## Palo Verde 3

## 4Q/2000 Performance Indicators

## Unplanned Scrams per 7000 Critical Hrs



Thresholds: White > 3.0 Yellow $>\mathbf{6 . 0}$ Red $>\mathbf{2 5 . 0}$

## Notes

| Unplanned Scrams per 7000 Critical Hrs | 4Q/99 | 1Q/00 | 2Q/00 | 3Q/00 | 4Q/00 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Unplanned scrams | 0 | 0 | 0 | 0 | 0 |
| Critical hours | 2208.0 | 2184.0 | 1461.5 | 2131.3 | 2164.8 |
|  |  |  |  |  |  |
| Indicator value | 0 | 0 | 0 | 0 | 0 |

Scrams with Loss of Normal Heat Removal


Thresholds: White > $\mathbf{2 . 0}$ Yellow > $\mathbf{1 0 . 0}$ 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 | 0 | 0 |
|  |  |  |  |  |  |
| Indicator value | 0 | 0 | 0 | 0 | 0 |

## Unplanned Power Changes per 7000 Critical Hrs



Thresholds: White > 6.0

## Notes

| Unplanned Power Changes per 7000 Critical Hrs | $\mathbf{4 Q / 9 9}$ | $\mathbf{1 Q / 0 0}$ | $\mathbf{2 Q} / \mathbf{0 0}$ | $\mathbf{3 Q / 0 0}$ | $\mathbf{4 Q} / \mathbf{0 0}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Unplanned power changes | 0 | 0 | 0 | 1.0 | 0 |
| Critical hours | 2208.0 | 2184.0 | 1461.5 | 2131.3 | 2164.8 |
|  |  |  |  |  |  |
| Indicator value | $\mathbf{0 . 8}$ | $\mathbf{0 . 8}$ | $\mathbf{0 . 9}$ | $\mathbf{0 . 9}$ | $\mathbf{0 . 9}$ |

## 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 | 0 | 0.35 | 24.97 | 0 |
| Unplanned unavailable hours | 2.22 | 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 | 0 | 13.72 | 15.08 | 0 | 0 |
| Unplanned unavailable hours | 0 | 1.01 | 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 | 0.5\% | 0.5\% | 0.5\% | 0.5\% | 0.5\% |

## 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 | 2.30 | 10.25 | 3.40 | 29.71 | 8.72 |
| 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 | 1461.50 | 2131.25 | 2164.78 |
| Train 2 |  |  |  |  |  |
| Planned unavailable hours | 34.83 | 9.22 | 21.47 | 1.14 | 43.32 |
| Unplanned unavailable hours | 0 | 11.47 | 0 | 0 | 0 |
| Fault exposure hours | 0 | 984.14 | 0 | 0 | 0 |
| Effective Reset hours | 0 | 0 | 0 | 0 | 0 |
| Required hours | 2208.00 | 2184.00 | 1461.50 | 2131.25 | 2164.78 |
|  |  |  |  |  |  |
| Indicator value | 1.2\% | 3.0\% | 3.1\% | 3.1\% | 3.1\% |

Licensee Comments:
1Q/00: Fault exposure on HPSI Train 2 removed in accordance with the provisions of NEI 99-02.
Effective Reset Comments:
1Q/98: Previously reset hours were reset under the new process.

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 | 0.65 | 4.02 | 1.27 | 15.75 | 2.08 |
| 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 | 1461.50 | 2131.25 | 2164.78 |
| Train 2 |  |  |  |  |  |
| Planned unavailable hours | 1.93 | 6.86 | 9.78 | 0.58 | 21.73 |
| 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 | 1461.50 | 2131.25 | 2164.78 |
| Train 3 |  |  |  |  |  |
| Planned unavailable hours | 0.62 | 0.05 | 0 | 1.05 | 0.75 |
| 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 | 1461.50 | 2131.25 | 2164.78 |
|  |  |  |  |  |  |
| Indicator value | 0.7\% | 0.6\% | 0.5\% | 0.5\% | 0.5\% |

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 | 13.05 | 19.84 | 6.32 | 18.19 | 5.00 |
| 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 | 1516.87 | 2142.10 | 2204.97 |
| Train 2 |  |  |  |  |  |
| Planned unavailable hours | 46.62 | 19.97 | 18.05 | 12.84 | 39.16 |
| 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 | 1516.87 | 2142.10 | 2204.97 |
| 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 | 335.80 | 0 | 0 |
| 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 | 294.12 | 65.90 | 3.03 |
|  |  |  |  |  |  |
| Indicator value |  |  | 0.6\% | 0.6\% | 0.6\% |

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 . 45 planned unavailability hours were added to quarters 2 Q98 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 | 0 |
|  |  |  |  |  |  |
| Indicator value | 0 | 0 | 0 | 0 | 0 |

## 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 | 0 | 0 | N/A | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Technical specification limit | 1.0 | 1.0 | 1.0 | N/A | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| Indicator value | 0 | 0 | 0 | N/A | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

## 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 | 0.243 | 0.220 | 0.264 | 0.001 | 0.048 | 0.017 | 0.047 | 0.035 | 0.034 | 0.065 | 0.074 | 0.022 |
| 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 | 2.4 | 2.2 | 2.6 | 0 | 0.5 | 0.2 | 0.5 | 0.4 | 0.3 | 0.7 | 0.7 | 0.2 |

## Drill/Exercise Performance



Thresholds: White < 90.0\% Yellow < 70.0\%

## Notes

| Drill/Exercise Performance | $\mathbf{4 Q / 9 9}$ | $\mathbf{1 Q / 0 0}$ | $\mathbf{2 Q / 0 0}$ | $\mathbf{3 Q / 0 0}$ | $\mathbf{4 Q / 0 0}$ |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Successful opportunities | 3.0 | 29.0 | 22.0 | 95.0 | 0 |
| Total opportunities | 3.0 | 32.0 | 22.0 | 100.0 | 0 |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
| Indicator value | $\mathbf{9 3 . 8 \%}$ | $\mathbf{9 2 . 5 \%}$ | $\mathbf{9 4 . 4 \%}$ | $\mathbf{9 5 . 2 \%}$ | $\mathbf{9 5 . 2 \%}$ |

## 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 | $\mathbf{2 Q / 0 0}$ | $\mathbf{3 Q / 0 0}$ | 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 | $\mathbf{9 5 . 6 \%}$ | $\mathbf{1 0 0 . 0 \%}$ | $\mathbf{9 9 . 4 \%}$ | $\mathbf{9 8 . 8 \%}$ | $\mathbf{9 3 . 7 \%}$ |

## 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 | $\mathbf{4 Q / 9 9}$ | $\mathbf{1 Q / 0 0}$ | $\mathbf{2 Q / 0 0}$ | $\mathbf{3 Q / 0 0}$ | $\mathbf{4 Q / 0 0}$ |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Successful siren-tests | 426 | 390 | 385 | 347 | 467 |
| Total sirens-tests | 429 | 390 | 390 | 351 | 468 |
|  |  |  |  |  |  |
| Indicator value |  |  |  |  |  |

## Occupational Exposure Control Effectiveness



Thresholds: White > 2.0 Yellow > 5.0

## Notes

| Occupational Exposure Control Effectiveness | $\mathbf{4 Q / 9 9}$ | $\mathbf{1 Q / 0 0}$ | $\mathbf{2 Q / 0 0}$ | $\mathbf{3 Q / 0 0}$ | $\mathbf{4 Q / 0 0}$ |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| High radiation area occurrences | 1 | 0 | 1 | 0 | 0 | 0 |
| Very high radiation area occurrences | 0 | 0 | 0 | 0 | 0 | 0 |
| Unintended exposure occurrences | 0 | 0 | 0 | 0 | 0 |  |
| Indicator value | 0 | 0 | 0 | 0 |  |  |

## 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 $\mathrm{mrem} / \mathrm{hr}$ 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.

## RETSIODCM 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 |

## Protected Area Security Performance Index



Thresholds: White > 0.080

## Notes

| Protected Area Security Performance Index | $\mathbf{4 Q / 9 9}$ | $\mathbf{1 Q / 0 0}$ | $\mathbf{2 Q / 0 0}$ | $\mathbf{3 Q / 0 0}$ | $\mathbf{4 Q / 0 0}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| 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 | $\mathbf{0 . 0 2 4}$ | $\mathbf{0 . 0 3 4}$ | $\mathbf{0 . 0 3 8}$ | $\mathbf{0 . 0 3 8}$ | $\mathbf{0 . 0 2 4}$ |

## 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 |

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

