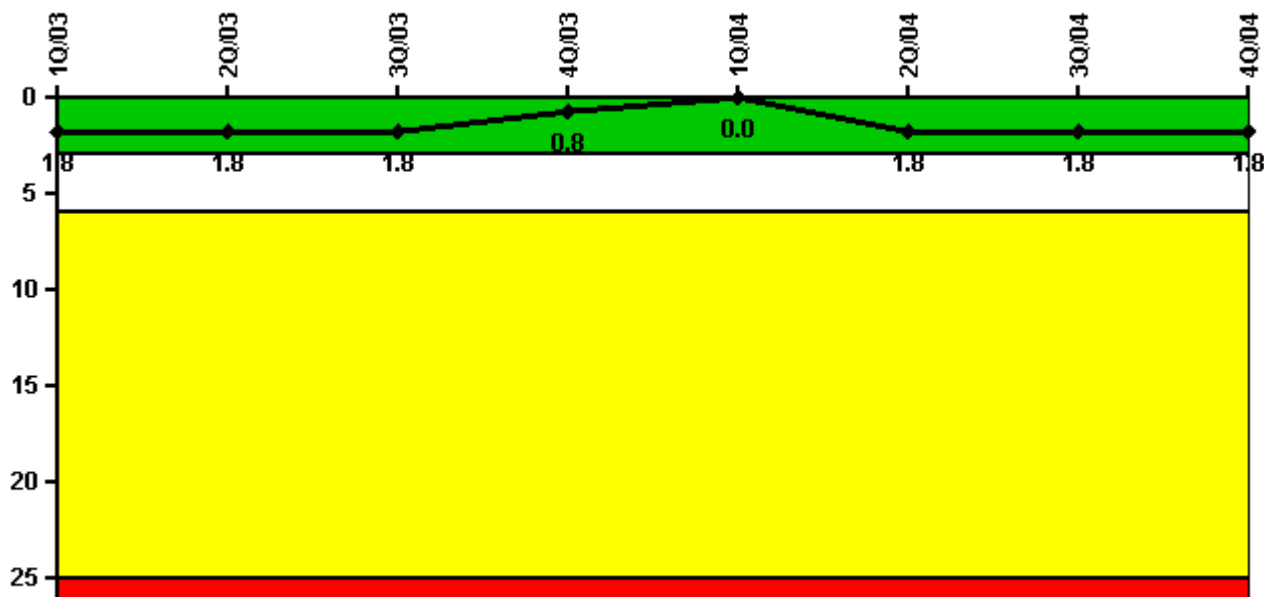


Palo Verde 1

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

Licensee Comments: none

Scrams with Loss of Normal Heat Removal



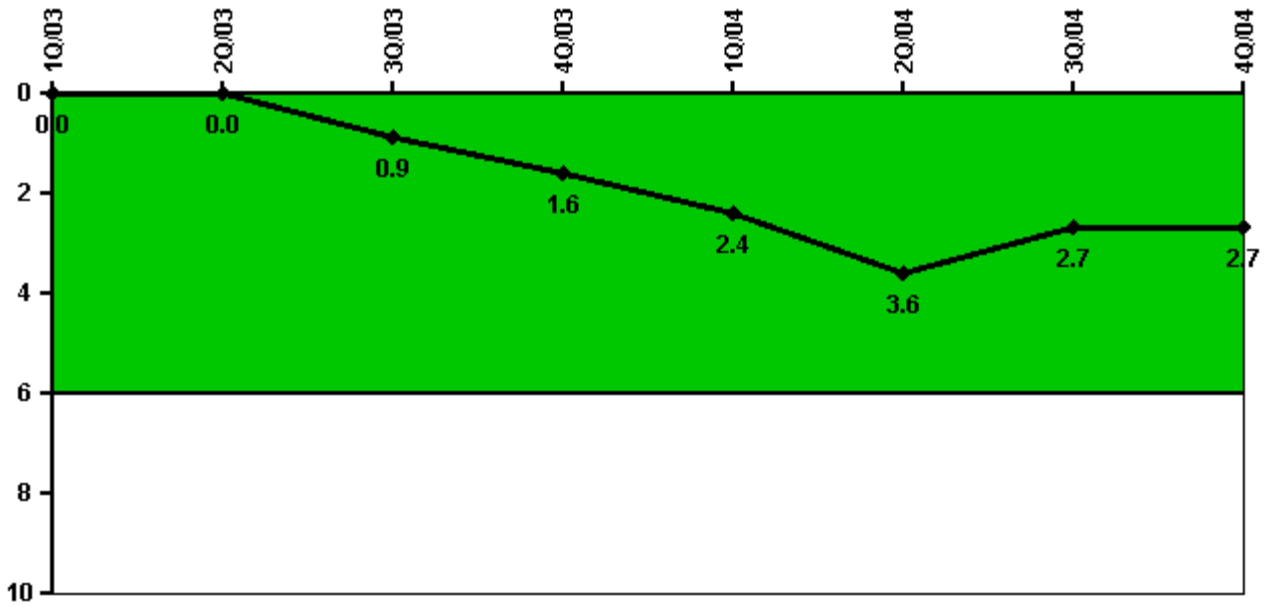
Thresholds: White > 2.0 Yellow > 10.0 Red > 20.0

Notes

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



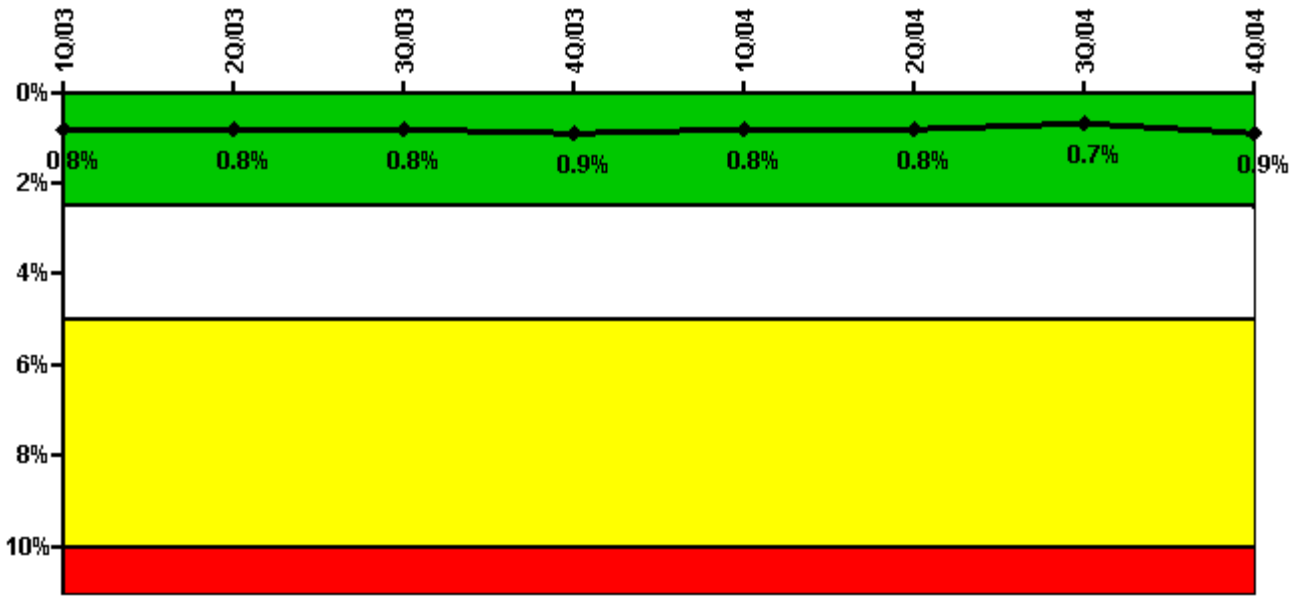
Thresholds: White > 6.0

Notes

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

Licensee Comments: none

Safety System Unavailability, Emergency AC Power



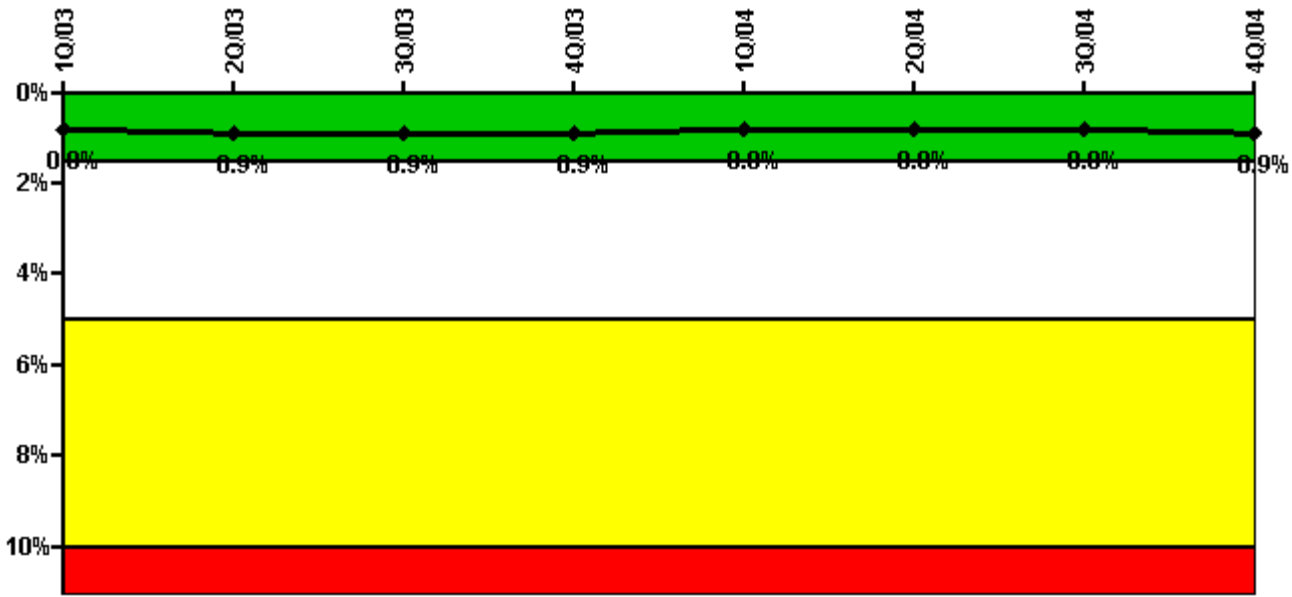
Thresholds: White > 2.5% Yellow > 5.0% Red > 10.0%

Notes

Safety System Unavailability, Emergency AC Power	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04	3Q/04	4Q/04
Train 1								
Planned unavailable hours	0.04	19.80	0.07	31.67	0.52	0.04	0.08	20.23
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	2184.00	2184.00	2208.00	2208.00
Train 2								
Planned unavailable hours	0.12	27.00	0.06	32.24	0.02	0.04	24.49	0.54
Unplanned unavailable hours	31.37	0	0	0	2.20	0	0	73.71
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	2184.00	2184.00	2208.00	2208.00
Indicator value	0.8%	0.8%	0.8%	0.9%	0.8%	0.8%	0.7%	0.9%

Licensee Comments: none

Safety System Unavailability, High Pressure Injection System (HPSI)



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

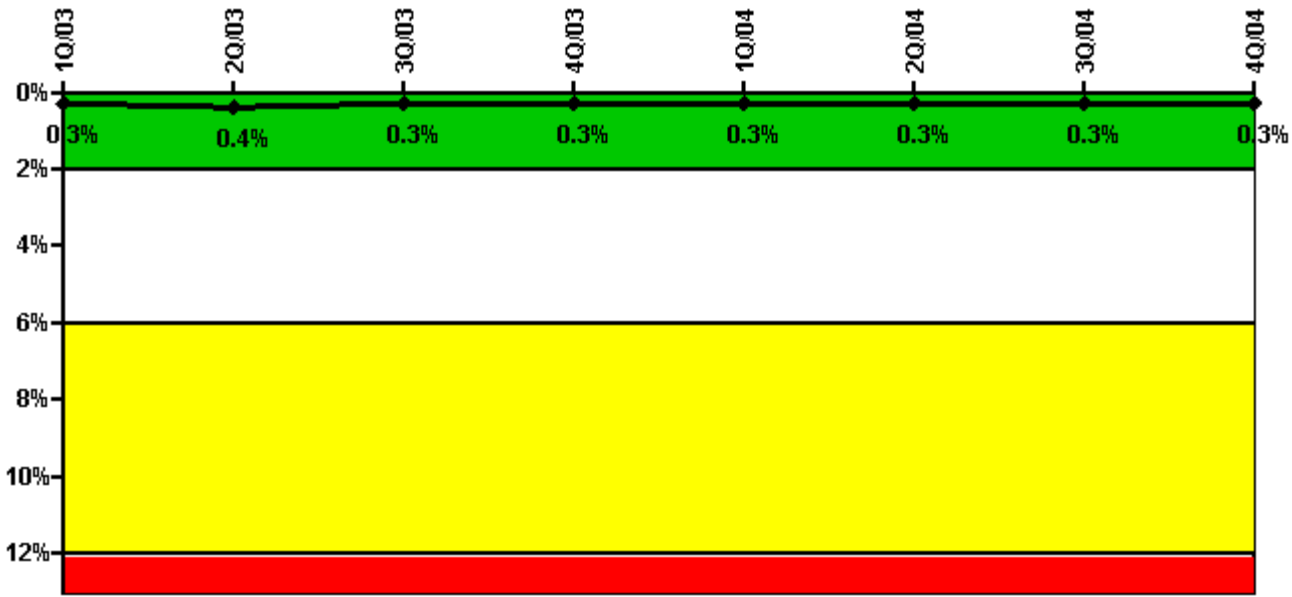
Notes

Safety System Unavailability, High Pressure Injection System (HPSI)	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04	3Q/04	4Q/04
Train 1								
Planned unavailable hours	6.55	14.95	4.97	15.23	10.90	5.85	27.43	32.53
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	2057.75	2184.00	2170.92	2208.00	2094.30	1216.00	2208.00	2208.00
Train 2								
Planned unavailable hours	7.27	34.15	0.78	15.54	19.57	28.94	33.37	3.70
Unplanned unavailable hours	13.13	0	0	0	0	2.42	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	2057.75	2184.00	2170.92	2208.00	2094.30	1216.00	2208.00	2208.00
Indicator value	0.8%	0.9%	0.9%	0.9%	0.8%	0.8%	0.8%	0.9%

Licensee Comments:

4Q/04: An engineering evaluation of HPSI unavailability due to air in the containment recirculation sump piping determined that the HPSI system may not have been able to perform its safety function in response to certain accident scenarios. The deficiency was not capable of being discovered during normal surveillance testing and as such is a design deficiency. The design deficiency has existed since initial plant operation. The condition is being evaluated under the NRC's Significance Determination Process and the associated fault exposure hours are not included in the calculation of the unavailability indicator in accordance with the provisions of NEI 99-02, "Equipment Unavailability due to Design Deficiency."

Safety System Unavailability, Heat Removal System (AFW)



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

Notes

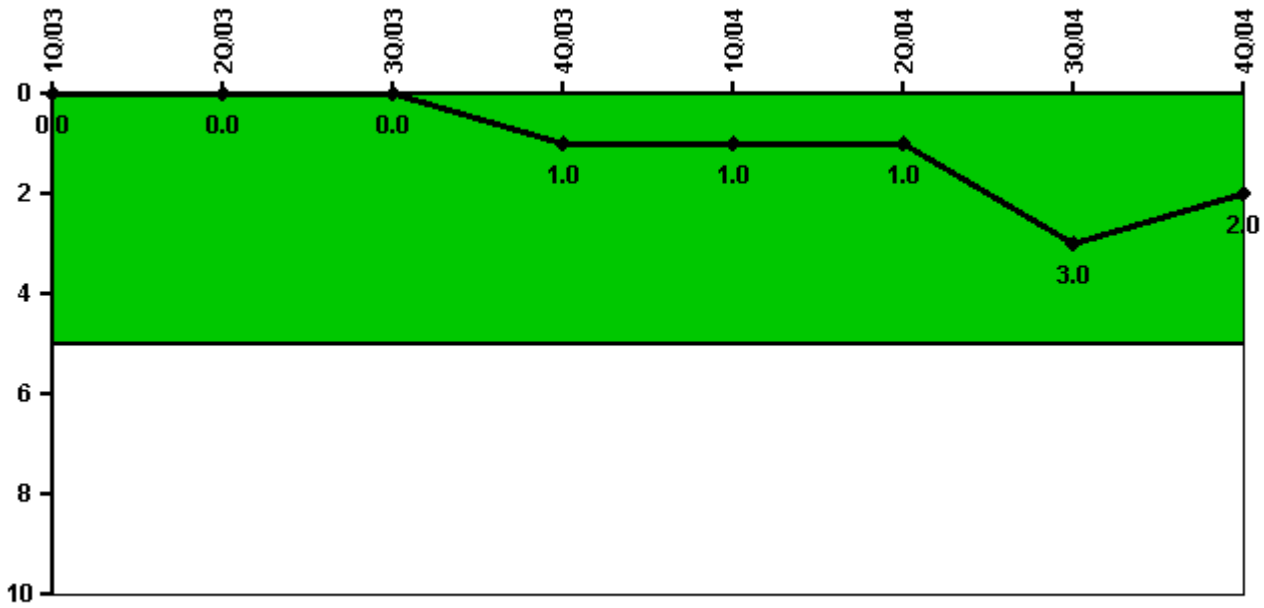
Safety System Unavailability, Heat Removal System (AFW)	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04	3Q/04	4Q/04
Train 1								
Planned unavailable hours	1.34	14.38	1.14	13.65	2.25	0.67	4.88	30.40
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2057.75	2184.00	2170.92	2208.00	2094.30	1216.00	2208.00	2208.00
Train 2								
Planned unavailable hours	0.55	33.20	2.23	7.70	15.38	0.20	9.83	2.50
Unplanned unavailable hours	0	0	0	0	0	2.42	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	2057.75	2184.00	2170.92	2208.00	2094.30	1216.00	2208.00	2208.00
Train 3								
Planned unavailable hours	0.87	0.35	0.52	0.58	0.62	0	0.47	0.75
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	2057.75	2184.00	2170.92	2208.00	2094.30	1216.00	2208.00	2208.00
Indicator value	0.3%	0.4%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%

Licensee Comments: none

Licensee Comments:

4Q/04: An engineering evaluation of RHR unavailability due to air in the containment recirculation sump piping determined that the RHR system was able to perform its intended safety function. No design deficiency existed. As such, no fault exposure hours are included in the calculation of the unavailability indicator.

Safety System Functional Failures (PWR)



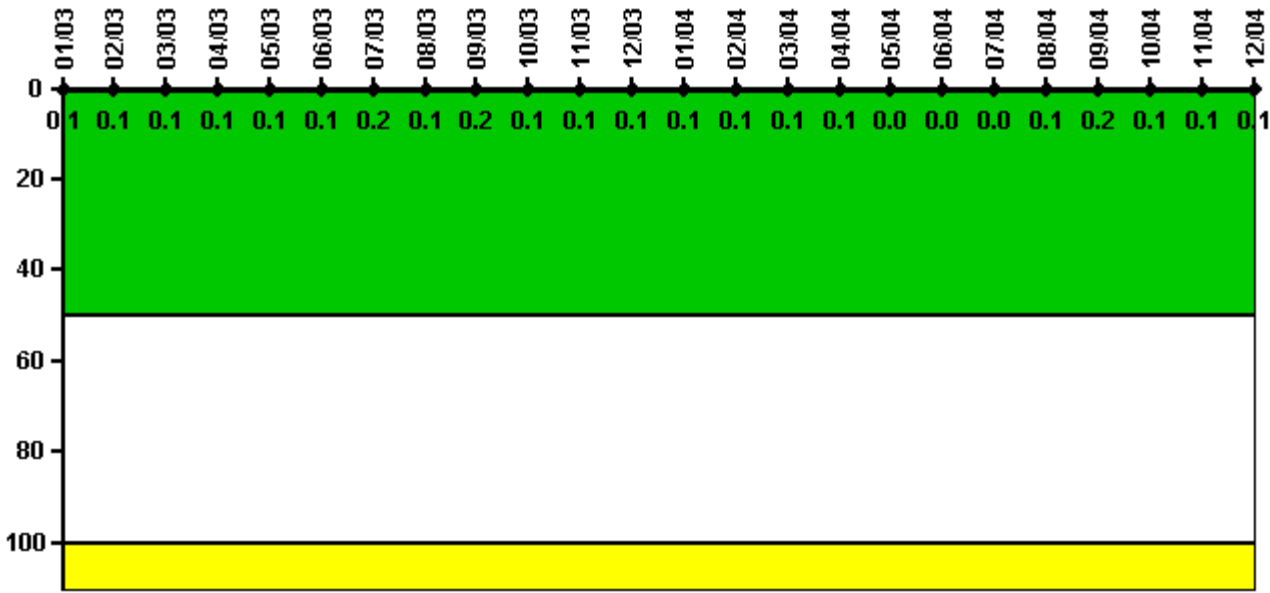
Thresholds: White > 5.0

Notes

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

Licensee Comments: none

Reactor Coolant System Activity



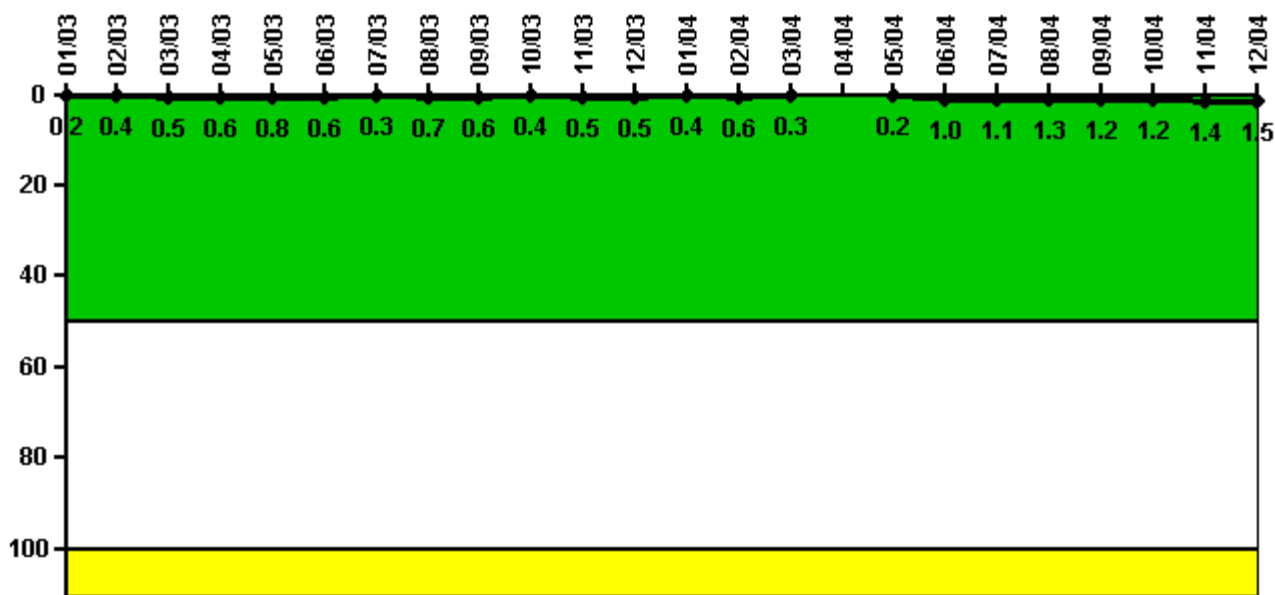
Thresholds: White > 50.0 Yellow > 100.0

Notes

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
Reactor Coolant System Activity	1/04	2/04	3/04	4/04	5/04	6/04	7/04	8/04	9/04	10/04	11/04	12/04
Maximum activity	0.001080	0.001050	0.001100	0.001120	0.000431	0.000458	0.000482	0.000546	0.001620	0.000589	0.000613	0.000643
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	0	0	0.1	0.2	0.1	0.1	0.1

Licensee Comments: none

Reactor Coolant System Leakage



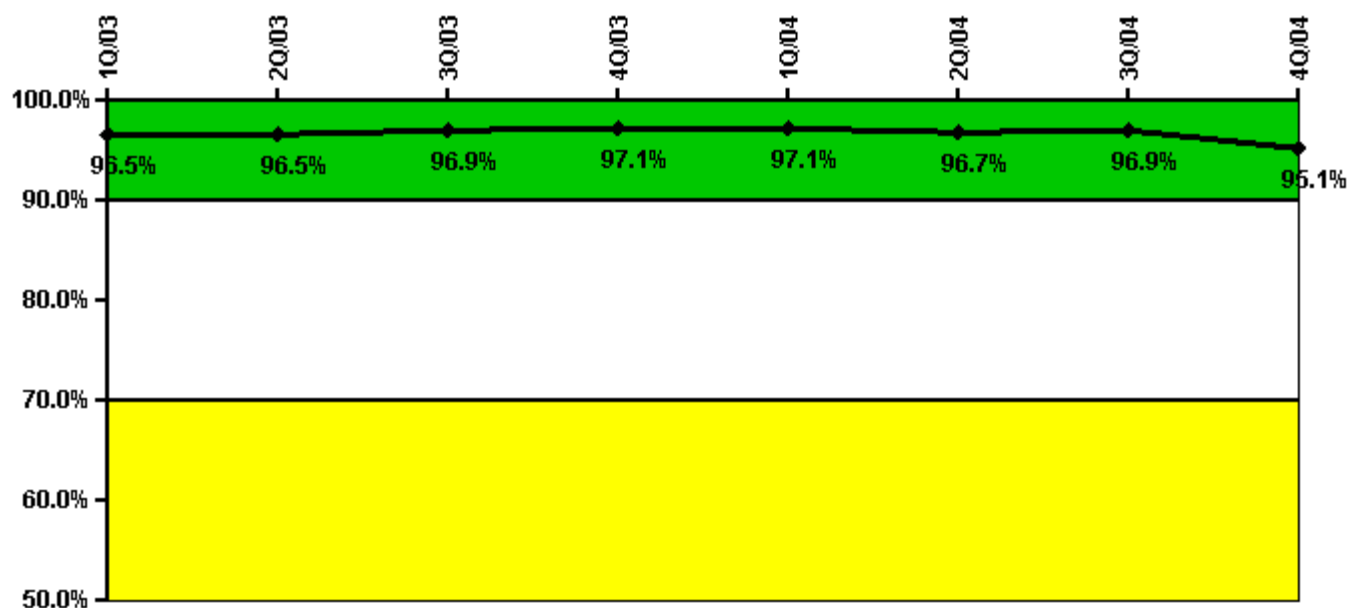
Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Leakage	1/03	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
Reactor Coolant System Leakage	1/04	2/04	3/04	4/04	5/04	6/04	7/04	8/04	9/04	10/04	11/04	12/04
Maximum leakage	0.044	0.055	0.026	N/A	0.022	0.098	0.108	0.133	0.116	0.119	0.142	0.151
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	0.6	0.3	N/A	0.2	1.0	1.1	1.3	1.2	1.2	1.4	1.5

Licensee Comments: none

Drill/Exercise Performance



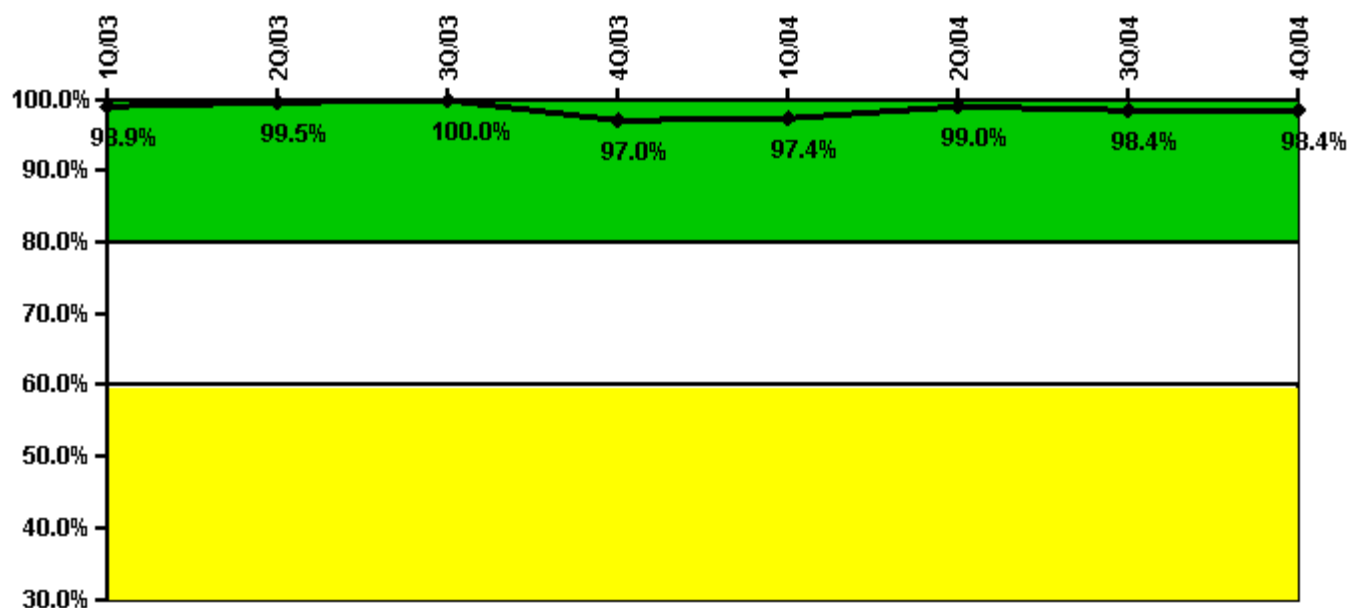
Thresholds: White < 90.0% Yellow < 70.0%

Notes

Drill/Exercise Performance	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04	3Q/04	4Q/04
Successful opportunities	14.0	8.0	280.0	38.0	19.0	14.0	111.0	97.0
Total opportunities	18.0	8.0	287.0	38.0	20.0	17.0	112.0	111.0
Indicator value	96.5%	96.5%	96.9%	97.1%	97.1%	96.7%	96.9%	95.1%

Licensee Comments: none

ERO Drill Participation



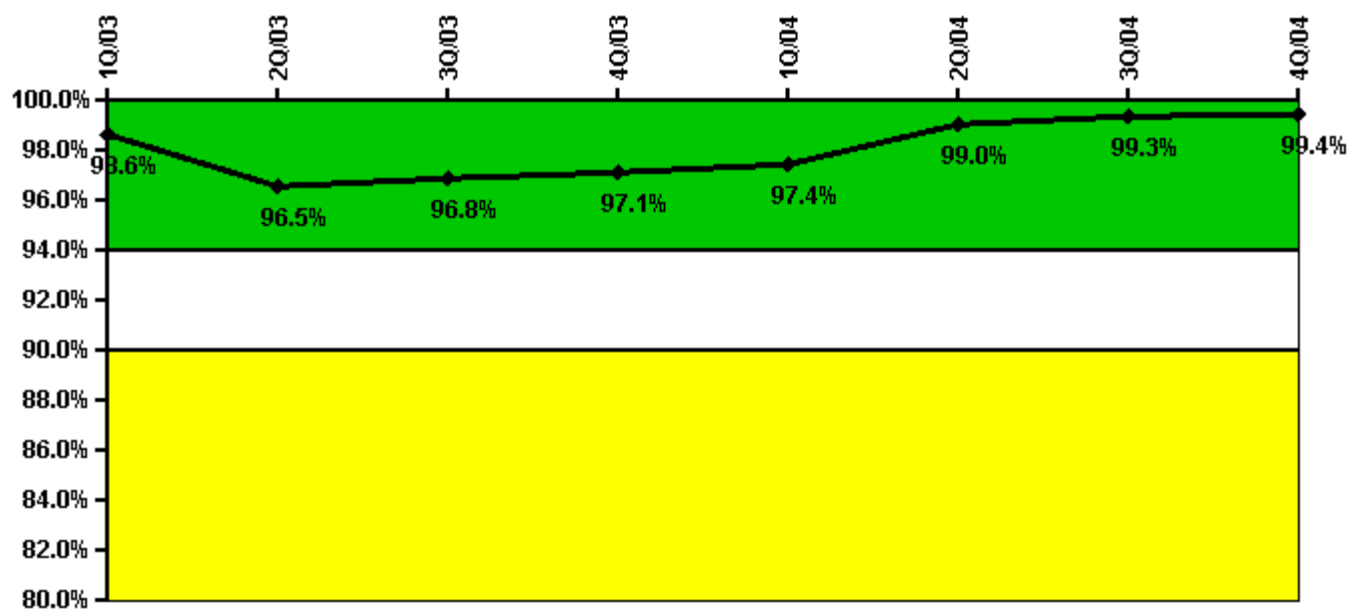
Thresholds: White < 80.0% Yellow < 60.0%

Notes

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

Licensee Comments: none

Alert & Notification System



Thresholds: White < 94.0% Yellow < 90.0%

Notes

Alert & Notification System	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04	3Q/04	4Q/04
Successful siren-tests	349	503	700	867	712	798	792	872
Total sirens-tests	349	546	714	882	714	798	798	882
Indicator value	98.6%	96.5%	96.8%	97.1%	97.4%	99.0%	99.3%	99.4%

Licensee Comments: none

Occupational Exposure Control Effectiveness



Thresholds: White > 2.0 Yellow > 5.0

Notes

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

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

Last Modified: March 9, 2005