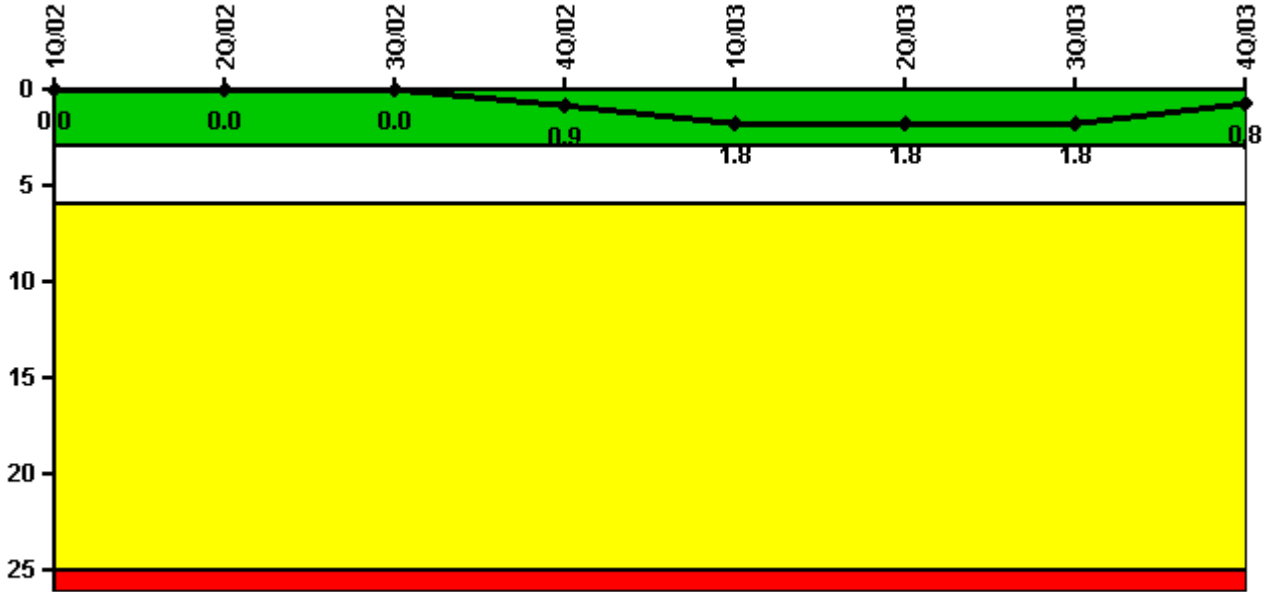


Palo Verde 1

4Q/2003 Performance Indicators

Licensee's General Comments: none

Unplanned Scrams per 7000 Critical Hrs



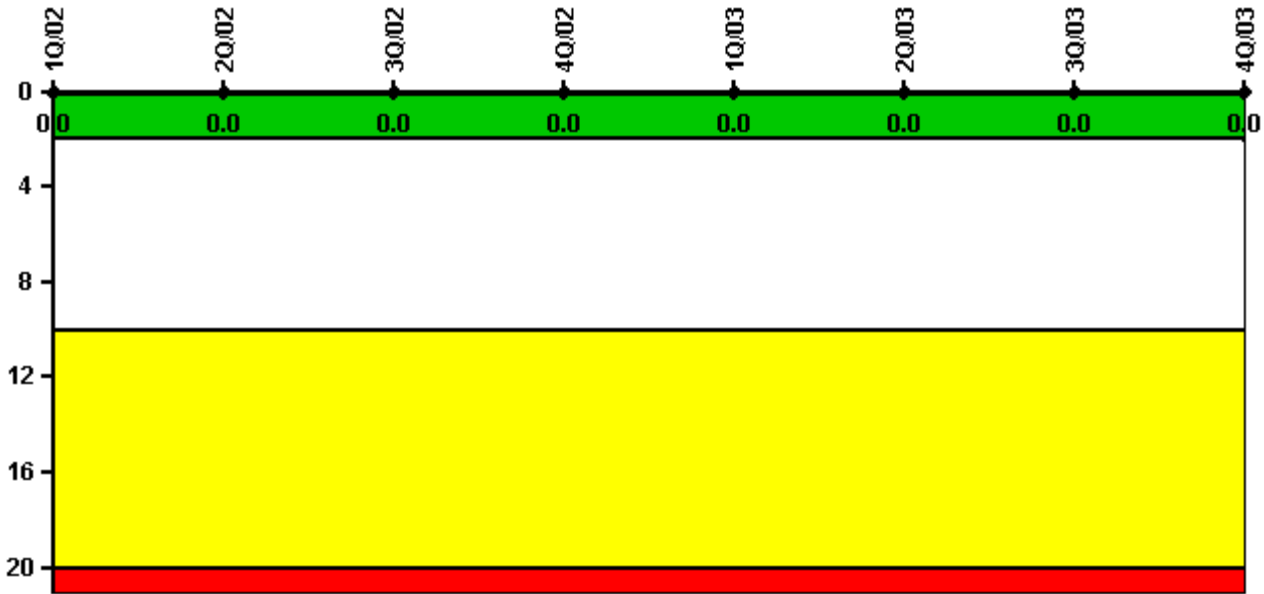
Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

Notes

Unplanned Scrams per 7000 Critical Hrs	1Q/02	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03
Unplanned scrams	0	0	0	1.0	1.0	0	0	0
Critical hours	2160.0	2184.0	2136.0	1450.1	2057.8	2184.0	2170.9	2208.0
Indicator value	0	0	0	0.9	1.8	1.8	1.8	0.8

Licensee Comments: none

Scrams with Loss of Normal Heat Removal



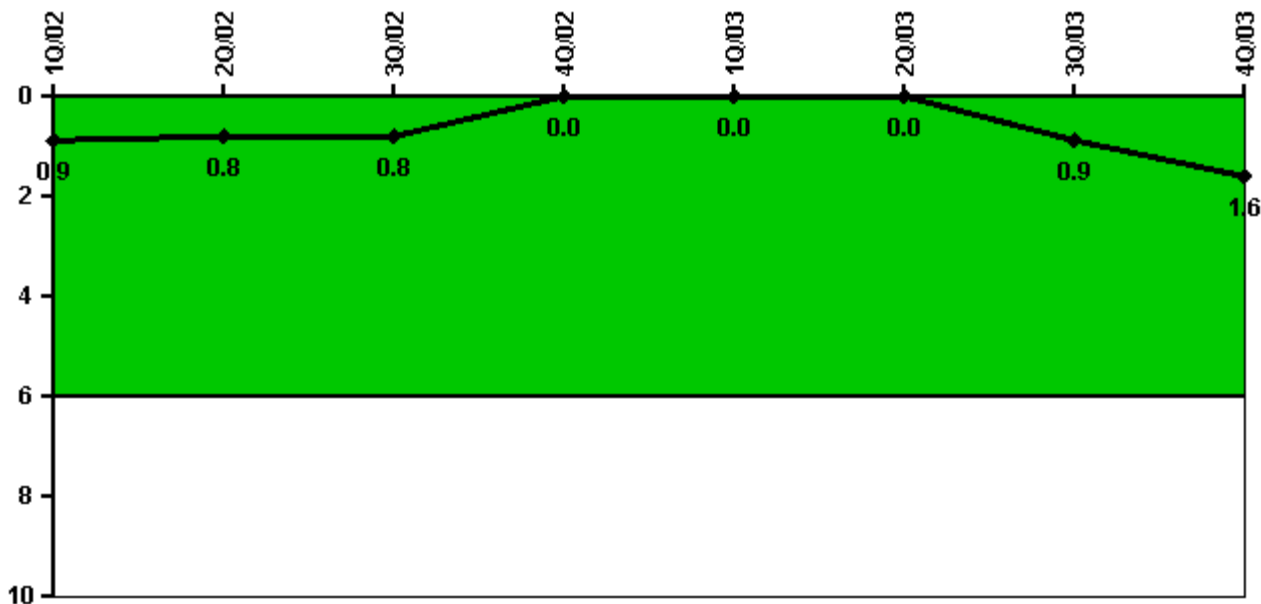
Thresholds: White > 2.0 Yellow > 10.0 Red > 20.0

Notes

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



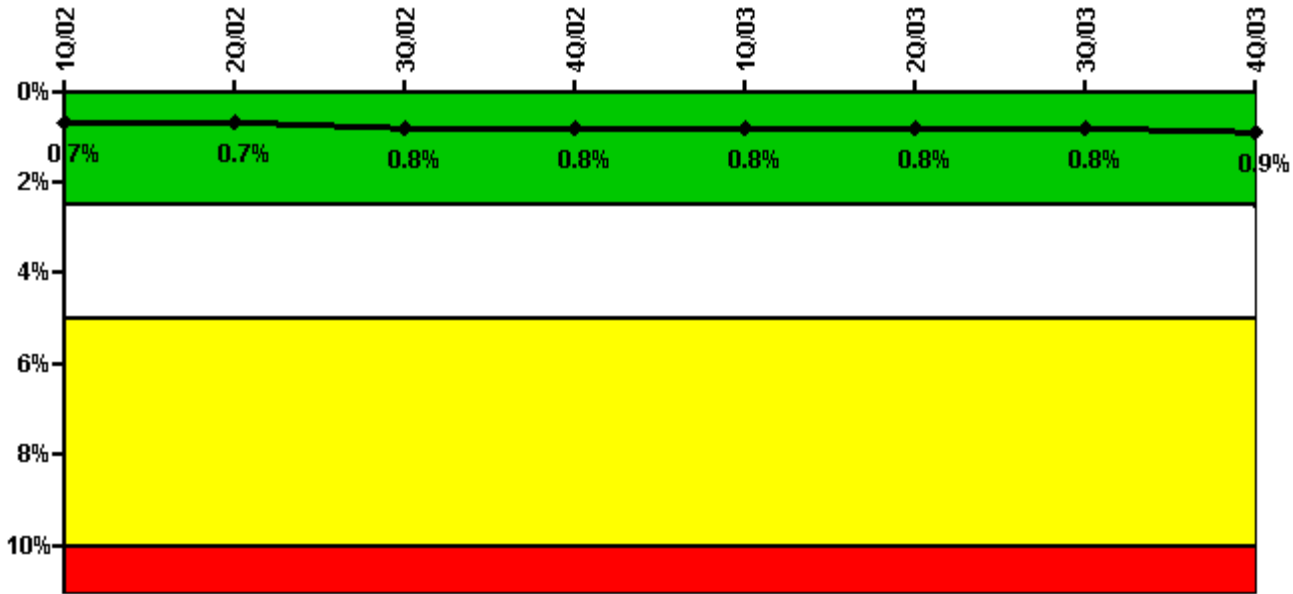
Thresholds: White > 6.0

Notes

Unplanned Power Changes per 7000 Critical Hrs	1Q/02	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03
Unplanned power changes	0	0	0	0	0	0	1.0	1.0
Critical hours	2160.0	2184.0	2136.0	1450.1	2057.8	2184.0	2170.9	2208.0
Indicator value	0.9	0.8	0.8	0	0	0	0.9	1.6

Licensee Comments: none

Safety System Unavailability, Emergency AC Power



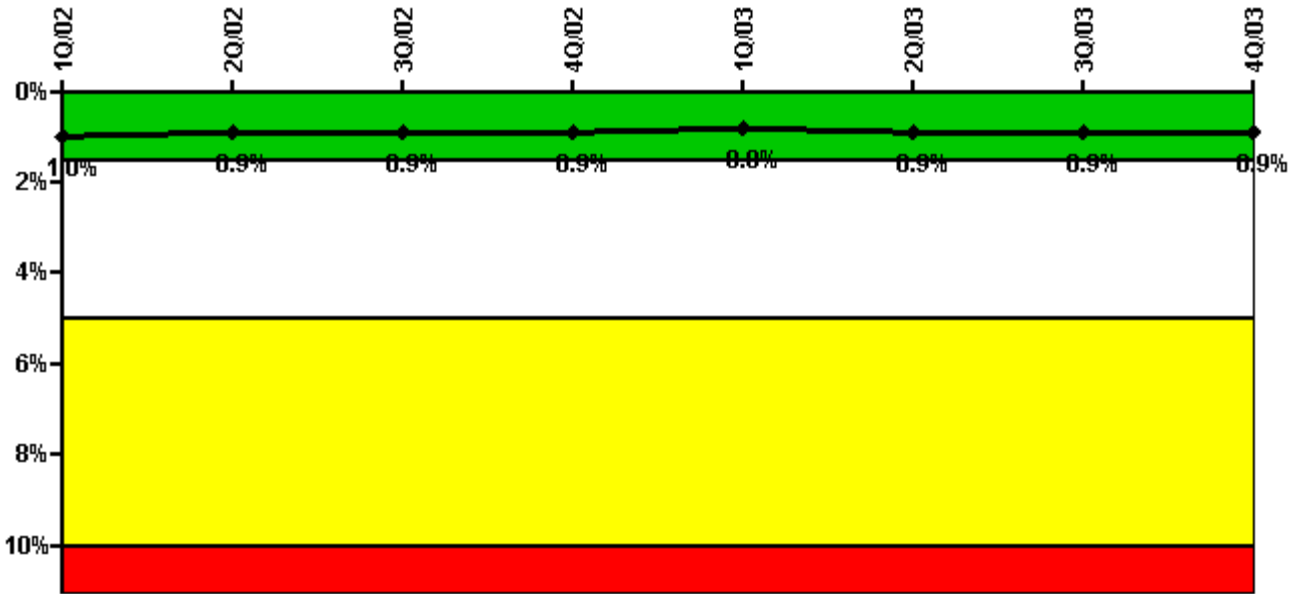
Thresholds: White > 2.5% Yellow > 5.0% Red > 10.0%

Notes

Safety System Unavailability, Emergency AC Power	1Q/02	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03
Train 1								
Planned unavailable hours	68.78	0.04	28.09	20.35	0.04	19.80	0.07	31.67
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	2160.00	2184.00	2208.00	2208.00	2160.00	2184.00	2208.00	2208.00
Train 2								
Planned unavailable hours	14.26	24.90	0.06	18.19	0.12	27.00	0.06	32.24
Unplanned unavailable hours	0	27.92	0	0	31.37	0	0	0
Fault exposure hours	0	15.82	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2160.00	2184.00	2208.00	2208.00	2160.00	2184.00	2208.00	2208.00
Indicator value	0.7%	0.7%	0.8%	0.8%	0.8%	0.8%	0.8%	0.9%

Licensee Comments: none

Safety System Unavailability, High Pressure Injection System (HPSI)



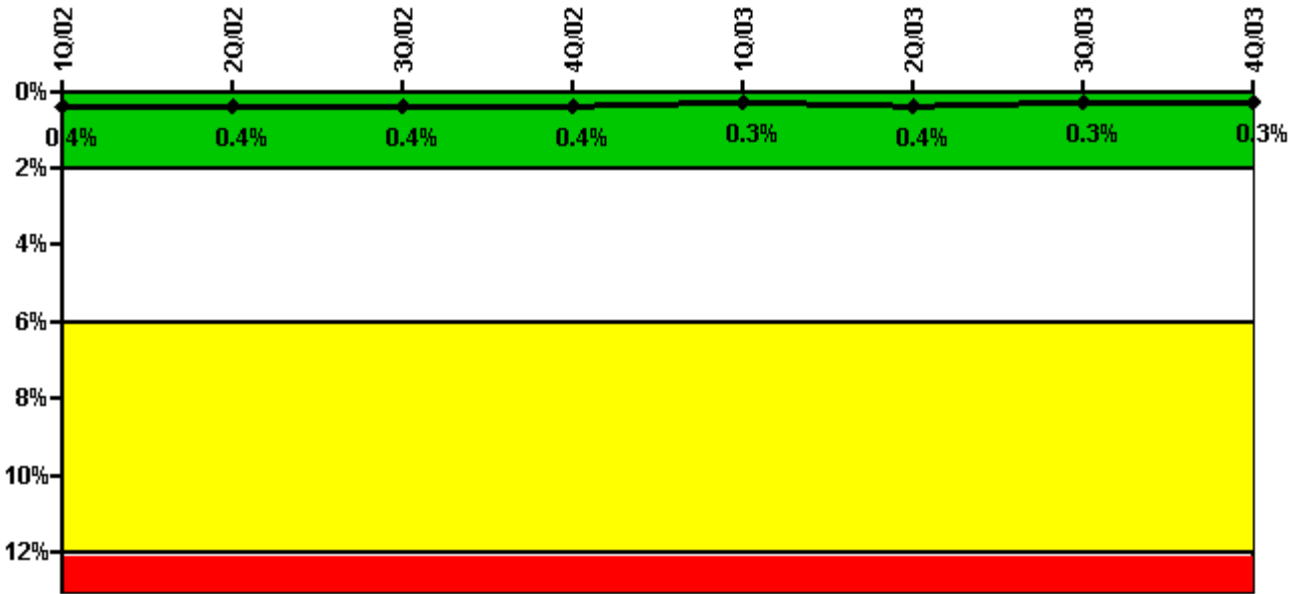
Thresholds: White > 1.5% Yellow > 5.0% Red > 10.0%

Notes

Safety System Unavailability, High Pressure Injection System (HPSI)	1Q/02	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03
Train 1								
Planned unavailable hours	16.45	12.78	28.53	12.75	6.55	14.95	4.97	15.23
Unplanned unavailable hours	0	0	2.58	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	2160.00	2184.00	2136.00	1450.11	2057.75	2184.00	2170.92	2208.00
Train 2								
Planned unavailable hours	21.63	15.77	8.98	23.22	7.27	34.15	0.78	15.54
Unplanned unavailable hours	0	0	1.85	0	13.13	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	2160.00	2184.00	2136.00	1450.11	2057.75	2184.00	2170.92	2208.00
Indicator value	1.0%	0.9%	0.9%	0.9%	0.8%	0.9%	0.9%	0.9%

Licensee Comments: none

Safety System Unavailability, Heat Removal System (AFW)



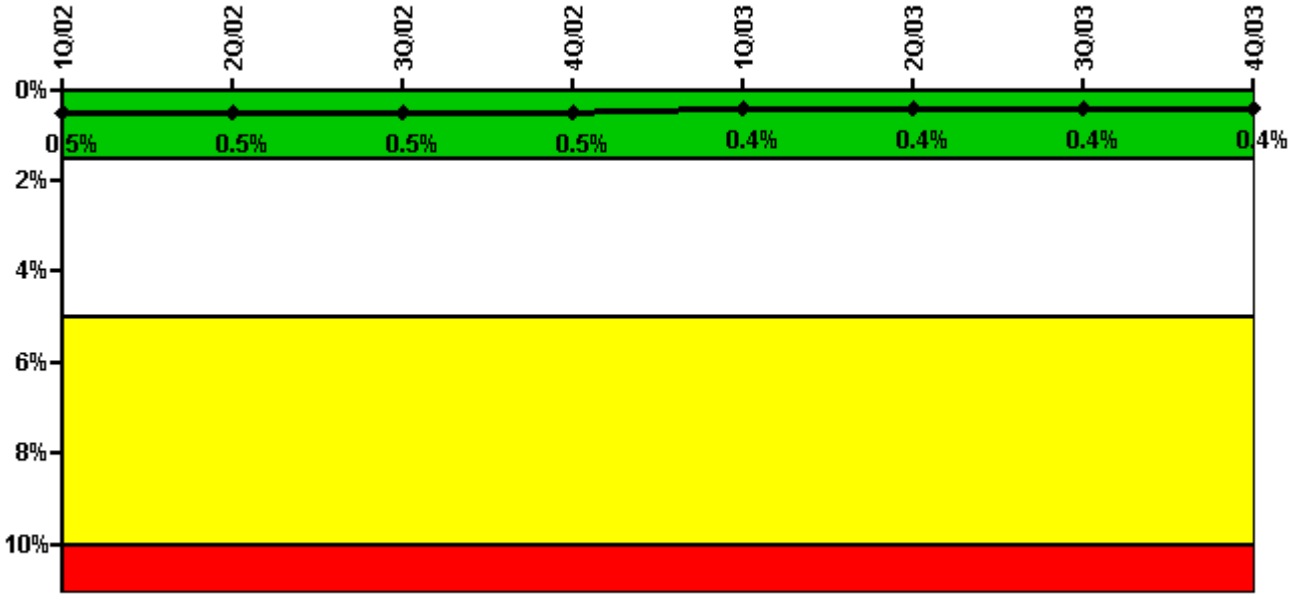
Thresholds: White > 2.0% Yellow > 6.0% Red > 12.0%

Notes

Safety System Unavailability, Heat Removal System (AFW)	1Q/02	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03
Train 1								
Planned unavailable hours	10.98	1.05	12.51	18.22	1.34	14.38	1.14	13.65
Unplanned unavailable hours	0	0	2.58	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	2160.00	2184.00	2136.00	1450.11	2057.75	2184.00	2170.92	2208.00
Train 2								
Planned unavailable hours	7.20	8.08	0.60	10.15	0.55	33.20	2.23	7.70
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	2160.00	2184.00	2136.00	1450.11	2057.75	2184.00	2170.92	2208.00
Train 3								
Planned unavailable hours	0.25	0.62	1.15	0.62	0.87	0.35	0.52	0.58
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	2160.00	2184.00	2136.00	1450.11	2057.75	2184.00	2170.92	2208.00
Indicator value	0.4%	0.4%	0.4%	0.4%	0.3%	0.4%	0.3%	0.3%

Licensee Comments: none

Safety System Unavailability, Residual Heat Removal System



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

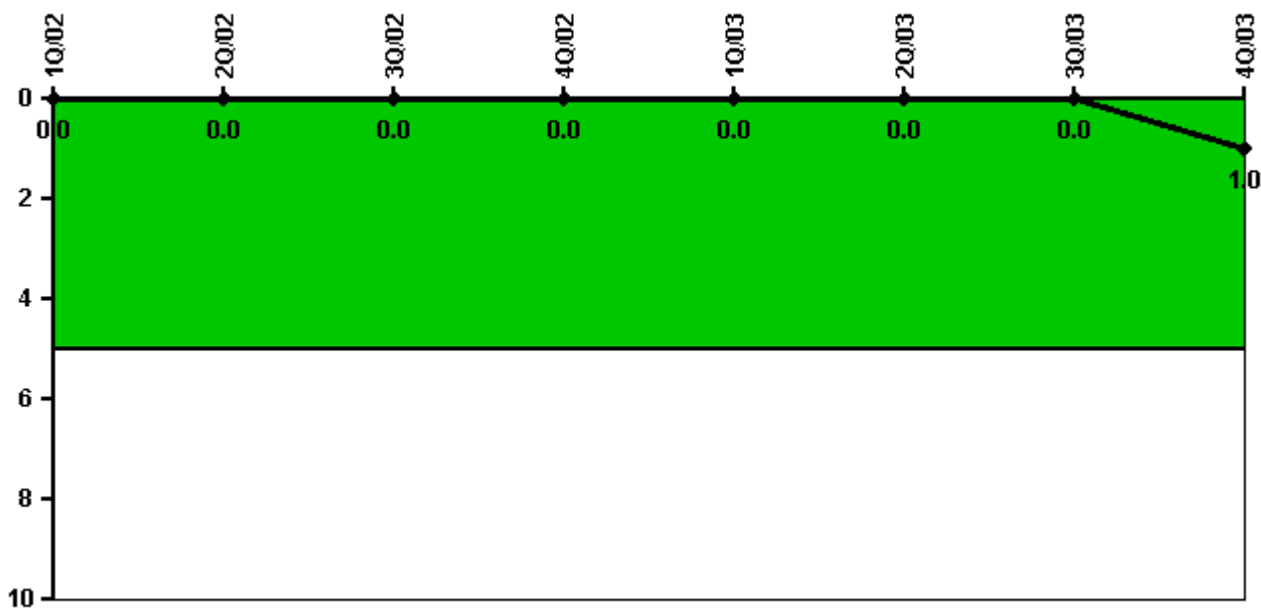
Notes

Safety System Unavailability, Residual Heat Removal System	10/02	20/02	30/02	40/02	10/03	20/03	30/03	40/03
Train 1								
Planned unavailable hours	18.17	3.10	33.90	17.93	2.50	12.43	1.45	16.77
Unplanned unavailable hours	0	0	2.58	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	2160.00	2184.00	2147.85	1551.82	2087.47	2184.00	2208.00	2208.00
Train 2								
Planned unavailable hours	13.00	10.55	17.08	16.30	3.48	37.61	2.28	14.10
Unplanned unavailable hours	25.42	0	1.85	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	2160.00	2184.00	2147.85	1551.82	2087.47	2184.00	2208.00	2208.00
Train 3								
Planned unavailable hours	0	0	0.02	0	0	0	0	0
Unplanned unavailable hours	0	0	0.95	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	0	45.67	212.52	0	0	0	0
Train 4								
Planned unavailable hours	0	0	0	0.02	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	0	50.52	331.02	56.68	0	0	0
Indicator value	0.5%	0.5%	0.5%	0.5%	0.4%	0.4%	0.4%	0.4%

Licensee Comments: none

Safety System Functional Failures (PWR)



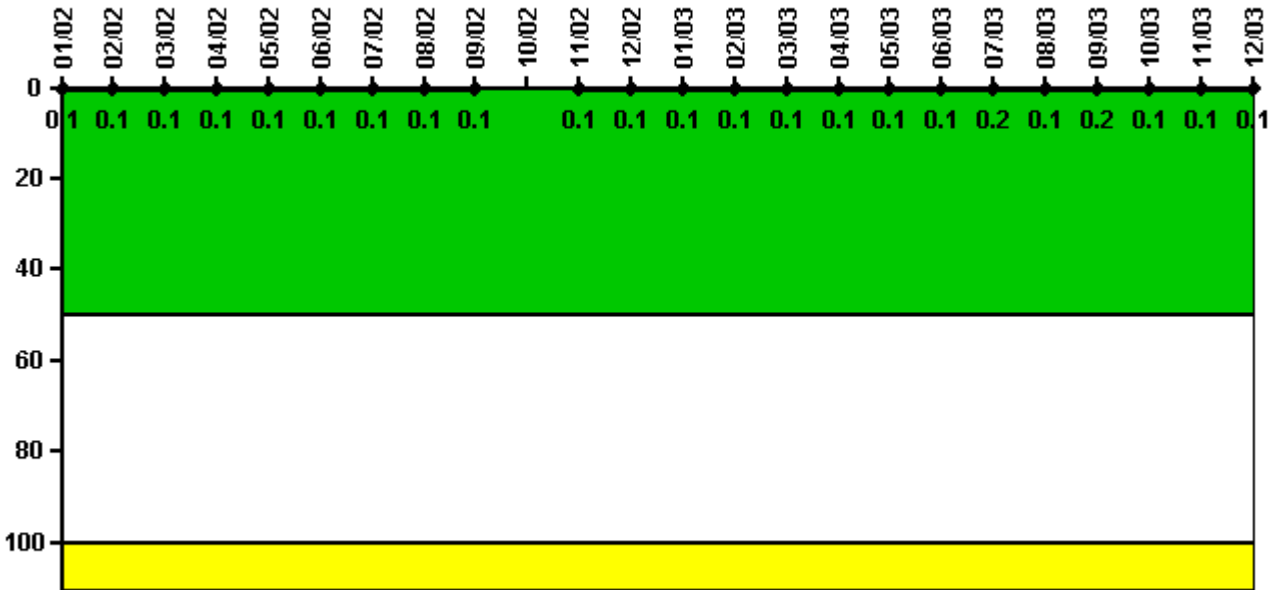
Thresholds: White > 5.0

Notes

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

Licensee Comments: none

Reactor Coolant System Activity



Thresholds: White > 50.0 Yellow > 100.0

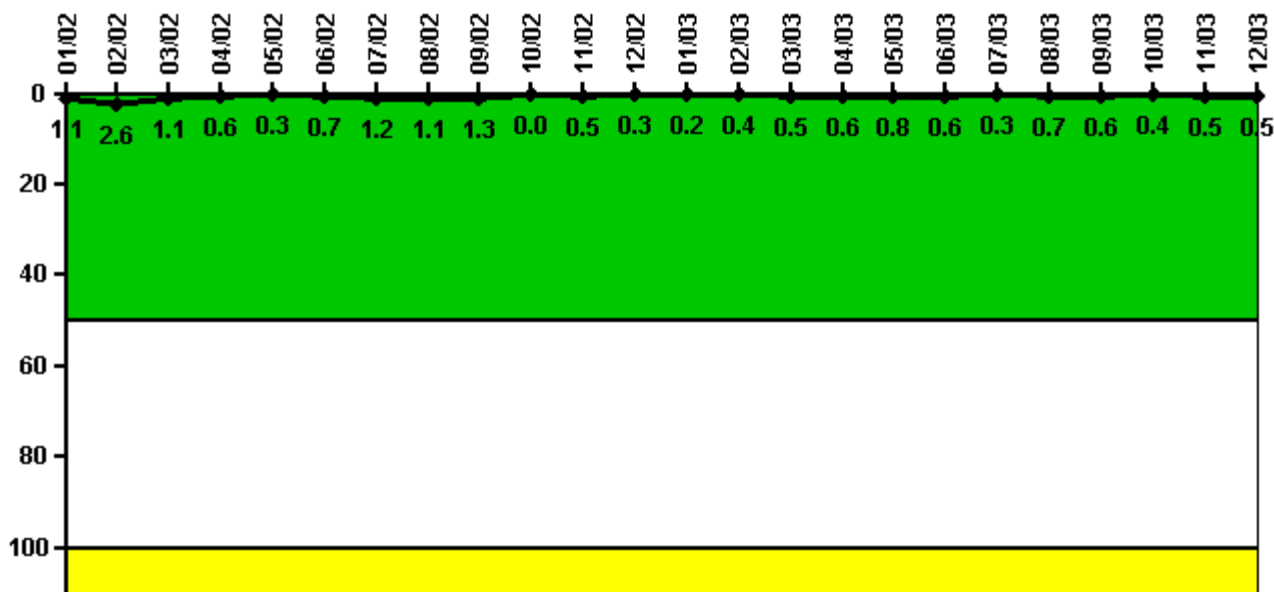
Notes

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

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

Licensee Comments: none

Reactor Coolant System Leakage



Thresholds: White > 50.0 Yellow > 100.0

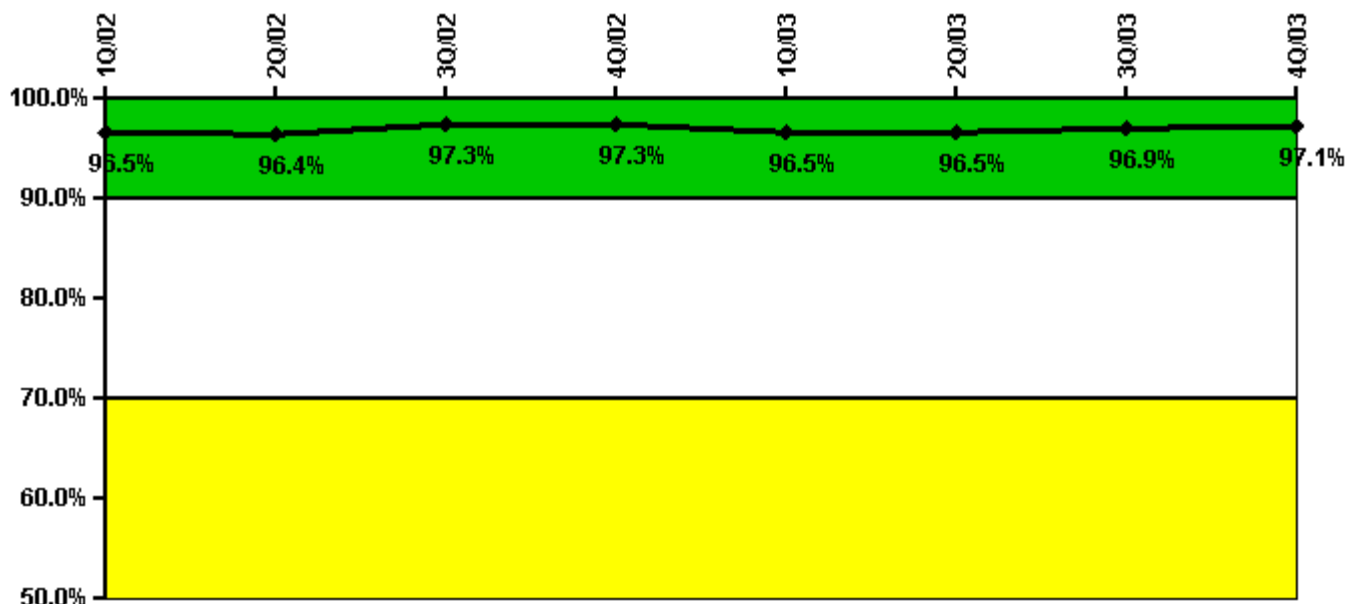
Notes

Reactor Coolant System Leakage	1/02	2/02	3/02	4/02	5/02	6/02	7/02	8/02	9/02	10/02	11/02	12/02
Maximum leakage	0.107	0.261	0.108	0.056	0.030	0.069	0.115	0.107	0.126	0	0.047	0.034
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	2.6	1.1	0.6	0.3	0.7	1.2	1.1	1.3	0	0.5	0.3

Reactor Coolant System Leakage	1/03	2/03	3/03	4/03	5/03	6/03	7/03	8/03	9/03	10/03	11/03	12/03
Maximum leakage	0.018	0.036	0.047	0.063	0.077	0.056	0.027	0.068	0.057	0.035	0.050	0.051
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	0.2	0.4	0.5	0.6	0.8	0.6	0.3	0.7	0.6	0.4	0.5	0.5

Licensee Comments: none

Drill/Exercise Performance



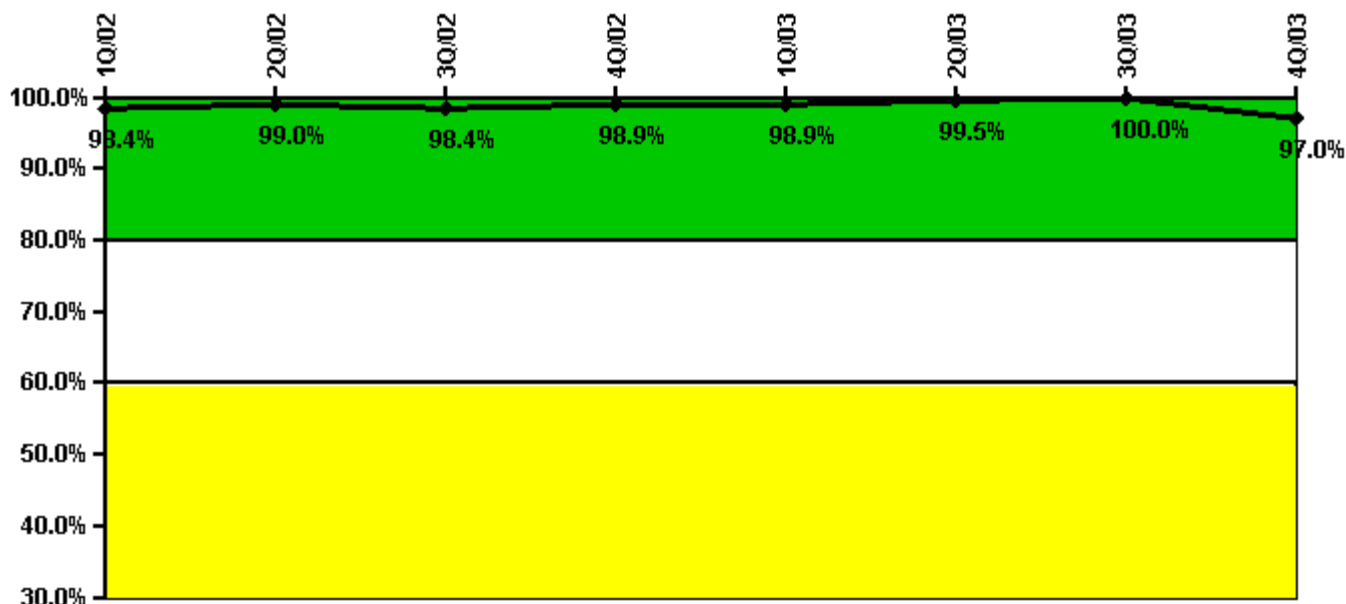
Thresholds: White < 90.0% Yellow < 70.0%

Notes

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

Licensee Comments: none

ERO Drill Participation



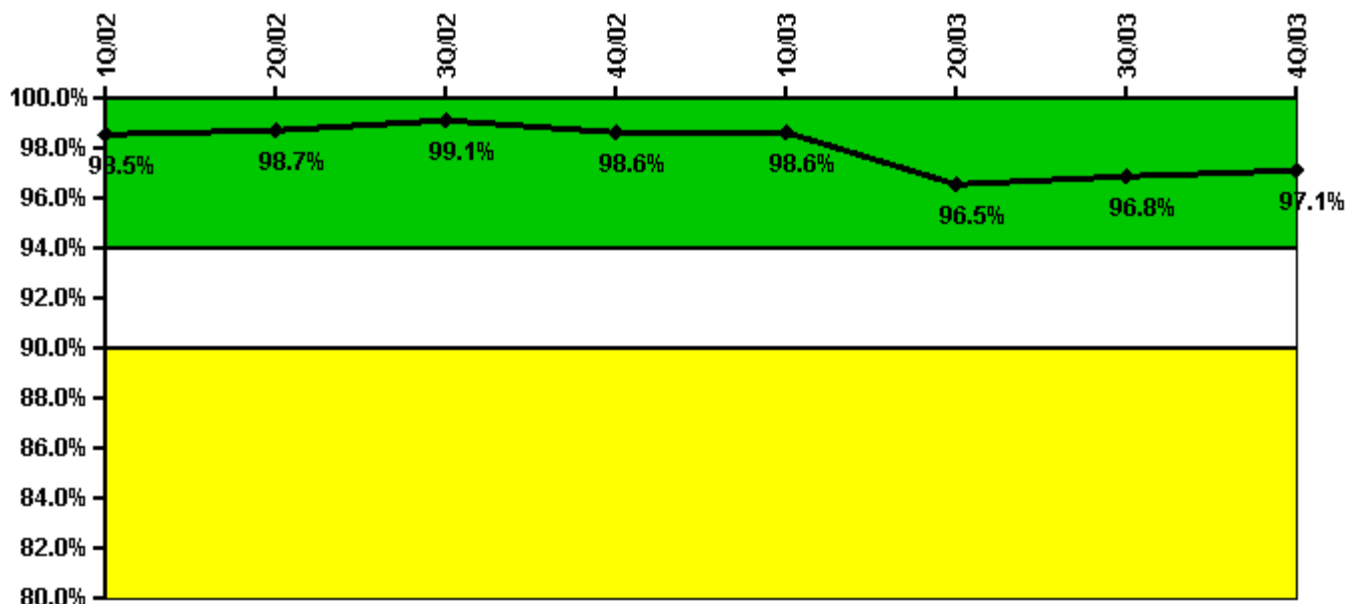
Thresholds: White < 80.0% Yellow < 60.0%

Notes

ERO Drill Participation	1Q/02	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03
Participating Key personnel	188.0	191.0	190.0	183.0	181.0	181.0	182.0	194.0
Total Key personnel	191.0	193.0	193.0	185.0	183.0	182.0	182.0	200.0
Indicator value	98.4%	99.0%	98.4%	98.9%	98.9%	99.5%	100.0%	97.0%

Licensee Comments: none

Alert & Notification System



Thresholds: White < 94.0% Yellow < 90.0%

Notes

Alert & Notification System	1Q/02	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03
Successful siren-tests	390	383	351	459	349	503	700	867
Total sirens-tests	390	387	360	468	349	546	714	882
Indicator value	98.5%	98.7%	99.1%	98.6%	98.6%	96.5%	96.8%	97.1%

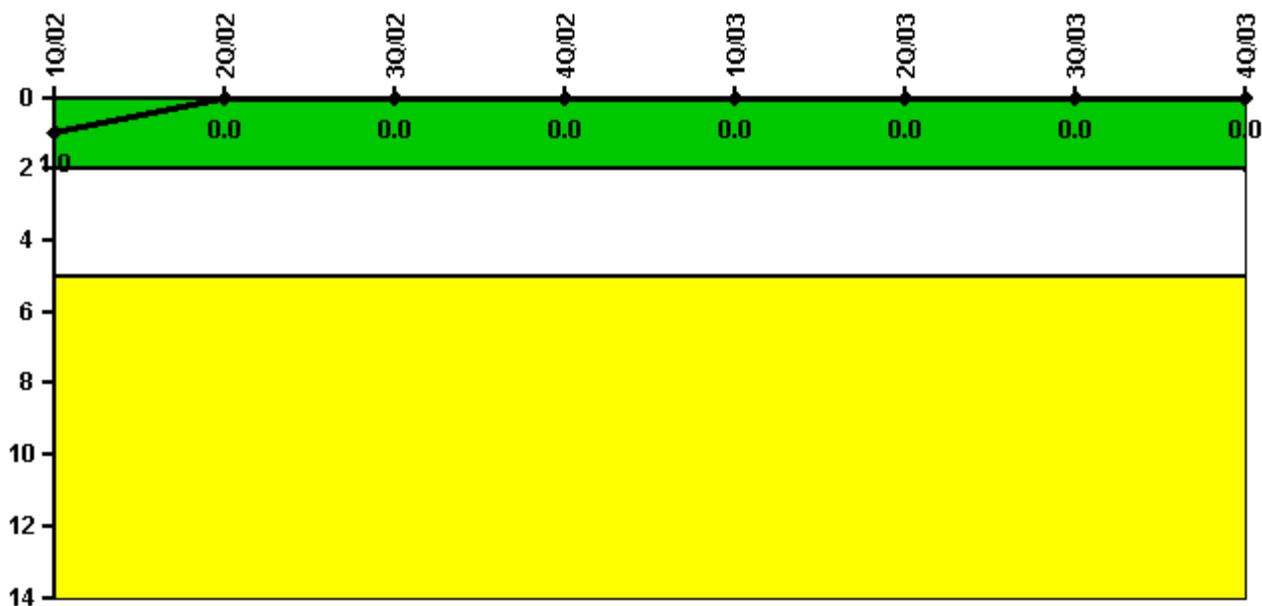
Licensee Comments:

3Q/03: The results of an entire system growl test were found to be unreported in 3Q03. The 3Q03 PI data was corrected. The PI color was unaffected by the correction.

2Q/03: The results of an entire system growl test were found to be unreported in 2Q03. The 2Q03 PI data was corrected. The PI color was unaffected by the correction.

1Q/03: The results of an entire system growl test were found to be unreported in 1Q03. The 1Q03 PI data was corrected. The PI color was unaffected by the correction.

Occupational Exposure Control Effectiveness



Thresholds: White > 2.0 Yellow > 5.0

Notes

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

Licensee Comments: none

RETS/ODCM Radiological Effluent



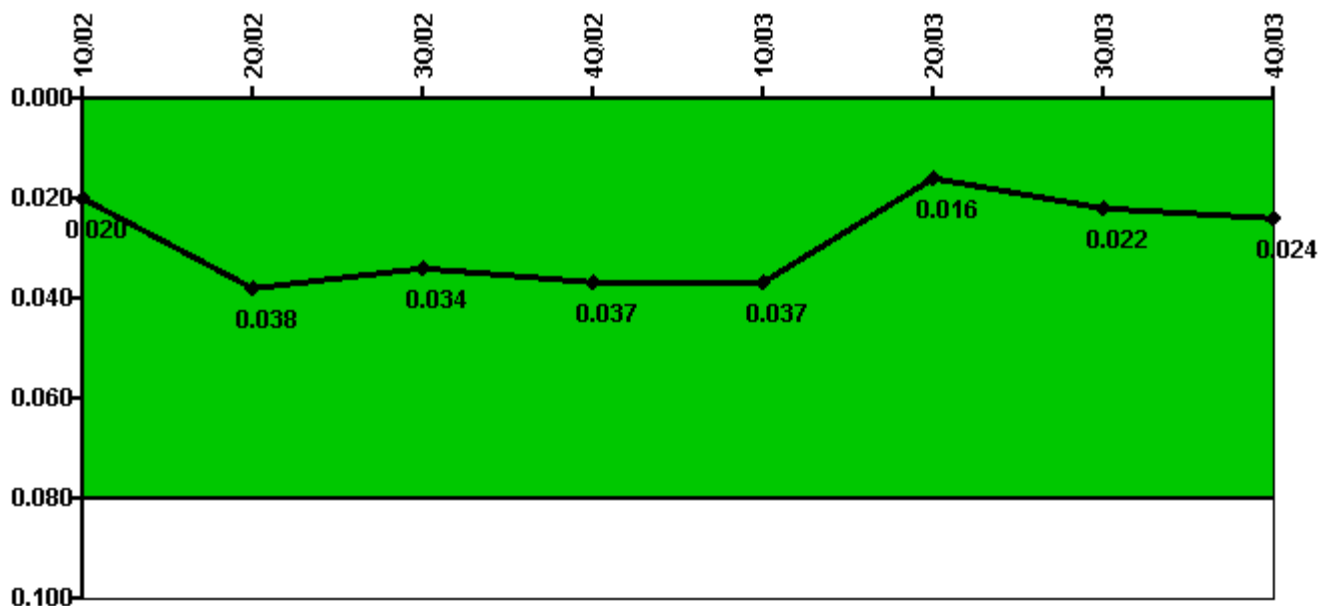
Thresholds: White > 1.0 Yellow > 3.0

Notes

RETS/ODCM Radiological Effluent	1Q/02	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03
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	1Q/02	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03
IDS compensatory hours	87.00	804.00	92.60	86.90	141.60	54.60	287.80	206.90
CCTV compensatory hours	39.4	0	34.1	58.4	10.4	19.2	53.8	52.2
IDS normalization factor	1.85	1.85	2.00	2.00	2.00	2.15	2.15	2.15
CCTV normalization factor	1.2	1.2	1.2	1.2	1.2	1.3	1.3	1.3
Index Value	0.020	0.038	0.034	0.037	0.037	0.016	0.022	0.024

Licensee Comments: none

Personnel Screening Program



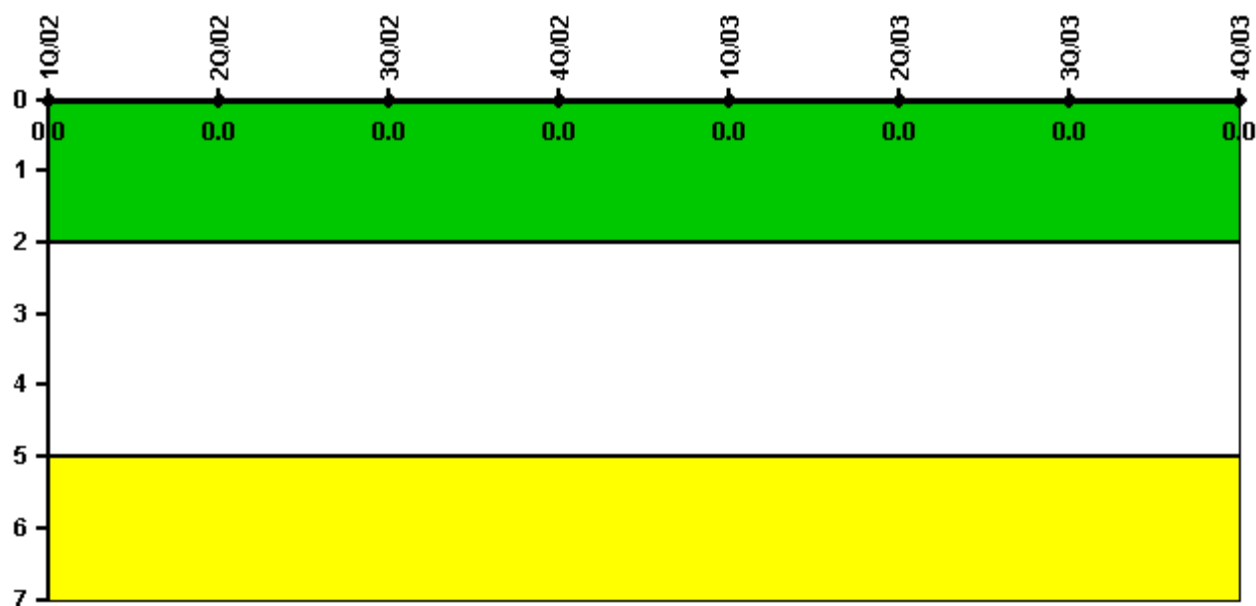
Thresholds: White > 2.0 Yellow > 5.0

Notes

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

Licensee Comments: none

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

Last Modified: January 23, 2004