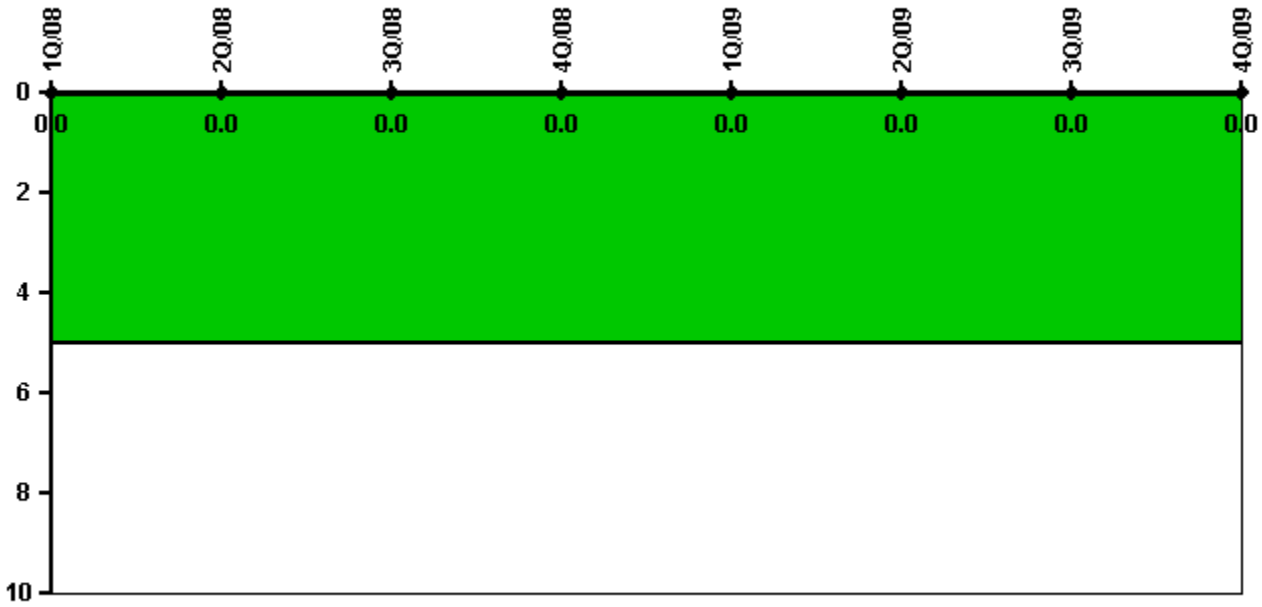
### Notes

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

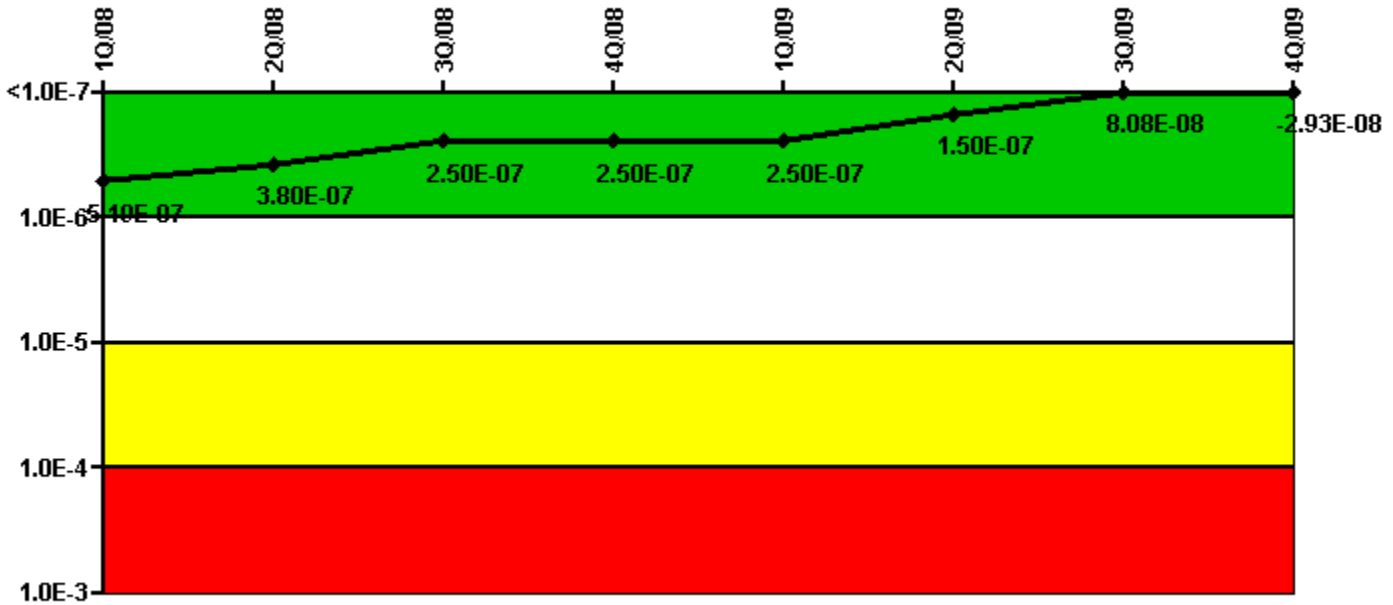
### Notes

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

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# Mitigating Systems Performance Index, Emergency AC Power System



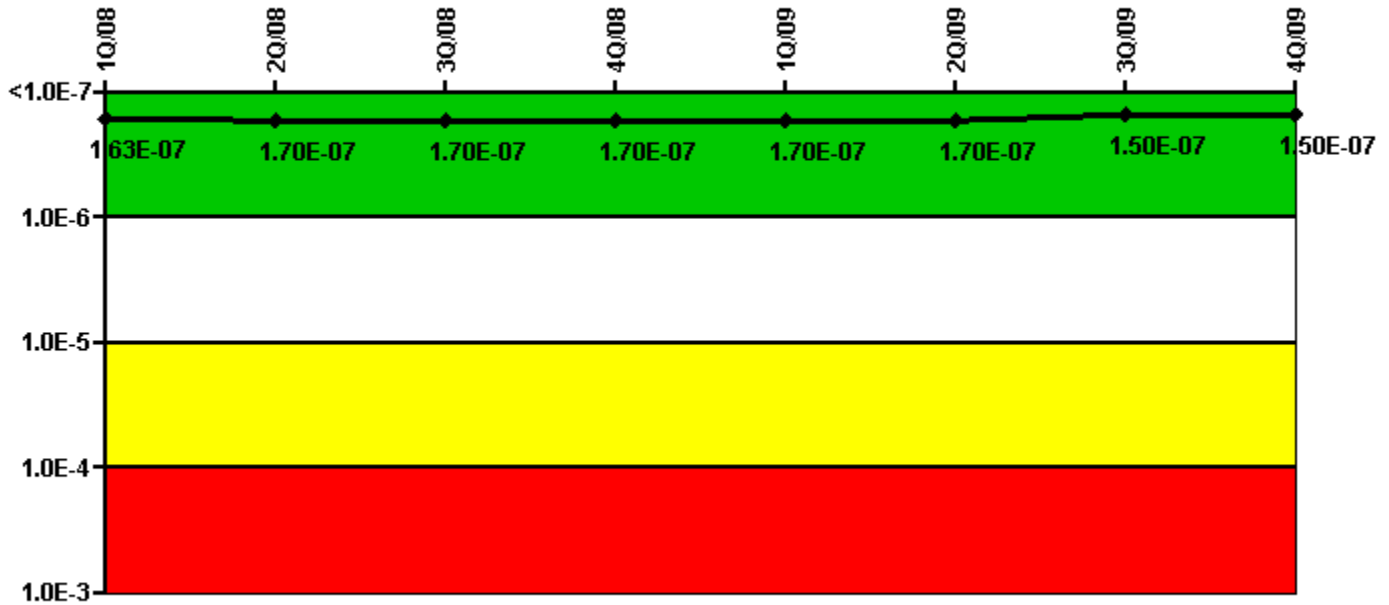
Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

## Notes

Mitigating Systems Performance Index, Emergency AC Power System	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09	2Q/09	3Q/09	4Q/09
UAI (ΔCDF)	8.70E-09	9.00E-11	-3.70E-10	-3.50E-10	-3.20E-10	-3.70E-10	-1.80E-10	-2.60E-10
URI (ΔCDF)	5.10E-07	3.80E-07	2.50E-07	2.50E-07	2.50E-07	1.50E-07	8.10E-08	-2.90E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	5.19E-07	3.80E-07	2.50E-07	2.50E-07	2.50E-07	1.50E-07	8.08E-08	-2.93E-08

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	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09	2Q/09	3Q/09	4Q/09
UAI ( $\Delta$ CDF)	-1.70E-08	-3.30E-11	-3.30E-11	-3.20E-11	-3.10E-11	-2.90E-11	-1.20E-11	-1.10E-11
URI ( $\Delta$ CDF)	1.80E-07	1.70E-07	1.70E-07	1.70E-07	1.70E-07	1.70E-07	1.50E-07	1.50E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	1.63E-07	1.70E-07	1.70E-07	1.70E-07	1.70E-07	1.70E-07	1.50E-07	1.50E-07

Licensee Comments: none

# Mitigating Systems Performance Index, Heat Removal System



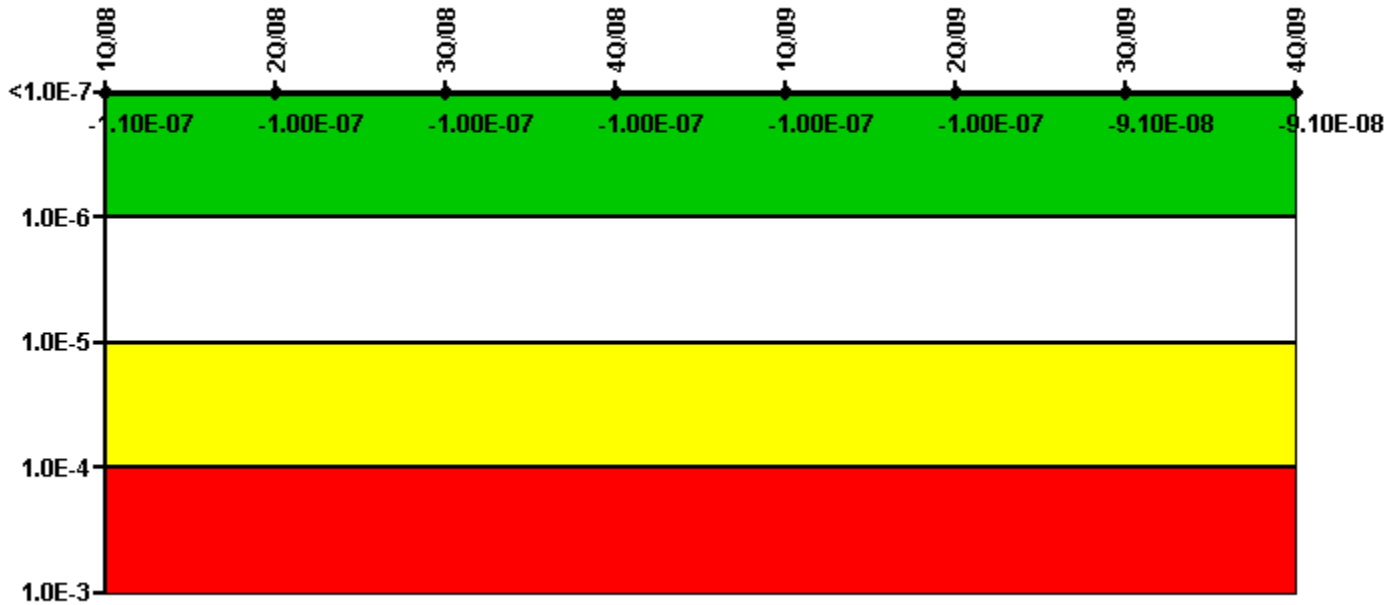
Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

## Notes

Mitigating Systems Performance Index, Heat Removal System	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09	2Q/09	3Q/09	4Q/09
UAI ( $\Delta$ CDF)	-1.20E-08	-3.70E-11	-5.60E-11	-6.00E-11	-5.80E-11	-5.60E-11	-2.90E-11	-2.90E-11
URI ( $\Delta$ CDF)	5.80E-08	8.10E-08	8.10E-08	8.10E-08	8.10E-08	8.10E-08	-3.10E-08	-3.10E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	4.60E-08	8.10E-08	8.09E-08	8.09E-08	8.09E-08	8.09E-08	-3.10E-08	-3.10E-08

Licensee Comments: none

# Mitigating Systems Performance Index, Residual Heat Removal System



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

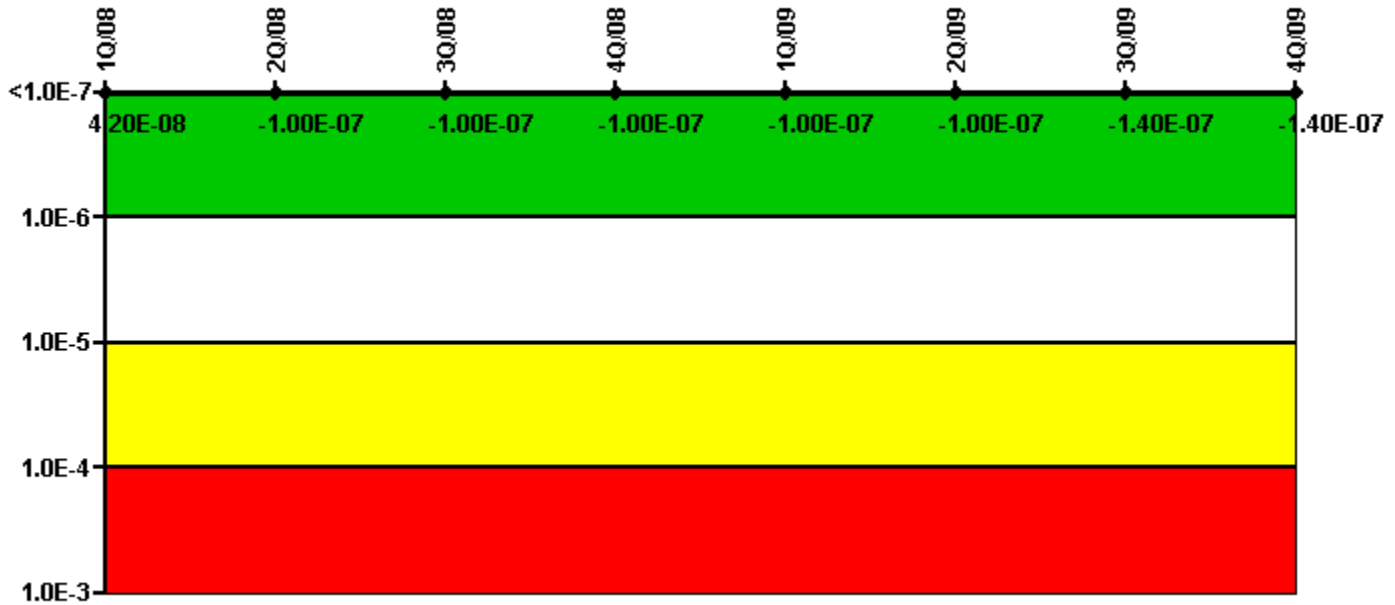
## Notes

Mitigating Systems Performance Index, Residual Heat Removal System	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09	2Q/09	3Q/09	4Q/09
UAI ( $\Delta$ CDF)	2.60E-11	-5.70E-14	-2.50E-13	-2.50E-13	-2.50E-13	-2.50E-13	-3.20E-13	-3.20E-13
URI ( $\Delta$ CDF)	-1.10E-07	-1.00E-07	-1.00E-07	-1.00E-07	-1.00E-07	-1.00E-07	-9.10E-08	-9.10E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-1.10E-07	-1.00E-07	-1.00E-07	-1.00E-07	-1.00E-07	-1.00E-07	-9.10E-08	-9.10E-08

Licensee Comments: none



# Mitigating Systems Performance Index, Cooling Water Systems



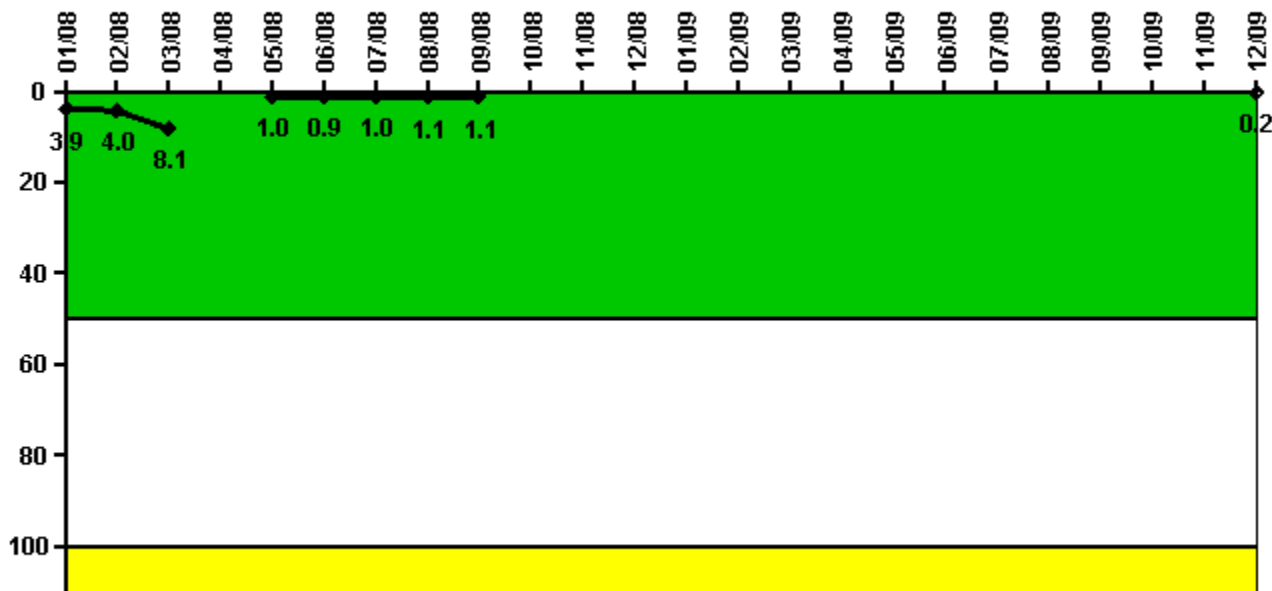
Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

## Notes

Mitigating Systems Performance Index, Cooling Water Systems	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09	2Q/09	3Q/09	4Q/09
UAI ( $\Delta$ CDF)	1.20E-07	4.30E-11	3.40E-11	2.60E-11	2.90E-11	3.70E-11	3.00E-11	3.30E-11
URI ( $\Delta$ CDF)	-7.80E-08	-1.00E-07	-1.00E-07	-1.00E-07	-1.00E-07	-1.00E-07	-1.40E-07	-1.40E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	4.20E-08	-1.00E-07	-1.00E-07	-1.00E-07	-1.00E-07	-1.00E-07	-1.40E-07	-1.40E-07

Licensee Comments: none

# Reactor Coolant System Activity



Thresholds: White > 50.0 Yellow > 100.0

## Notes

Reactor Coolant System Activity	1/08	2/08	3/08	4/08	5/08	6/08	7/08	8/08	9/08	10/08	11/08	12/08
Maximum activity	0.006450	0.006710	0.013500	N/A	0.001700	0.001530	0.001720	0.001890	0.001920	N/A	N/A	N/A
Technical specification limit	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Indicator value	3.9	4.0	8.1	N/A	1.0	0.9	1.0	1.1	1.1	N/A	N/A	N/A

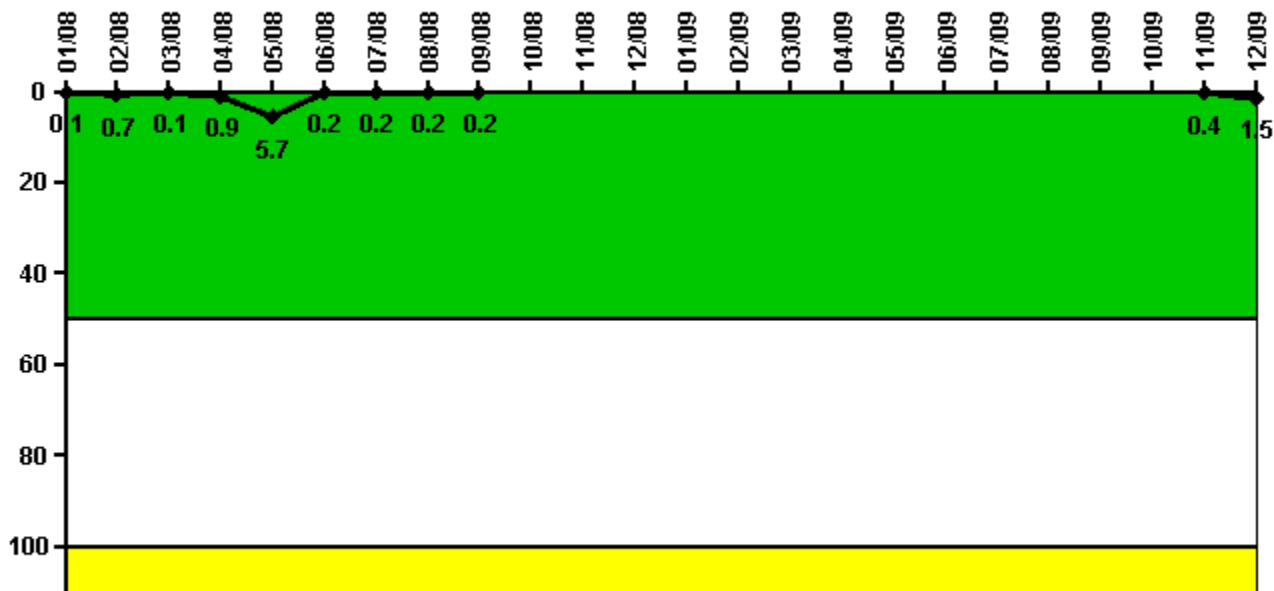
  

Reactor Coolant System Activity	1/09	2/09	3/09	4/09	5/09	6/09	7/09	8/09	9/09	10/09	11/09	12/09
Maximum activity	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.002080
Technical specification limit	0.2	0.2	0.2	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.2

Licensee Comments:

12/09: Unit 1 remained shut down during the months of October and November 2009 (forced outage due to main turbine damage). RCS activity monitoring resumed after unit startup in December.

## Reactor Coolant System Leakage



Thresholds: White > 50.0 Yellow > 100.0

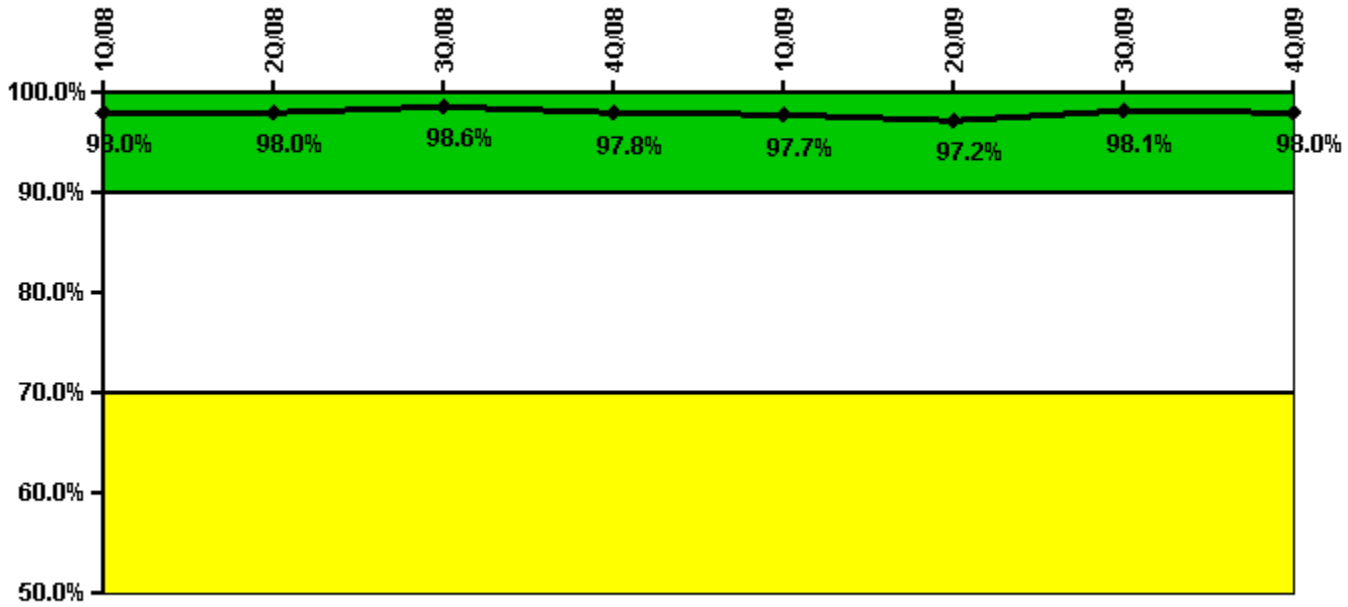
### Notes

Reactor Coolant System Leakage	1/08	2/08	3/08	4/08	5/08	6/08	7/08	8/08	9/08	10/08	11/08	12/08
Maximum leakage	0.016	0.071	0.016	0.095	0.614	0.024	0.026	0.020	0.022	N/A	N/A	N/A
Technical specification limit	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8
Indicator value	0.1	0.7	0.1	0.9	5.7	0.2	0.2	0.2	0.2	N/A	N/A	N/A
Reactor Coolant System Leakage	1/09	2/09	3/09	4/09	5/09	6/09	7/09	8/09	9/09	10/09	11/09	12/09
Maximum leakage	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.041	0.166
Technical specification limit	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8
Indicator value	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.4	1.5

Licensee Comments:

12/09: Unit 1 remained shut down during the month of October 2009 (forced outage due to main turbine damage). Periodic RCS leak rate determination resumed when the unit entered Mode 4 during November.

## Drill/Exercise Performance



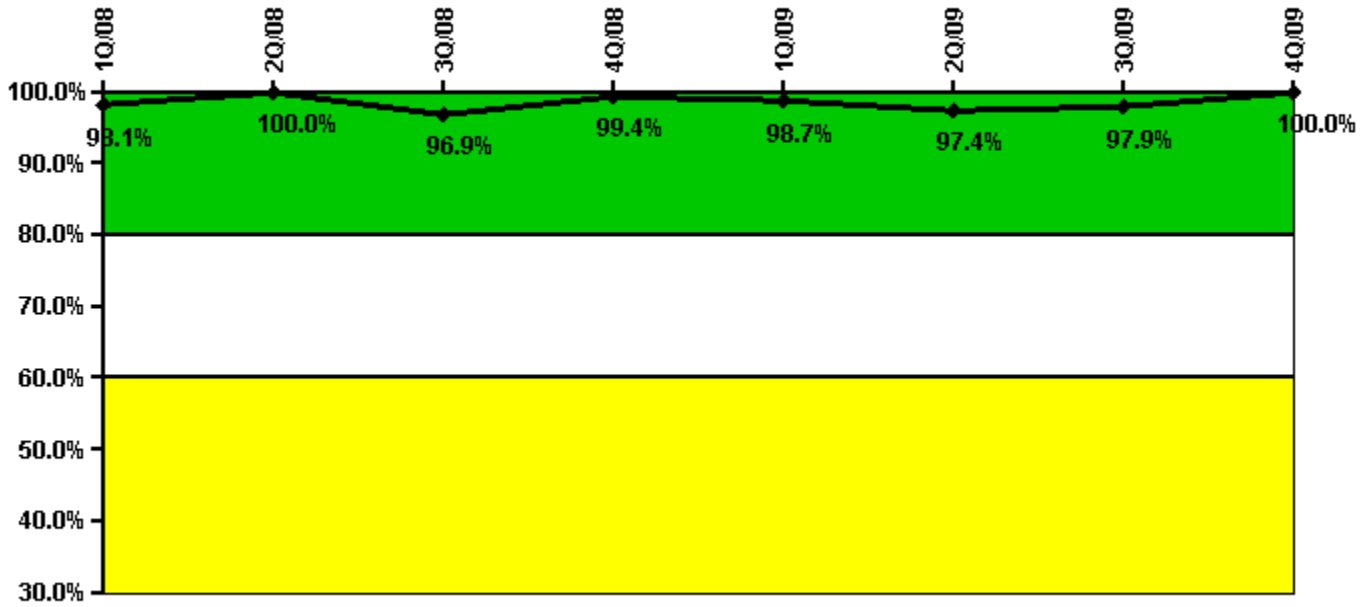
Thresholds: White < 90.0% Yellow < 70.0%

### Notes

Drill/Exercise Performance	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09	2Q/09	3Q/09	4Q/09
Successful opportunities	87.0	27.0	132.0	96.0	47.0	5.0	82.0	16.0
Total opportunities	89.0	27.0	132.0	101.0	47.0	5.0	85.0	16.0
Indicator value	98.0%	98.0%	98.6%	97.8%	97.7%	97.2%	98.1%	98.0%

Licensee Comments: none

## ERO Drill Participation



Thresholds: White < 80.0% Yellow < 60.0%

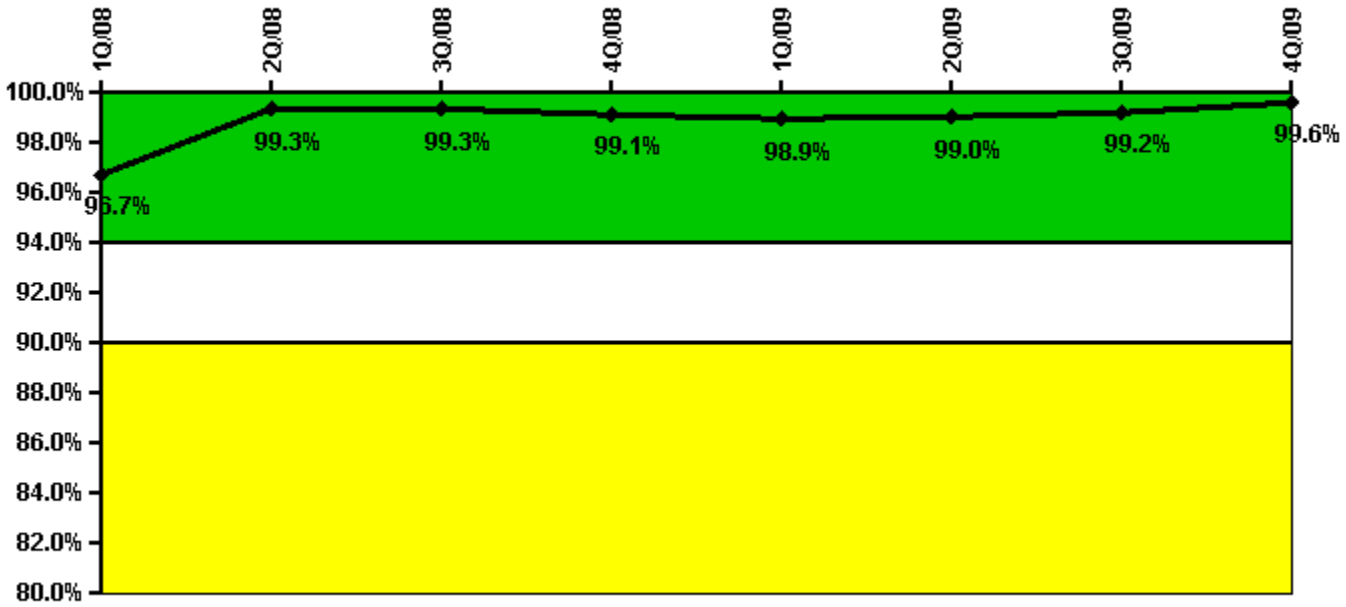
### Notes

ERO Drill Participation	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09	2Q/09	3Q/09	4Q/09
Participating Key personnel	151.0	157.0	155.0	153.0	156.0	152.0	140.0	144.0
Total Key personnel	154.0	157.0	160.0	154.0	158.0	156.0	143.0	144.0
Indicator value	98.1%	100.0%	96.9%	99.4%	98.7%	97.4%	97.9%	100.0%

Licensee Comments: none

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# Alert & Notification System



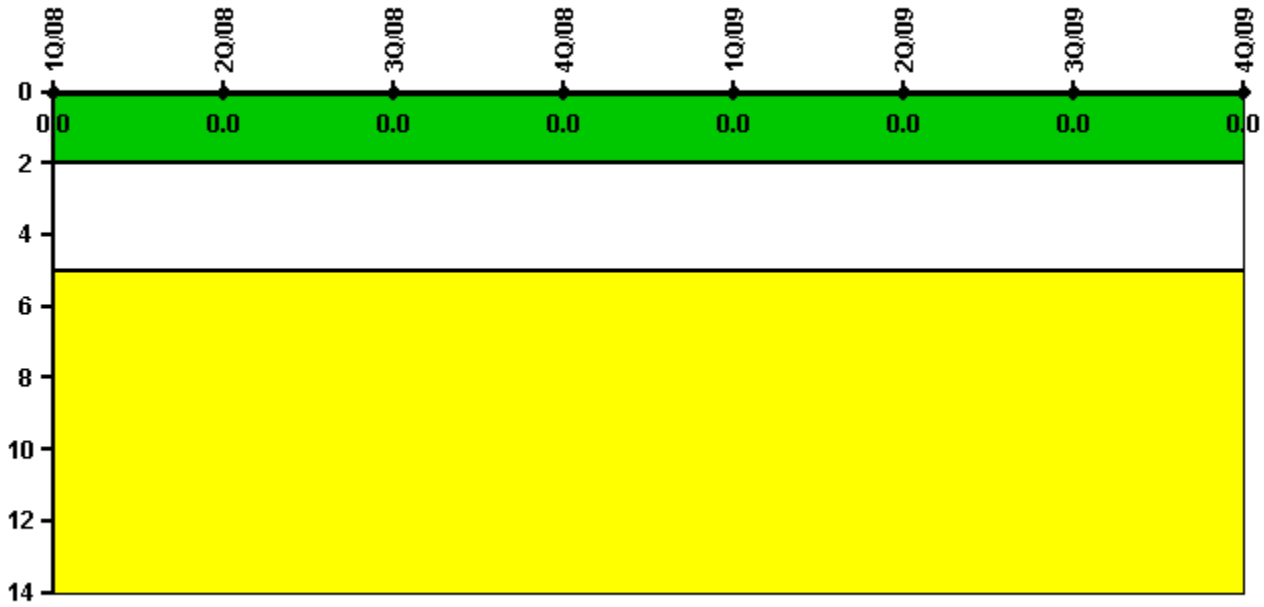
Thresholds: White < 94.0% Yellow < 90.0%

## Notes

Alert & Notification System	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09	2Q/09	3Q/09	4Q/09
Successful siren-tests	1112	1112	1111	1171	1035	1117	1190	1115
Total sirens-tests	1120	1119	1120	1190	1050	1119	1190	1116
Indicator value	96.7%	99.3%	99.3%	99.1%	98.9%	99.0%	99.2%	99.6%

Licensee Comments: none

# Occupational Exposure Control Effectiveness



**Thresholds: White > 2.0 Yellow > 5.0**

## Notes

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

## RETS/ODCM Radiological Effluent



Thresholds: White > 1.0 Yellow > 3.0

### Notes

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