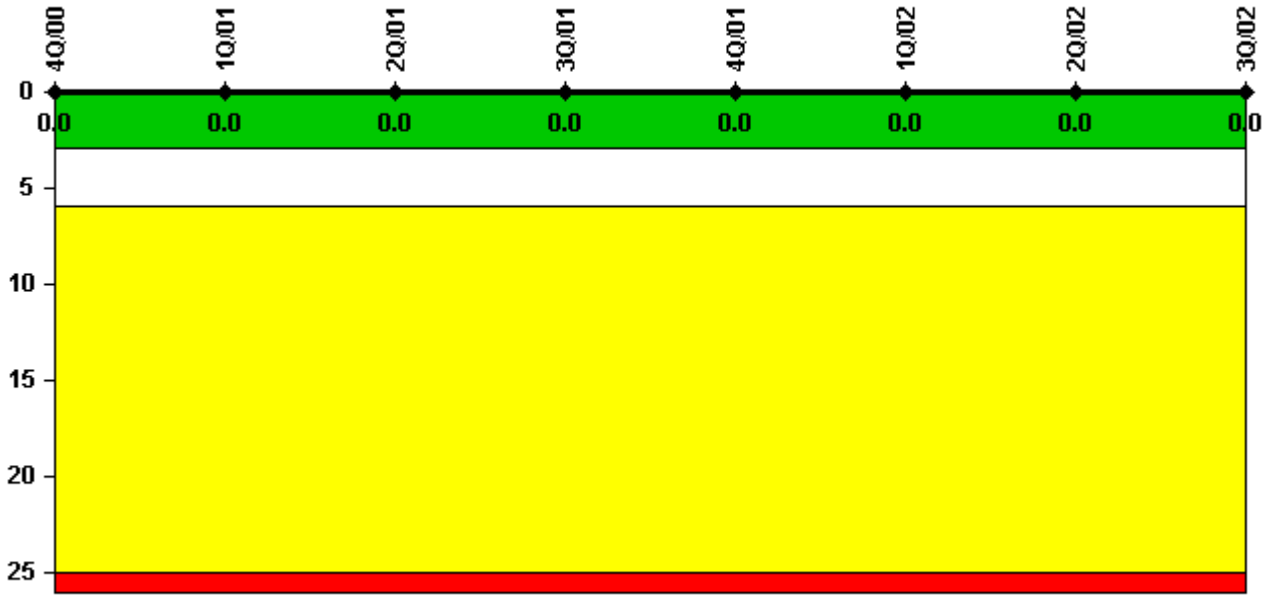


Palo Verde 1

3Q/2002 Performance Indicators

Licensee's General Comments: none

Unplanned Scrams per 7000 Critical Hrs



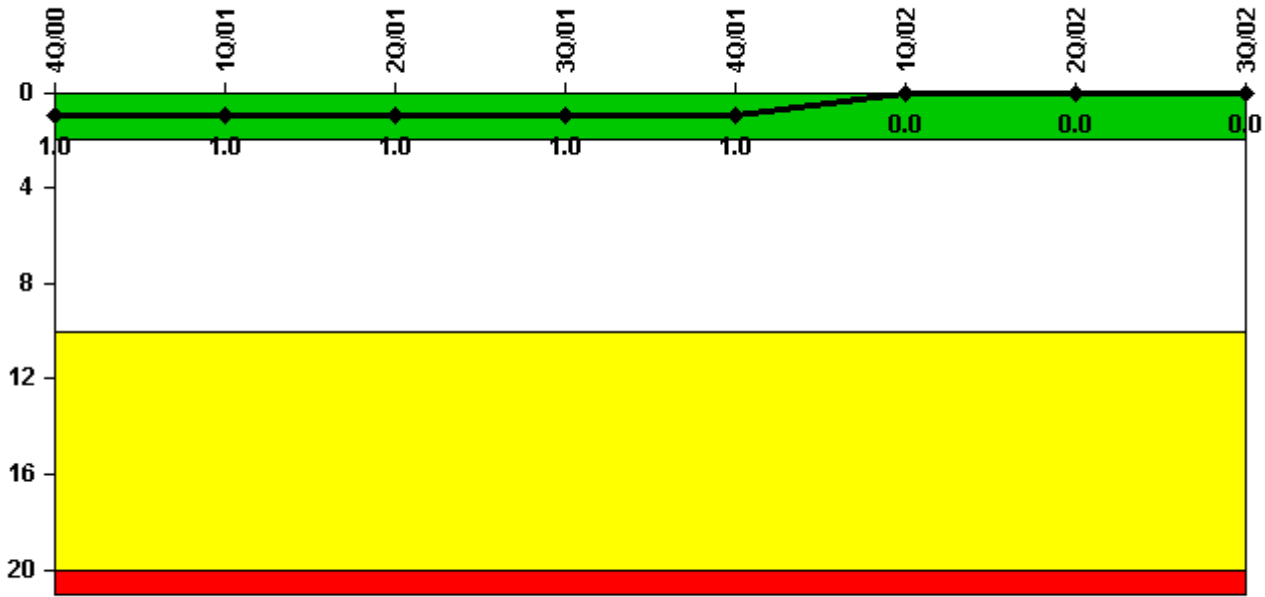
Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

Notes

Unplanned Scrams per 7000 Critical Hrs	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02
Unplanned scrams	0	0	0	0	0	0	0	0
Critical hours	2208.0	2136.0	1187.0	2208.0	2208.0	2160.0	2184.0	2136.0
Indicator value	0	0	0	0	0	0	0	0

Licensee Comments: none

Scrams with Loss of Normal Heat Removal



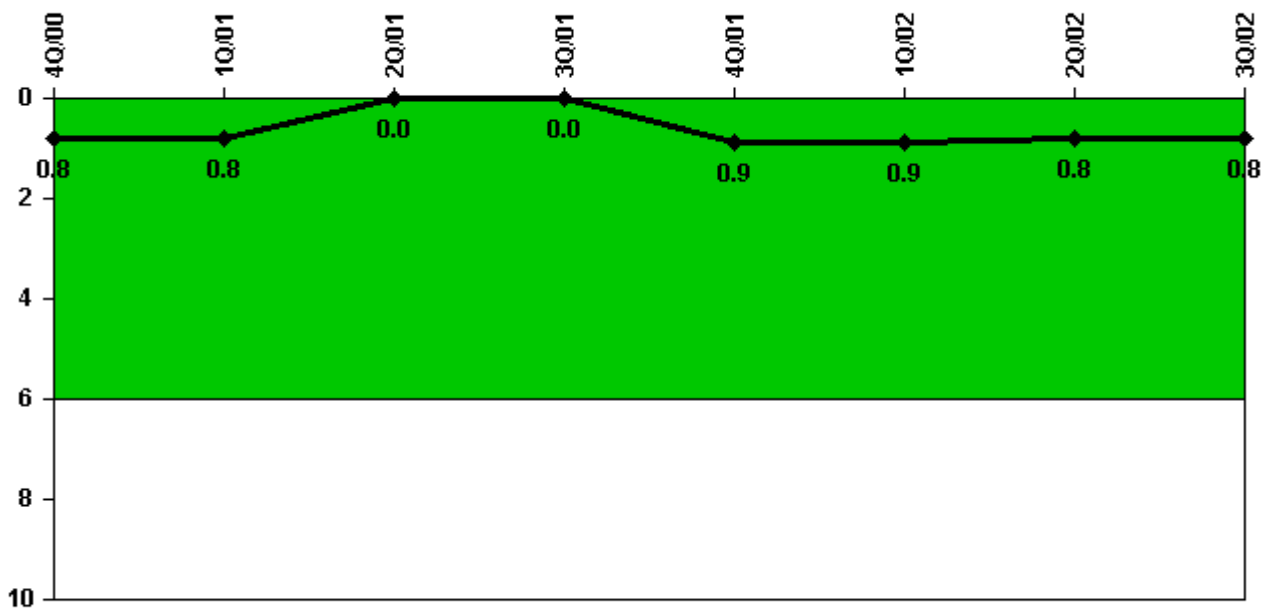
Thresholds: White > 2.0 Yellow > 10.0 Red > 20.0

Notes

Scrams with Loss of Normal Heat Removal	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02
Scrams	0	0	0	0	0	0	0	0
Indicator value	1.0	1.0	1.0	1.0	1.0	0	0	0

Licensee Comments: none

Unplanned Power Changes per 7000 Critical Hrs



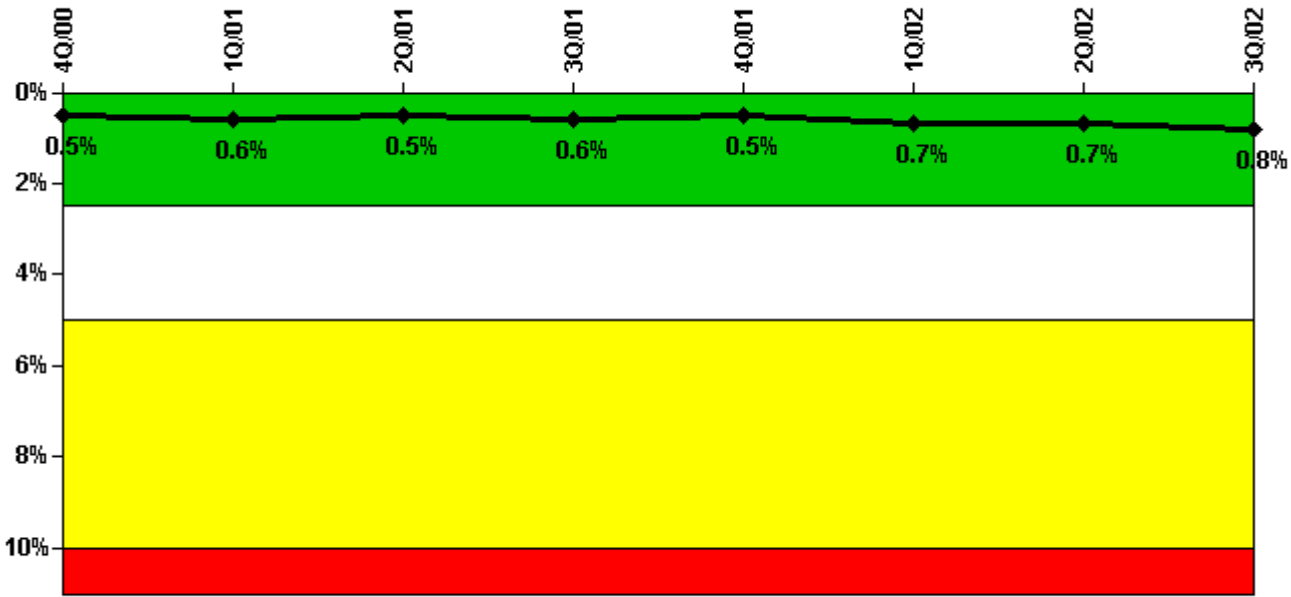
Thresholds: White > 6.0

Notes

Unplanned Power Changes per 7000 Critical Hrs	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02
Unplanned power changes	0	0	0	0	1.0	0	0	0
Critical hours	2208.0	2136.0	1187.0	2208.0	2208.0	2160.0	2184.0	2136.0
Indicator value	0.8	0.8	0	0	0.9	0.9	0.8	0.8

Licensee Comments: none

Safety System Unavailability, Emergency AC Power



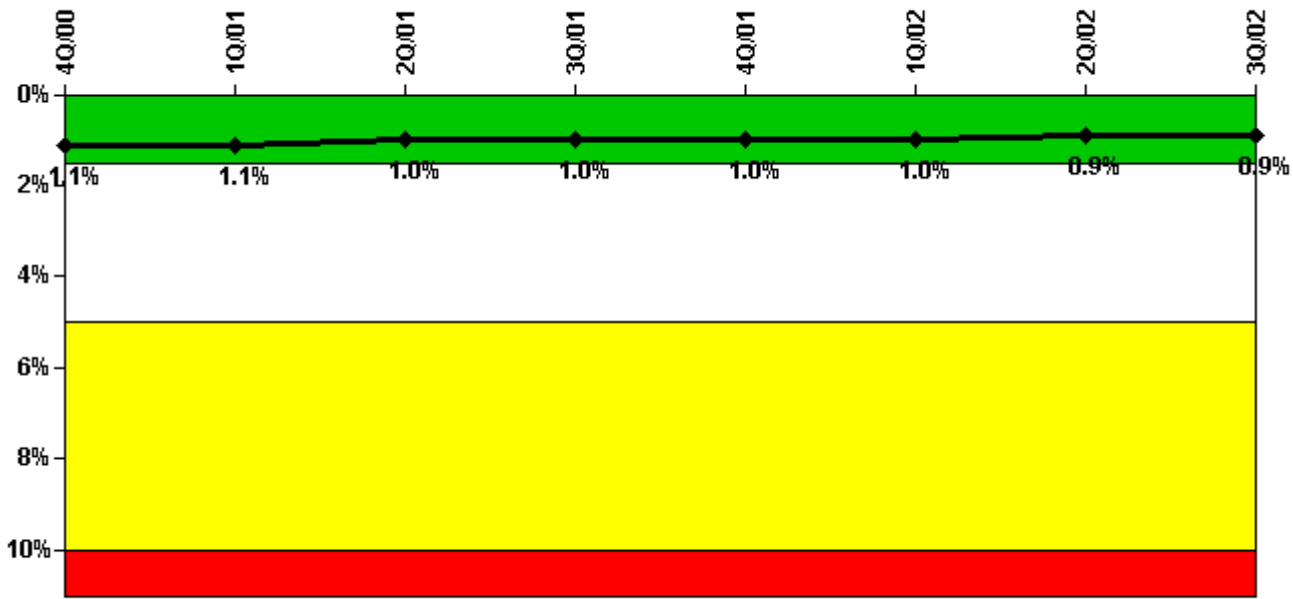
Thresholds: White > 2.5% Yellow > 5.0% Red > 10.0%

Notes

Safety System Unavailability, Emergency AC Power	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02
Train 1								
Planned unavailable hours	0	18.63	1.27	21.58	0.08	68.78	0.04	28.09
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	2160.00	2184.00	2208.00
Train 2								
Planned unavailable hours	6.30	15.20	0	47.65	0.02	14.26	24.90	0.06
Unplanned unavailable hours	0	0	0	0	0	0	27.92	0
Fault exposure hours	0	0	0	0	0	0	15.82	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2208.00	2160.00	2184.00	2208.00	2208.00	2160.00	2184.00	2208.00
Indicator value	0.5%	0.6%	0.5%	0.6%	0.5%	0.7%	0.7%	0.8%

Licensee Comments: none

Safety System Unavailability, High Pressure Injection System (HPSI)



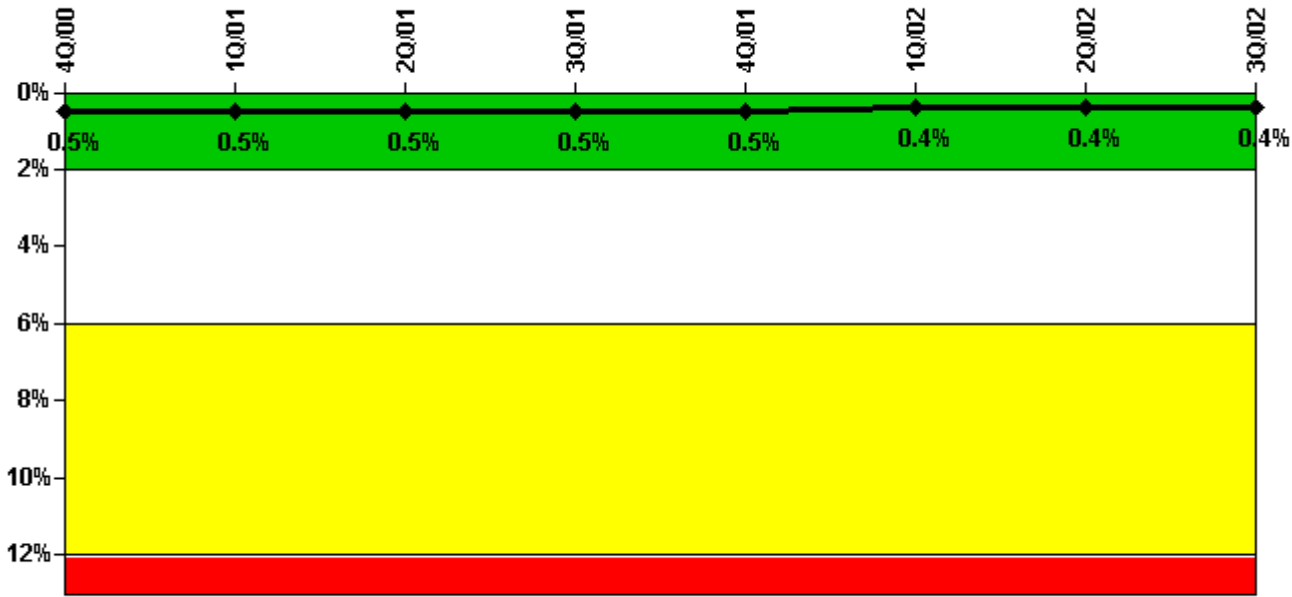
Thresholds: White > 1.5% Yellow > 5.0% Red > 10.0%

Notes

Safety System Unavailability, High Pressure Injection System (HPSI)	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02
Train 1								
Planned unavailable hours	7.54	23.28	1.97	15.11	2.57	16.45	12.78	28.53
Unplanned unavailable hours	0	0	0	0	13.38	0	0	2.58
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	2136.00	1186.95	2208.00	2208.00	2160.00	2184.00	2136.00
Train 2								
Planned unavailable hours	18.21	38.64	22.10	38.95	10.71	21.63	15.77	8.98
Unplanned unavailable hours	0	0	0	0	0	0	0	1.85
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	2136.00	1186.95	2208.00	2208.00	2160.00	2184.00	2136.00
Indicator value	1.1%	1.1%	1.0%	1.0%	1.0%	1.0%	0.9%	0.9%

Licensee Comments: none

Safety System Unavailability, Heat Removal System (AFW)



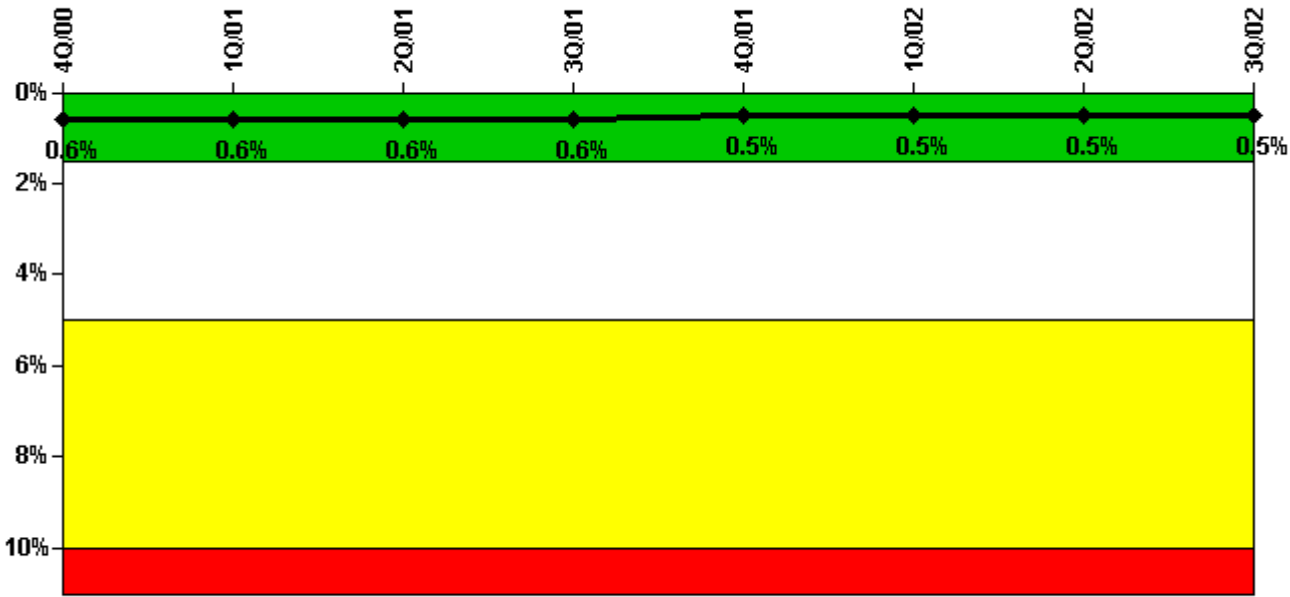
Thresholds: White > 2.0% Yellow > 6.0% Red > 12.0%

Notes

Safety System Unavailability, Heat Removal System (AFW)	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02
Train 1								
Planned unavailable hours	1.41	18.67	3.66	8.15	0.75	10.98	1.05	12.51
Unplanned unavailable hours	1.45	0	8.70	0	13.38	0	0	2.58
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	2136.00	1186.95	2208.00	2208.00	2160.00	2184.00	2136.00
Train 2								
Planned unavailable hours	6.30	11.05	0	35.65	1.40	7.20	8.08	0.60
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	2208.00	2136.00	1186.95	2208.00	2208.00	2160.00	2184.00	2136.00
Train 3								
Planned unavailable hours	0.25	0.45	0.88	0.37	0.23	0.25	0.62	1.15
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	2136.00	1186.95	2208.00	2208.00	2160.00	2184.00	2136.00
Indicator value	0.5%	0.5%	0.5%	0.5%	0.5%	0.4%	0.4%	0.4%

Licensee Comments: none

Safety System Unavailability, Residual Heat Removal System



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

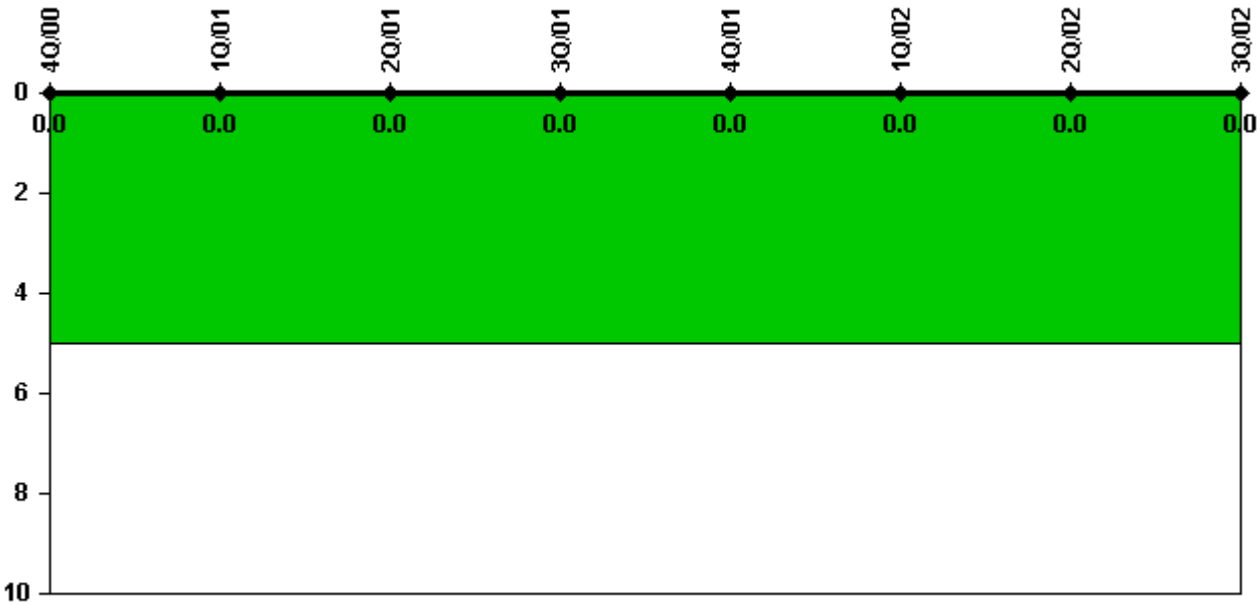
Notes

Safety System Unavailability, Residual Heat Removal System	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02
Train 1								
Planned unavailable hours	9.64	20.38	6.37	13.83	5.32	18.17	3.10	33.90
Unplanned unavailable hours	0	0	0	0	13.38	0	0	2.58
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	2157.05	1239.10	2208.00	2208.00	2160.00	2184.00	2147.85
Train 2								
Planned unavailable hours	13.91	19.01	9.58	35.83	2.87	13.00	10.55	17.08
Unplanned unavailable hours	0	0	0	0	0	25.42	0	1.85
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	2157.05	1239.10	2208.00	2208.00	2160.00	2184.00	2147.85
Train 3								
Planned unavailable hours	0	0	0.28	0	0	0	0	0.02
Unplanned unavailable hours	0	0	0	0	0	0	0	0.95
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	2.95	425.22	0	0	0	0	45.67
Train 4								
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	0	99.33	0	0	0	0	50.52
Indicator value	0.6%	0.6%	0.6%	0.6%	0.5%	0.5%	0.5%	0.5%

Licensee Comments:

3Q/02: A Shutdown Cooling isolation valve (1SIAUV0651) was found in a failed condition at the start of refueling outage U1R10. This failure caused the "C" train of RHR (i.e., one Shutdown Cooling train) to be unavailable and the time of failure cannot be determined. The rules for monitoring RHR in Combustion Engineering plants are established by a "plant specific" FAQ which is included in the current revision of NEI 99-02. This FAQ established four RHR trains for monitoring purposes. The required hours and unavailable hours for each train are based on Technical Specification requirements. Since PVNGS Technical Specifications do not address shutdown cooling operability while at power, there is no t/2 unavailability time associated with this failure. It did result in a small amount of unplanned unavailability.

Safety System Functional Failures (PWR)



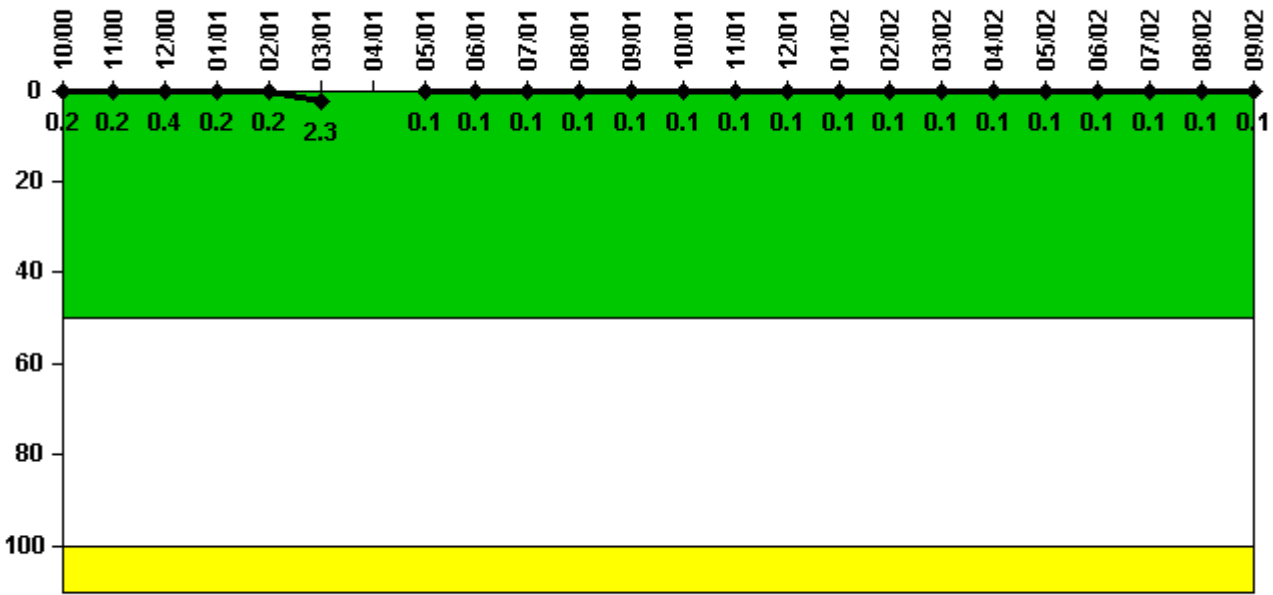
Thresholds: White > 5.0

Notes

Safety System Functional Failures (PWR)	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02
Safety System Functional Failures	0	0	0	0	0	0	0	0
Indicator value	0	0	0	0	0	0	0	0

Licensee Comments: none

Reactor Coolant System Activity



Thresholds: White > 50.0 Yellow > 100.0

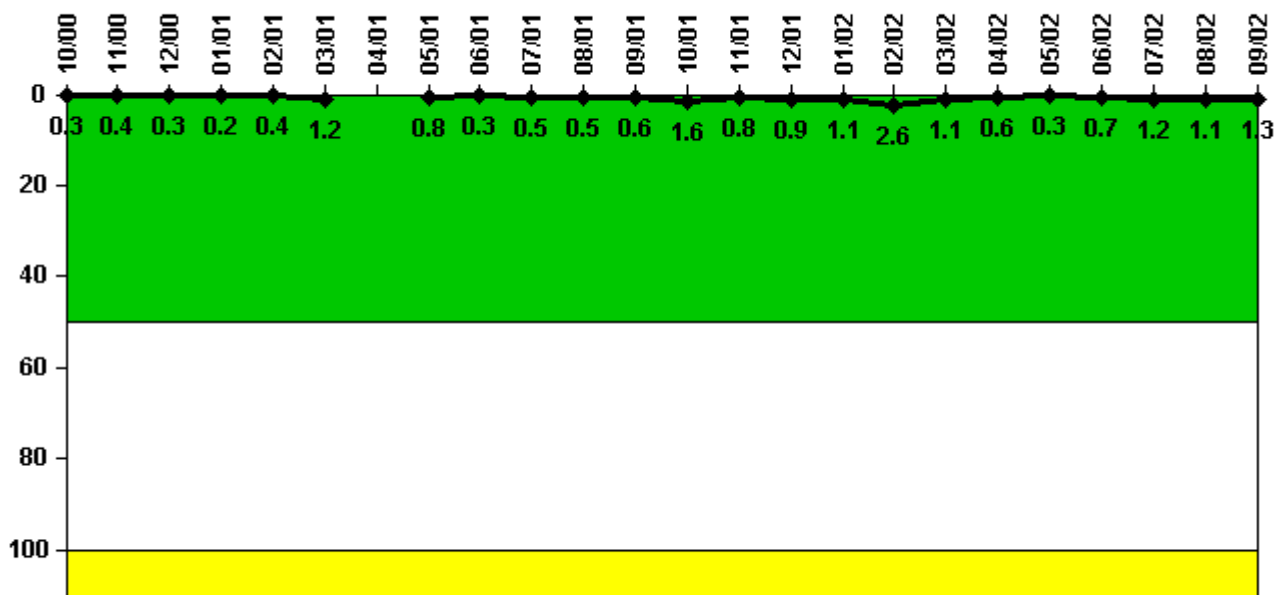
Notes

Reactor Coolant System Activity	10/00	11/00	12/00	1/01	2/01	3/01	4/01	5/01	6/01	7/01	8/01	9/01
Maximum activity	0.002000	0.002000	0.004000	0.002000	0.002000	0.023000	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	0.2	0.2	0.4	0.2	0.2	2.3	N/A	0.1	0.1	0.1	0.1	0.1

Reactor Coolant System Activity	10/01	11/01	12/01	1/02	2/02	3/02	4/02	5/02	6/02	7/02	8/02	9/02
Maximum activity	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	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	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	0.1	0.1

Licensee Comments: none

Reactor Coolant System Leakage



Thresholds: White > 50.0 Yellow > 100.0

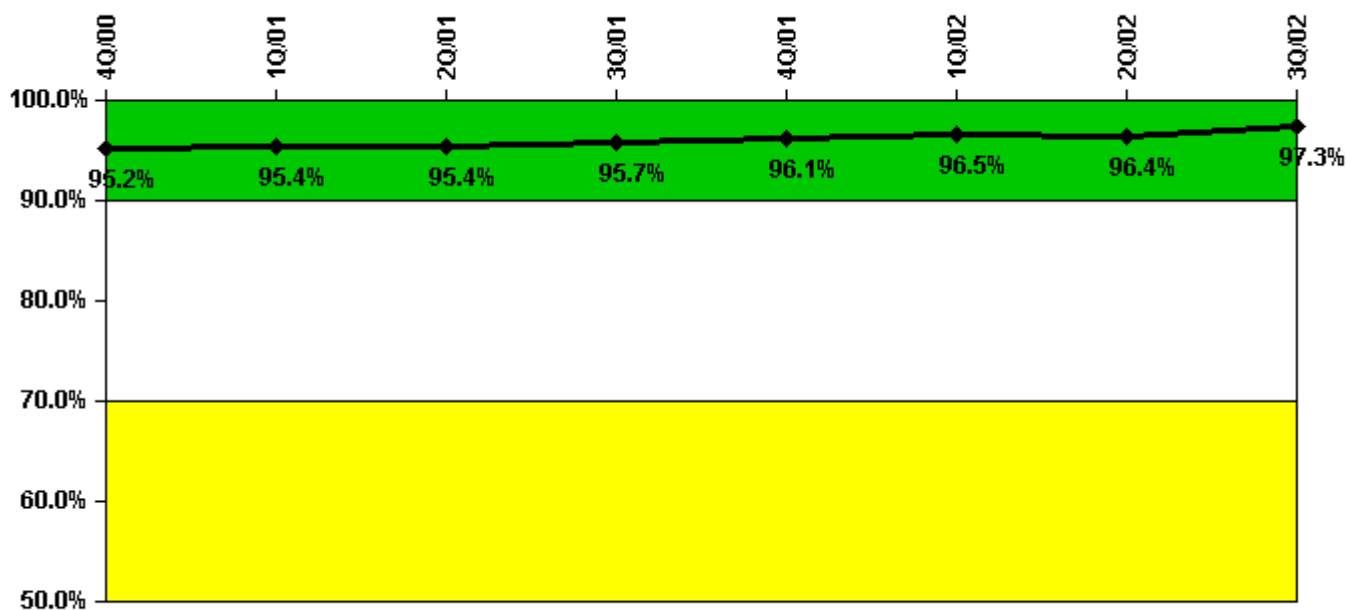
Notes

Reactor Coolant System Leakage	10/00	11/00	12/00	1/01	2/01	3/01	4/01	5/01	6/01	7/01	8/01	9/01
Maximum leakage	0.030	0.038	0.028	0.021	0.043	0.123	N/A	0.078	0.032	0.046	0.046	0.057
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	N/A	10.0	10.0	10.0	10.0	10.0
Indicator value	0.3	0.4	0.3	0.2	0.4	1.2	N/A	0.8	0.3	0.5	0.5	0.6

Reactor Coolant System Leakage	10/01	11/01	12/01	1/02	2/02	3/02	4/02	5/02	6/02	7/02	8/02	9/02
Maximum leakage	0.164	0.075	0.088	0.107	0.261	0.108	0.056	0.030	0.069	0.115	0.107	0.126
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	1.6	0.8	0.9	1.1	2.6	1.1	0.6	0.3	0.7	1.2	1.1	1.3

Licensee Comments: none

Drill/Exercise Performance



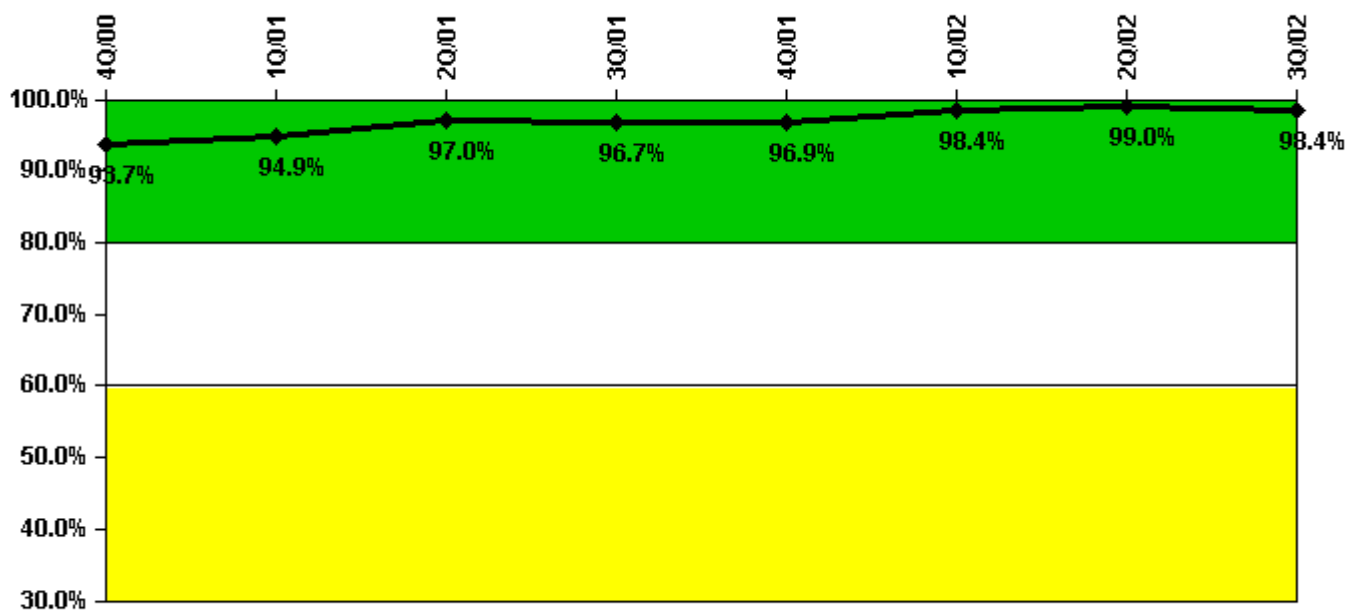
Thresholds: White < 90.0% Yellow < 70.0%

Notes

Drill/Exercise Performance	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02
Successful opportunities	0	20.0	0	9.0	198.0	19.0	8.0	108.0
Total opportunities	0	20.0	0	9.0	205.0	20.0	8.0	110.0
Indicator value	95.2%	95.4%	95.4%	95.7%	96.1%	96.5%	96.4%	97.3%

Licensee Comments: none

ERO Drill Participation



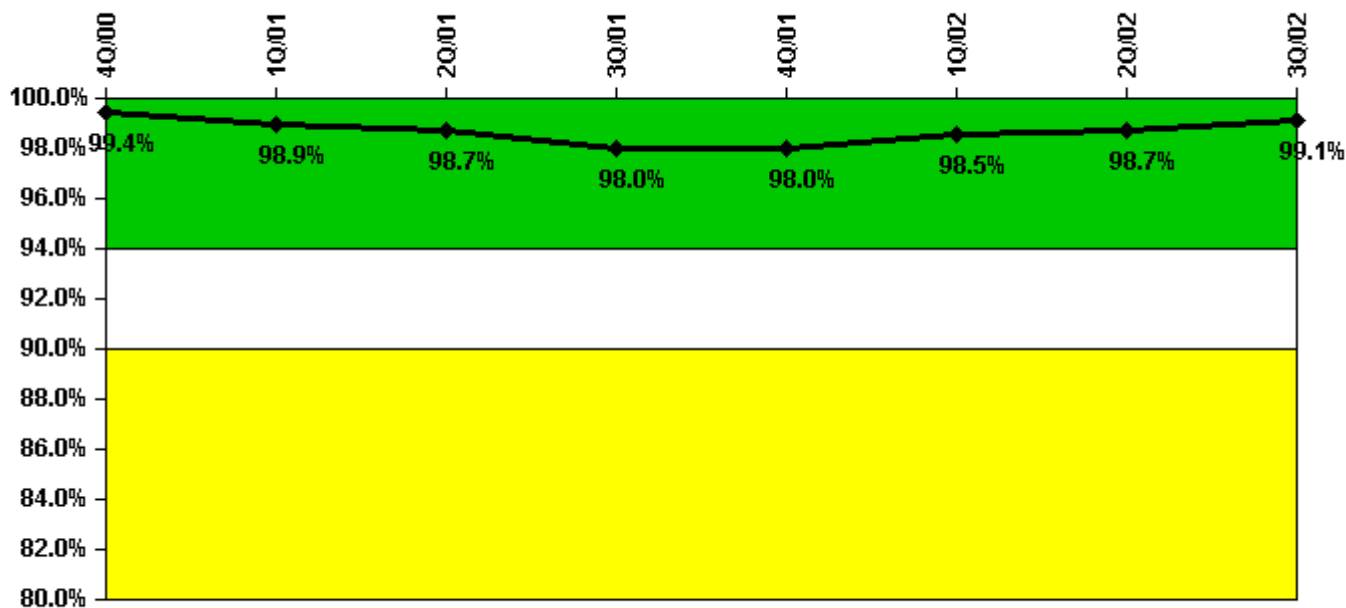
Thresholds: White < 80.0% Yellow < 60.0%

Notes

ERO Drill Participation	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02
Participating Key personnel	163.0	166.0	160.0	176.0	188.0	188.0	191.0	190.0
Total Key personnel	174.0	175.0	165.0	182.0	194.0	191.0	193.0	193.0
Indicator value	93.7%	94.9%	97.0%	96.7%	96.9%	98.4%	99.0%	98.4%

Licensee Comments: none

Alert & Notification System



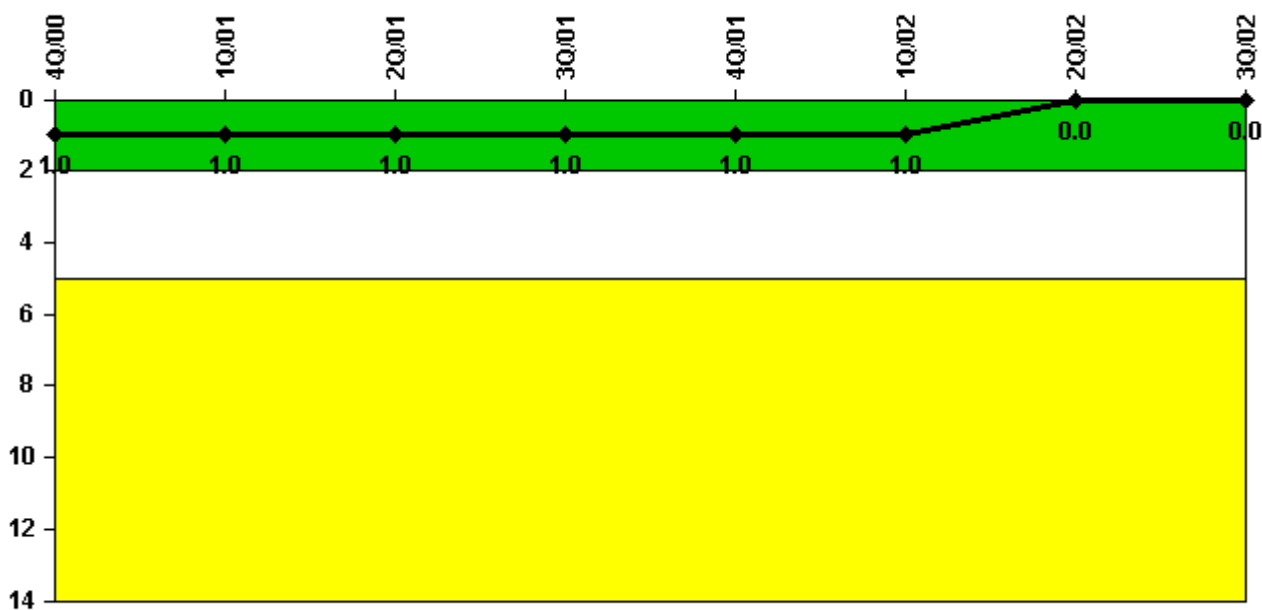
Thresholds: White < 94.0% Yellow < 90.0%

Notes

Alert & Notification System	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02
Successful siren-tests	467	382	382	375	466	390	383	351
Total sirens-tests	468	390	390	390	468	390	387	360
Indicator value	99.4%	98.9%	98.7%	98.0%	98.0%	98.5%	98.7%	99.1%

Licensee Comments: none

Occupational Exposure Control Effectiveness



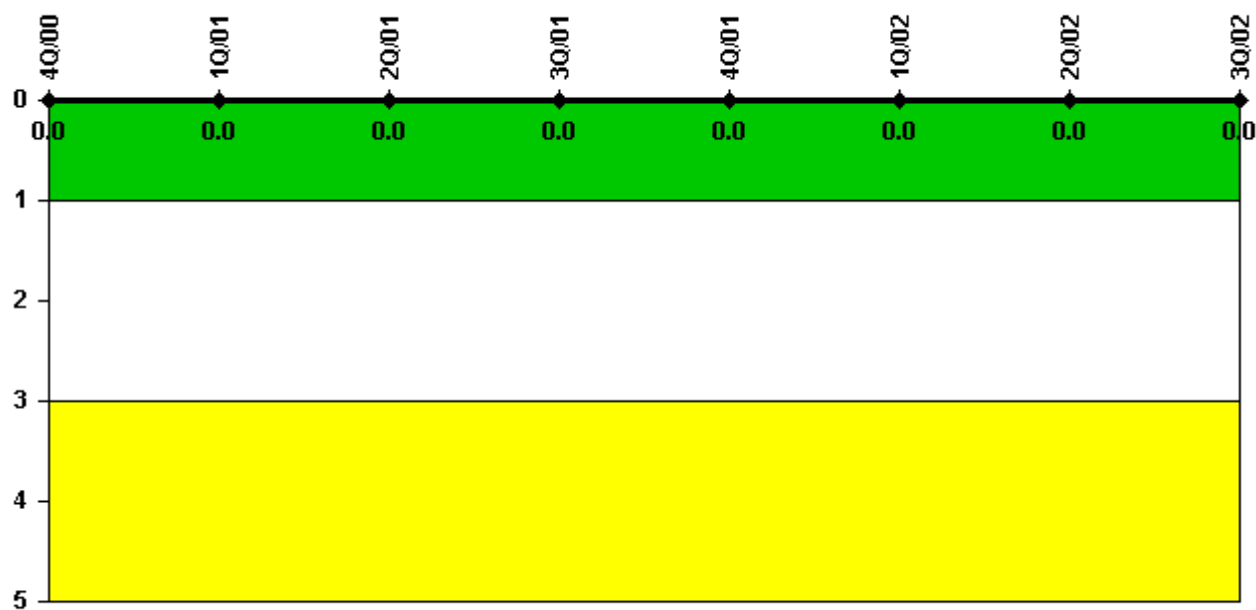
Thresholds: White > 2.0 Yellow > 5.0

Notes

Occupational Exposure Control Effectiveness	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02
High radiation area occurrences	0	0	1	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	1	1	1	1	1	0	0

Licensee Comments: none

RETS/ODCM Radiological Effluent



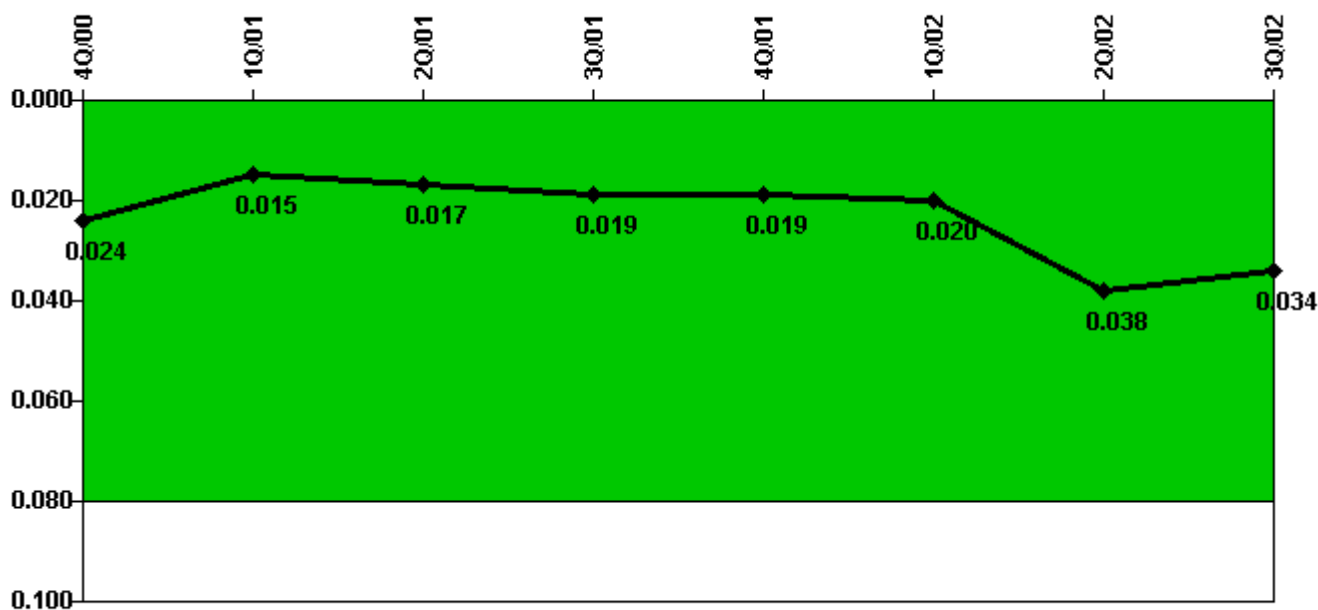
Thresholds: White > 1.0 Yellow > 3.0

Notes

RETS/ODCM Radiological Effluent	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02
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



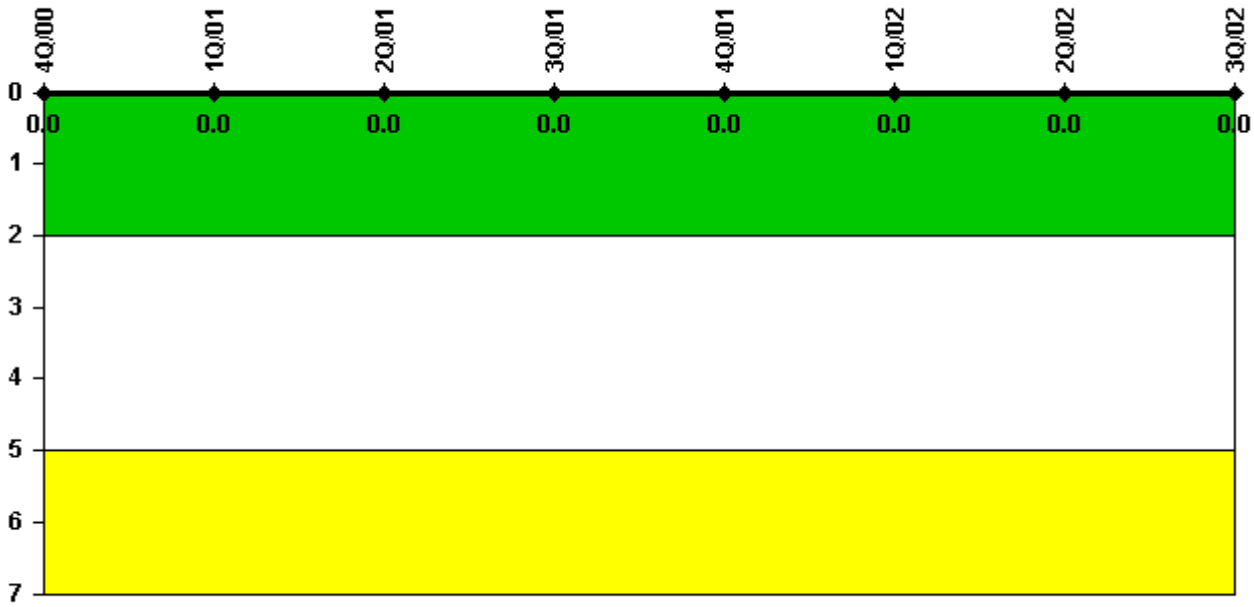
Thresholds: White > 0.080

Notes

Protected Area Security Performance Index	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02
IDS compensatory hours	95.20	71.50	109.90	71.00	65.30	87.00	804.00	92.60
CCTV compensatory hours	1.3	19.8	82.6	69.5	14.6	39.4	0	34.1
IDS normalization factor	1.85	1.85	1.85	1.85	1.85	1.85	1.85	2.00
CCTV normalization factor	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
Index Value	0.024	0.015	0.017	0.019	0.019	0.020	0.038	0.034

Licensee Comments: none

Personnel Screening Program



Thresholds: White > 2.0 Yellow > 5.0

Notes

Personnel Screening Program	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02
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	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02
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: October 22, 2002