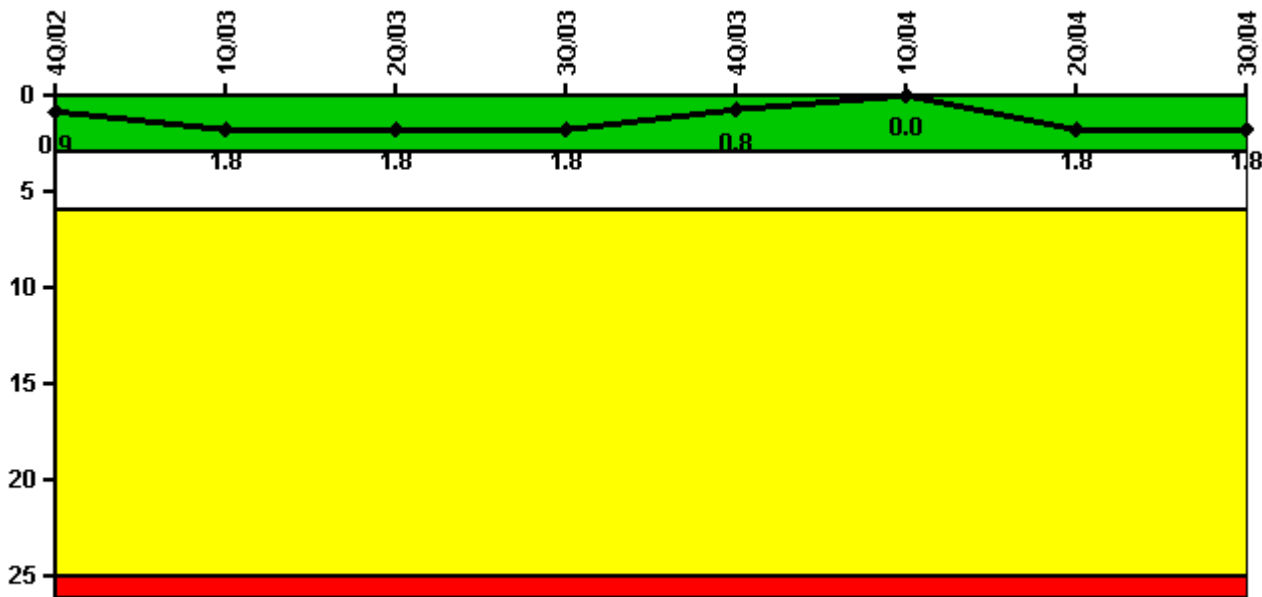


# Palo Verde 1

## 3Q/2004 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/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04	3Q/04
Unplanned scrams	1.0	1.0	0	0	0	0	2.0	0
Critical hours	1450.1	2057.8	2184.0	2170.9	2208.0	2094.3	1216.0	2208.0
Indicator value	0.9	1.8	1.8	1.8	0.8	0	1.8	1.8

Licensee Comments: none

### Scrams with Loss of Normal Heat Removal



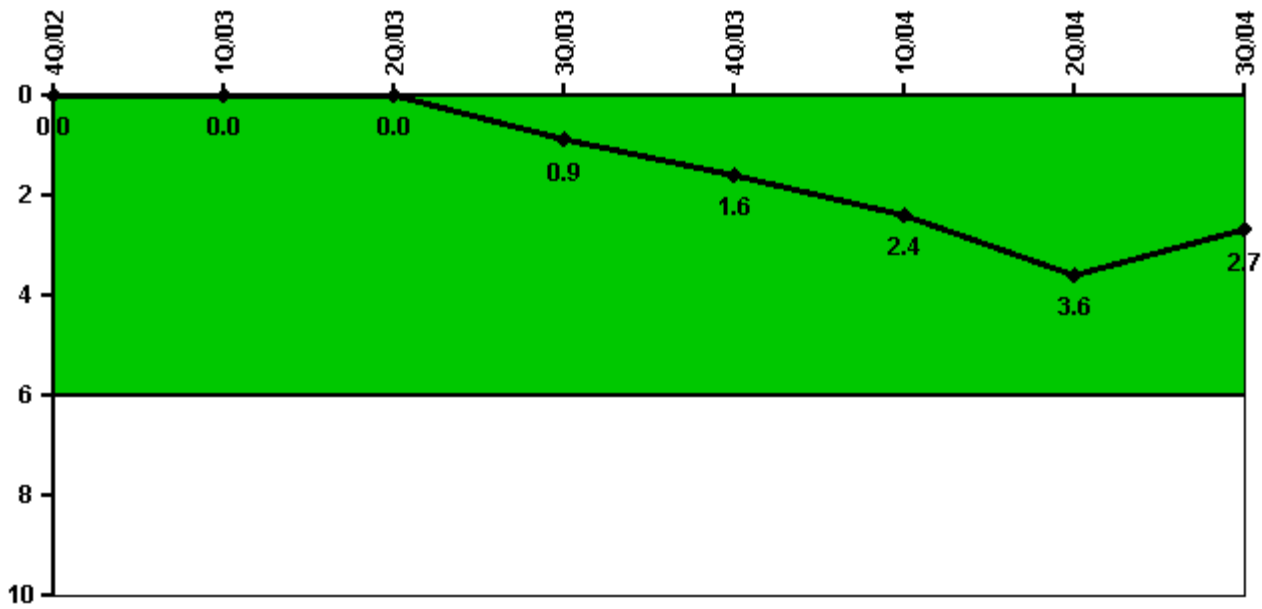
Thresholds: White > 2.0 Yellow > 10.0 Red > 20.0

#### Notes

Scrams with Loss of Normal Heat Removal	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04	3Q/04
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



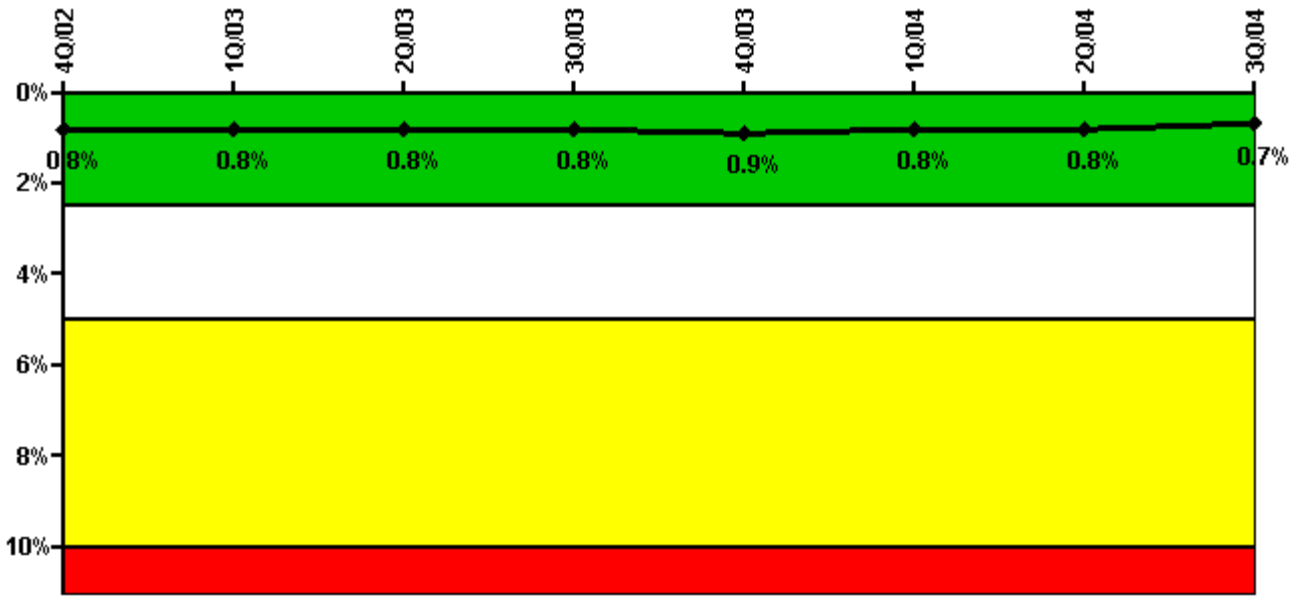
Thresholds: White > 6.0

#### Notes

Unplanned Power Changes per 7000 Critical Hrs	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04	3Q/04
Unplanned power changes	0	0	0	1.0	1.0	1.0	1.0	0
Critical hours	1450.1	2057.8	2184.0	2170.9	2208.0	2094.3	1216.0	2208.0
Indicator value	0	0	0	0.9	1.6	2.4	3.6	2.7

Licensee Comments: none

### Safety System Unavailability, Emergency AC Power



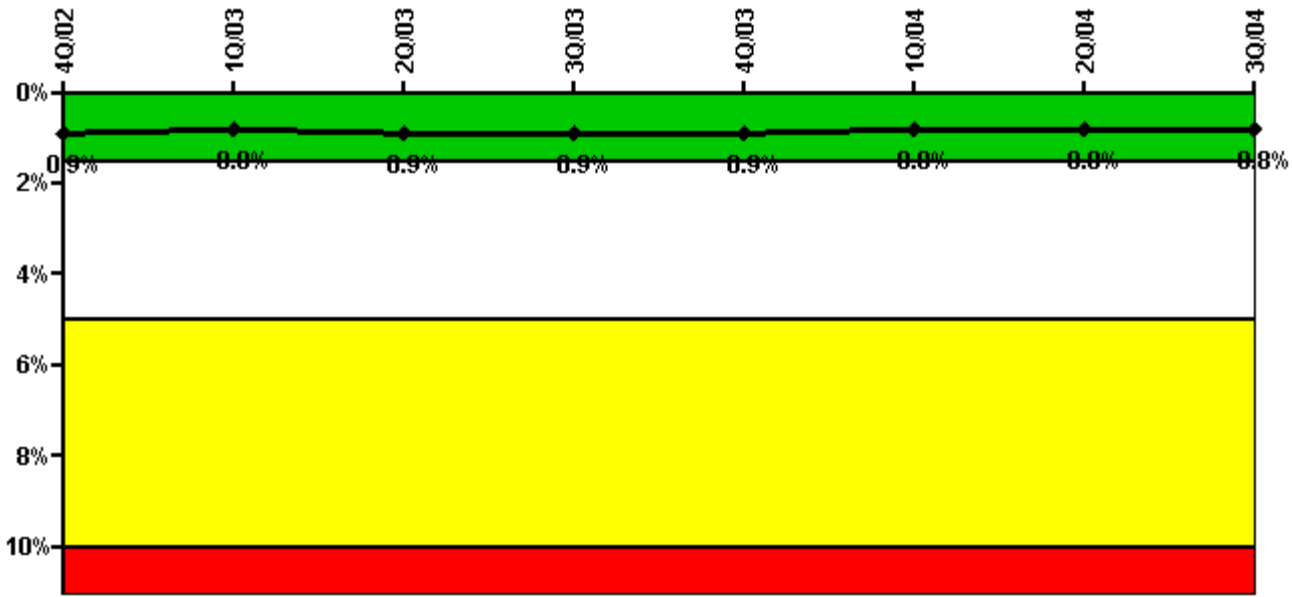
Thresholds: White > 2.5% Yellow > 5.0% Red > 10.0%

#### Notes

Safety System Unavailability, Emergency AC Power	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04	3Q/04
<b>Train 1</b>								
Planned unavailable hours	20.35	0.04	19.80	0.07	31.67	0.52	0.04	0.08
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	2208.00	2160.00	2184.00	2208.00	2208.00	2184.00	2184.00	2208.00
<b>Train 2</b>								
Planned unavailable hours	18.19	0.12	27.00	0.06	32.24	0.02	0.04	24.49
Unplanned unavailable hours	0	31.37	0	0	0	2.20	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	2208.00	2160.00	2184.00	2208.00	2208.00	2184.00	2184.00	2208.00
<b>Indicator value</b>	<b>0.8%</b>	<b>0.8%</b>	<b>0.8%</b>	<b>0.8%</b>	<b>0.9%</b>	<b>0.8%</b>	<b>0.8%</b>	<b>0.7%</b>

Licensee Comments: none

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



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

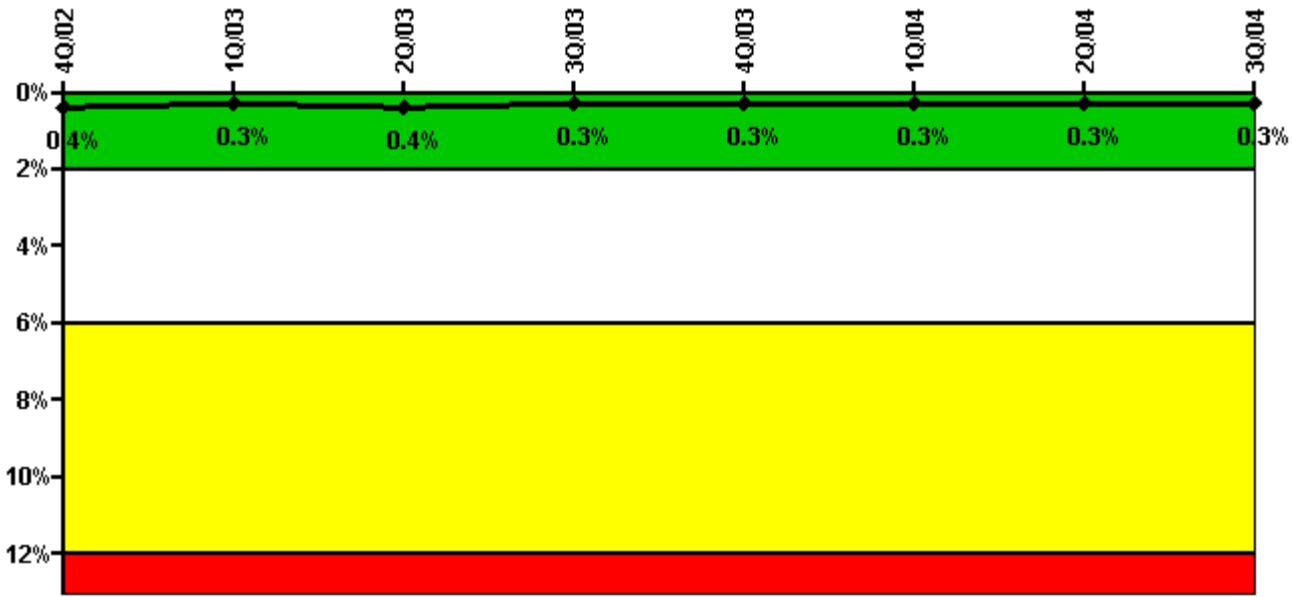
**Notes**

Safety System Unavailability, High Pressure Injection System (HPSI)	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04	3Q/04
<b>Train 1</b>								
Planned unavailable hours	12.75	6.55	14.95	4.97	15.23	10.90	5.85	27.43
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	1450.11	2057.75	2184.00	2170.92	2208.00	2094.30	1216.00	2208.00
<b>Train 2</b>								
Planned unavailable hours	23.22	7.27	34.15	0.78	15.54	19.57	28.94	33.37
Unplanned unavailable hours	0	13.13	0	0	0	0	2.42	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	1450.11	2057.75	2184.00	2170.92	2208.00	2094.30	1216.00	2208.00
<b>Indicator value</b>	<b>0.9%</b>	<b>0.8%</b>	<b>0.9%</b>	<b>0.9%</b>	<b>0.9%</b>	<b>0.8%</b>	<b>0.8%</b>	<b>0.8%</b>

Licensee Comments:

3Q/04: Engineering evaluation of HPSI unavailability due to air in containment recirculation sump piping is pending.

### 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)	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04	3Q/04
<b>Train 1</b>								
Planned unavailable hours	18.22	1.34	14.38	1.14	13.65	2.25	0.67	4.88
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	1450.11	2057.75	2184.00	2170.92	2208.00	2094.30	1216.00	2208.00
<b>Train 2</b>								
Planned unavailable hours	10.15	0.55	33.20	2.23	7.70	15.38	0.20	9.83
Unplanned unavailable hours	0	0	0	0	0	0	2.42	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	1450.11	2057.75	2184.00	2170.92	2208.00	2094.30	1216.00	2208.00
<b>Train 3</b>								
Planned unavailable hours	0.62	0.87	0.35	0.52	0.58	0.62	0	0.47
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	1450.11	2057.75	2184.00	2170.92	2208.00	2094.30	1216.00	2208.00
<b>Indicator value</b>	<b>0.4%</b>	<b>0.3%</b>	<b>0.4%</b>	<b>0.3%</b>	<b>0.3%</b>	<b>0.3%</b>	<b>0.3%</b>	<b>0.3%</b>

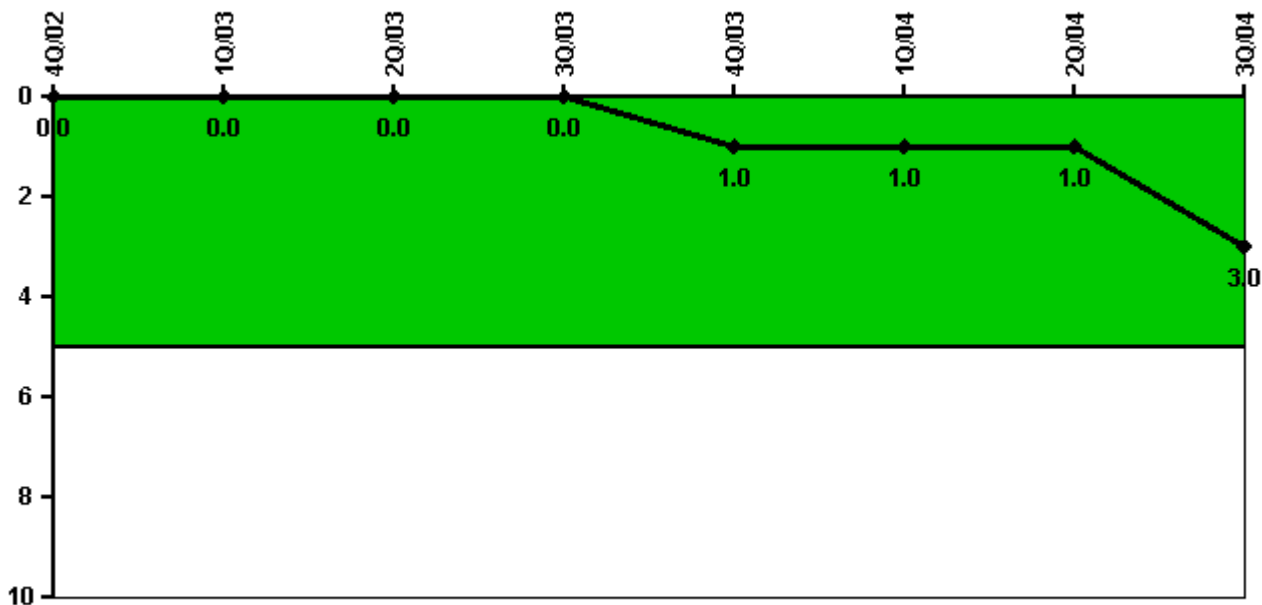
Licensee Comments: none



Licensee Comments:

3Q/04: Engineering evaluation of RHR unavailability due to air in containment recirculation sump piping is pending.

### Safety System Functional Failures (PWR)



Thresholds: White > 5.0

### Notes

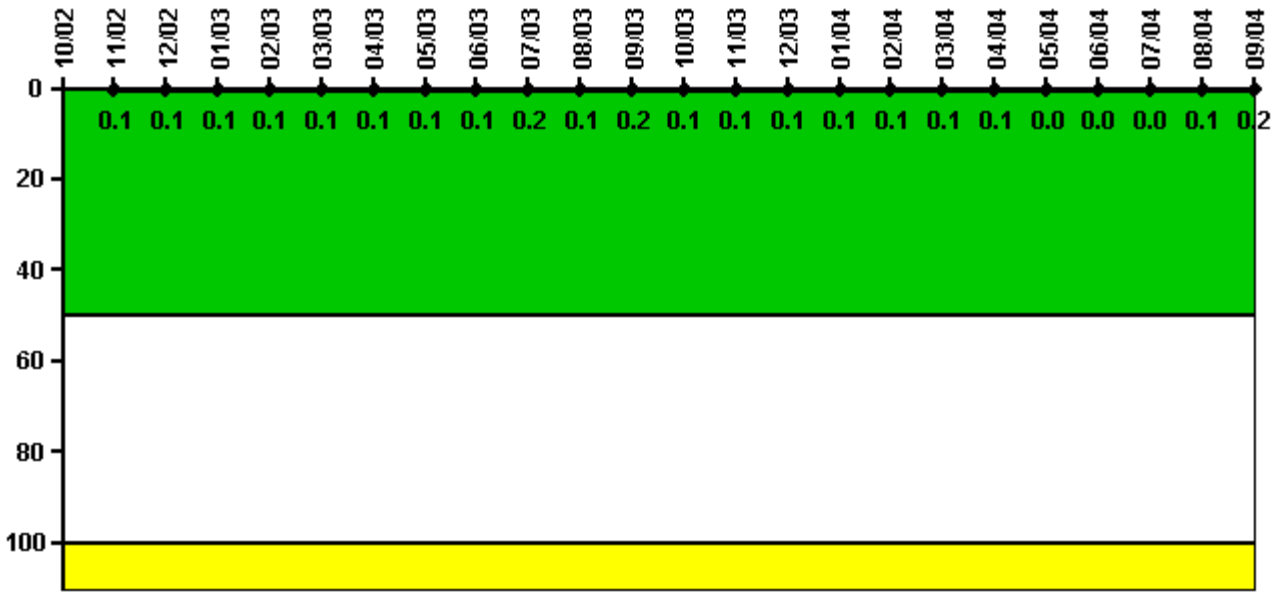
Safety System Functional Failures (PWR)	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04	3Q/04
Safety System Functional Failures	0	0	0	0	1	0	0	2
Indicator value	0	0	0	0	1	1	1	3

Licensee Comments:

3Q/04: SSFF reported via LER 528/2004-006 on 8/13/2004. SSFF reported via LER 528/2004-009 on 9/28/2004.



### Reactor Coolant System Activity



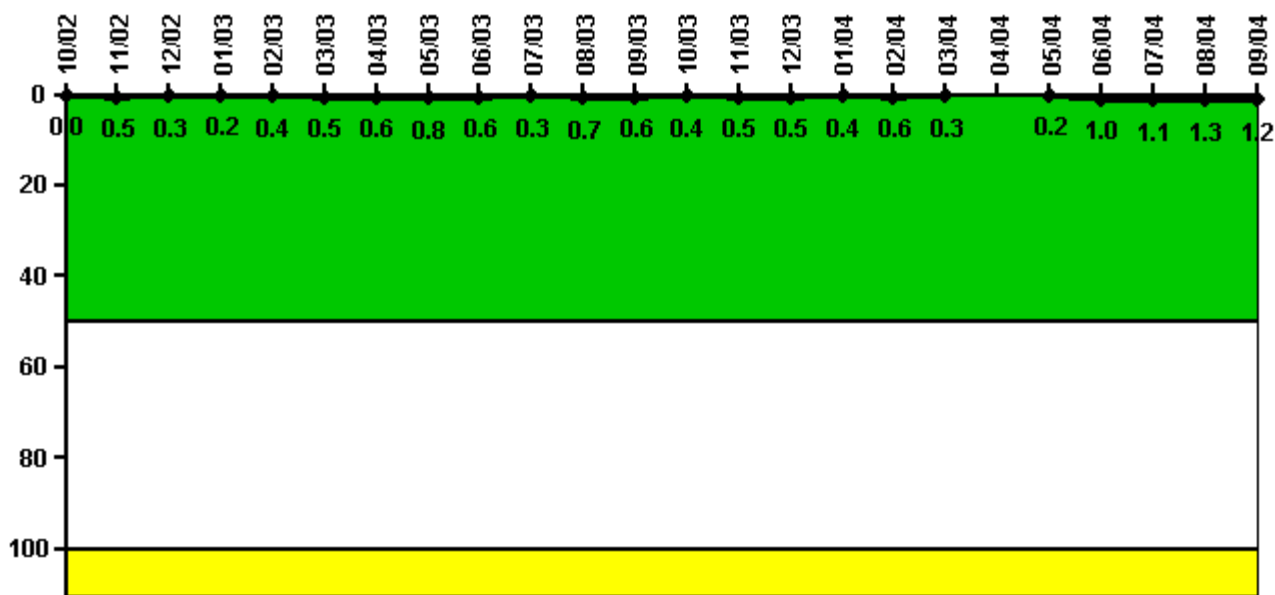
Thresholds: White > 50.0 Yellow > 100.0

#### Notes

Reactor Coolant System Activity	10/02	11/02	12/02	1/03	2/03	3/03	4/03	5/03	6/03	7/03	8/03	9/03
Maximum activity	N/A	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.002000	0.001000	0.002000
Technical specification limit	N/A	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	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2
Reactor Coolant System Activity	10/03	11/03	12/03	1/04	2/04	3/04	4/04	5/04	6/04	7/04	8/04	9/04
Maximum activity	0.000948	0.001030	0.000977	0.001080	0.001050	0.001100	0.001120	0.000431	0.000458	0.000482	0.000546	0.001620
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	0	0	0.1	0.2

Licensee Comments: none

### Reactor Coolant System Leakage



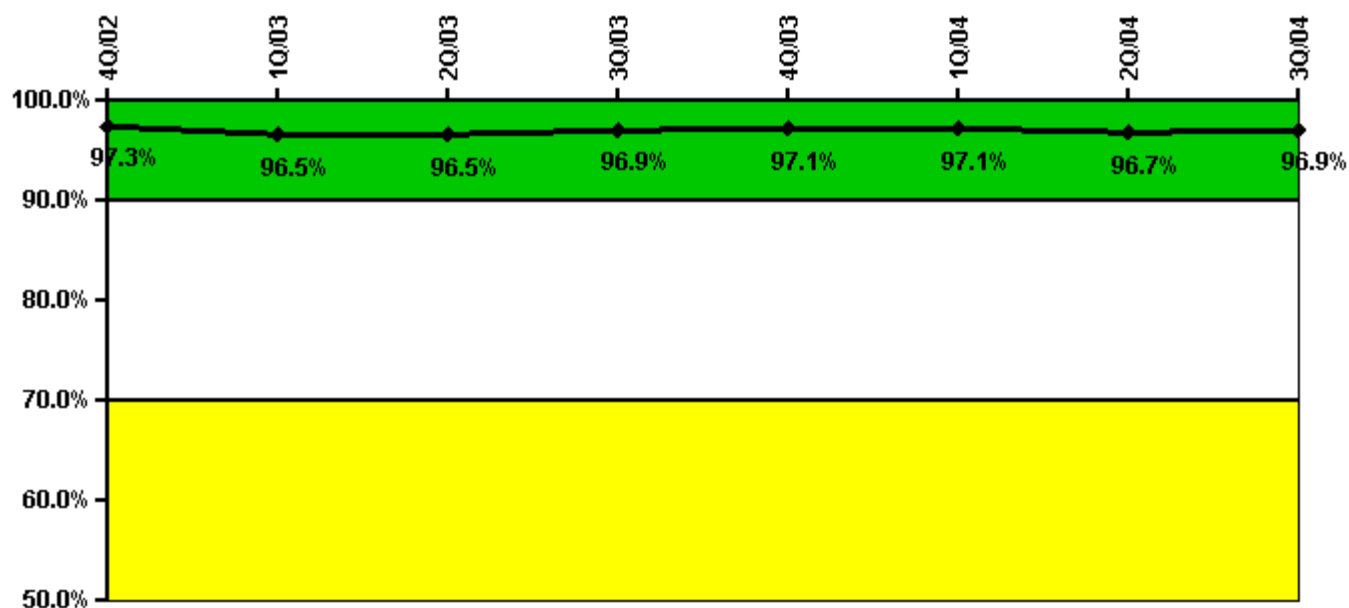
Thresholds: White > 50.0 Yellow > 100.0

#### Notes

Reactor Coolant System Leakage	10/02	11/02	12/02	1/03	2/03	3/03	4/03	5/03	6/03	7/03	8/03	9/03
Maximum leakage	0	0.047	0.034	0.018	0.036	0.047	0.063	0.077	0.056	0.027	0.068	0.057
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	0.5	0.3	0.2	0.4	0.5	0.6	0.8	0.6	0.3	0.7	0.6
Reactor Coolant System Leakage	10/03	11/03	12/03	1/04	2/04	3/04	4/04	5/04	6/04	7/04	8/04	9/04
Maximum leakage	0.035	0.050	0.051	0.044	0.055	0.026	N/A	0.022	0.098	0.108	0.133	0.116
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	0.5	0.5	0.4	0.6	0.3	N/A	0.2	1.0	1.1	1.3	1.2

Licensee Comments: none

### Drill/Exercise Performance



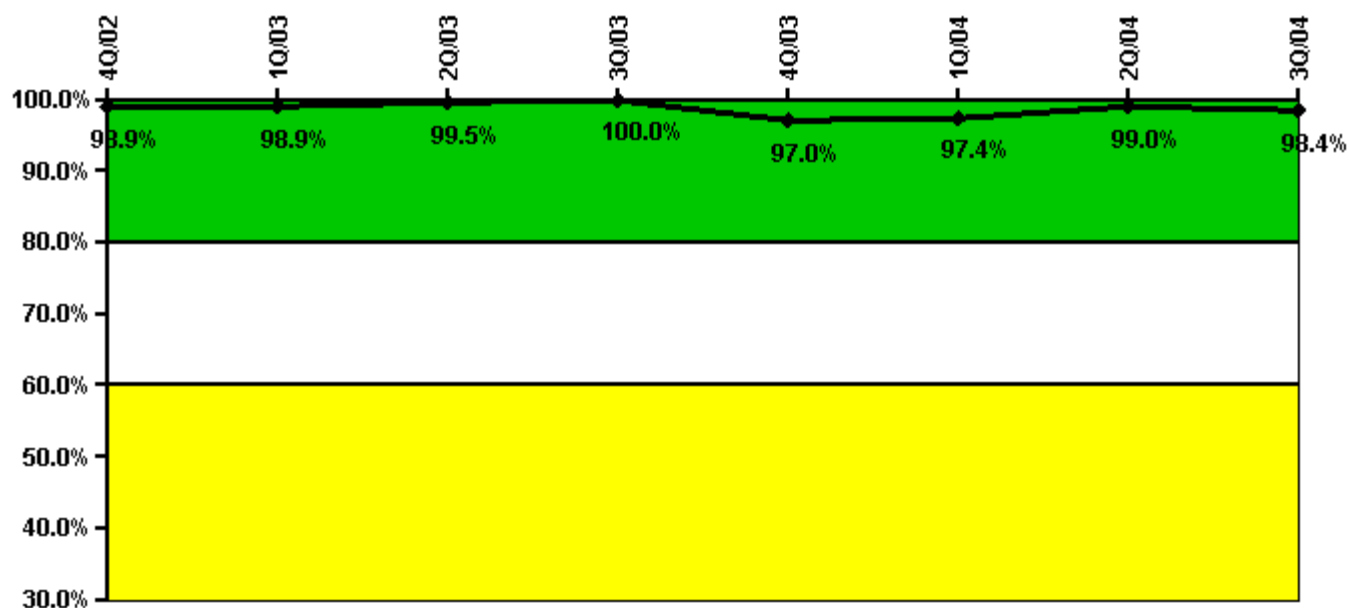
Thresholds: White < 90.0% Yellow < 70.0%

#### Notes

Drill/Exercise Performance	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04	3Q/04
Successful opportunities	137.0	14.0	8.0	280.0	38.0	19.0	14.0	111.0
Total opportunities	141.0	18.0	8.0	287.0	38.0	20.0	17.0	112.0
Indicator value	97.3%	96.5%	96.5%	96.9%	97.1%	97.1%	96.7%	96.9%

Licensee Comments: none

### ERO Drill Participation



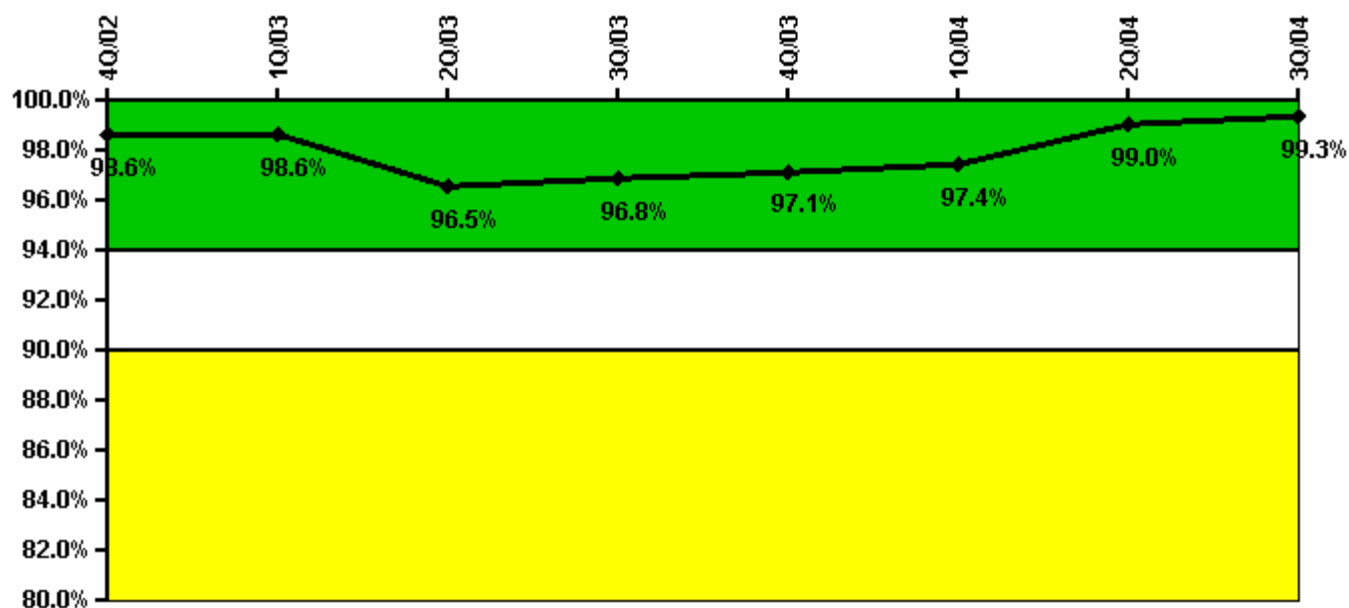
Thresholds: White < 80.0% Yellow < 60.0%

#### Notes

ERO Drill Participation	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04	3Q/04
Participating Key personnel	183.0	181.0	181.0	182.0	194.0	189.0	193.0	188.0
Total Key personnel	185.0	183.0	182.0	182.0	200.0	194.0	195.0	191.0
Indicator value	98.9%	98.9%	99.5%	100.0%	97.0%	97.4%	99.0%	98.4%

Licensee Comments: none

### Alert & Notification System



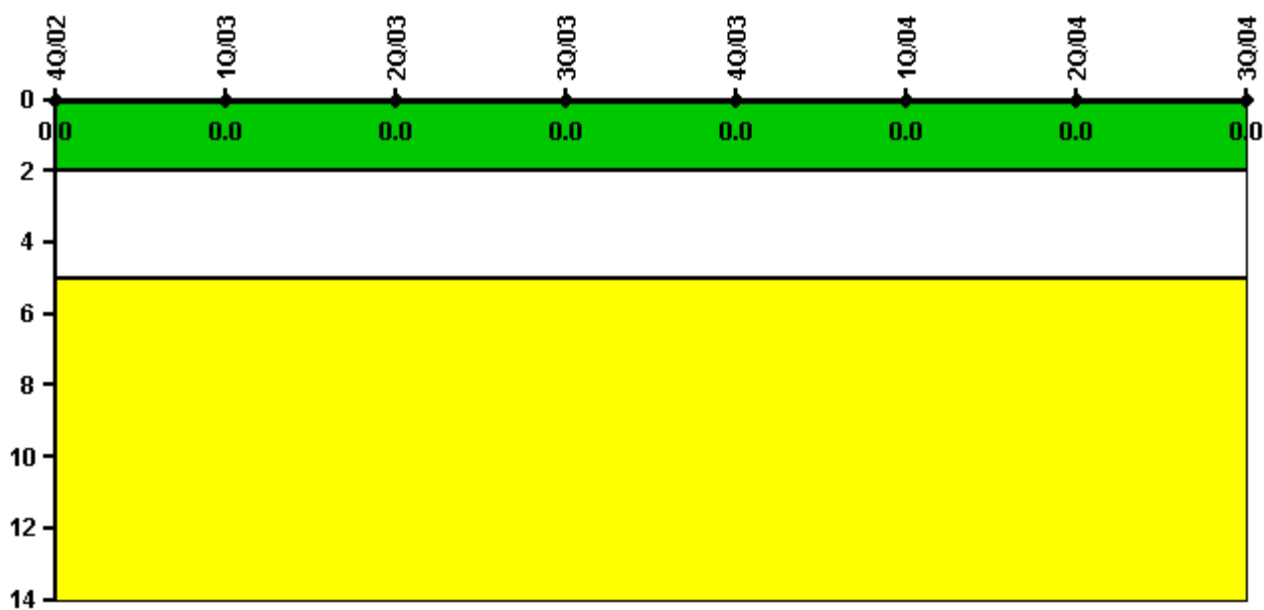
Thresholds: White < 94.0% Yellow < 90.0%

#### Notes

Alert & Notification System	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04	3Q/04
Successful siren-tests	459	349	503	700	867	712	798	792
Total sirens-tests	468	349	546	714	882	714	798	798
Indicator value	98.6%	98.6%	96.5%	96.8%	97.1%	97.4%	99.0%	99.3%

Licensee Comments: none

### Occupational Exposure Control Effectiveness



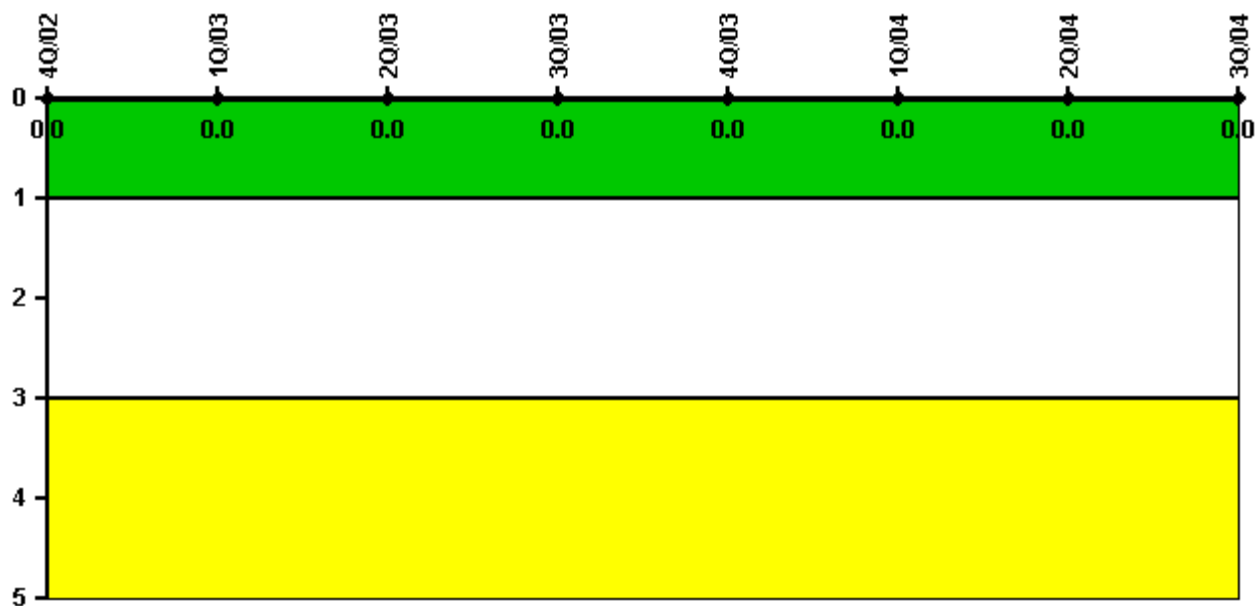
Thresholds: White > 2.0 Yellow > 5.0

#### Notes

Occupational Exposure Control Effectiveness	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04	3Q/04
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	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04	3Q/04
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.