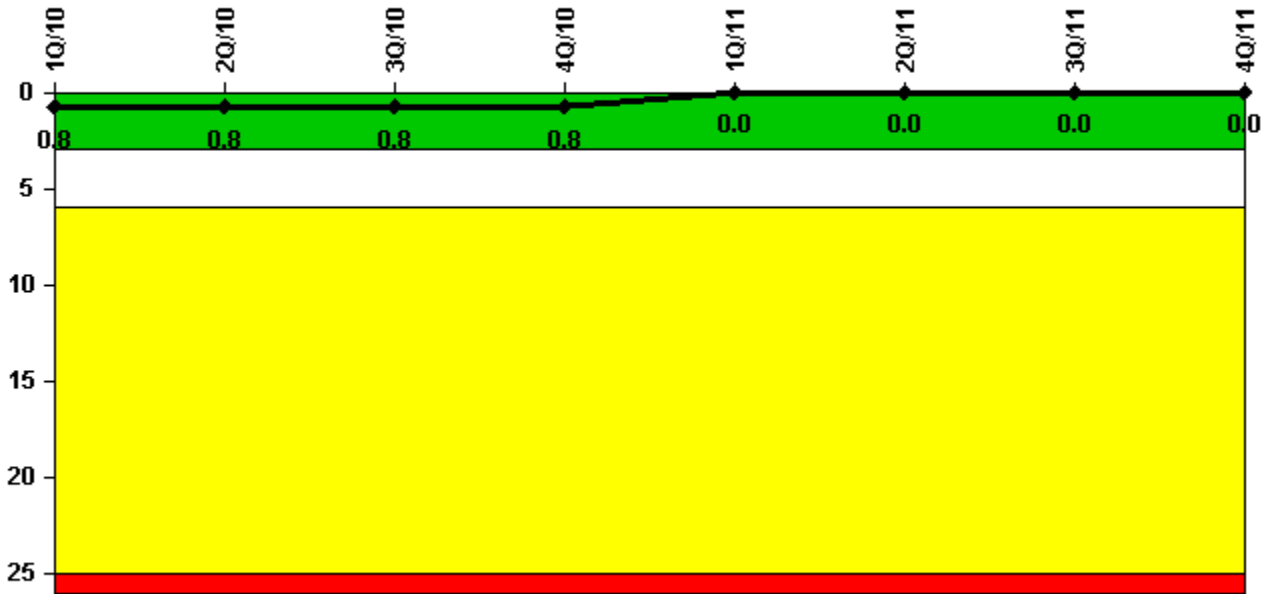


# Calvert Cliffs 2

## 4Q/2011 Performance Indicators

Licensee's General Comments: none

### Unplanned Scrams per 7000 Critical Hrs



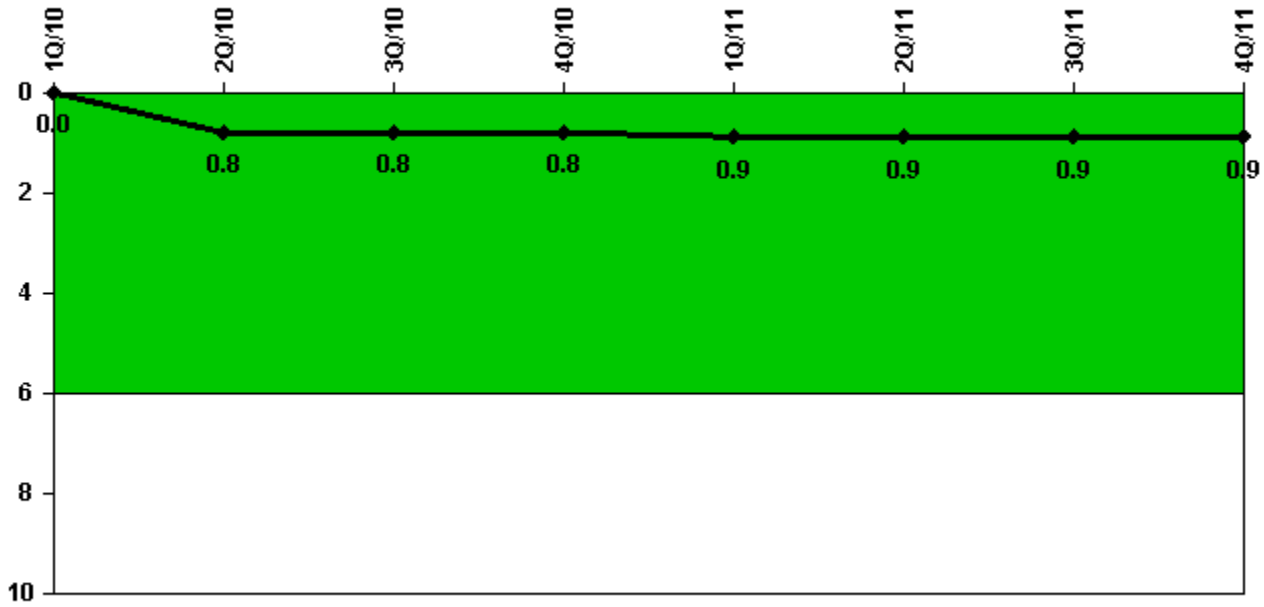
Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

### Notes

Unplanned Scrams per 7000 Critical Hrs	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11
Unplanned scrams	1.0	0	0	0	0	0	0	0
Critical hours	1941.7	2184.0	2208.0	2209.0	1475.6	2184.0	2208.0	2209.0
Indicator value	0.8	0.8	0.8	0.8	0	0	0	0

Licensee Comments: none

## Unplanned Power Changes per 7000 Critical Hrs



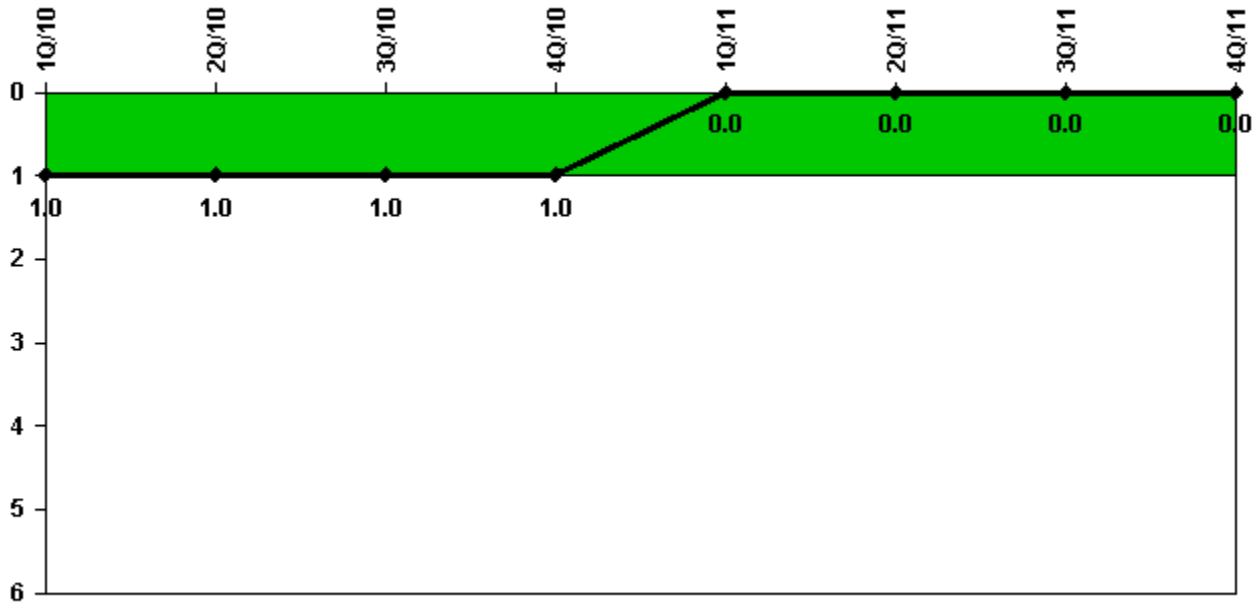
Thresholds: White > 6.0

### Notes

Unplanned Power Changes per 7000 Critical Hrs	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11
Unplanned power changes	0	1.0	0	0	0	1.0	0	0
Critical hours	1941.7	2184.0	2208.0	2209.0	1475.6	2184.0	2208.0	2209.0
Indicator value	0	0.8	0.8	0.8	0.9	0.9	0.9	0.9

Licensee Comments: none

## Unplanned Scrams with Complications



Thresholds: White > 1.0

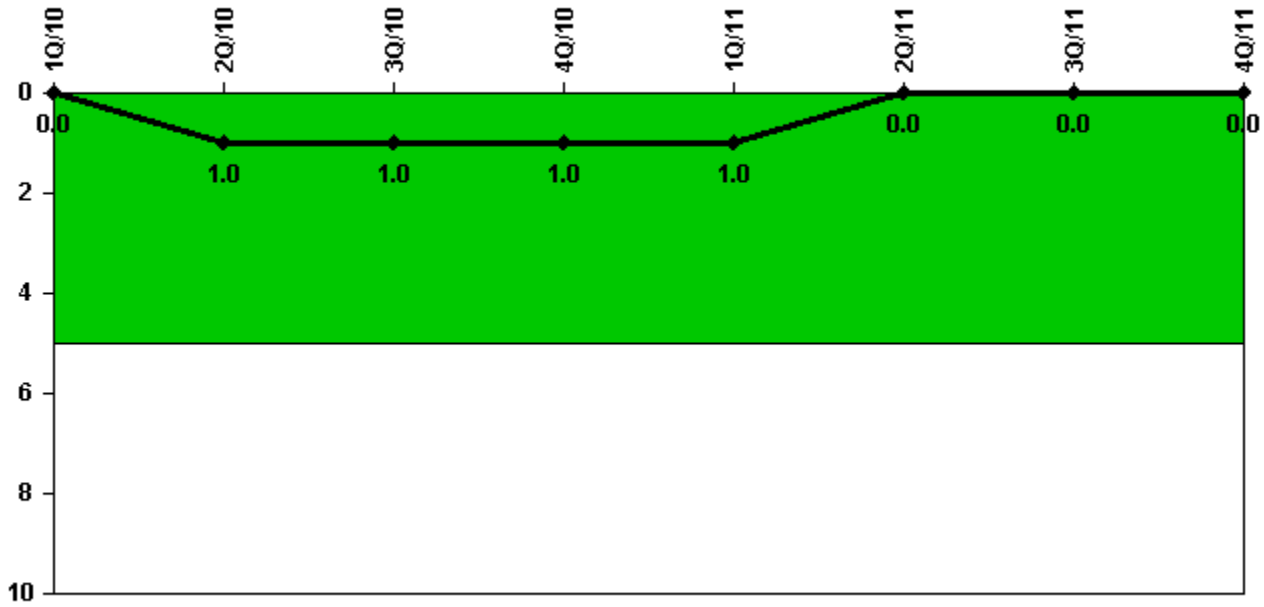
### Notes

Unplanned Scrams with Complications	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11
Scrams with complications	1.0	0	0	0	0	0	0	0
Indicator value	1.0	1.0	1.0	1.0	0.0	0.0	0.0	0.0

Licensee Comments: none

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## Safety System Functional Failures (PWR)



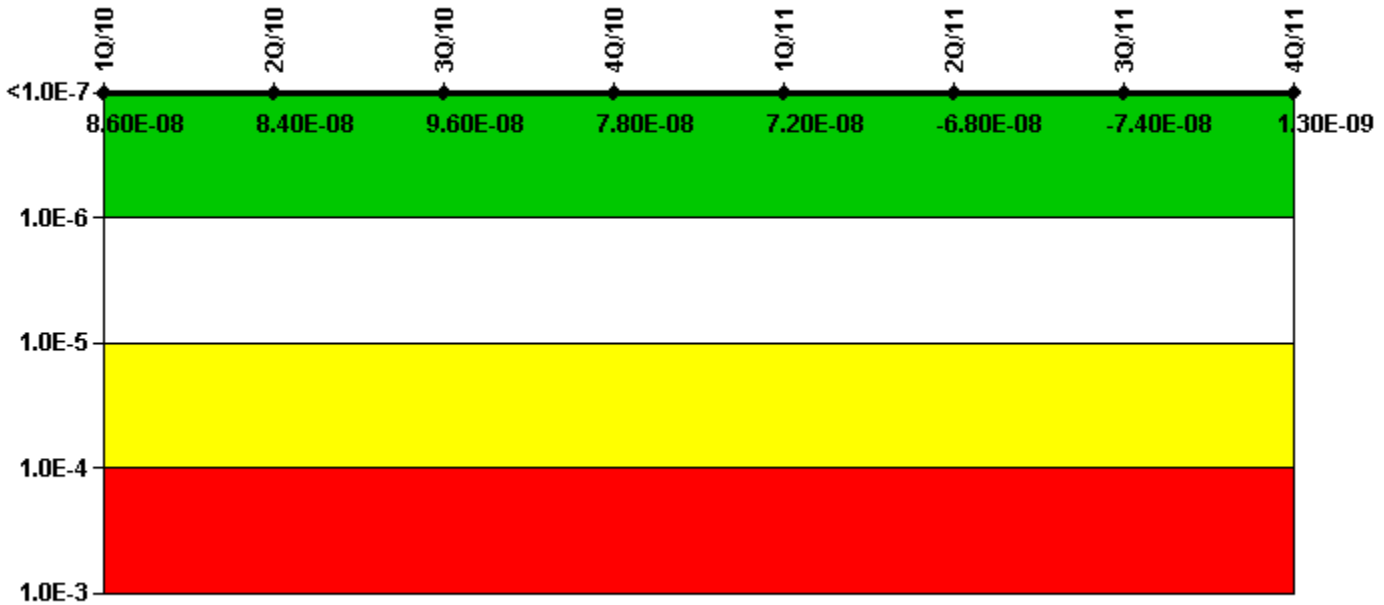
Thresholds: White > 5.0

### Notes

Safety System Functional Failures (PWR)	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11
Safety System Functional Failures	0	1	0	0	0	0	0	0
Indicator value	0	1	1	1	1	0	0	0

Licensee Comments: none

# Mitigating Systems Performance Index, Emergency AC Power System



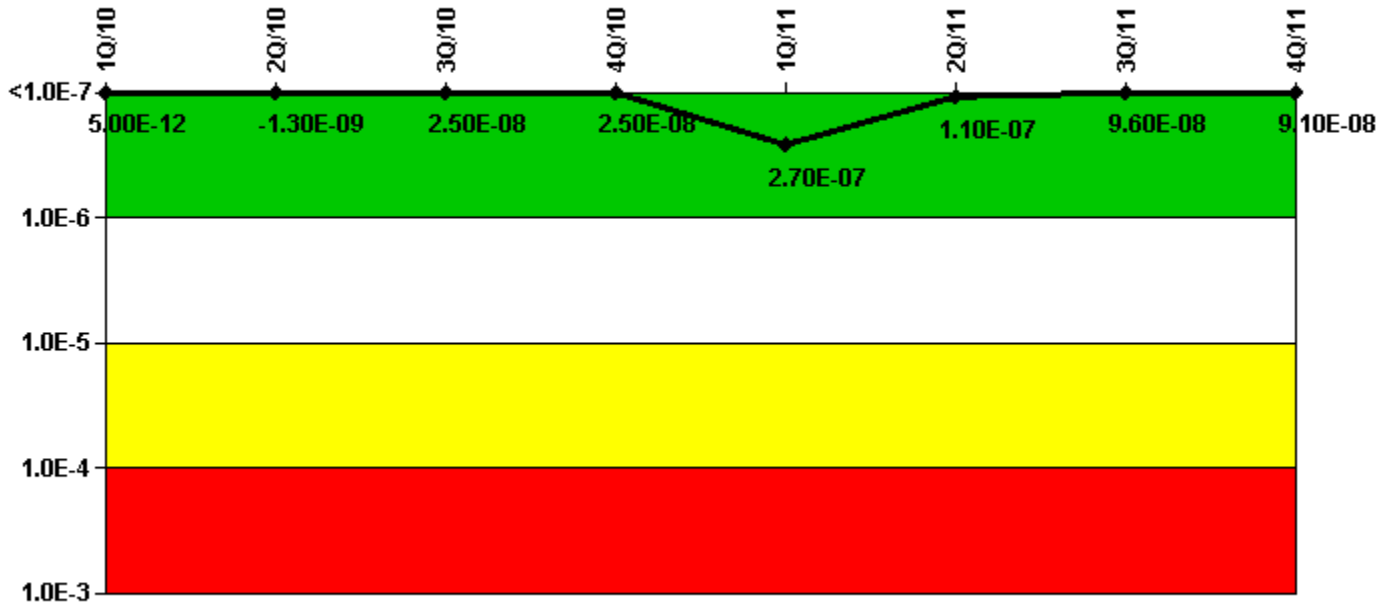
Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

## Notes

Mitigating Systems Performance Index, Emergency AC Power System	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11
UAI ( $\Delta$ CDF)	1.00E-07	9.77E-08	1.11E-07	9.08E-08	8.65E-08	2.82E-09	-4.23E-09	8.01E-08
URI ( $\Delta$ CDF)	-1.46E-08	-1.40E-08	-1.45E-08	-1.29E-08	-1.42E-08	-7.07E-08	-6.94E-08	-7.88E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	8.60E-08	8.40E-08	9.60E-08	7.80E-08	7.20E-08	-6.80E-08	-7.40E-08	1.30E-09

Licensee Comments: none

# Mitigating Systems Performance Index, High Pressure Injection System



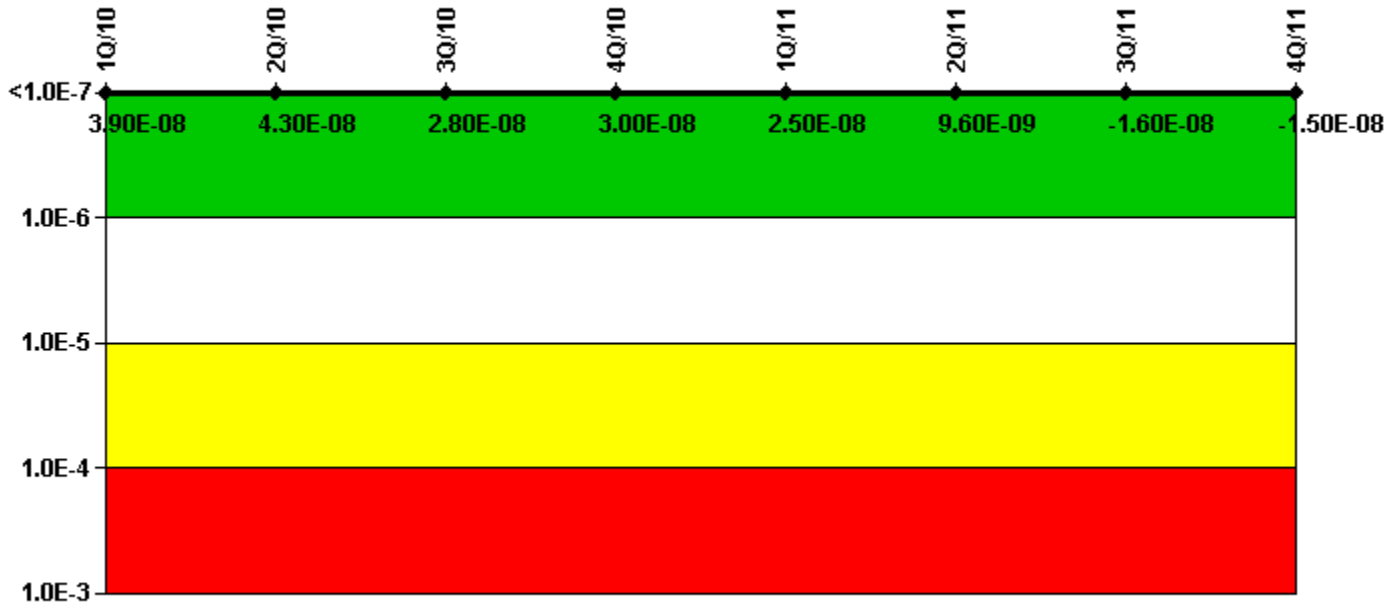
Thresholds: White >  $1.00E-6$  Yellow >  $1.00E-5$  Red >  $1.00E-4$

## Notes

Mitigating Systems Performance Index, High Pressure Injection System	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11
UAI ( $\Delta$ CDF)	$6.40E-08$	$6.19E-08$	$8.72E-08$	$8.65E-08$	$1.33E-07$	$1.64E-08$	$5.59E-09$	$-8.25E-10$
URI ( $\Delta$ CDF)	$-6.40E-08$	$-6.31E-08$	$-6.18E-08$	$-6.16E-08$	$1.33E-07$	$9.42E-08$	$9.06E-08$	$9.14E-08$
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	$5.00E-12$	$-1.30E-09$	$2.50E-08$	$2.50E-08$	$2.70E-07$	$1.10E-07$	$9.60E-08$	$9.10E-08$

Licensee Comments: none

# Mitigating Systems Performance Index, Heat Removal System



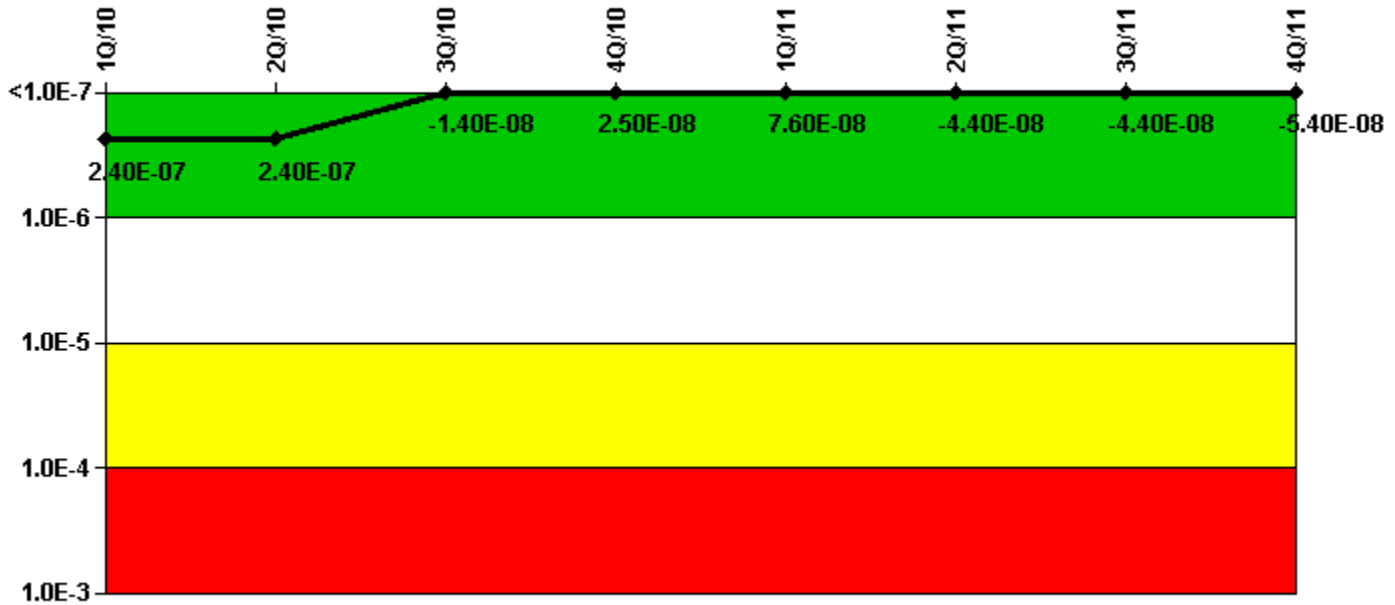
Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

## Notes

Mitigating Systems Performance Index, Heat Removal System	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11
UAI ( $\Delta$ CDF)	1.31E-08	1.24E-08	-6.25E-09	-6.61E-09	-4.83E-09	-2.80E-09	-2.77E-09	-2.06E-09
URI ( $\Delta$ CDF)	2.54E-08	3.06E-08	3.41E-08	3.62E-08	3.00E-08	1.24E-08	-1.28E-08	-1.26E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	3.90E-08	4.30E-08	2.80E-08	3.00E-08	2.50E-08	9.60E-09	-1.60E-08	-1.50E-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

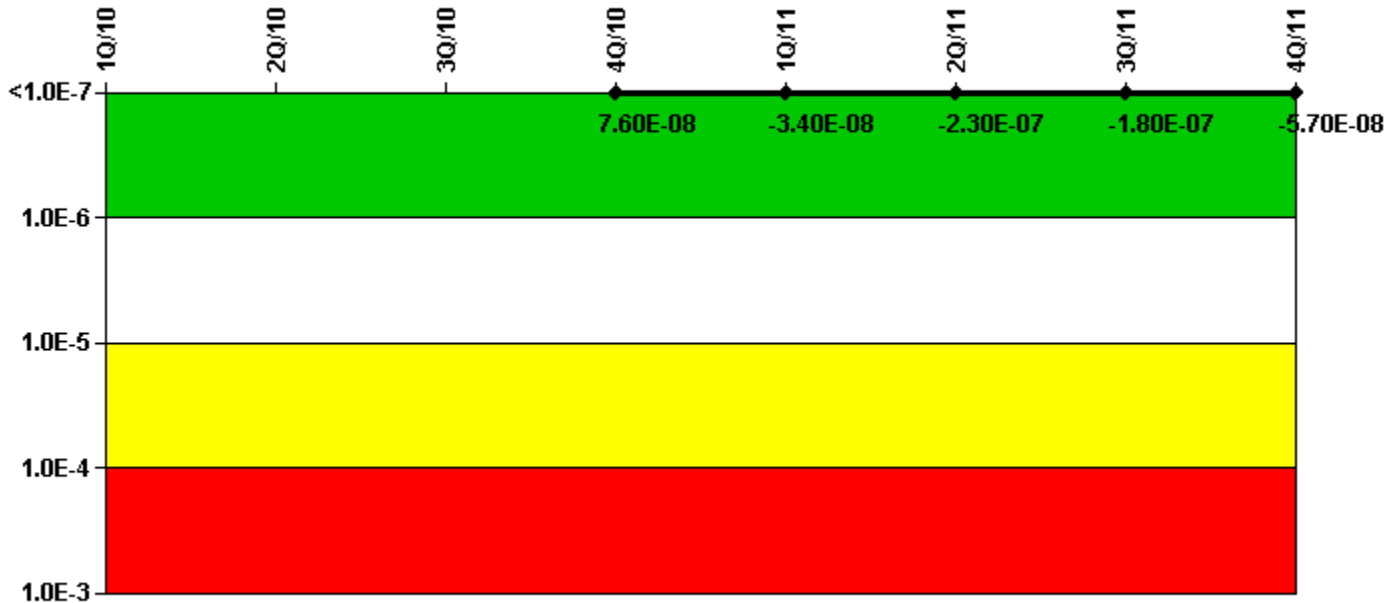
## Notes

Mitigating Systems Performance Index, Residual Heat Removal System	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11
UAI ( $\Delta$ CDF)	2.25E-07	2.23E-07	-1.86E-08	2.06E-08	7.31E-08	-4.54E-08	-4.51E-08	-5.46E-08
URI ( $\Delta$ CDF)	1.34E-08	1.39E-08	4.19E-09	4.10E-09	2.91E-09	9.15E-10	6.91E-10	4.25E-10
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	2.40E-07	2.40E-07	-1.40E-08	2.50E-08	7.60E-08	-4.40E-08	-4.40E-08	-5.40E-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/10	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11
UAI (ΔCDF)	5.72E-08	5.85E-08	6.56E-08	9.20E-08	9.29E-08	7.52E-09	5.79E-08	1.81E-07
URI (ΔCDF)				-1.56E-08	-1.27E-07	-2.35E-07	-2.39E-07	-2.39E-07
PLE	N/A	N/A	N/A	NO	NO	NO	NO	NO
Indicator value				7.60E-08	-3.40E-08	-2.30E-07	-1.80E-07	-5.70E-08

## Licensee Comments:

4Q/11: Two CWS2 AOVs added due to current inability to validate their exclusion during the original MSPI scoping. CR-2011-008863

2Q/11: 10-12-11: Correction to PRA and planned baseline unavailability data due to errors made when entering updated RPA model data in March 2011 (Ref: CR-2011-008850)

1Q/11: Revisions effective Q2 2011: PRA parameters due to model update and UA Base Lines due to change in maintenance strategy from work in outage to on-line and for preventive maintenance optimization. 10-12-11: Correction to PRA and planned baseline unavailability data due to errors made when entering updated RPA model data in March 2011 (Ref: CR-2011-008850)

4Q/10: 10-12-11: Correction to PRA and planned baseline unavailability data due to errors made when entering updated RPA model data in March 2011 (Ref: CR-2011-008850)

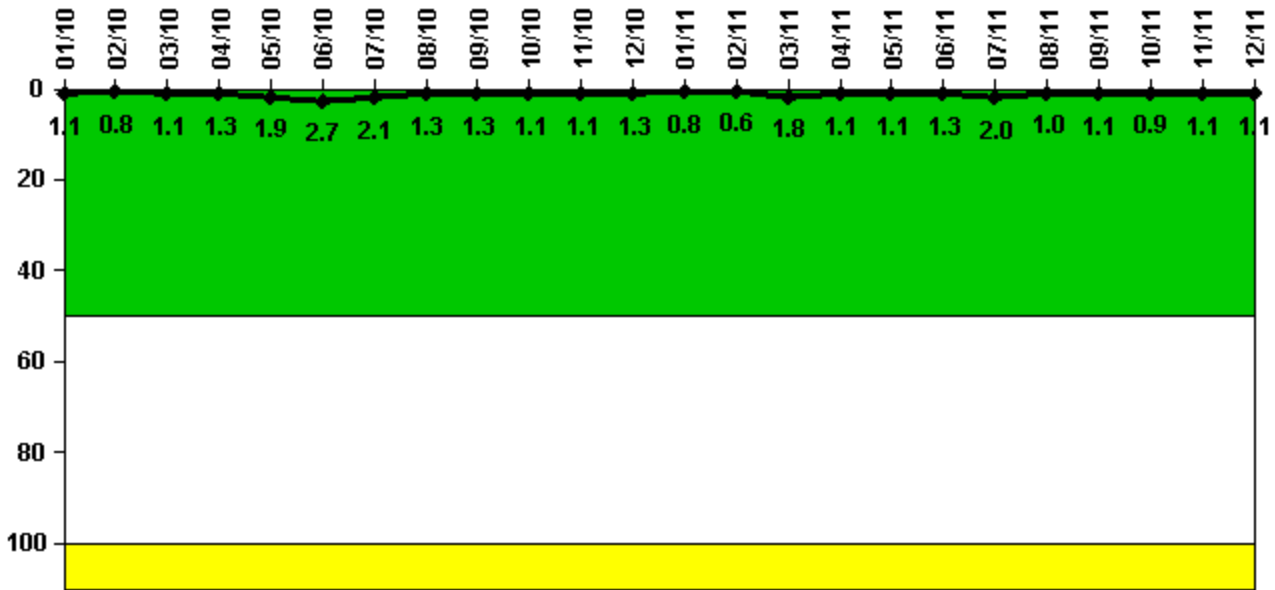
3Q/10: 10-11-11: Allocation of Unit cross-connect valve to affected Unit (Ref: CR-2011-008850)

4Q/08: Change report due to Failure Report 1241 entered in EPIX on 12/18/2008 when the failure date was 9/12/2008. No indicator color change results from this change.

3Q/08: Change report due to Failure Report 1241 entered in EPIX on 12/18/2008 when the failure date was 9/12/2008. No indicator color change results from this change.



### Reactor Coolant System Leakage



Thresholds: White > 50.0 Yellow > 100.0

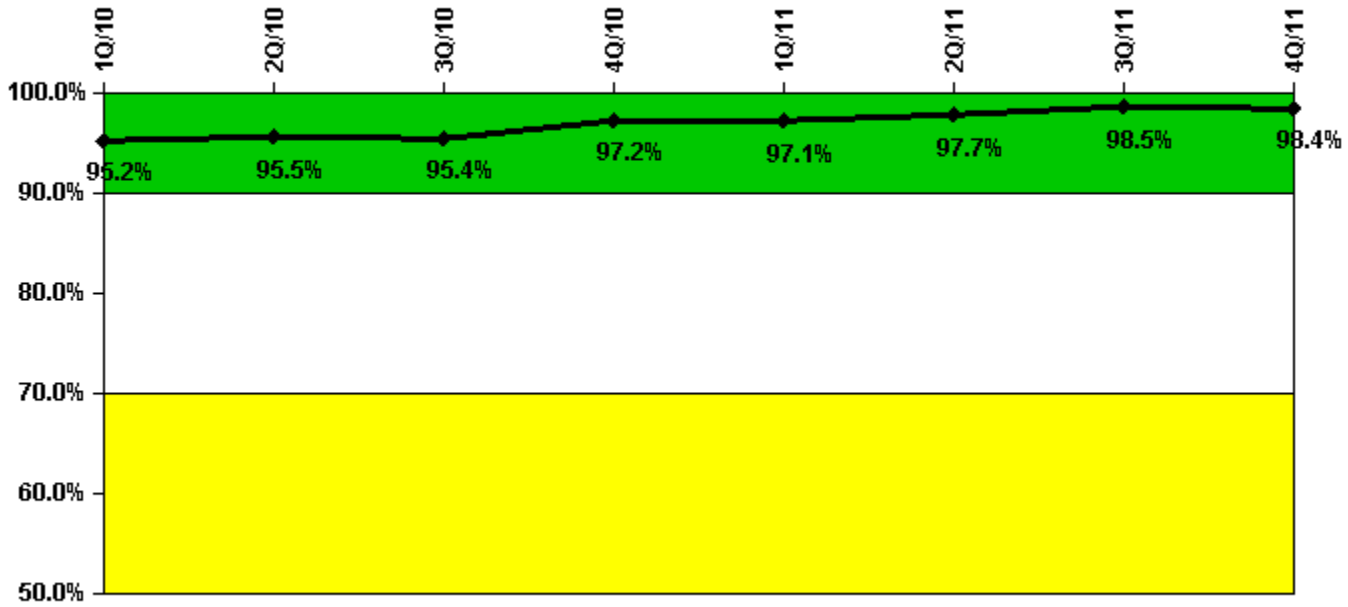
### Notes

Reactor Coolant System Leakage	1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	10/10	11/10	12/10
Maximum leakage	0.110	0.080	0.110	0.134	0.190	0.270	0.210	0.130	0.130	0.110	0.110	0.130
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	0.8	1.1	1.3	1.9	2.7	2.1	1.3	1.3	1.1	1.1	1.3

Reactor Coolant System Leakage	1/11	2/11	3/11	4/11	5/11	6/11	7/11	8/11	9/11	10/11	11/11	12/11
Maximum leakage	0.080	0.060	0.180	0.110	0.110	0.130	0.200	0.100	0.110	0.090	0.110	0.110
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	0.6	1.8	1.1	1.1	1.3	2.0	1.0	1.1	0.9	1.1	1.1

## Drill/Exercise Performance



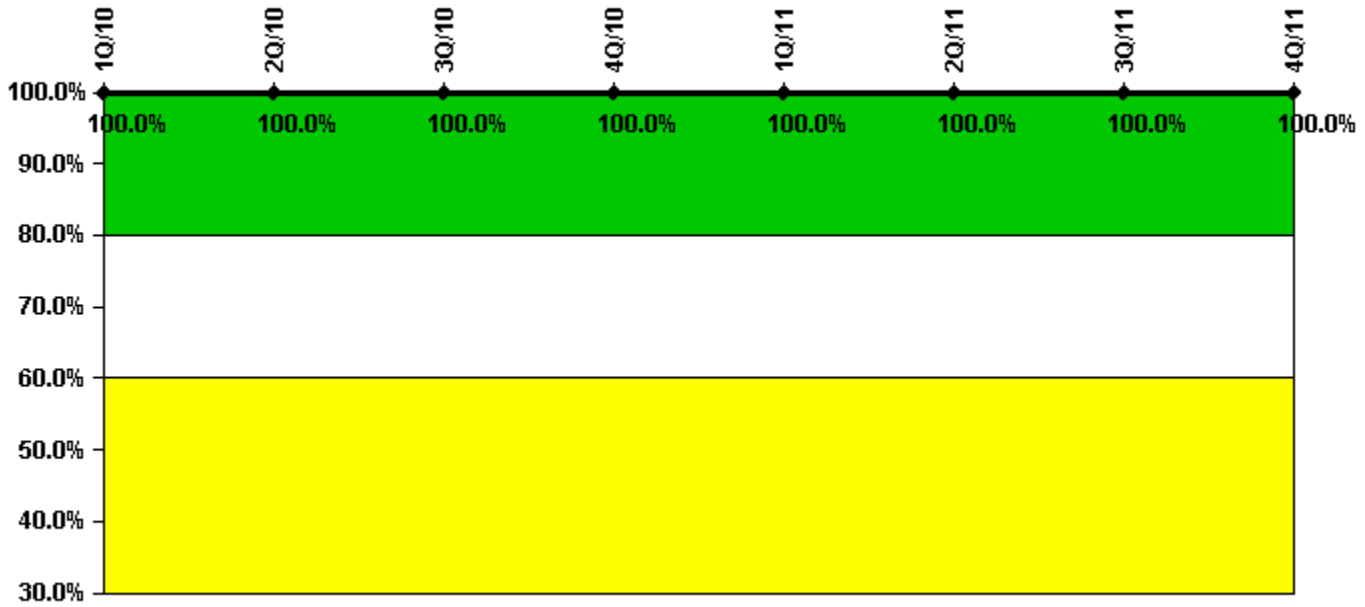
Thresholds: White < 90.0% Yellow < 70.0%

### Notes

Drill/Exercise Performance	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11
Successful opportunities	13.0	23.0	76.0	53.0	4.0	58.0	30.0	56.0
Total opportunities	13.0	23.0	78.0	54.0	4.0	59.0	30.0	57.0
Indicator value	95.2%	95.5%	95.4%	97.2%	97.1%	97.7%	98.5%	98.4%

Licensee Comments: none

# ERO Drill Participation



Thresholds: White < 80.0% Yellow < 60.0%

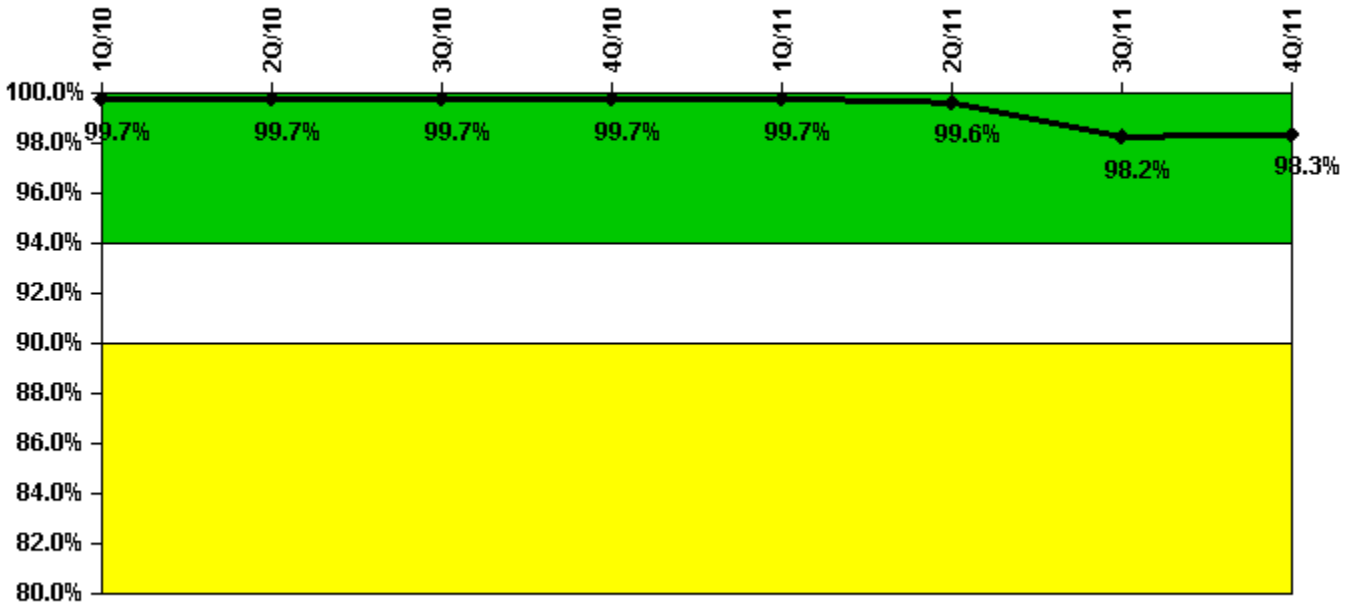
## Notes

ERO Drill Participation	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11
Participating Key personnel	98.0	87.0	86.0	88.0	85.0	88.0	83.0	84.0
Total Key personnel	98.0	87.0	86.0	88.0	85.0	88.0	83.0	84.0
Indicator value	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Licensee Comments: none

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# Alert & Notification System



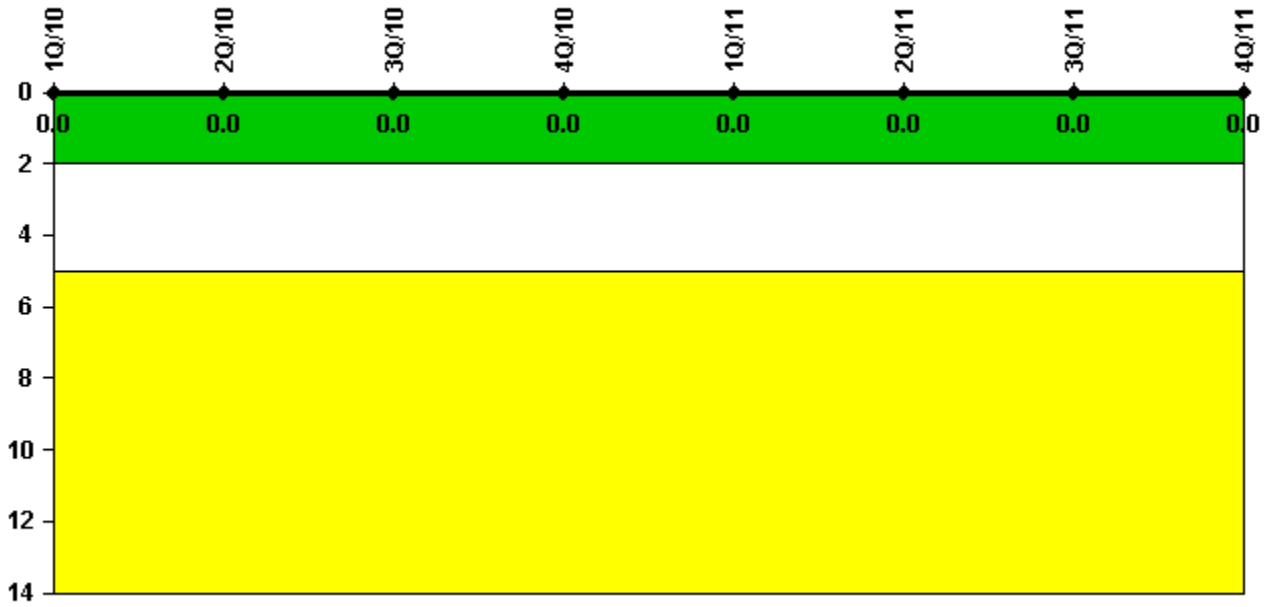
Thresholds: White < 94.0% Yellow < 90.0%

## Notes

Alert & Notification System	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11
Successful siren-tests	948	948	948	940	949	945	892	946
Total sirens-tests	949	949	949	949	949	949	949	949
Indicator value	99.7%	99.7%	99.7%	99.7%	99.7%	99.6%	98.2%	98.3%

Licensee Comments: none

# Occupational Exposure Control Effectiveness



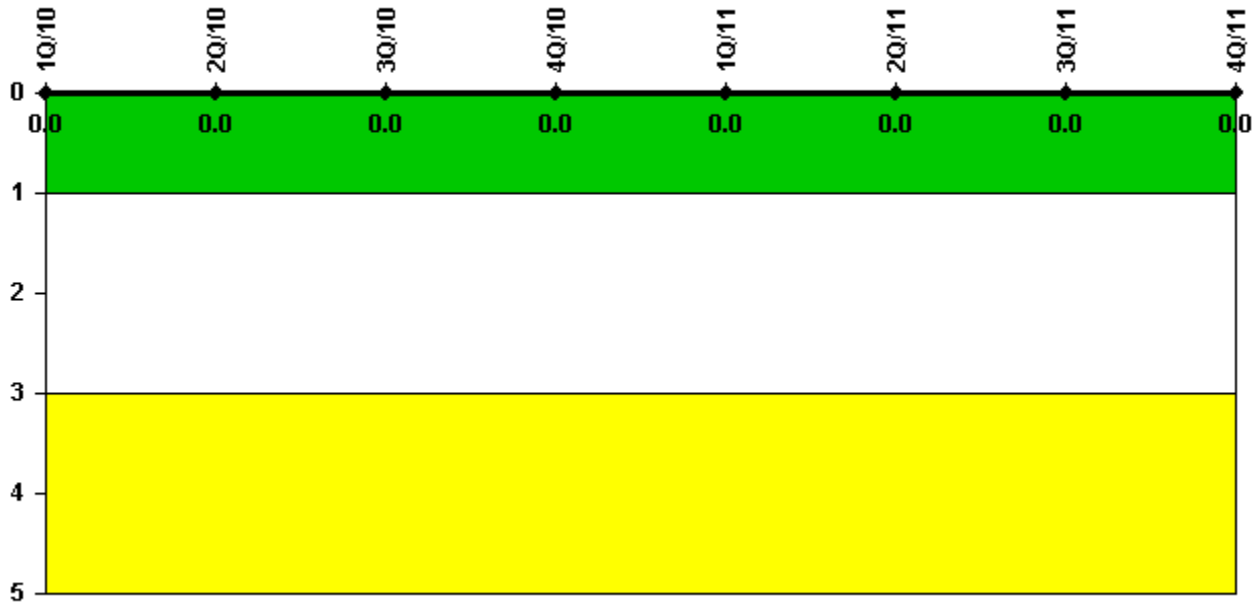
Thresholds: White > 2.0 Yellow > 5.0

## Notes

Occupational Exposure Control Effectiveness	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11
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/10	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11
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.