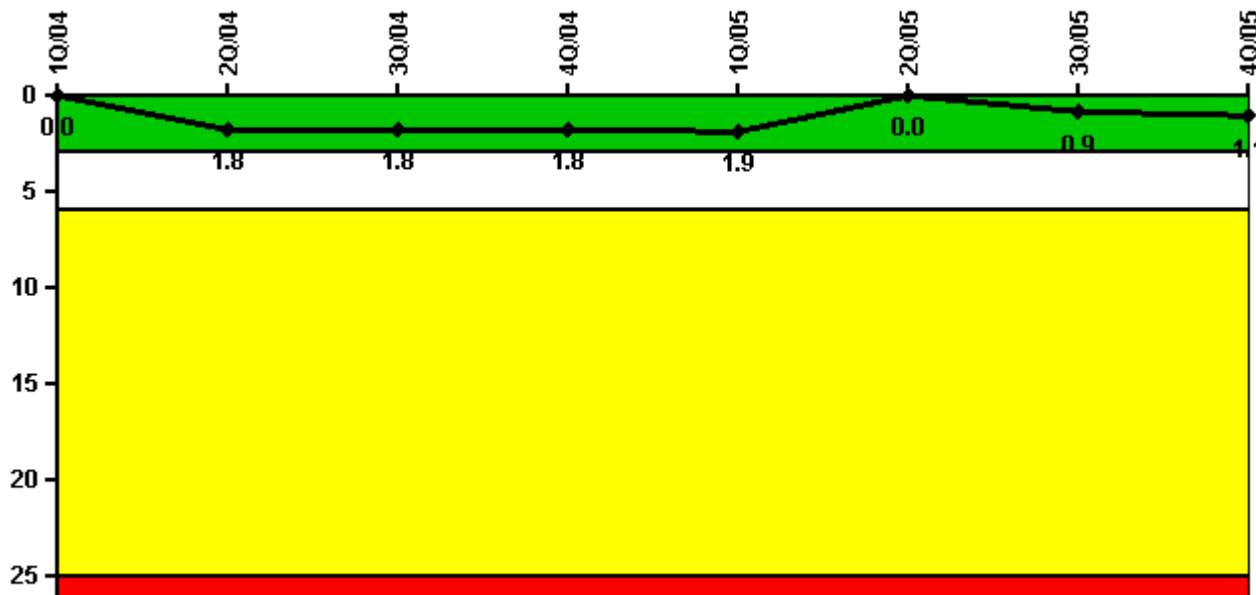


# Palo Verde 1

## 4Q/2005 Performance Indicators

Licensee's General Comments: none

### Unplanned Scrams per 7000 Critical Hrs



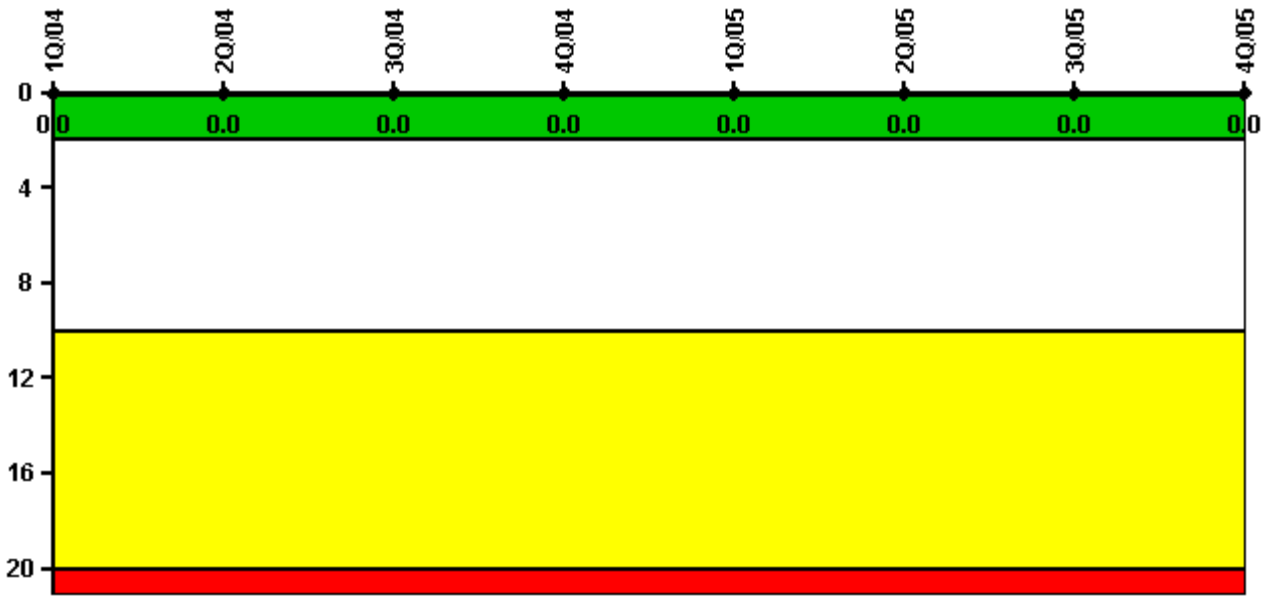
Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

### Notes

Unplanned Scrams per 7000 Critical Hrs	1Q/04	2Q/04	3Q/04	4Q/04	1Q/05	2Q/05	3Q/05	4Q/05
Unplanned scrams	0	2.0	0	0	0	0	1.0	0
Critical hours	2094.3	1216.0	2208.0	2208.0	1860.4	2184.0	1824.6	406.8
Indicator value	0	1.8	1.8	1.8	1.9	0	0.9	1.1

Licensee Comments: none

### Scrams with Loss of Normal Heat Removal



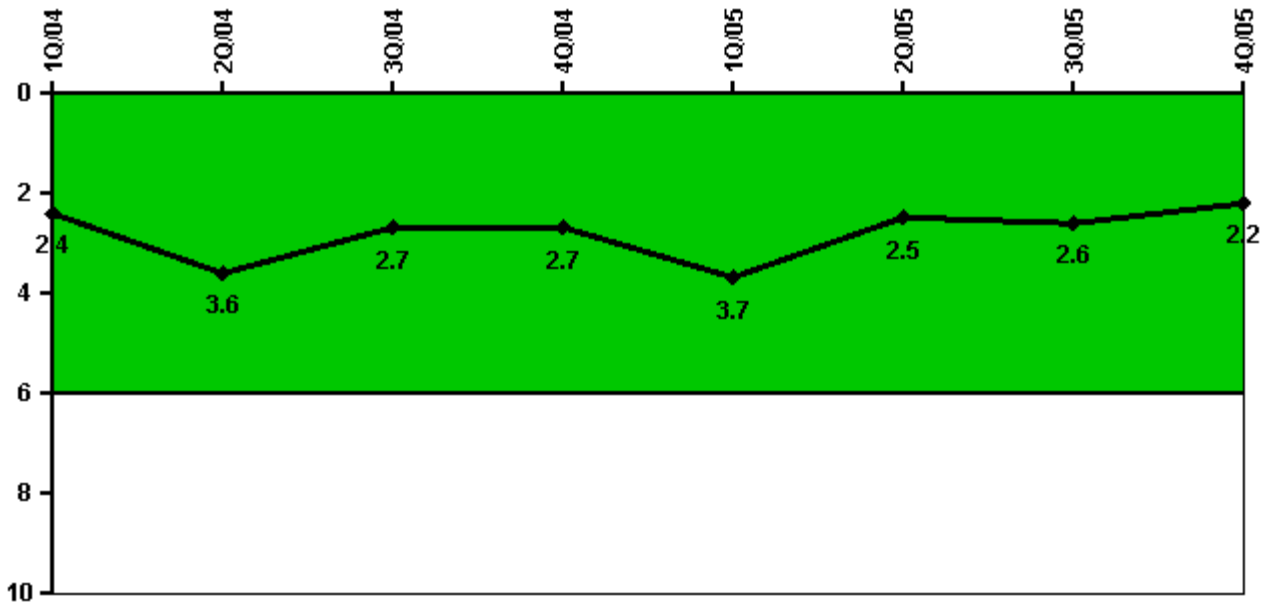
Thresholds: White > 2.0 Yellow > 10.0 Red > 20.0

#### Notes

Scrams with Loss of Normal Heat Removal	1Q/04	2Q/04	3Q/04	4Q/04	1Q/05	2Q/05	3Q/05	4Q/05
Scrams	0	0	0	0	0	0	0	0
Indicator value	0	0	0	0	0	0	0	0

Licensee Comments: none

### Unplanned Power Changes per 7000 Critical Hrs



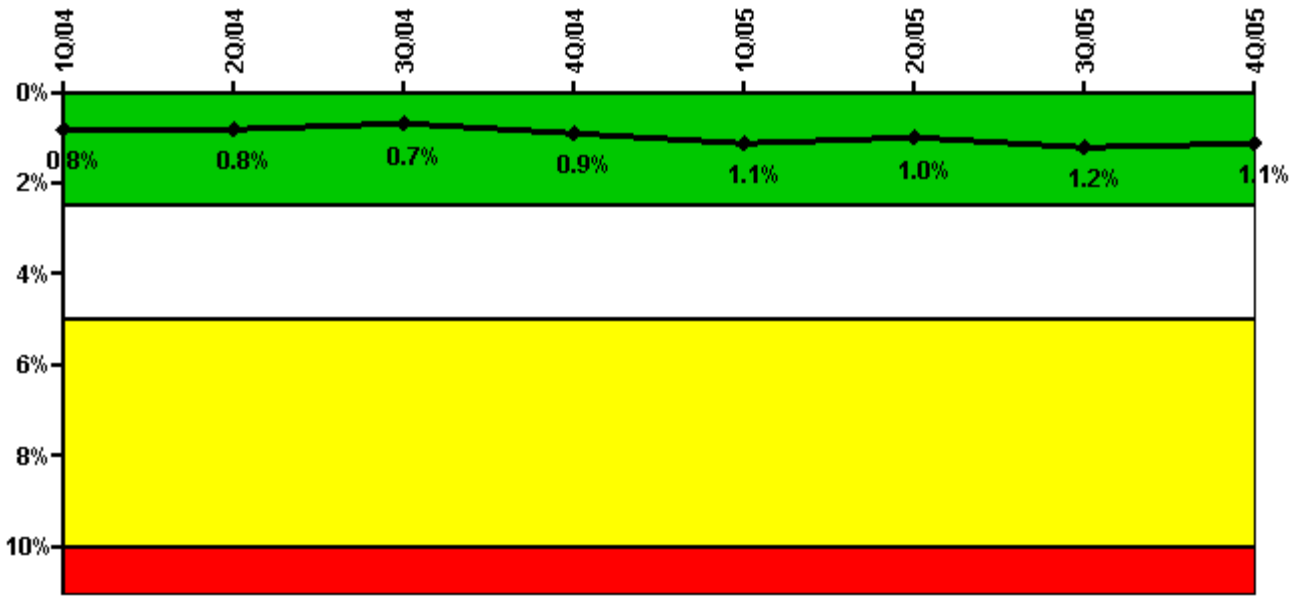
Thresholds: White > 6.0

#### Notes

Unplanned Power Changes per 7000 Critical Hrs	1Q/04	2Q/04	3Q/04	4Q/04	1Q/05	2Q/05	3Q/05	4Q/05
Unplanned power changes	1.0	1.0	0	1.0	2.0	0	0	0
Critical hours	2094.3	1216.0	2208.0	2208.0	1860.4	2184.0	1824.6	406.8
Indicator value	2.4	3.6	2.7	2.7	3.7	2.5	2.6	2.2

Licensee Comments: none

### Safety System Unavailability, Emergency AC Power



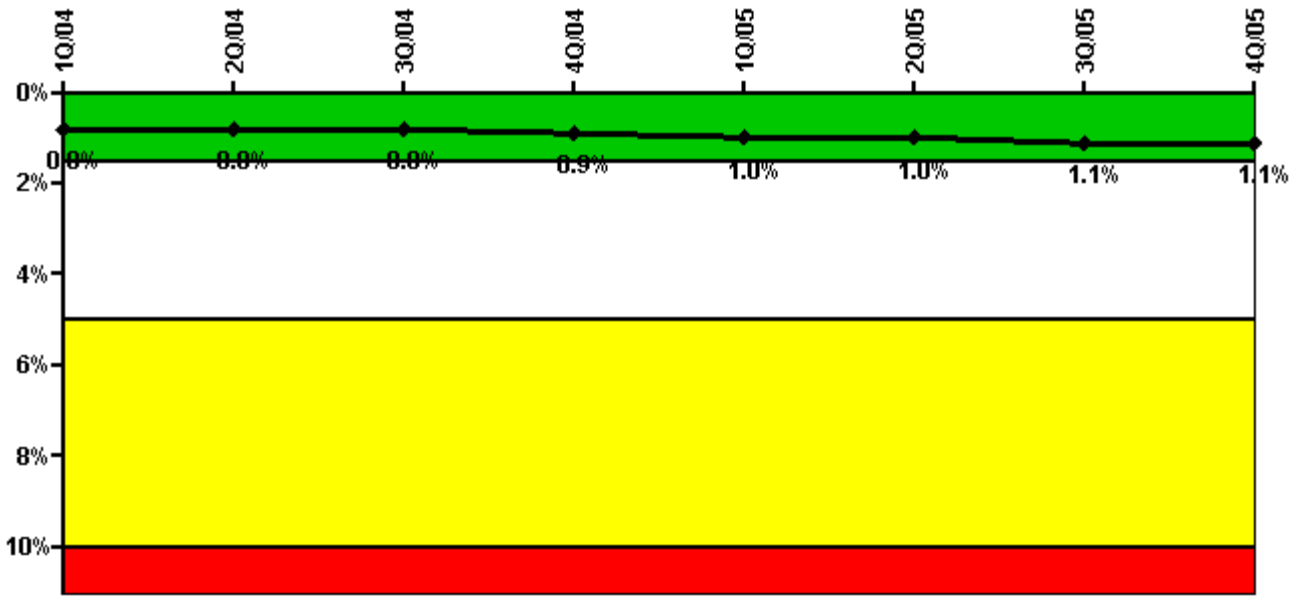
Thresholds: White > 2.5% Yellow > 5.0% Red > 10.0%

#### Notes

Safety System Unavailability, Emergency AC Power	1Q/04	2Q/04	3Q/04	4Q/04	1Q/05	2Q/05	3Q/05	4Q/05
<b>Train 1</b>								
Planned unavailable hours	0.52	0.04	0.08	20.23	29.61	3.74	23.64	0
Unplanned unavailable hours	0	0	0	0	56.23	11.63	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2184.00	2184.00	2208.00	2208.00	2160.00	2184.00	2208.00	2208.00
<b>Train 2</b>								
Planned unavailable hours	0.02	0.04	24.49	0.54	68.17	2.81	29.74	0.02
Unplanned unavailable hours	2.20	0	0	73.71	0	24.20	90.28	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2184.00	2184.00	2208.00	2208.00	2160.00	2184.00	2208.00	2208.00
<b>Indicator value</b>	<b>0.8%</b>	<b>0.8%</b>	<b>0.7%</b>	<b>0.9%</b>	<b>1.1%</b>	<b>1.0%</b>	<b>1.2%</b>	<b>1.1%</b>

Licensee Comments: none

### Safety System Unavailability, High Pressure Injection System (HPSI)



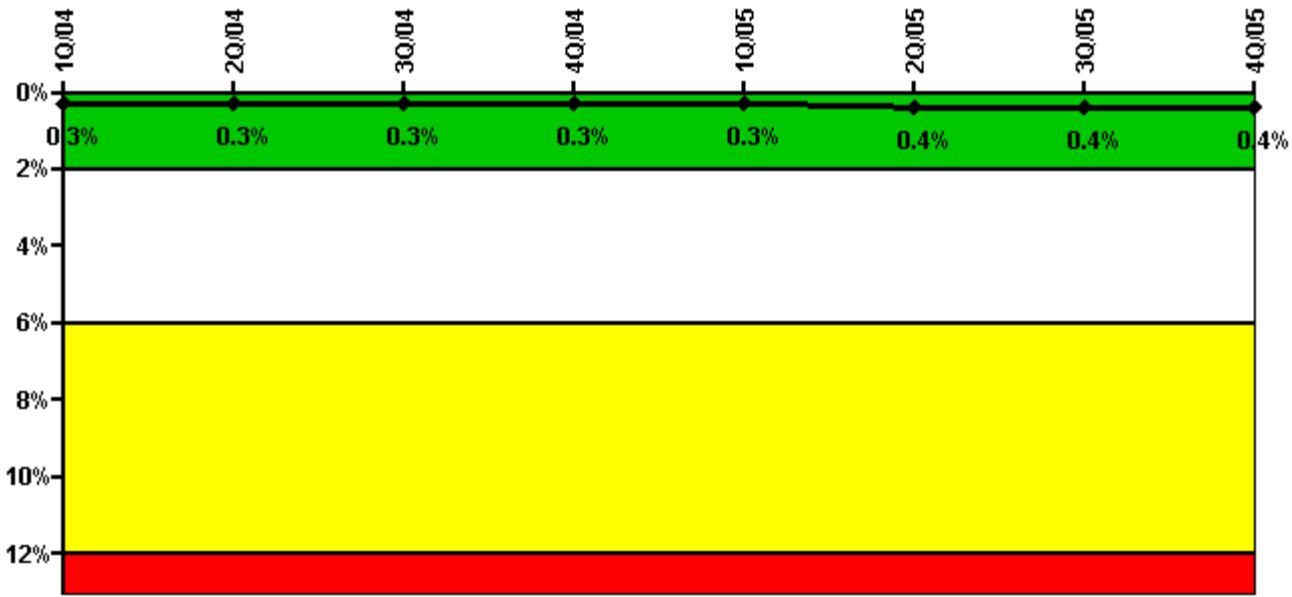
Thresholds: White > 1.5% Yellow > 5.0% Red > 10.0%

#### Notes

Safety System Unavailability, High Pressure Injection System (HPSI)	1Q/04	2Q/04	3Q/04	4Q/04	1Q/05	2Q/05	3Q/05	4Q/05
<b>Train 1</b>								
Planned unavailable hours	10.90	5.85	27.43	28.32	13.54	16.43	17.46	0.78
Unplanned unavailable hours	0	0	0	0	15.65	12.52	34.37	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2094.30	1216.00	2208.00	2208.00	1860.35	2184.00	1824.55	406.83
<b>Train 2</b>								
Planned unavailable hours	19.57	28.94	33.37	2.27	57.35	3.20	23.76	9.90
Unplanned unavailable hours	0	2.42	0	0	0.02	0	2.62	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2094.30	1216.00	2208.00	2208.00	1860.35	2184.00	1824.55	406.83
<b>Indicator value</b>	<b>0.8%</b>	<b>0.8%</b>	<b>0.8%</b>	<b>0.9%</b>	<b>1.0%</b>	<b>1.0%</b>	<b>1.1%</b>	<b>1.1%</b>

Licensee Comments: none

### Safety System Unavailability, Heat Removal System (AFW)



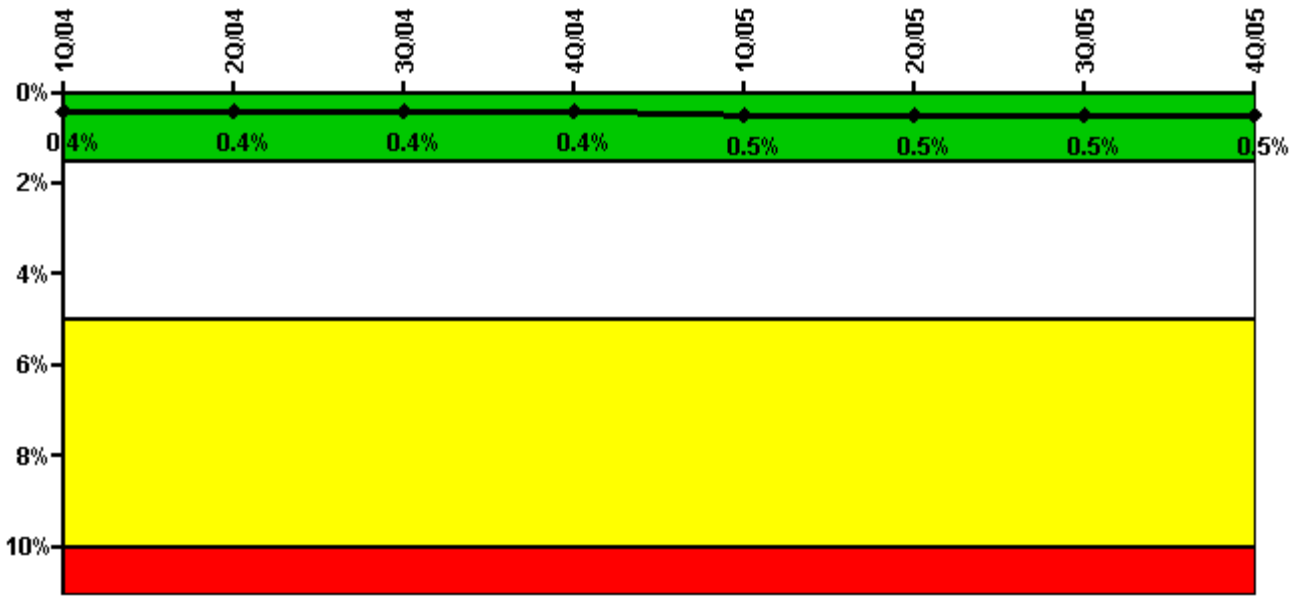
Thresholds: White > 2.0% Yellow > 6.0% Red > 12.0%

**Notes**

Safety System Unavailability, Heat Removal System (AFW)	1Q/04	2Q/04	3Q/04	4Q/04	1Q/05	2Q/05	3Q/05	4Q/05
<b>Train 1</b>								
Planned unavailable hours	2.25	0.67	4.88	30.40	12.42	15.16	11.08	1.60
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2094.30	1216.00	2208.00	2208.00	1860.35	2184.00	1824.55	406.83
<b>Train 2</b>								
Planned unavailable hours	15.38	0.20	9.83	2.50	35.68	4.03	15.50	0
Unplanned unavailable hours	0	2.42	0	0	0.02	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2094.30	1216.00	2208.00	2208.00	1860.35	2184.00	1824.55	406.83
<b>Train 3</b>								
Planned unavailable hours	0.62	0	0.47	0.75	0.98	0.67	0.83	0
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2094.30	1216.00	2208.00	2208.00	1860.35	2184.00	1824.55	406.83
<b>Indicator value</b>	<b>0.3%</b>	<b>0.3%</b>	<b>0.3%</b>	<b>0.3%</b>	<b>0.3%</b>	<b>0.4%</b>	<b>0.4%</b>	<b>0.4%</b>

Licensee Comments: none

### Safety System Unavailability, Residual Heat Removal System



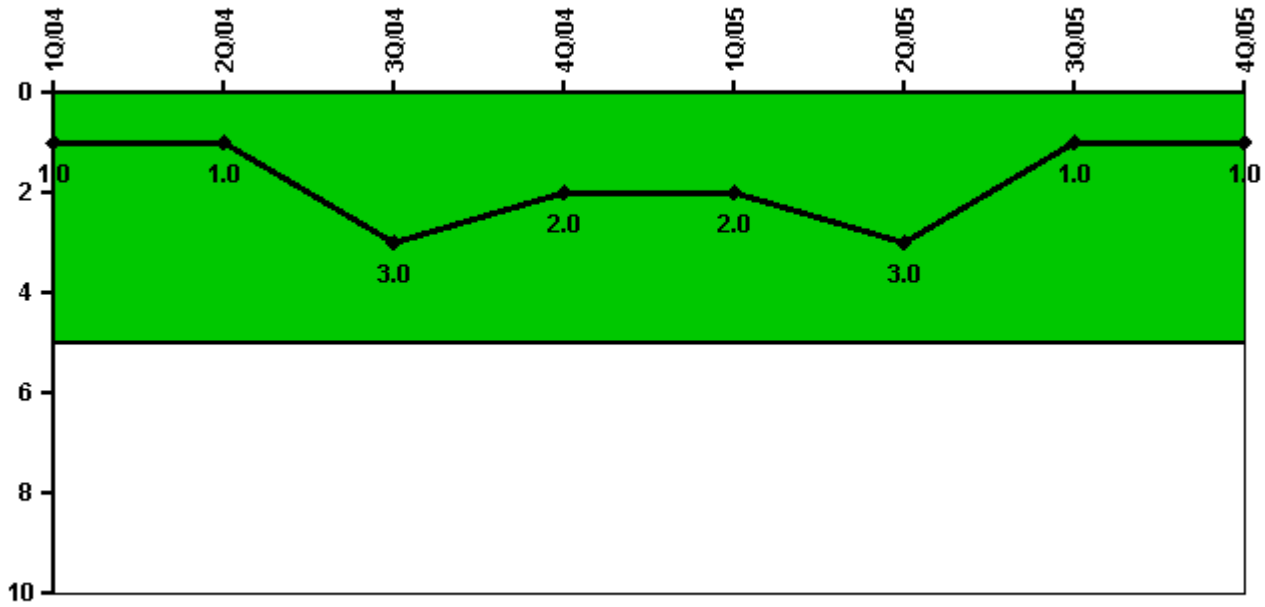
Thresholds: White > 1.5% Yellow > 5.0% Red > 10.0%

**Notes**

Safety System Unavailability, Residual Heat Removal System	1Q/04	2Q/04	3Q/04	4Q/04	1Q/05	2Q/05	3Q/05	4Q/05
<b>Train 1</b>								
Planned unavailable hours	2.54	13.30	13.31	11.93	68.07	16.38	26.18	18.85
Unplanned unavailable hours	0	0	0	0	0	12.62	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2140.32	1387.70	2208.00	2208.00	1950.80	2184.00	1957.03	498.15
<b>Train 2</b>								
Planned unavailable hours	24.82	5.17	26.47	6.75	41.82	5.00	36.97	1.67
Unplanned unavailable hours	0	2.42	0	14.67	0.02	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2140.32	1387.70	2208.00	2208.00	1950.80	2184.00	1957.03	498.15
<b>Train 3</b>								
Planned unavailable hours	0	0	0	0	0	0	0	0
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	0	397.71	0	0	170.53	0	41.98	211.42
<b>Train 4</b>								
Planned unavailable hours	0	0	0	0	0	0	0	0
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	33.88	434.17	0	0	30.17	0	186.28	527.37
<b>Indicator value</b>	<b>0.4%</b>	<b>0.4%</b>	<b>0.4%</b>	<b>0.4%</b>	<b>0.5%</b>	<b>0.5%</b>	<b>0.5%</b>	<b>0.5%</b>

Licensee Comments: none

### Safety System Functional Failures (PWR)



Thresholds: White > 5.0

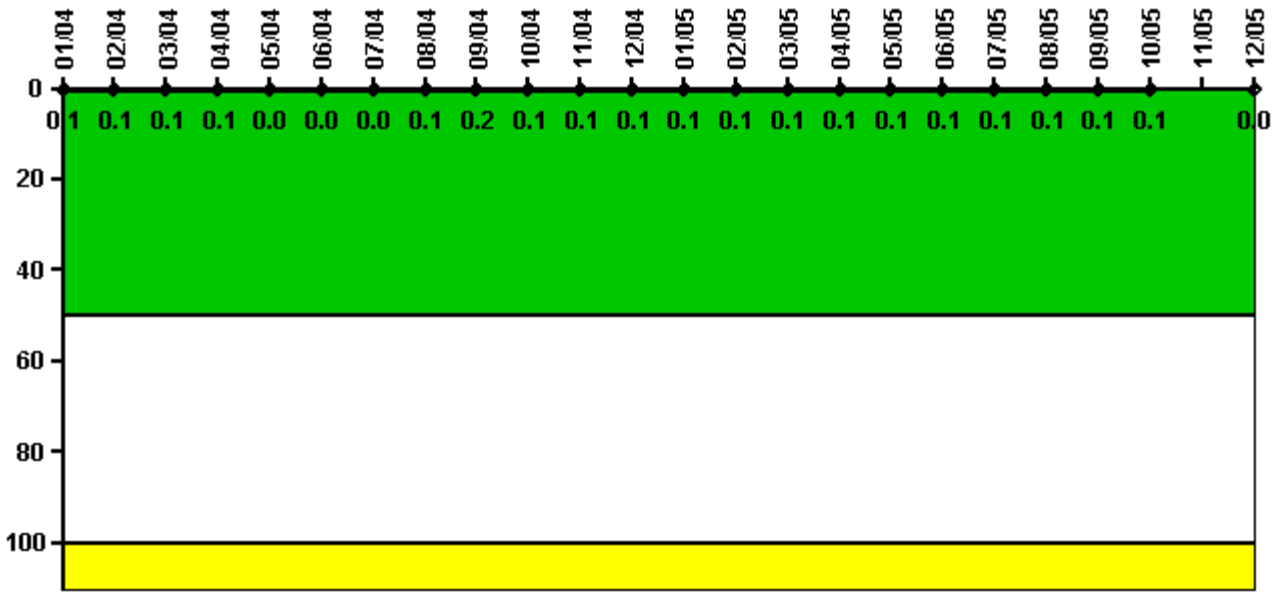
#### Notes

Safety System Functional Failures (PWR)	1Q/04	2Q/04	3Q/04	4Q/04	1Q/05	2Q/05	3Q/05	4Q/05
Safety System Functional Failures	0	0	2	0	0	1	0	0
Indicator value	1	1	3	2	2	3	1	1

Licensee Comments: none



### Reactor Coolant System Activity



Thresholds: White > 50.0 Yellow > 100.0

**Notes**

Reactor Coolant System Activity	1/04	2/04	3/04	4/04	5/04	6/04	7/04	8/04	9/04	10/04	11/04	12/04
Maximum activity	0.001080	0.001050	0.001100	0.001120	0.000431	0.000458	0.000482	0.000546	0.001620	0.000589	0.000613	0.000643
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	0	0	0.1	0.2	0.1	0.1	0.1

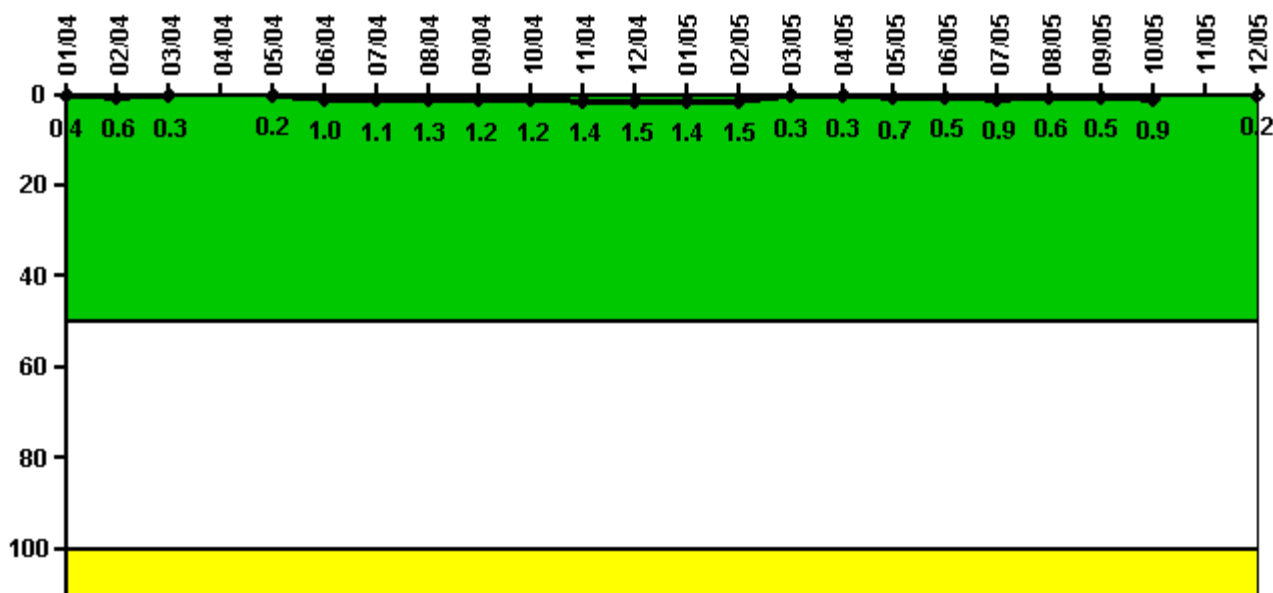
  

Reactor Coolant System Activity	1/05	2/05	3/05	4/05	5/05	6/05	7/05	8/05	9/05	10/05	11/05	12/05
Maximum activity	0.000704	0.000690	0.000724	0.000761	0.000785	0.000813	0.001430	0.000816	0.000908	0.000883	N/A	0.000118
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	N/A	0

Licensee Comments:

12/05: RCS activity data not taken for the month of November due to Unit 1 being in a refueling outage.

### Reactor Coolant System Leakage



Thresholds: White > 50.0 Yellow > 100.0

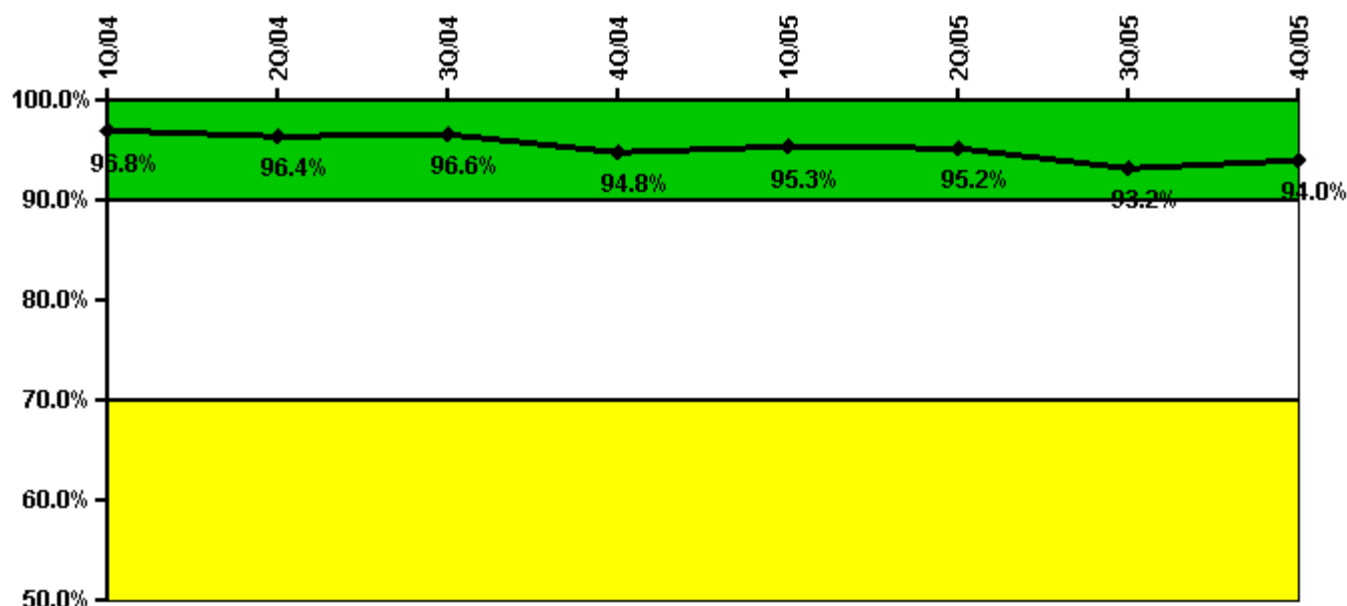
#### Notes

Reactor Coolant System Leakage	1/04	2/04	3/04	4/04	5/04	6/04	7/04	8/04	9/04	10/04	11/04	12/04
Maximum leakage	0.044	0.055	0.026	N/A	0.022	0.098	0.108	0.133	0.116	0.119	0.142	0.151
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	0.6	0.3	N/A	0.2	1.0	1.1	1.3	1.2	1.2	1.4	1.5
Reactor Coolant System Leakage	1/05	2/05	3/05	4/05	5/05	6/05	7/05	8/05	9/05	10/05	11/05	12/05
Maximum leakage	0.136	0.145	0.034	0.031	0.066	0.045	0.085	0.060	0.050	0.085	N/A	0.019
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	1.4	1.5	0.3	0.3	0.7	0.5	0.9	0.6	0.5	0.9	N/A	0.2

Licensee Comments:

12/05: RCS leakage data not taken for the month November due to Unit 1 being in a refueling outage.

### Drill/Exercise Performance



Thresholds: White < 90.0% Yellow < 70.0%

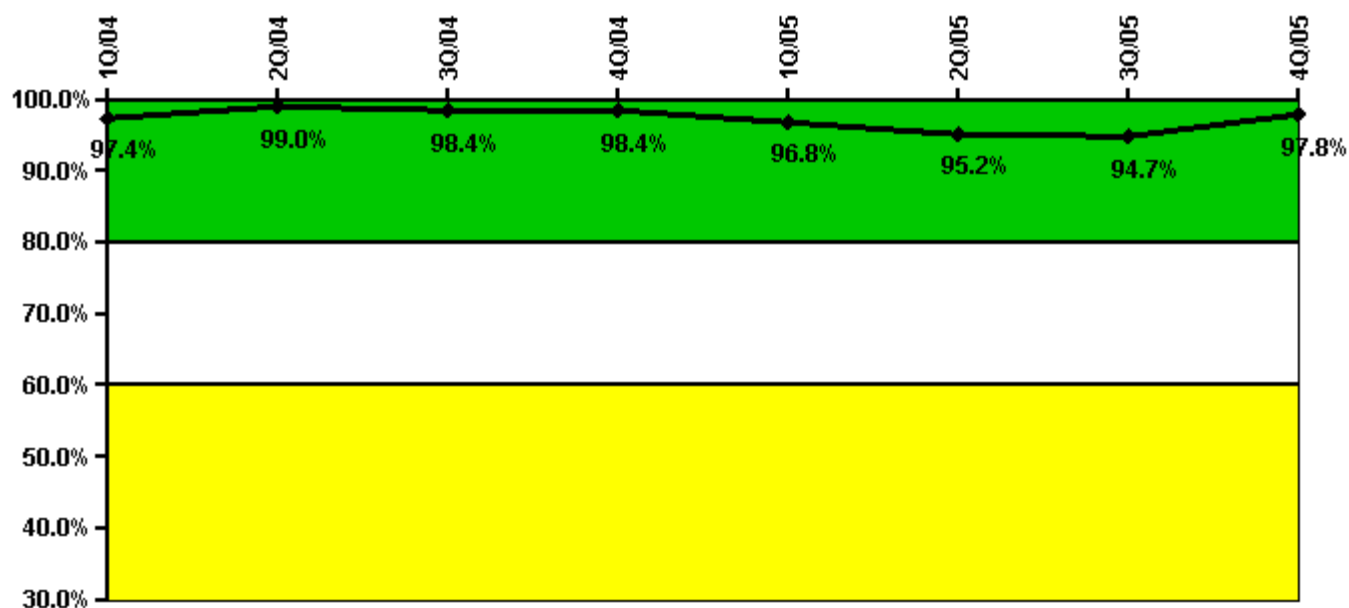
### Notes

Drill/Exercise Performance	1Q/04	2Q/04	3Q/04	4Q/04	1Q/05	2Q/05	3Q/05	4Q/05
Successful opportunities	17.0	14.0	111.0	97.0	21.0	0	74.0	103.0
Total opportunities	20.0	17.0	112.0	111.0	22.0	0	79.0	104.0
Indicator value	96.8%	96.4%	96.6%	94.8%	95.3%	95.2%	93.2%	94.0%

Licensee Comments:

4Q/05: In the 3Q2005 data submittal, the Emergency Response Organization (ERO) Drill / Exercise Performance was incorrect. The Successful drill, exercise & event opportunities were 75 out of 79. The numbers have been revised to 74 out of 79. This change did not affect the color of the performance indicator.

### ERO Drill Participation



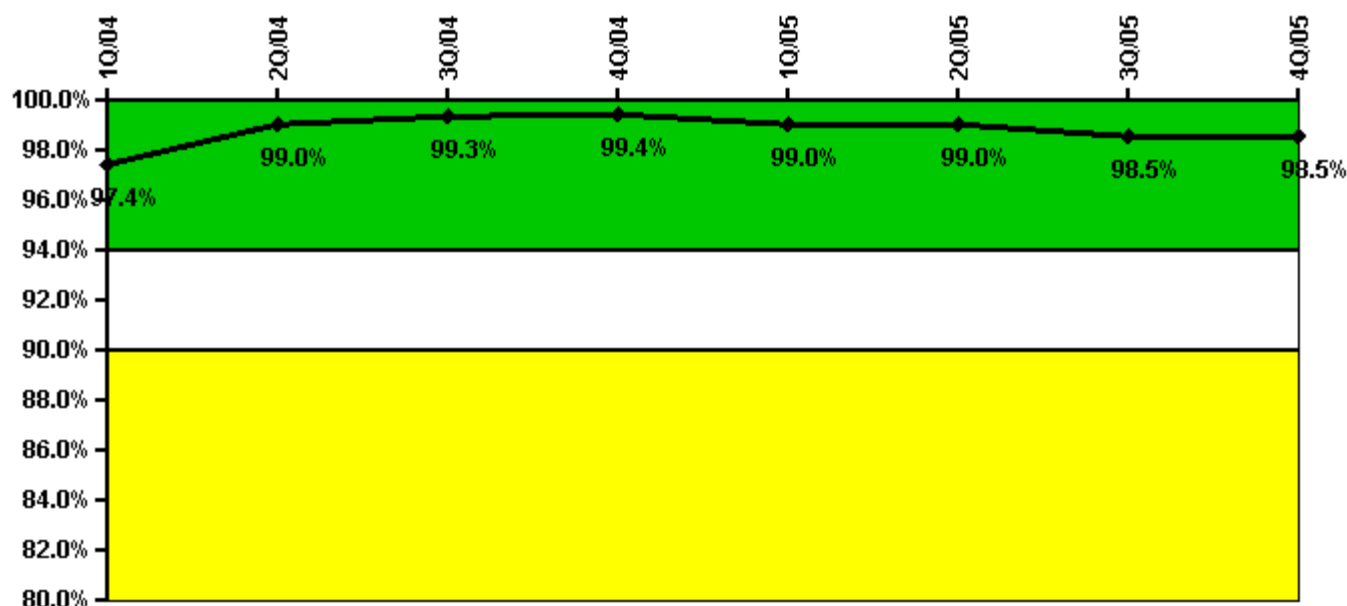
Thresholds: White < 80.0% Yellow < 60.0%

#### Notes

ERO Drill Participation	1Q/04	2Q/04	3Q/04	4Q/04	1Q/05	2Q/05	3Q/05	4Q/05
Participating Key personnel	189.0	193.0	188.0	187.0	184.0	179.0	180.0	175.0
Total Key personnel	194.0	195.0	191.0	190.0	190.0	188.0	190.0	179.0
Indicator value	97.4%	99.0%	98.4%	98.4%	96.8%	95.2%	94.7%	97.8%

Licensee Comments: none

### Alert & Notification System



Thresholds: White < 94.0% Yellow < 90.0%

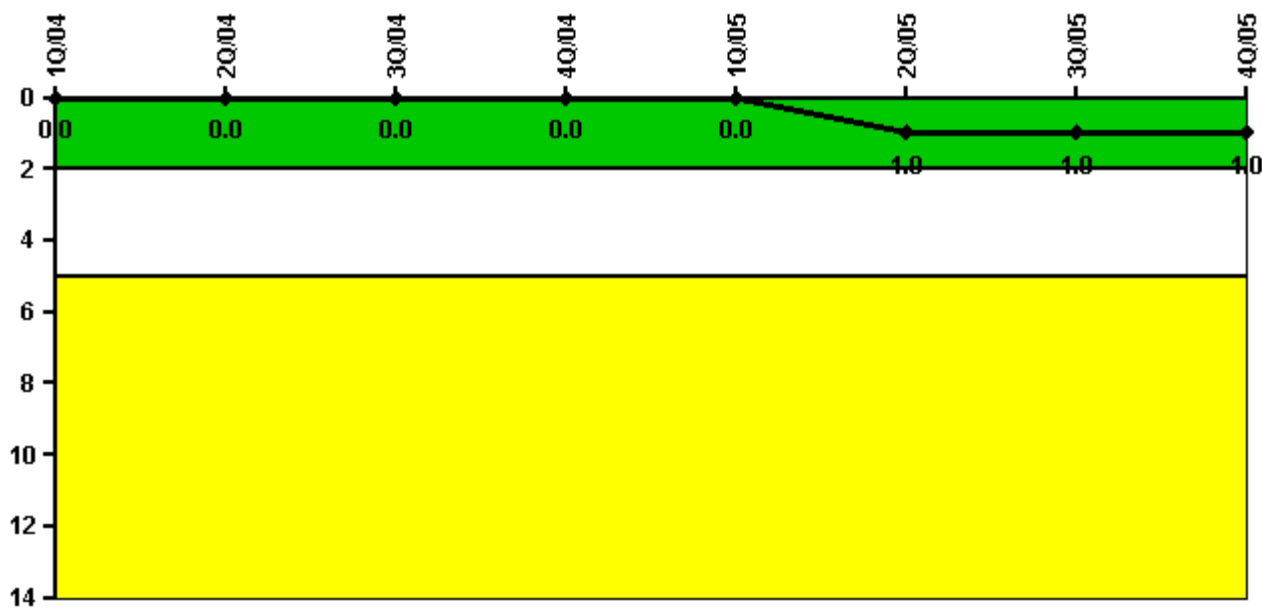
#### Notes

Alert & Notification System	1Q/04	2Q/04	3Q/04	4Q/04	1Q/05	2Q/05	3Q/05	4Q/05
Successful siren-tests	712	798	792	872	740	797	753	791
Total sirens-tests	714	798	798	882	755	798	776	798
Indicator value	97.4%	99.0%	99.3%	99.4%	99.0%	99.0%	98.5%	98.5%

Licensee Comments:

4Q/05: In the 1Q2005 data submittal, the Alert and Notification System (ANS) Reliability was incorrect. The numbers of Successful siren-tests were 700 out of 714. The numbers have been revised to 740 out of 755. This change did not affect the color of the performance indicator.

### Occupational Exposure Control Effectiveness



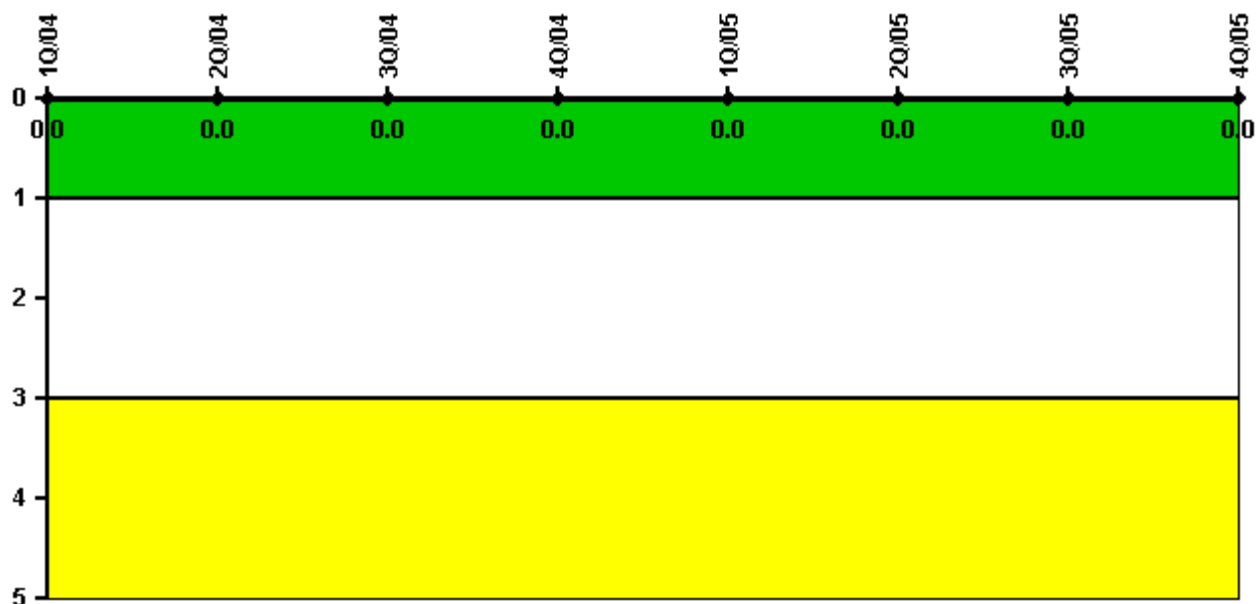
Thresholds: White > 2.0 Yellow > 5.0

#### Notes

Occupational Exposure Control Effectiveness	1Q/04	2Q/04	3Q/04	4Q/04	1Q/05	2Q/05	3Q/05	4Q/05
High radiation area occurrences	0	0	0	0	0	1	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>1</b>	<b>1</b>	<b>1</b>

Licensee Comments: none

### RETS/ODCM Radiological Effluent



Thresholds: White > 1.0 Yellow > 3.0

#### Notes

RETS/ODCM Radiological Effluent	1Q/04	2Q/04	3Q/04	4Q/04	1Q/05	2Q/05	3Q/05	4Q/05
RETS/ODCM occurrences	0	0	0	0	0	0	0	0
Indicator value	0	0	0	0	0	0	0	0

Licensee Comments: none

[Physical Protection](#) information not publicly available.

▲ [Action Matrix Summary](#) | [Inspection Findings Summary](#) | [PI Summary](#) | [Reactor Oversight Process](#)

Last Modified: January 30, 2006