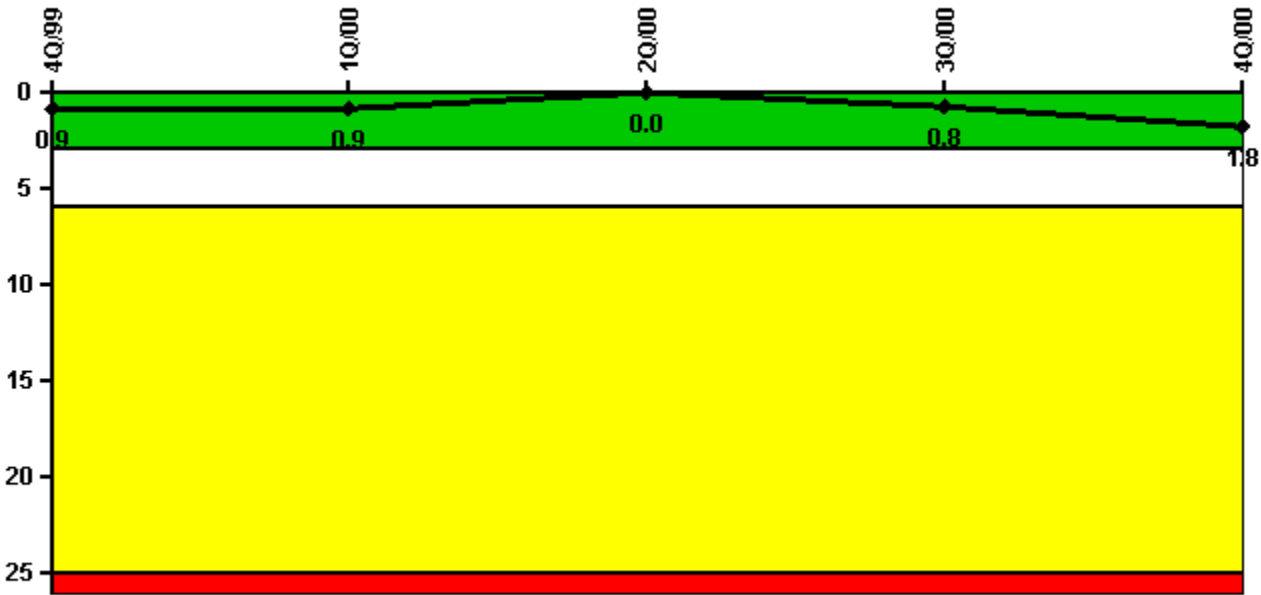


Palo Verde 2

4Q/2000 Performance Indicators

Licensee's General Comments: Palo Verde Unit 2

Unplanned Scrams per 7000 Critical Hrs



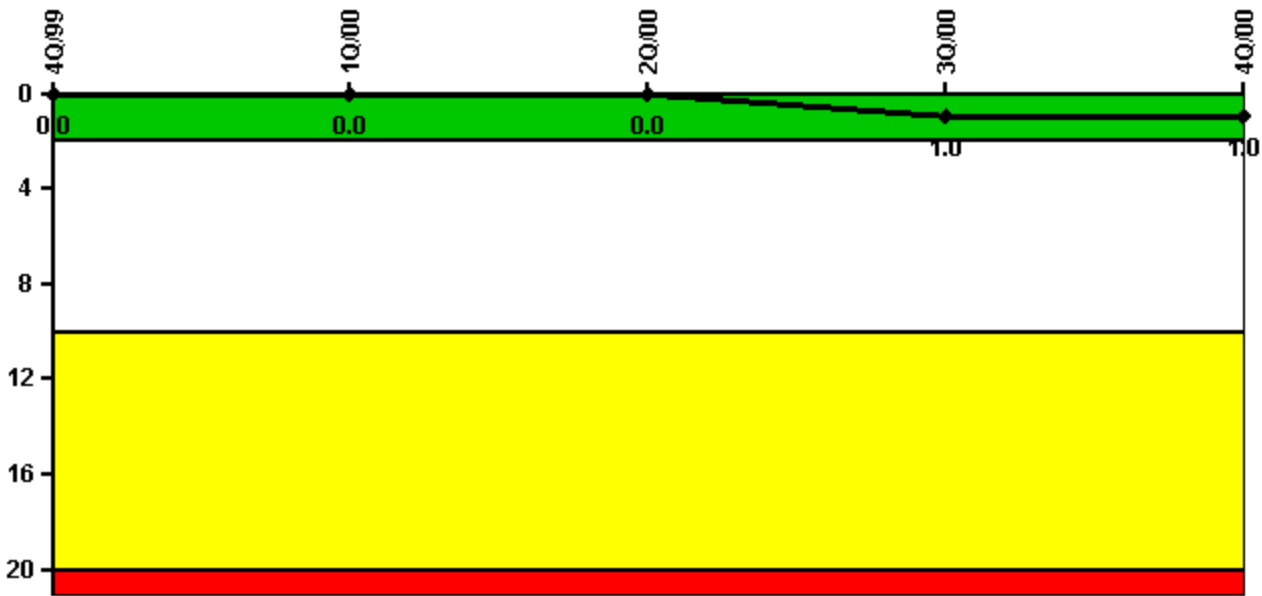
Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

Notes

Unplanned Scrams per 7000 Critical Hrs	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00
Unplanned scrams	0	0	0	1.0	1.0
Critical hours	2208.0	2025.6	2184.0	2170.6	1414.7
Indicator value	0.9	0.9	0	0.8	1.8

Licensee Comments: none

Scrams with Loss of Normal Heat Removal



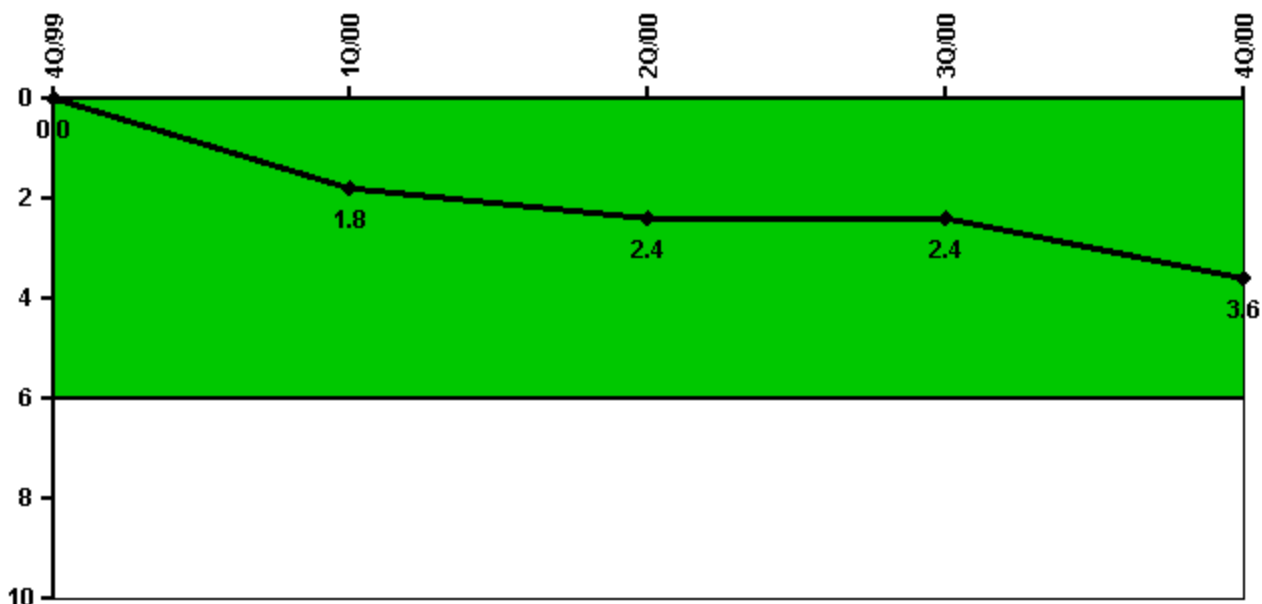
Thresholds: White > 2.0 Yellow > 10.0 Red > 20.0

Notes

Scrams with Loss of Normal Heat Removal	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00
Scrams	0	0	0	1.0	0
Indicator value	0	0	0	1.0	1.0

Licensee Comments: none

Unplanned Power Changes per 7000 Critical Hrs



Thresholds: White > 6.0

Notes

Unplanned Power Changes per 7000 Critical Hrs	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00
Unplanned power changes	0	2.0	1.0	0	1.0
Critical hours	2208.0	2025.6	2184.0	2170.6	1414.7
Indicator value	0	1.8	2.4	2.4	3.6

Licensee Comments: none

Safety System Unavailability, Emergency AC Power



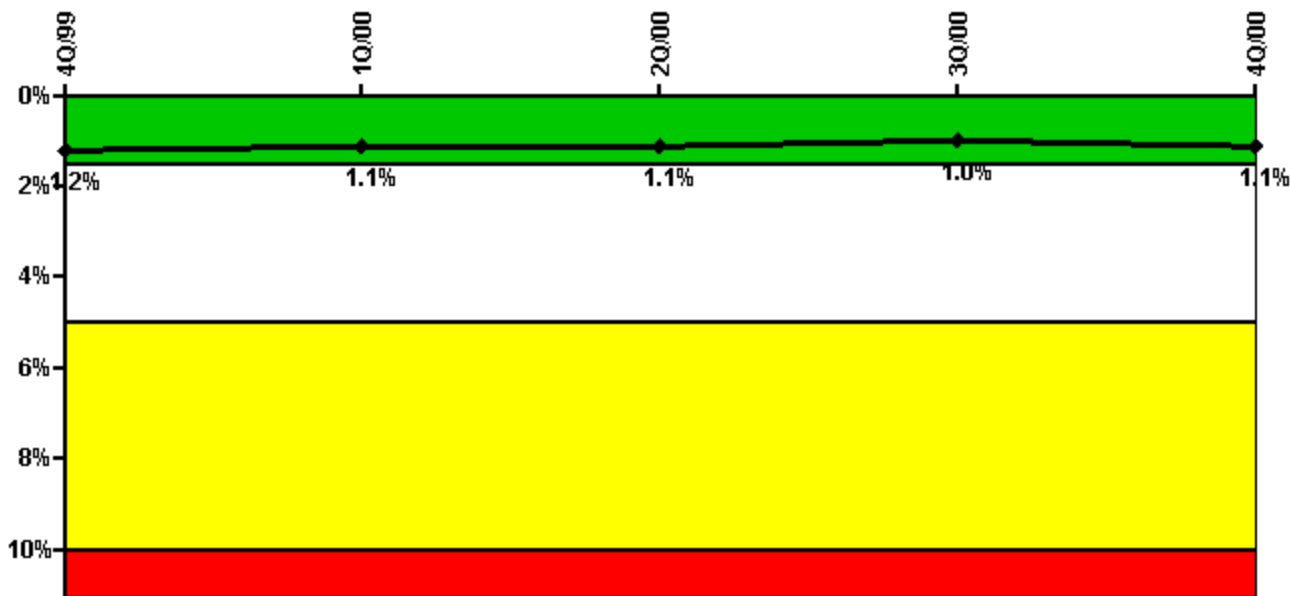
Thresholds: White > 2.5% Yellow > 5.0% Red > 10.0%

Notes

Safety System Unavailability, Emergency AC Power	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00
Train 1					
Planned unavailable hours	0	25.90	0.65	21.22	0
Unplanned unavailable hours	5.87	0	0	0	0
Fault exposure hours	0	0	0	0	0
Effective Reset hours	0	0	0	0	0
Required hours	2208.00	2184.00	2184.00	2208.00	2208.00
Train 2					
Planned unavailable hours	18.83	0	24.67	0	0
Unplanned unavailable hours	0	0	0	0	0
Fault exposure hours	0	0	0	0	0
Effective Reset hours	0	0	0	0	0
Required hours	2208.00	2184.00	2184.00	2208.00	2208.00
Indicator value	0.7%	0.7%	0.7%	0.7%	0.6%

Licensee Comments: none

Safety System Unavailability, High Pressure Injection System (HPSI)



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

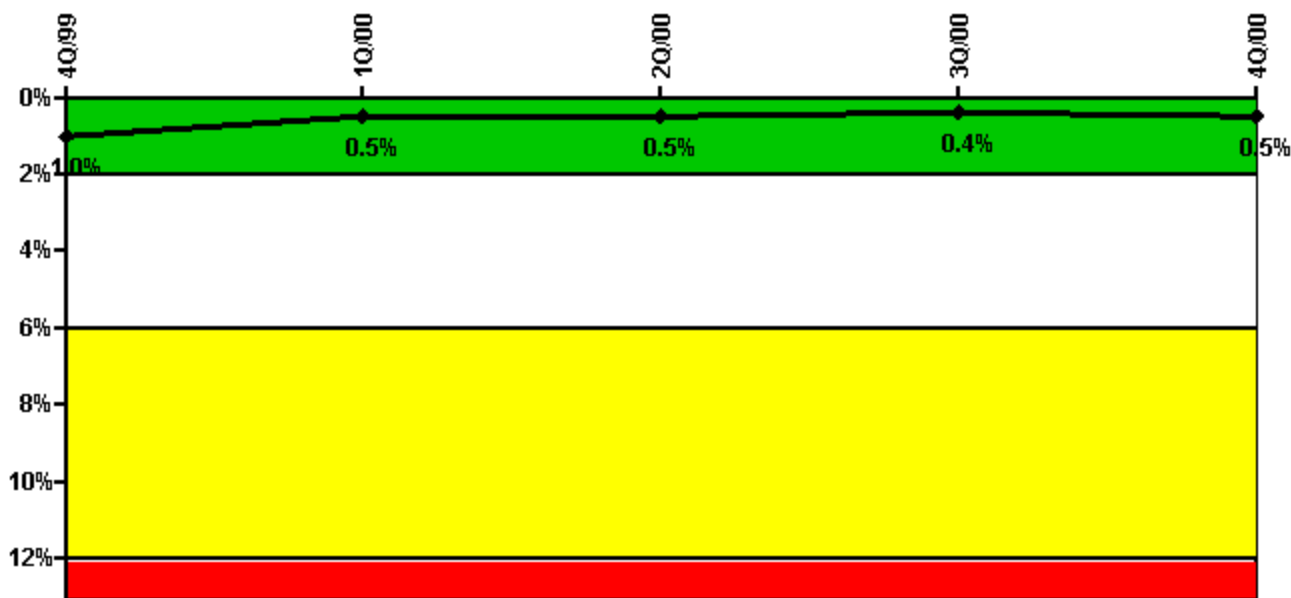
Notes

Safety System Unavailability, High Pressure Injection System (HPSI)	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00
Train 1					
Planned unavailable hours	4.40	14.79	9.18	16.87	18.20
Unplanned unavailable hours	0	0	0	0	0
Fault exposure hours	0.32	2.56	13.10	0	29.57
Effective Reset hours	0	0	0	0	0
Required hours	2208.00	2025.60	2184.00	2170.55	1414.68
Train 2					
Planned unavailable hours	10.46	5.35	24.26	25.23	31.28
Unplanned unavailable hours	0	0	0	0	0
Fault exposure hours	0	0	0	0	0
Effective Reset hours	0	0	0	0	0
Required hours	2208.00	2025.60	2184.00	2170.55	1414.68
Indicator value	1.2%	1.1%	1.1%	1.0%	1.1%

Licensee Comments:

4Q/00: A HPSI check valve failed a surveillance test resulting in 74.5 fault exposure hours distributed in quarters 2Q98 through 4Q00. The failed check valve only affected system OPERABILITY during an abnormal HPSI system line-up. Fault exposure was added to previously reported fault exposure data for the times when system OPERABILITY was affected. Actual fault exposure hours were used versus the T/2 method. No PI thresholds were crossed as a result of the revised data.

Safety System Unavailability, Heat Removal System (AFW)



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

Notes

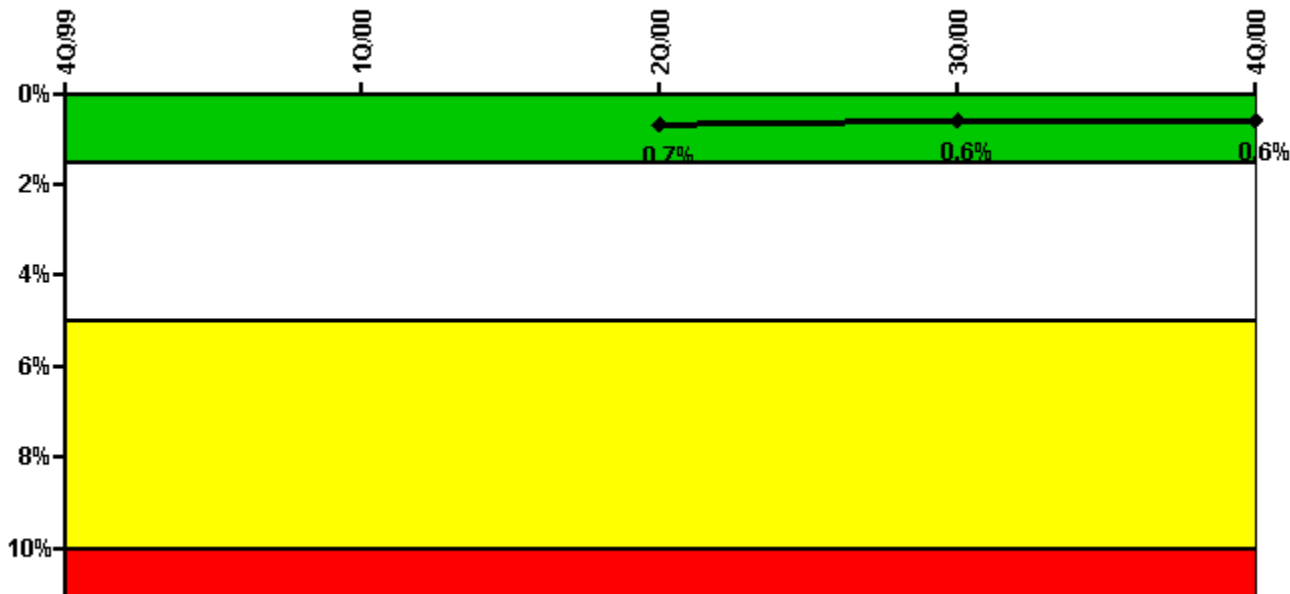
Safety System Unavailability, Heat Removal System (AFW)	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00
Train 1					
Planned unavailable hours	1.30	16.06	3.99	13.50	31.48
Unplanned unavailable hours	0	13.98	21.97	0	13.97
Fault exposure hours	0	0	0	0	0
Effective Reset hours	0	366.76	0	0	0
Required hours	2208.00	2025.60	2184.00	2170.55	1414.68
Train 2					
Planned unavailable hours	9.96	1.27	9.60	0.60	0.40
Unplanned unavailable hours	0	0	0	0	0
Fault exposure hours	0	0	0	0	0
Effective Reset hours	0	0	0	0	0
Required hours	2208.00	2025.60	2184.00	2170.55	1414.68
Train 3					
Planned unavailable hours	0.62	3.88	0.97	6.47	10.27
Unplanned unavailable hours	0	0	0	0	0
Fault exposure hours	0	0	0	0	0
Effective Reset hours	0	0	0	0	0
Required hours	2208.00	2025.60	2184.00	2170.55	1414.68
Indicator value	1.0%	0.5%	0.5%	0.4%	0.5%

Licensee Comments: none

Effective Reset Comments:

1Q/00: Previously reset hours were reset under the new process.

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/99	1Q/00	2Q/00	3Q/00	4Q/00
Train 1					
Planned unavailable hours	15.69	16.81	11.51	27.48	21.16
Unplanned unavailable hours	0	0	0	0	0
Fault exposure hours	0	0	0	0	0
Effective Reset hours	0	0	0	0	0
Required hours	2208.00	2184.00	2184.00	2208.00	1440.51
Train 2					
Planned unavailable hours	14.16	9.68	48.68	11.65	5.25
Unplanned unavailable hours	0	0	0	0	0
Fault exposure hours	0	0	0	0	0
Effective Reset hours	0	0	0	0	0
Required hours	2208.00	2184.00	2184.00	2208.00	1440.51
Train 3					
Planned unavailable hours	0	0	0	0	0
Unplanned unavailable hours	0	0	0	0	0
Fault exposure hours	0	0	0	0	0
Effective Reset hours	0	0	0	0	0
Required hours	0	0	0	0	357.28
Train 4					
Planned unavailable hours	0	0	0	0	0
Unplanned unavailable hours	0	0	0	0	0
Fault exposure hours	0	0	0	0	0
Effective Reset hours	0	0	0	0	0
Required hours	0	0	0	0	298.75

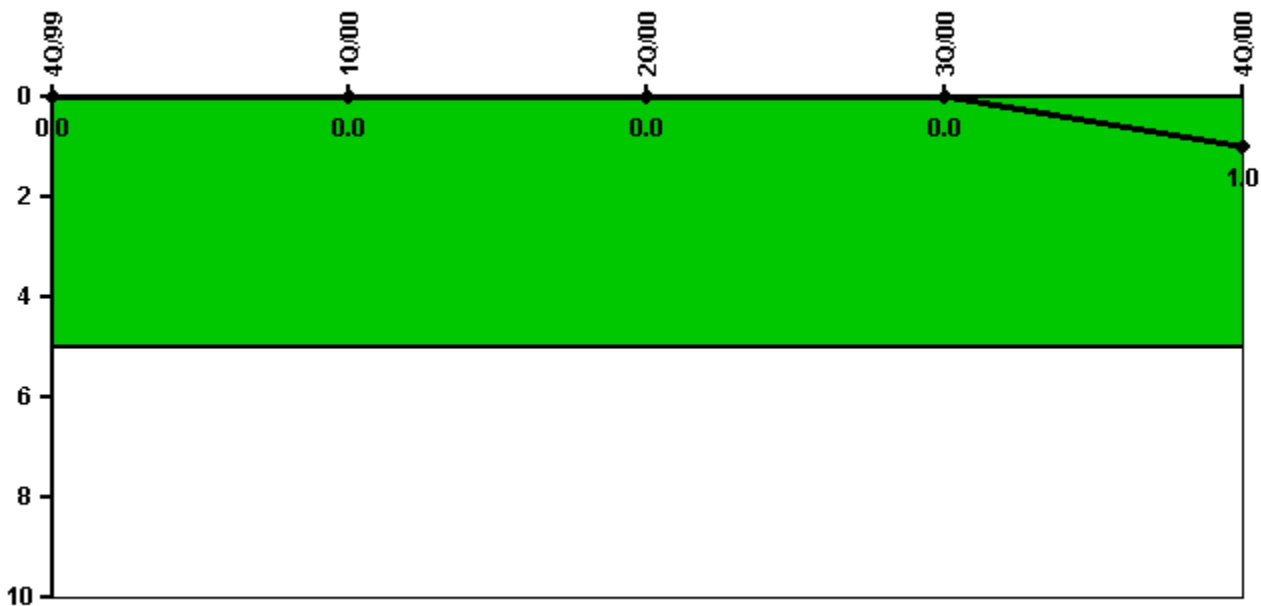
Indicator value			0.7%	0.6%	0.6%

Licensee Comments:

4Q/00: A correction in the accounting method used to calculate planned unavailability resulted in the need to revise data previously reported for the RHR PI. A total of 11.23 planned unavailability hours were added to quarters 1Q98 through 3Q00. No PI thresholds were crossed as a result of the added unavailability.

1Q/00: Data has been revised for the RHR PI in Quarters 3Q97 through 1Q00 to reflect the methodology specified by FAQ 172. The FAQ 172 methodology essentially split 2 trains of RHR, which were considered required for service at all times, into 4 MODE dependent RHR trains. No thresholds were crossed as a result of the changes. In accordance with the provisions of FAQ 172, Palo Verde collected actual unavailability and required hours for the historical period. In addition to the data revisions in 3Q97 through 1Q00, the RHR comment fields for 1Q97 and 2Q97 have been cleared.

Safety System Functional Failures (PWR)



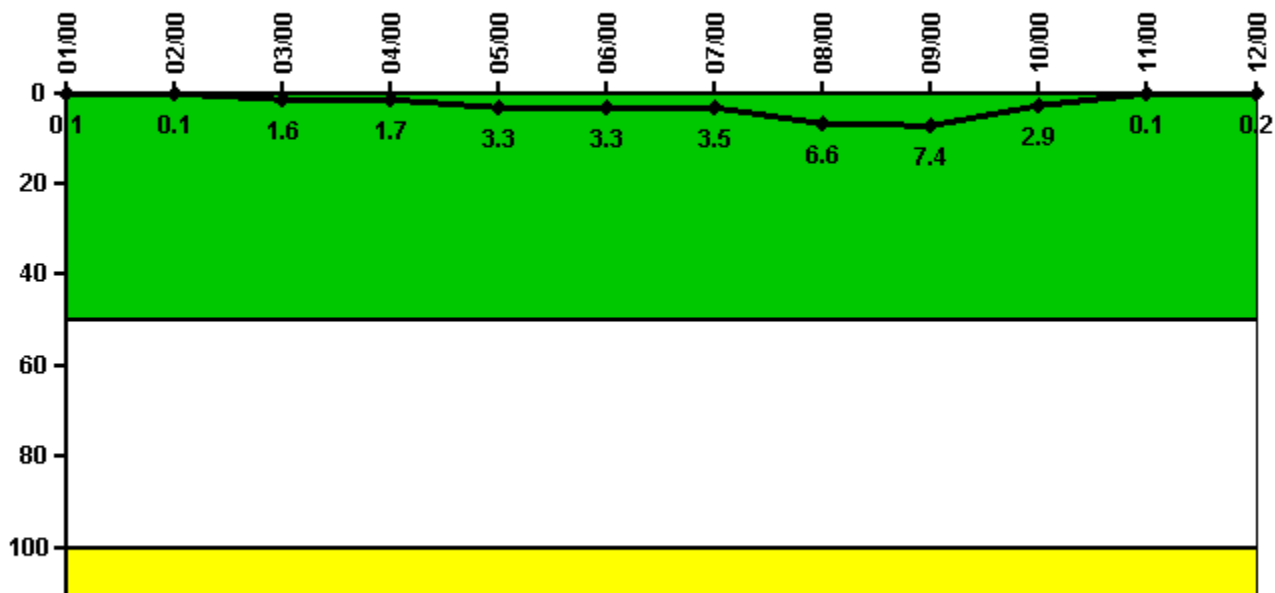
Thresholds: White > 5.0

Notes

Safety System Functional Failures (PWR)	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00
Safety System Functional Failures	0	0	0	0	1
Indicator value	0	0	0	0	1

Licensee Comments: none

Reactor Coolant System Activity



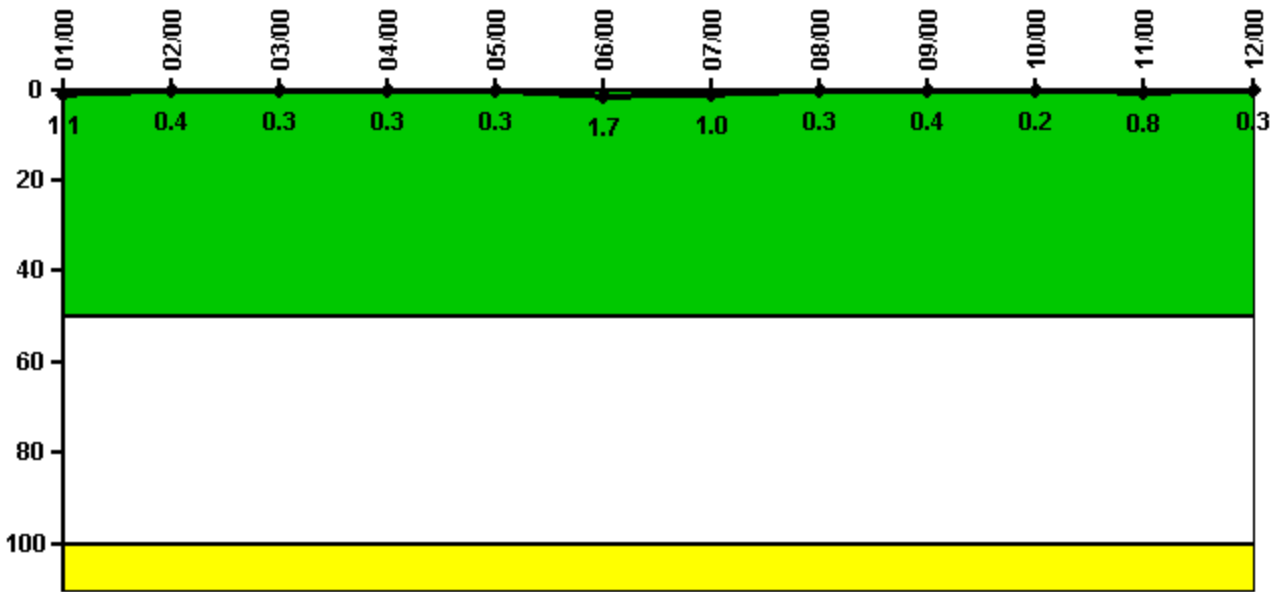
Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Activity	1/00	2/00	3/00	4/00	5/00	6/00	7/00	8/00	9/00	10/00	11/00	12/00
Maximum activity	0.001000	0.001000	0.015800	0.017000	0.033000	0.033000	0.035000	0.066000	0.074000	0.029000	0.001000	0.002000
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	1.6	1.7	3.3	3.3	3.5	6.6	7.4	2.9	0.1	0.2

Licensee Comments: none

Reactor Coolant System Leakage



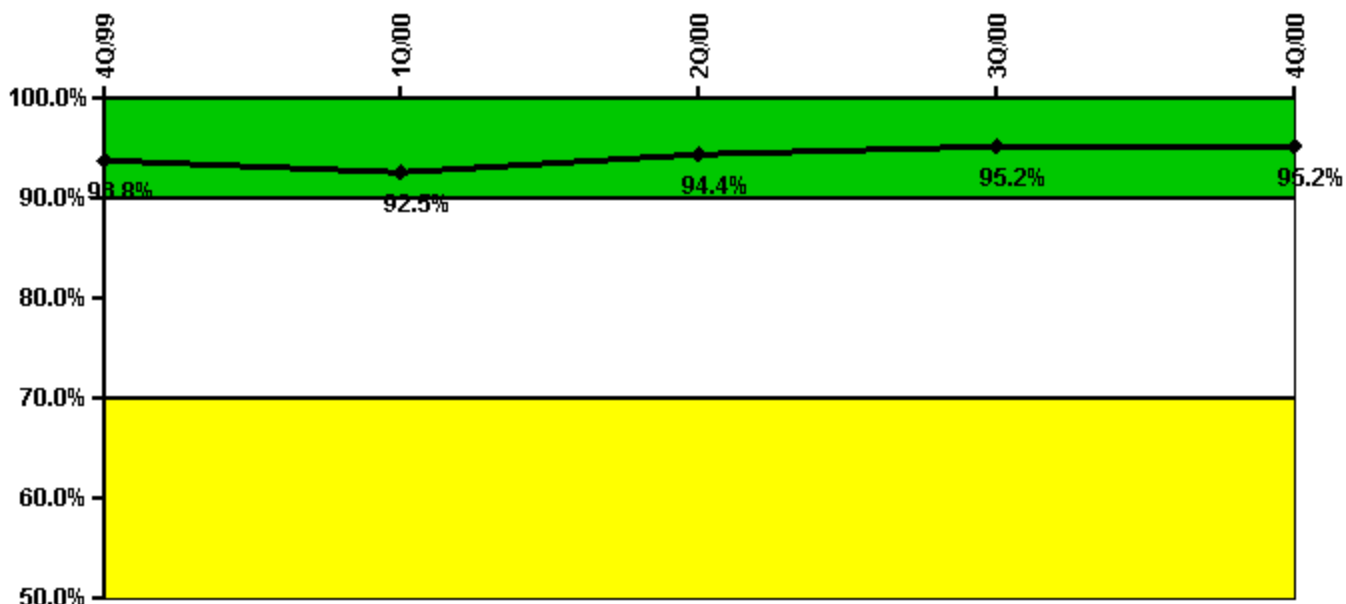
Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Leakage	1/00	2/00	3/00	4/00	5/00	6/00	7/00	8/00	9/00	10/00	11/00	12/00
Maximum leakage	0.111	0.035	0.027	0.026	0.031	0.166	0.102	0.033	0.036	0.019	0.077	0.029
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	0.4	0.3	0.3	0.3	1.7	1.0	0.3	0.4	0.2	0.8	0.3

Licensee Comments: none

Drill/Exercise Performance



Thresholds: White < 90.0% Yellow < 70.0%

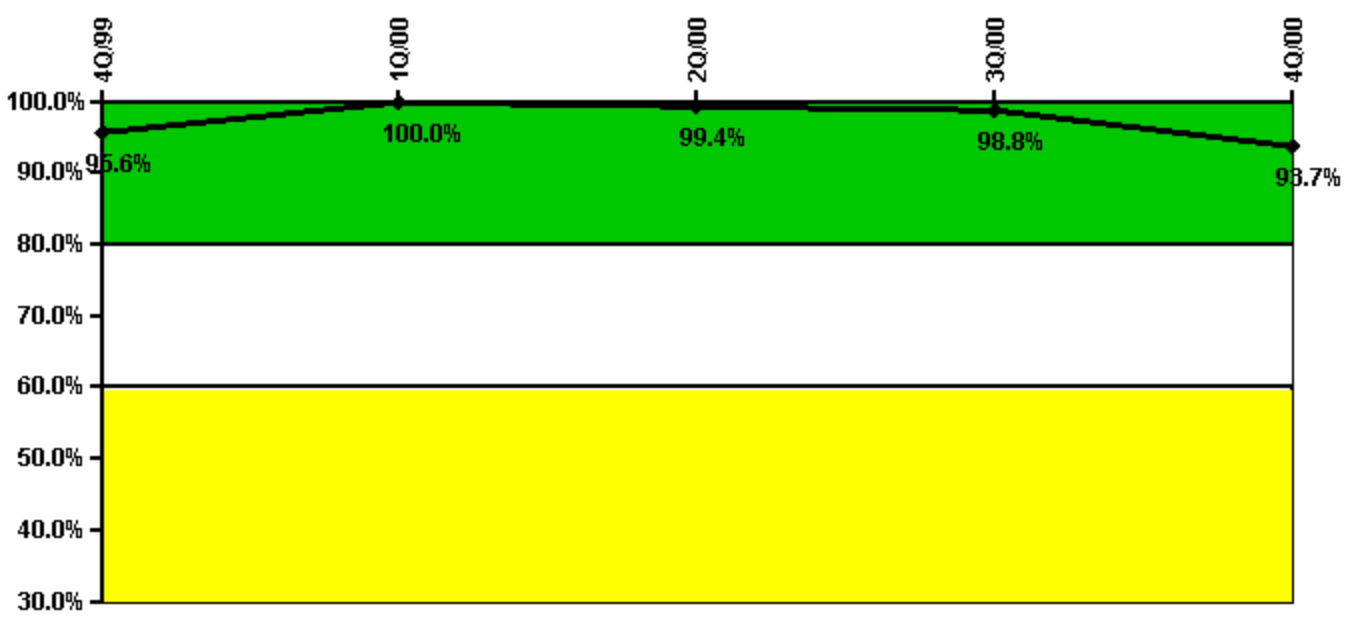
Notes

Drill/Exercise Performance	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00
Successful opportunities	3.0	29.0	22.0	95.0	0
Total opportunities	3.0	32.0	22.0	100.0	0
Indicator value	93.8%	92.5%	94.4%	95.2%	95.2%

Licensee Comments:

4Q/00: A counting error was discovered in the ERO performance data reported in 3Q00. The error resulted in lowering both the total numbers of opportunities and successes by 4. No PI thresholds were crossed as a result of the revised data.

ERO Drill Participation



Thresholds: White < 80.0% Yellow < 60.0%

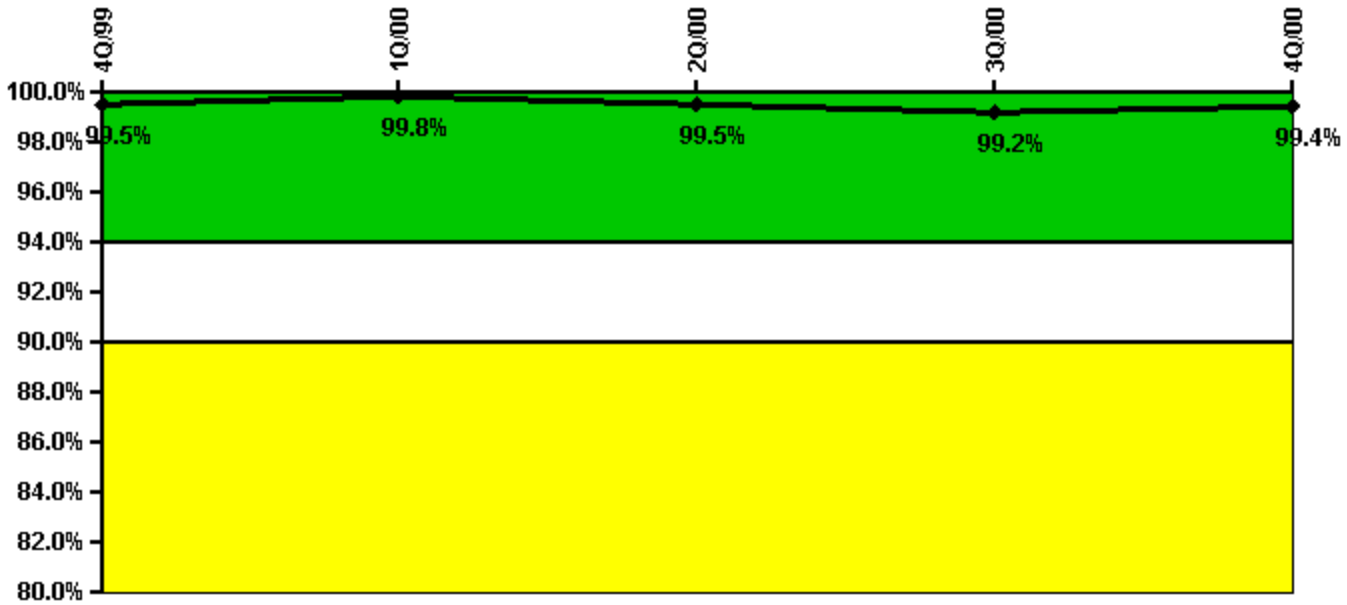
Notes

ERO Drill Participation	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00
Participating Key personnel	65.0	132.0	166.0	165.0	163.0
Total Key personnel	68.0	132.0	167.0	167.0	174.0
Indicator value	95.6%	100.0%	99.4%	98.8%	93.7%

Licensee Comments:

4Q/00: An individual was incorrectly classified as an ERO member. The incorrect classification resulted in an incorrect total number of key ERO members and key ERO members who participated in a drill reported in the 3Q00 submittal. The 3Q00 data has been revised to reflect the correct numbers. No PI thresholds were crossed as a result of the revised data.

Alert & Notification System



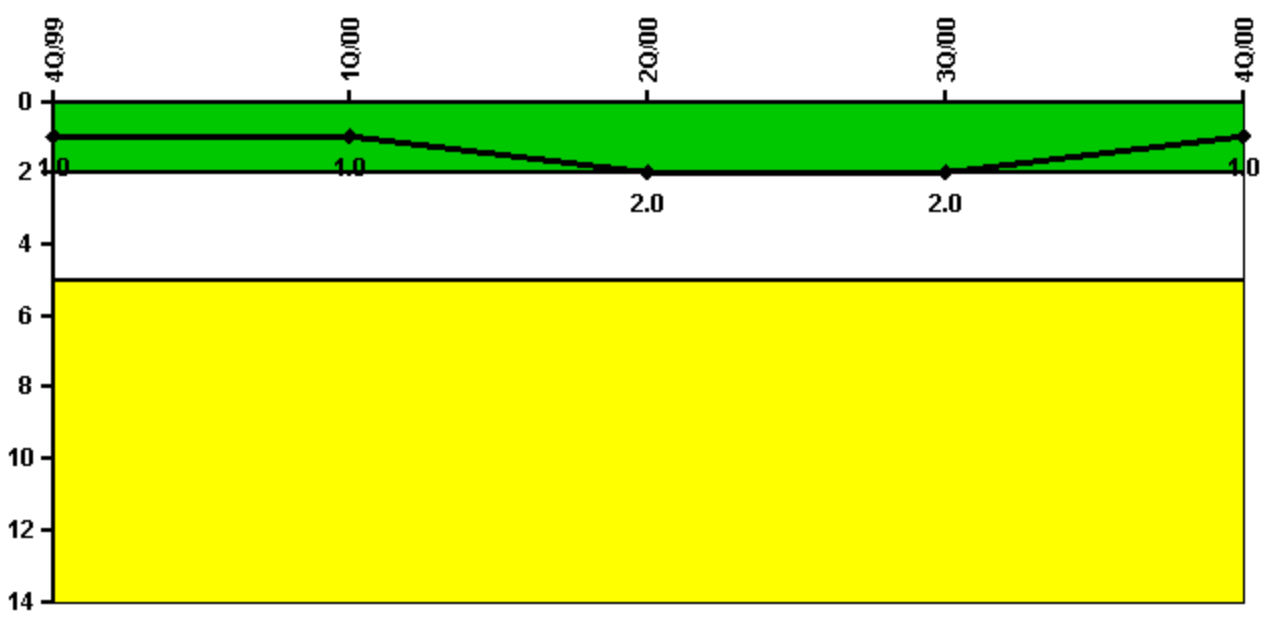
Thresholds: White < 94.0% Yellow < 90.0%

Notes

Alert & Notification System	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00
Successful siren-tests	426	390	385	347	467
Total sirens-tests	429	390	390	351	468
Indicator value	99.5%	99.8%	99.5%	99.2%	99.4%

Licensee Comments: none

Occupational Exposure Control Effectiveness



Thresholds: White > 2.0 Yellow > 5.0

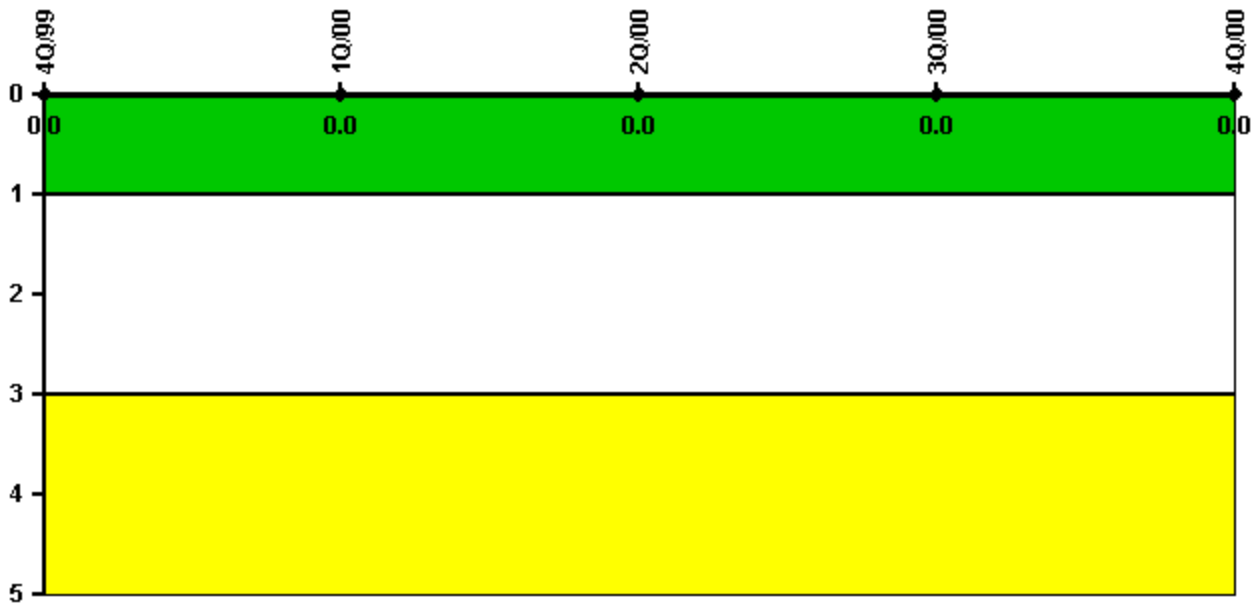
Notes

Occupational Exposure Control Effectiveness	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00
High radiation area occurrences	1	0	1	0	0
Very high radiation area occurrences	0	0	0	0	0
Unintended exposure occurrences	0	0	0	0	0
Indicator value	1	1	2	2	1

Licensee Comments:

2Q/00: During a routine tour of the Unit 3 "B" LPSI Pump Room on 5/4/00, a hot spot was identified on a cyclone separator reading 1,200 mrem/hr at one foot. The event was documented and placed in the corrective action system. The associated corrective action documents were subsequently reviewed during an NRC inspection and the event was characterized by the NRC as a failure to perform adequate surveys of the cyclone separator resulting in untimely LHRA posting of this area. A PI data change is being made to acknowledge the NRC finding. The data change did not affect the color of the performance indicator.

RETS/ODCM Radiological Effluent



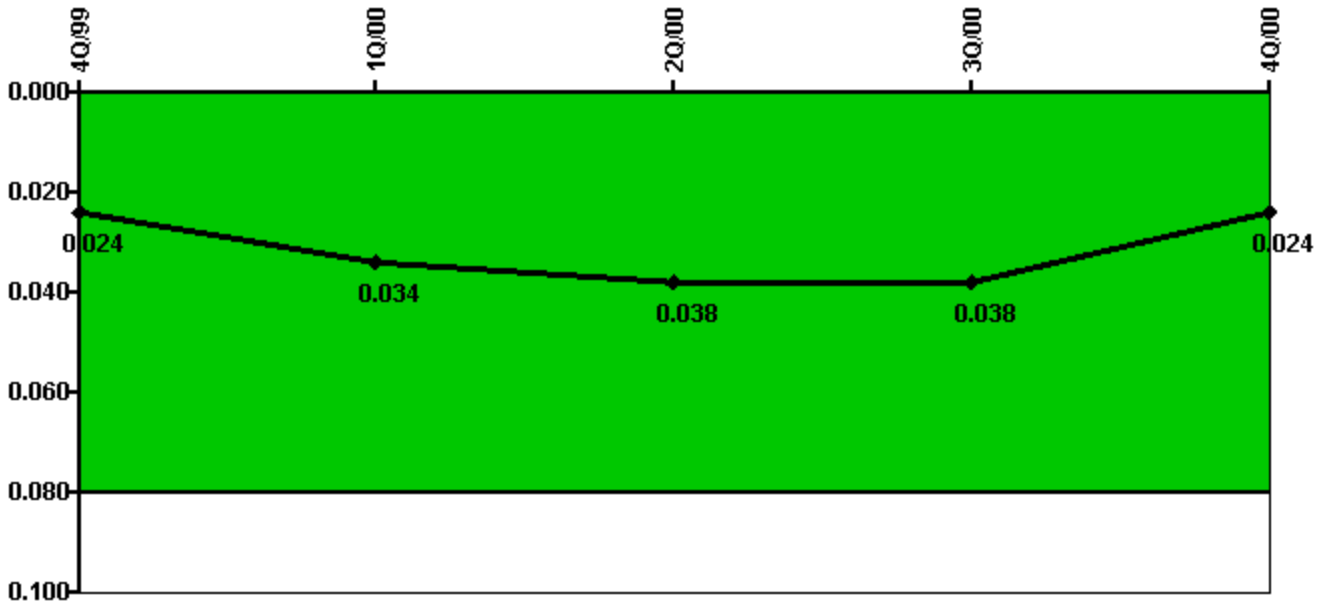
Thresholds: White > 1.0 Yellow > 3.0

Notes

RETS/ODCM Radiological Effluent	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00
RETS/ODCM occurrences	0	0	0	0	0
Indicator value	0	0	0	0	0

Licensee Comments: none

Protected Area Security Performance Index



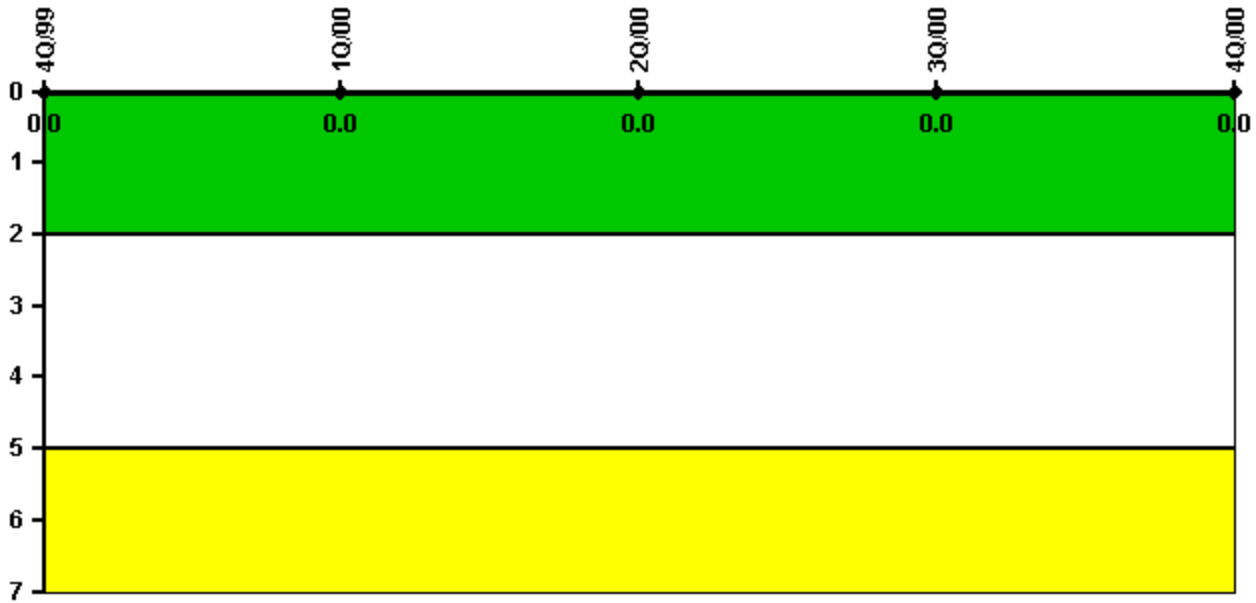
Thresholds: White > 0.080

Notes

Protected Area Security Performance Index	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00
IDS compensatory hours	220.10	326.60	79.20	85.60	95.20
CCTV compensatory hours	225.3	35.2	76.7	8.5	1.3
IDS normalization factor	1.85	1.85	1.85	1.85	1.85
CCTV normalization factor	1.4	1.2	1.2	1.2	1.2
Index Value	0.024	0.034	0.038	0.038	0.024

Licensee Comments: none

Personnel Screening Program



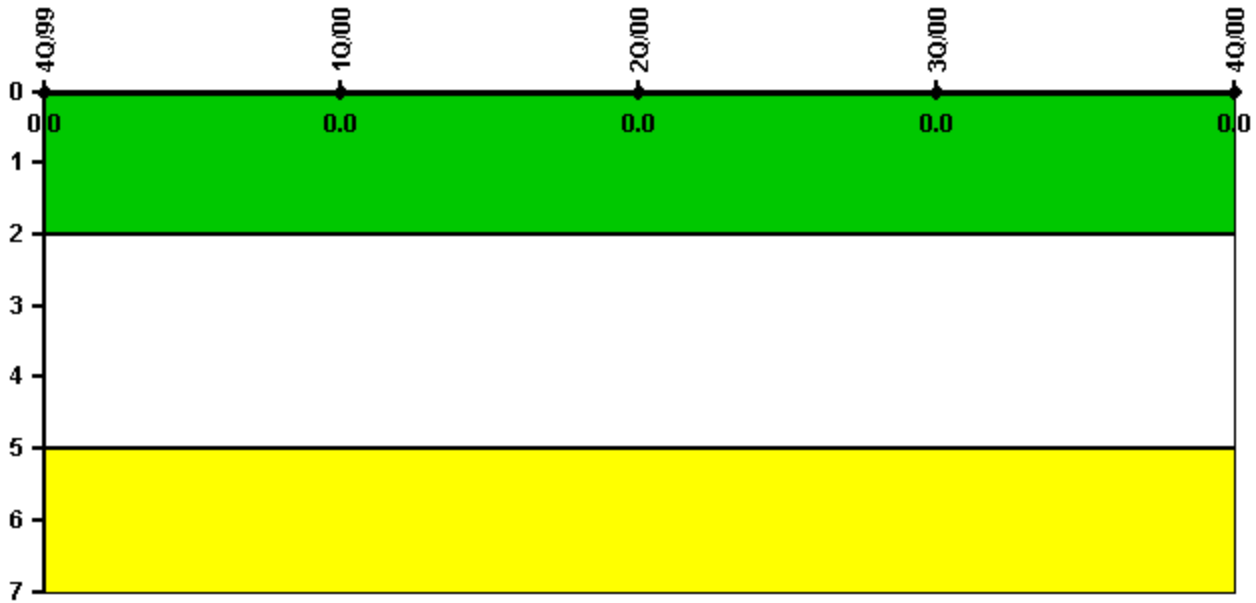
Thresholds: White > 2.0 Yellow > 5.0

Notes

Personnel Screening Program	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00
Program failures	0	0	0	0	0
Indicator value	0	0	0	0	0

Licensee Comments: none

FFD/Personnel Reliability



Thresholds: White > 2.0 Yellow > 5.0

Notes

FFD/Personnel Reliability	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00
Program Failures	0	0	0	0	0
Indicator value	0	0	0	0	0

Licensee Comments: none

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

Last Modified: March 28, 2002