

Palo Verde 1

1Q/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	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04
Unplanned scrams	0	0	1.0	1.0	0	0	0	0
Critical hours	2184.0	2136.0	1450.1	2057.8	2184.0	2170.9	2208.0	2094.3
Indicator value	0	0	0.9	1.8	1.8	1.8	0.8	0

Licensee Comments: none

Scrams with Loss of Normal Heat Removal



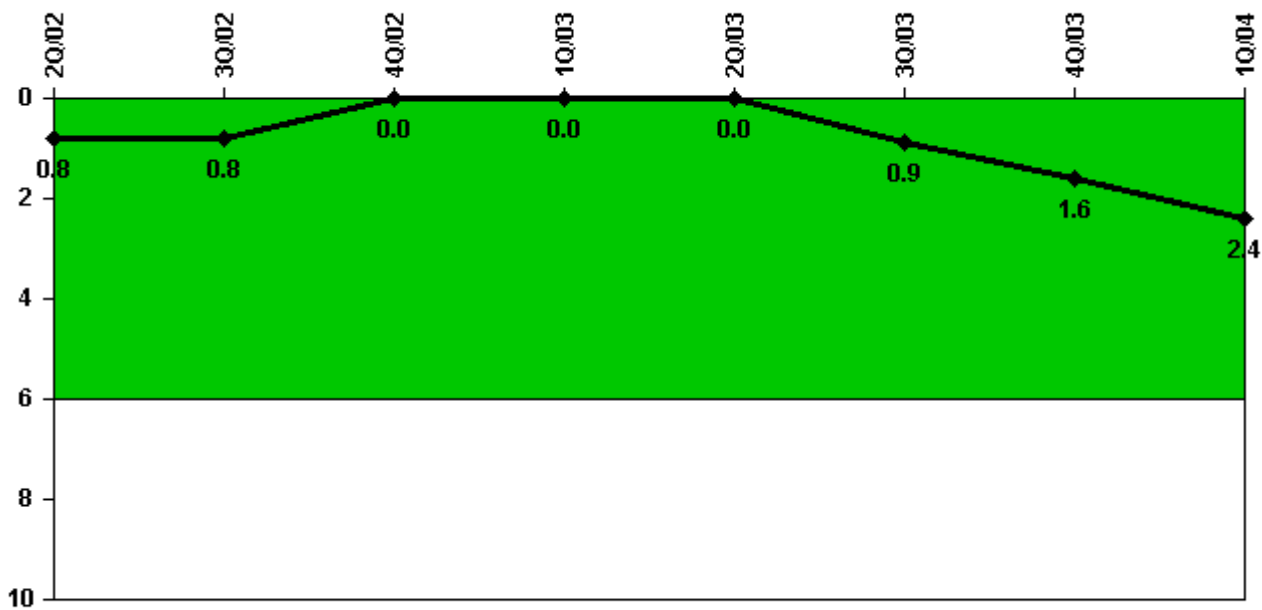
Thresholds: White > 2.0 Yellow > 10.0 Red > 20.0

Notes

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



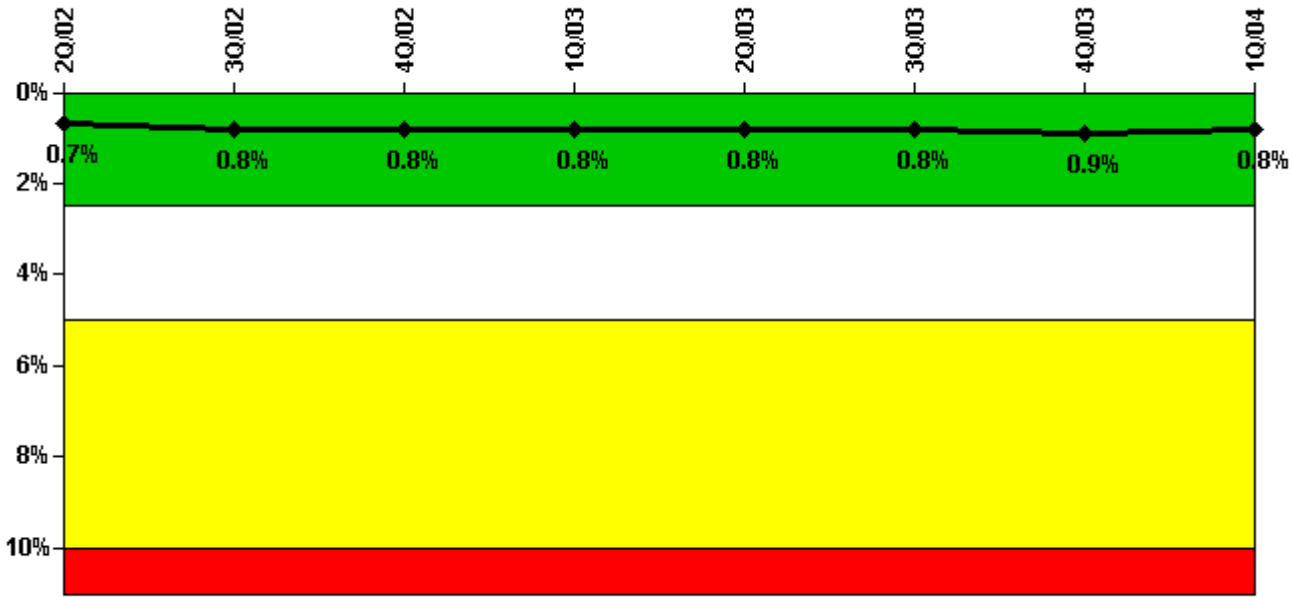
Thresholds: White > 6.0

Notes

Unplanned Power Changes per 7000 Critical Hrs	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04
Unplanned power changes	0	0	0	0	0	1.0	1.0	1.0
Critical hours	2184.0	2136.0	1450.1	2057.8	2184.0	2170.9	2208.0	2094.3
Indicator value	0.8	0.8	0	0	0	0.9	1.6	2.4

Licensee Comments: none

Safety System Unavailability, Emergency AC Power



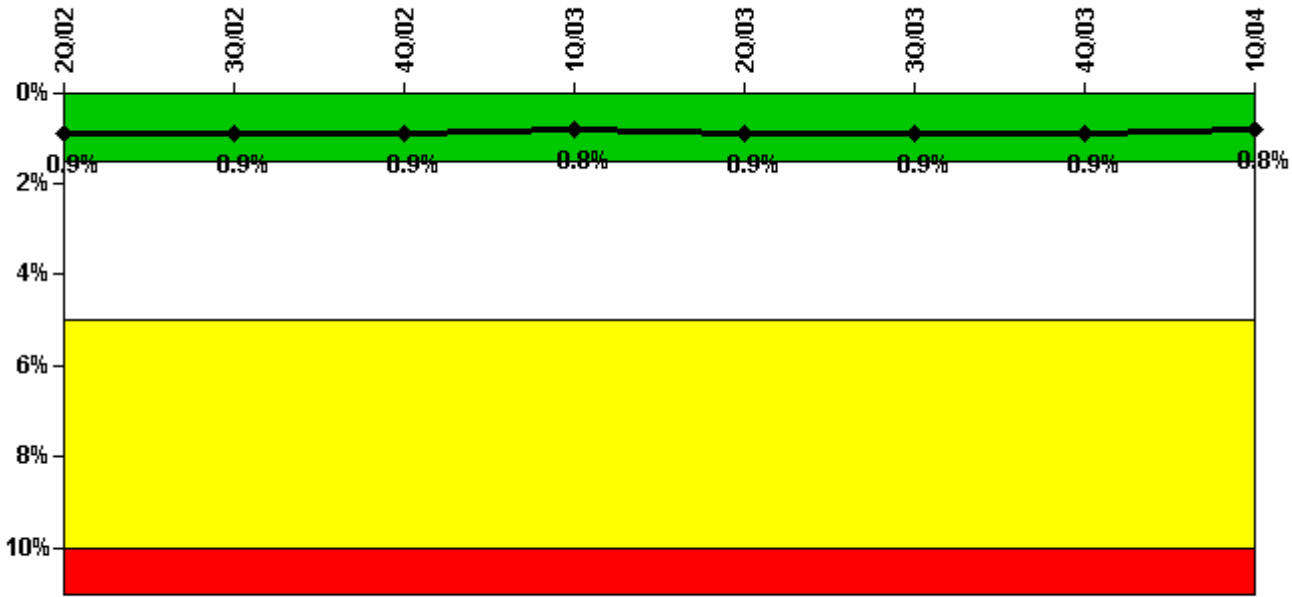
Thresholds: White > 2.5% Yellow > 5.0% Red > 10.0%

Notes

Safety System Unavailability, Emergency AC Power	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04
Train 1								
Planned unavailable hours	0.04	28.09	20.35	0.04	19.80	0.07	31.67	0.52
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	2184.00	2208.00	2208.00	2160.00	2184.00	2208.00	2208.00	2184.00
Train 2								
Planned unavailable hours	24.90	0.06	18.19	0.12	27.00	0.06	32.24	0.02
Unplanned unavailable hours	27.92	0	0	31.37	0	0	0	2.20
Fault exposure hours	15.82	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2184.00	2208.00	2208.00	2160.00	2184.00	2208.00	2208.00	2184.00
Indicator value	0.7%	0.8%	0.8%	0.8%	0.8%	0.8%	0.9%	0.8%

Licensee Comments: none

Safety System Unavailability, High Pressure Injection System (HPSI)



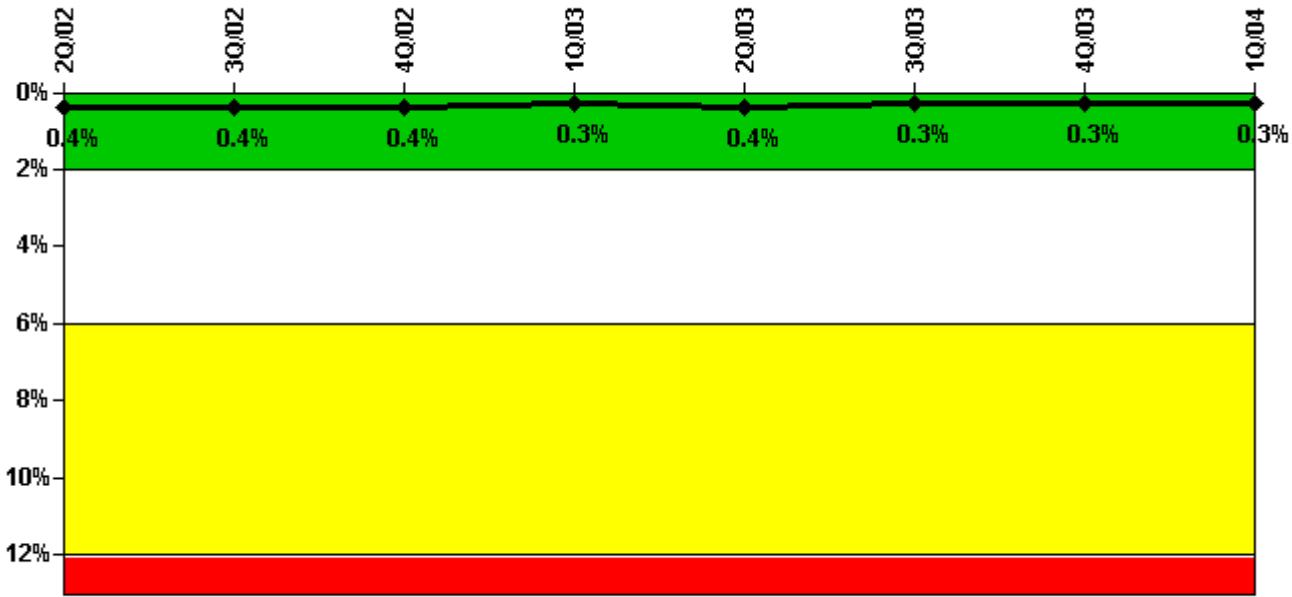
Thresholds: White > 1.5% Yellow > 5.0% Red > 10.0%

Notes

Safety System Unavailability, High Pressure Injection System (HPSI)	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04
Train 1								
Planned unavailable hours	12.78	28.53	12.75	6.55	14.95	4.97	15.23	10.90
Unplanned unavailable hours	0	2.58	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	2184.00	2136.00	1450.11	2057.75	2184.00	2170.92	2208.00	2094.30
Train 2								
Planned unavailable hours	15.77	8.98	23.22	7.27	34.15	0.78	15.54	19.57
Unplanned unavailable hours	0	1.85	0	13.13	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	2184.00	2136.00	1450.11	2057.75	2184.00	2170.92	2208.00	2094.30
Indicator value	0.9%	0.9%	0.9%	0.8%	0.9%	0.9%	0.9%	0.8%

Licensee Comments: none

Safety System Unavailability, Heat Removal System (AFW)



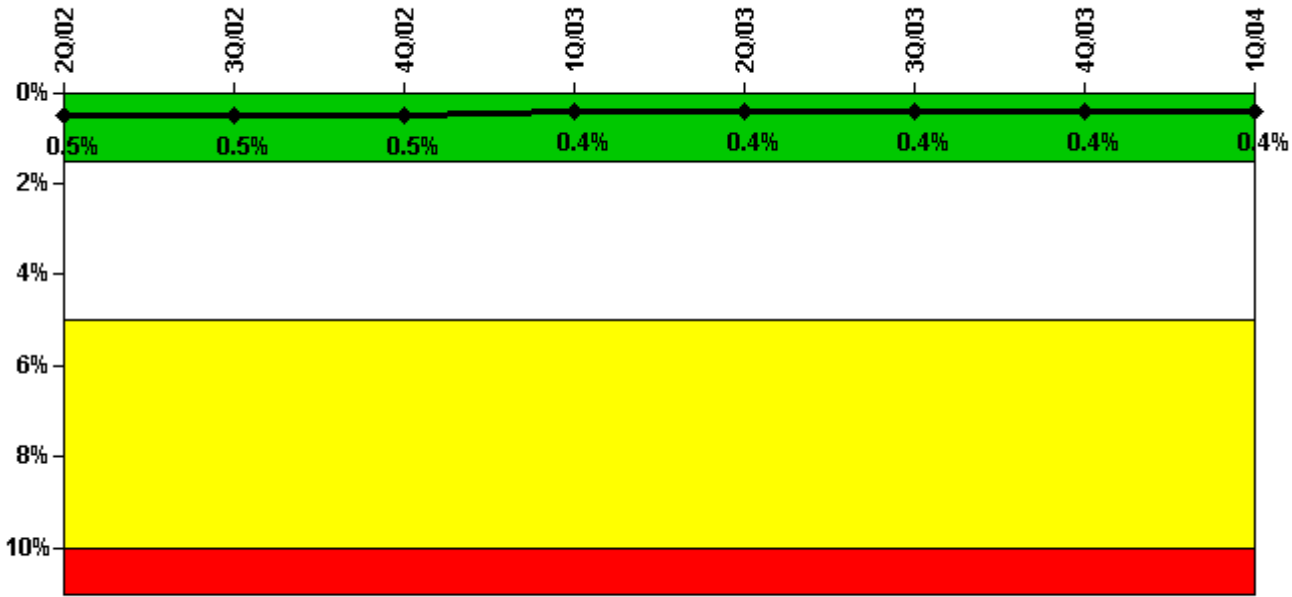
Thresholds: White > 2.0% Yellow > 6.0% Red > 12.0%

Notes

Safety System Unavailability, Heat Removal System (AFW)	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04
Train 1								
Planned unavailable hours	1.05	12.51	18.22	1.34	14.38	1.14	13.65	2.25
Unplanned unavailable hours	0	2.58	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	2184.00	2136.00	1450.11	2057.75	2184.00	2170.92	2208.00	2094.30
Train 2								
Planned unavailable hours	8.08	0.60	10.15	0.55	33.20	2.23	7.70	15.38
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	2184.00	2136.00	1450.11	2057.75	2184.00	2170.92	2208.00	2094.30
Train 3								
Planned unavailable hours	0.62	1.15	0.62	0.87	0.35	0.52	0.58	0.62
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	2184.00	2136.00	1450.11	2057.75	2184.00	2170.92	2208.00	2094.30
Indicator value	0.4%	0.4%	0.4%	0.3%	0.4%	0.3%	0.3%	0.3%

Licensee Comments: none

Safety System Unavailability, Residual Heat Removal System



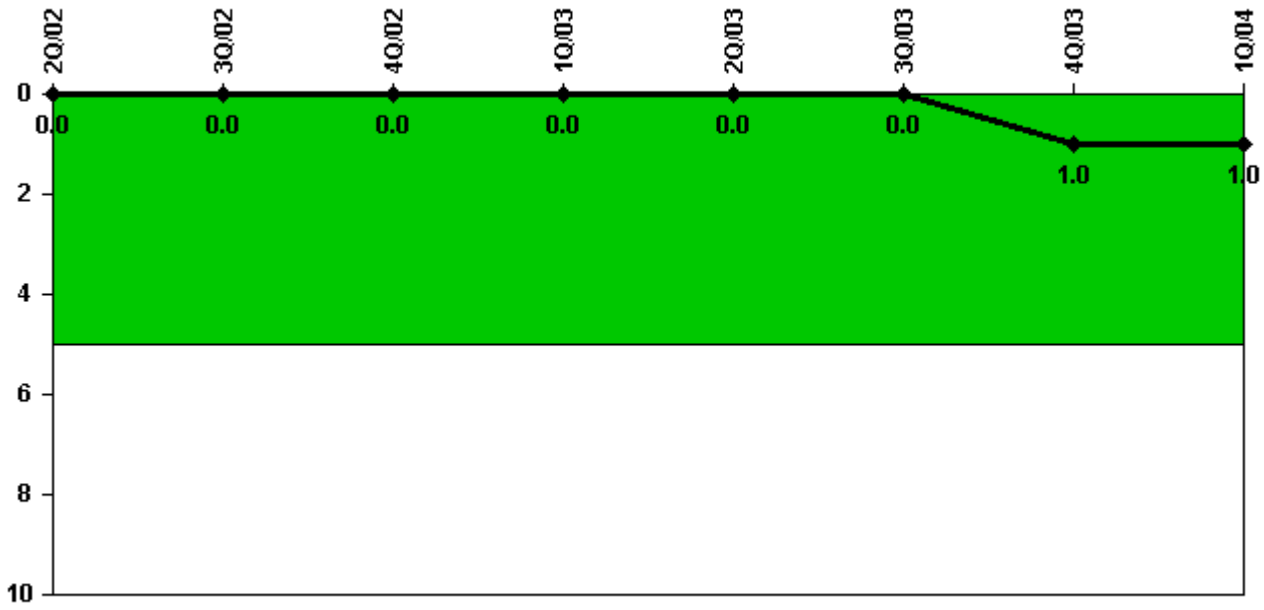
Thresholds: White > 1.5% Yellow > 5.0% Red > 10.0%

Notes

Safety System Unavailability, Residual Heat Removal System	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04
Train 1								
Planned unavailable hours	3.10	33.90	17.93	2.50	12.43	1.45	16.77	2.54
Unplanned unavailable hours	0	2.58	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	2184.00	2147.85	1551.82	2087.47	2184.00	2208.00	2208.00	2140.32
Train 2								
Planned unavailable hours	10.55	17.08	16.30	3.48	37.61	2.28	14.10	24.82
Unplanned unavailable hours	0	1.85	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	2184.00	2147.85	1551.82	2087.47	2184.00	2208.00	2208.00	2140.32
Train 3								
Planned unavailable hours	0	0.02	0	0	0	0	0	0
Unplanned unavailable hours	0	0.95	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	45.67	212.52	0	0	0	0	0
Train 4								
Planned unavailable hours	0	0	0.02	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	50.52	331.02	56.68	0	0	0	33.88
Indicator value	0.5%	0.5%	0.5%	0.4%	0.4%	0.4%	0.4%	0.4%

Licensee Comments: none

Safety System Functional Failures (PWR)



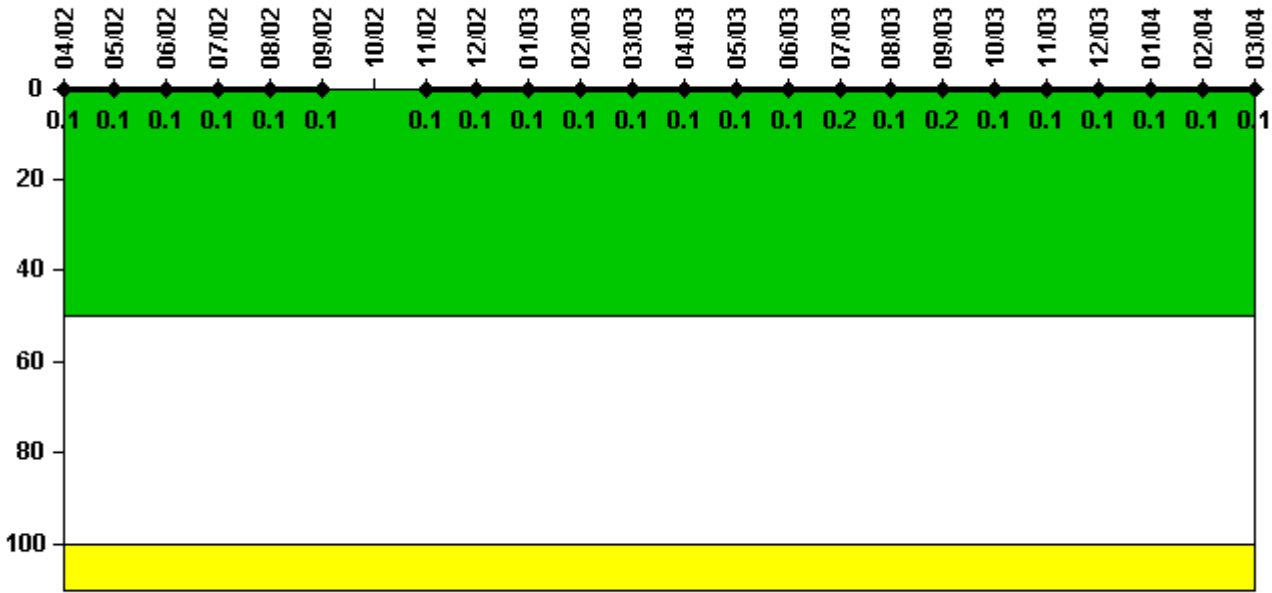
Thresholds: White > 5.0

Notes

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

Licensee Comments: none

Reactor Coolant System Activity



Thresholds: White > 50.0 Yellow > 100.0

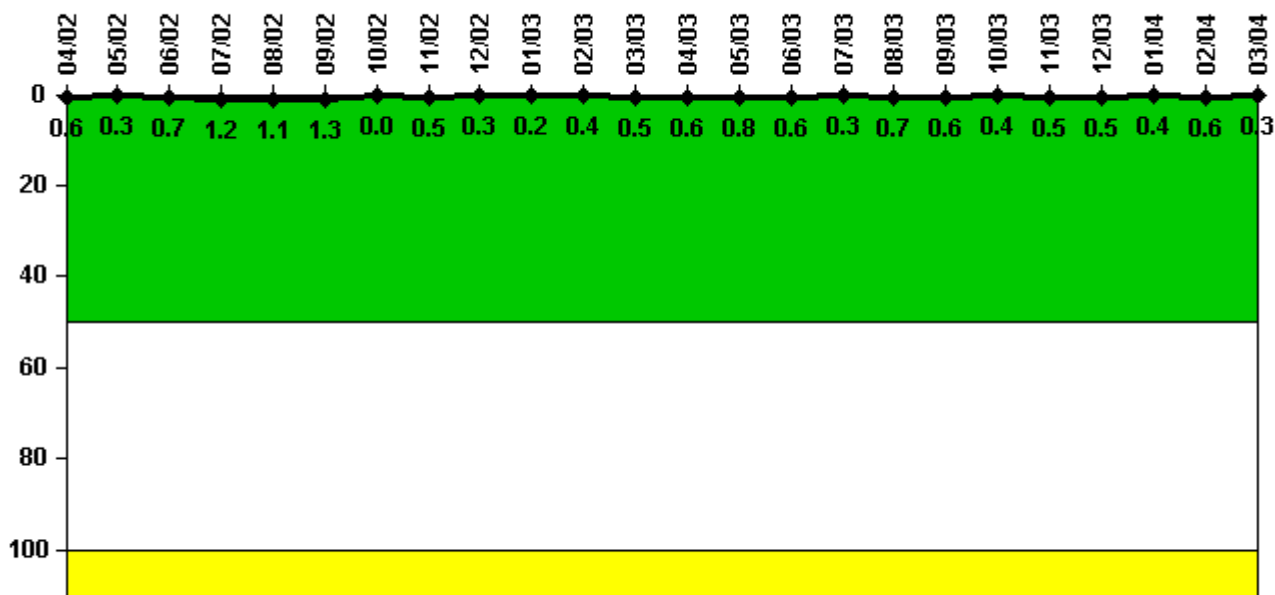
Notes

Reactor Coolant System Activity	4/02	5/02	6/02	7/02	8/02	9/02	10/02	11/02	12/02	1/03	2/03	3/03
Maximum activity	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	N/A	0.001000	0.001000	0.001000	0.001000	0.001000
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	N/A	1.0	1.0	1.0	1.0	1.0
Indicator value	0.1	0.1	0.1	0.1	0.1	0.1	N/A	0.1	0.1	0.1	0.1	0.1

Reactor Coolant System Activity	4/03	5/03	6/03	7/03	8/03	9/03	10/03	11/03	12/03	1/04	2/04	3/04
Maximum activity	0.001000	0.001000	0.001000	0.002000	0.001000	0.002000	0.000948	0.001030	0.000977	0.001080	0.001050	0.001100
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	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1

Licensee Comments: none

Reactor Coolant System Leakage



Thresholds: White > 50.0 Yellow > 100.0

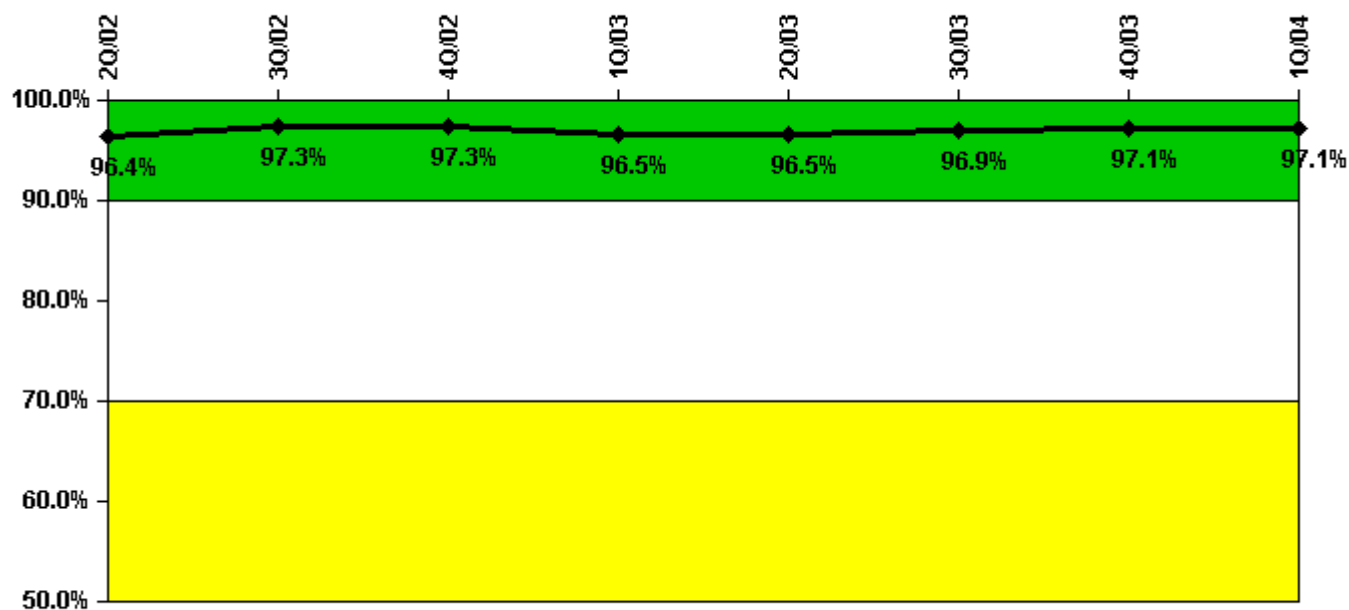
Notes

Reactor Coolant System Leakage	4/02	5/02	6/02	7/02	8/02	9/02	10/02	11/02	12/02	1/03	2/03	3/03
Maximum leakage	0.056	0.030	0.069	0.115	0.107	0.126	0	0.047	0.034	0.018	0.036	0.047
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	0.6	0.3	0.7	1.2	1.1	1.3	0	0.5	0.3	0.2	0.4	0.5

Reactor Coolant System Leakage	4/03	5/03	6/03	7/03	8/03	9/03	10/03	11/03	12/03	1/04	2/04	3/04
Maximum leakage	0.063	0.077	0.056	0.027	0.068	0.057	0.035	0.050	0.051	0.044	0.055	0.026
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	0.6	0.8	0.6	0.3	0.7	0.6	0.4	0.5	0.5	0.4	0.6	0.3

Licensee Comments: none

Drill/Exercise Performance



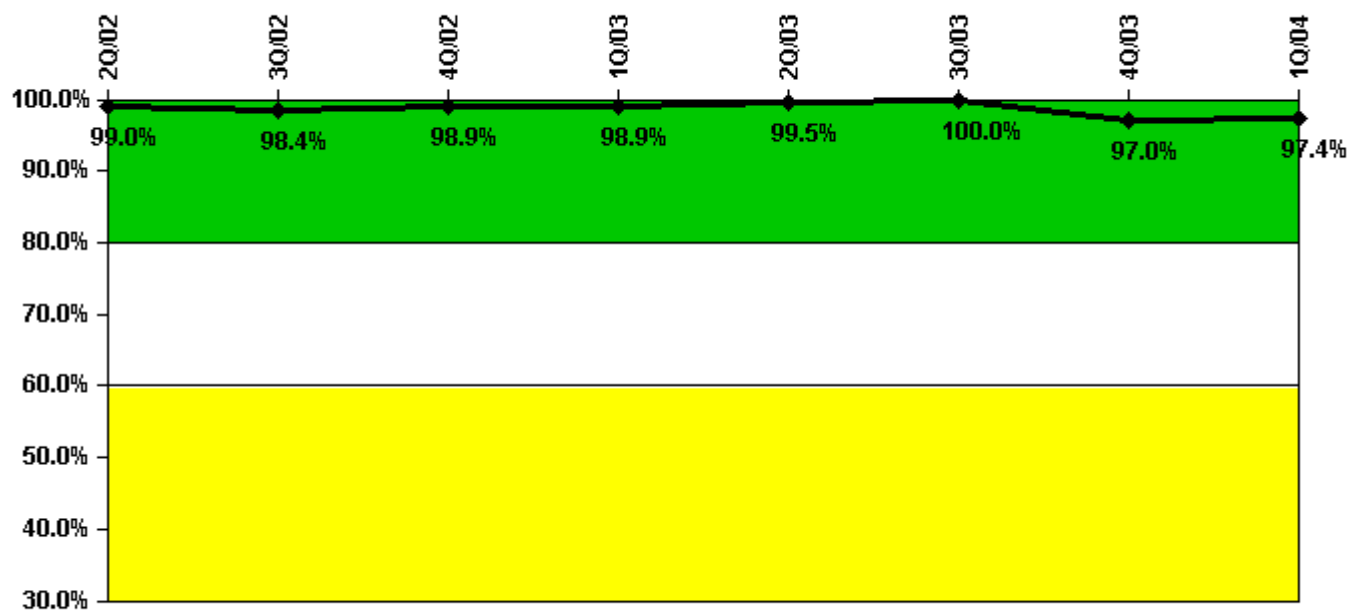
Thresholds: White < 90.0% Yellow < 70.0%

Notes

Drill/Exercise Performance	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04
Successful opportunities	8.0	108.0	137.0	14.0	8.0	280.0	38.0	19.0
Total opportunities	8.0	110.0	141.0	18.0	8.0	287.0	38.0	20.0
Indicator value	96.4%	97.3%	97.3%	96.5%	96.5%	96.9%	97.1%	97.1%

Licensee Comments: none

ERO Drill Participation



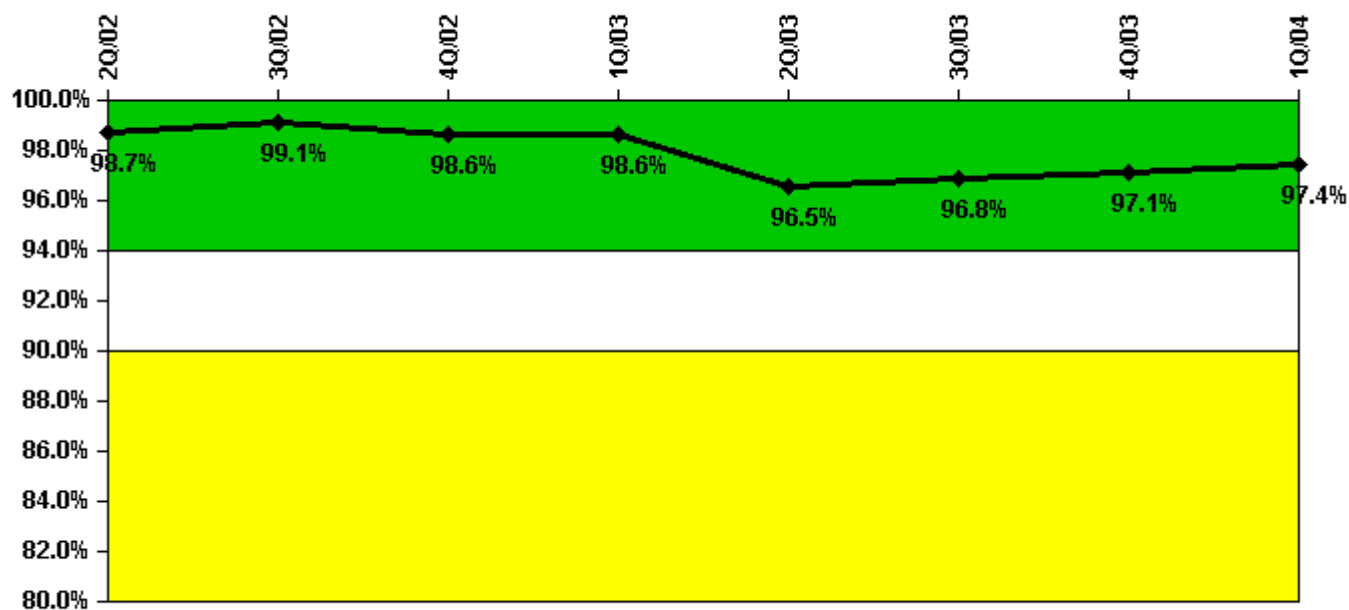
Thresholds: White < 80.0% Yellow < 60.0%

Notes

ERO Drill Participation	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04
Participating Key personnel	191.0	190.0	183.0	181.0	181.0	182.0	194.0	189.0
Total Key personnel	193.0	193.0	185.0	183.0	182.0	182.0	200.0	194.0
Indicator value	99.0%	98.4%	98.9%	98.9%	99.5%	100.0%	97.0%	97.4%

Licensee Comments: none

Alert & Notification System



Thresholds: White < 94.0% Yellow < 90.0%

Notes

Alert & Notification System	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04
Successful siren-tests	383	351	459	349	503	700	867	712
Total sirens-tests	387	360	468	349	546	714	882	714
Indicator value	98.7%	99.1%	98.6%	98.6%	96.5%	96.8%	97.1%	97.4%

Licensee Comments: none

Occupational Exposure Control Effectiveness



Thresholds: White > 2.0 Yellow > 5.0

Notes

Occupational Exposure Control Effectiveness	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/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
Indicator value	0	0	0	0	0	0	0	0

Licensee Comments: none

RETS/ODCM Radiological Effluent



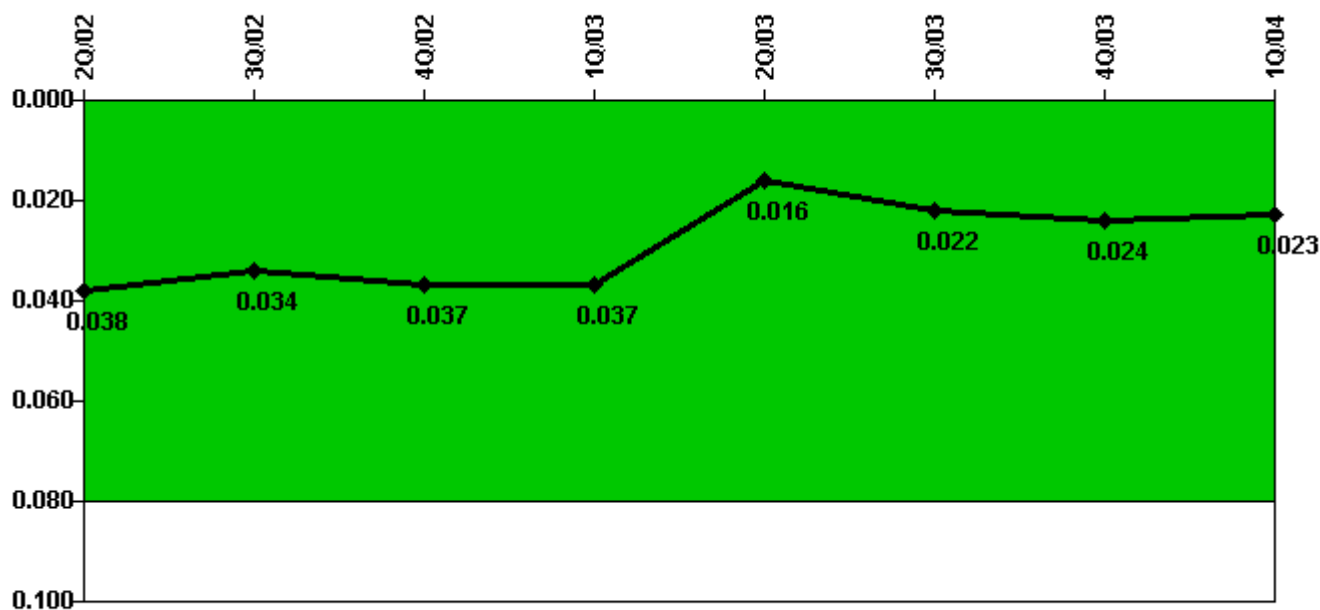
Thresholds: White > 1.0 Yellow > 3.0

Notes

RETS/ODCM Radiological Effluent	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/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

Protected Area Security Performance Index



Thresholds: White > 0.080

Notes

Protected Area Security Performance Index	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04
IDS compensatory hours	804.00	92.60	86.90	141.60	54.60	287.80	206.90	96.90
CCTV compensatory hours	0	34.1	58.4	10.4	19.2	53.8	52.2	13.5
IDS normalization factor	1.85	2.00	2.00	2.00	2.15	2.15	2.15	2.15
CCTV normalization factor	1.2	1.2	1.2	1.2	1.3	1.3	1.3	1.3
Index Value	0.038	0.034	0.037	0.037	0.016	0.022	0.024	0.023

Licensee Comments: none

Personnel Screening Program



Thresholds: White > 2.0 Yellow > 5.0

Notes

Personnel Screening Program	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04
Program failures	0	0	0	0	0	0	0	0
Indicator value	0	0	0	0	0	0	0	0

Licensee Comments: none

FFD/Personnel Reliability



Thresholds: White > 2.0 Yellow > 5.0

Notes

FFD/Personnel Reliability	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04
Program 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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Last Modified: April 22, 2004