

Palo Verde 2

2Q/2011 Performance Indicators

Licensee's General Comments: none

Unplanned Scrams per 7000 Critical Hrs



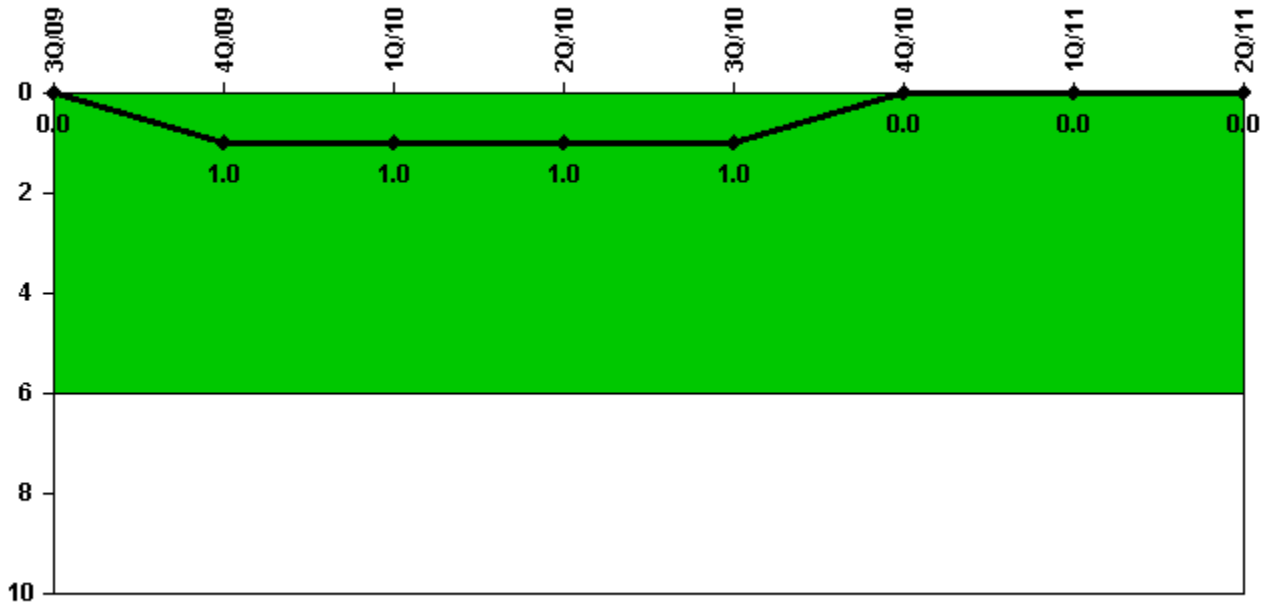
Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

Notes

| Unplanned Scrams per 7000 Critical Hrs | 3Q/09 | 4Q/09 | 1Q/10 | 2Q/10 | 3Q/10 | 4Q/10 | 1Q/11 | 2Q/11 |
|--|--------|-------|--------|--------|--------|--------|--------|--------|
| Unplanned scrams | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Critical hours | 2208.0 | 787.4 | 2160.0 | 2184.0 | 2208.0 | 2208.0 | 2160.0 | 1384.5 |
| 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 | 3Q/09 | 4Q/09 | 1Q/10 | 2Q/10 | 3Q/10 | 4Q/10 | 1Q/11 | 2Q/11 |
|---|--------|-------|--------|--------|--------|--------|--------|--------|
| Unplanned power changes | 0 | 1.0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Critical hours | 2208.0 | 787.4 | 2160.0 | 2184.0 | 2208.0 | 2208.0 | 2160.0 | 1384.5 |
| Indicator value | 0 | 1.0 | 1.0 | 1.0 | 1.0 | 0 | 0 | 0 |

Licensee Comments: none

Unplanned Scrams with Complications



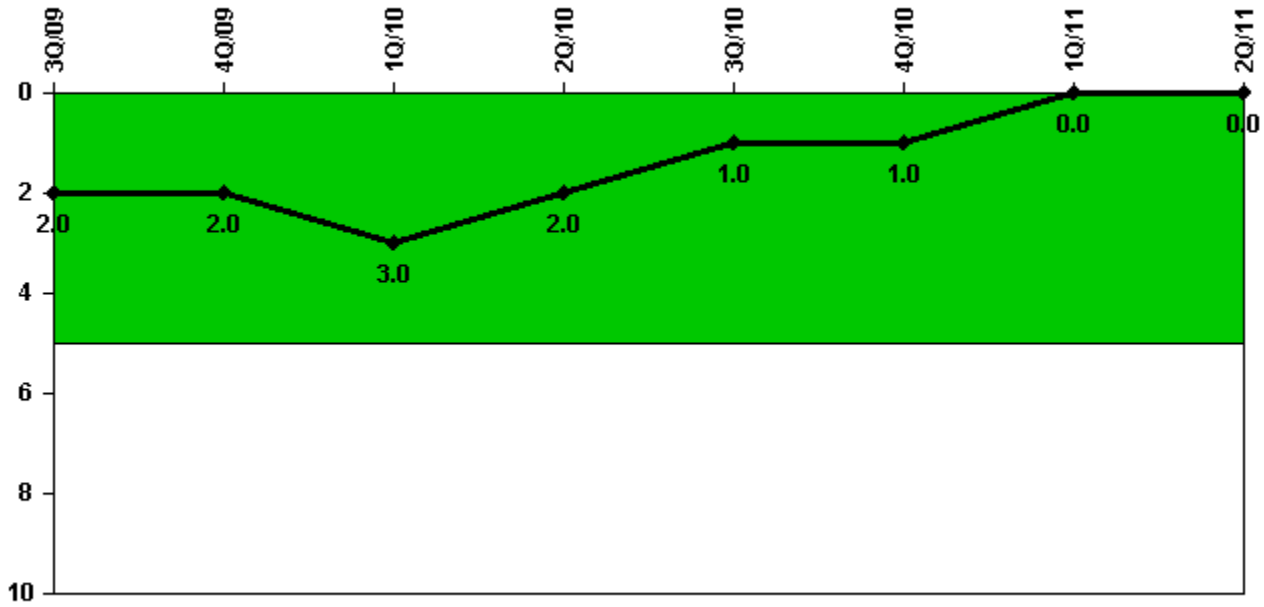
Thresholds: White > 1.0

Notes

| Unplanned Scrams with Complications | 3Q/09 | 4Q/09 | 1Q/10 | 2Q/10 | 3Q/10 | 4Q/10 | 1Q/11 | 2Q/11 |
|-------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| Scrams with complications | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | | | | | | | |
| Indicator value | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

Licensee Comments: none

Safety System Functional Failures (PWR)



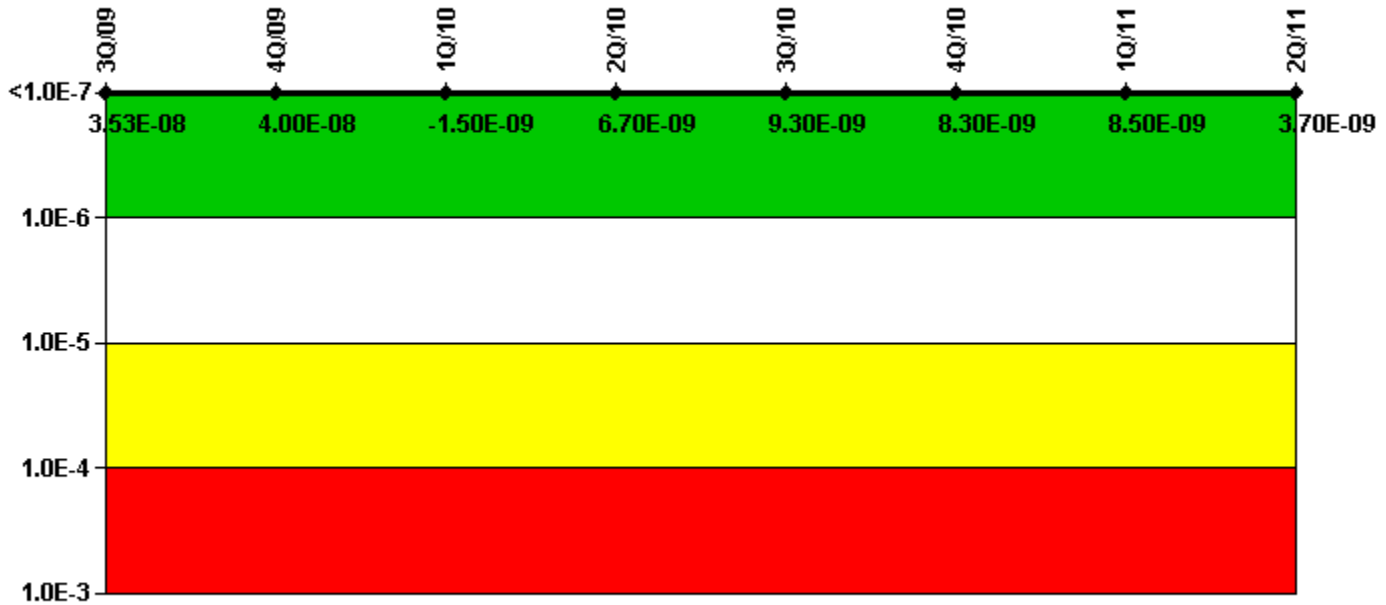
Thresholds: White > 5.0

Notes

| Safety System Functional Failures (PWR) | 3Q/09 | 4Q/09 | 1Q/10 | 2Q/10 | 3Q/10 | 4Q/10 | 1Q/11 | 2Q/11 |
|---|-------|-------|-------|-------|-------|-------|-------|-------|
| Safety System Functional Failures | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| Indicator value | 2 | 2 | 3 | 2 | 1 | 1 | 0 | 0 |

Licensee Comments: none

Mitigating Systems Performance Index, Emergency AC Power System



Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

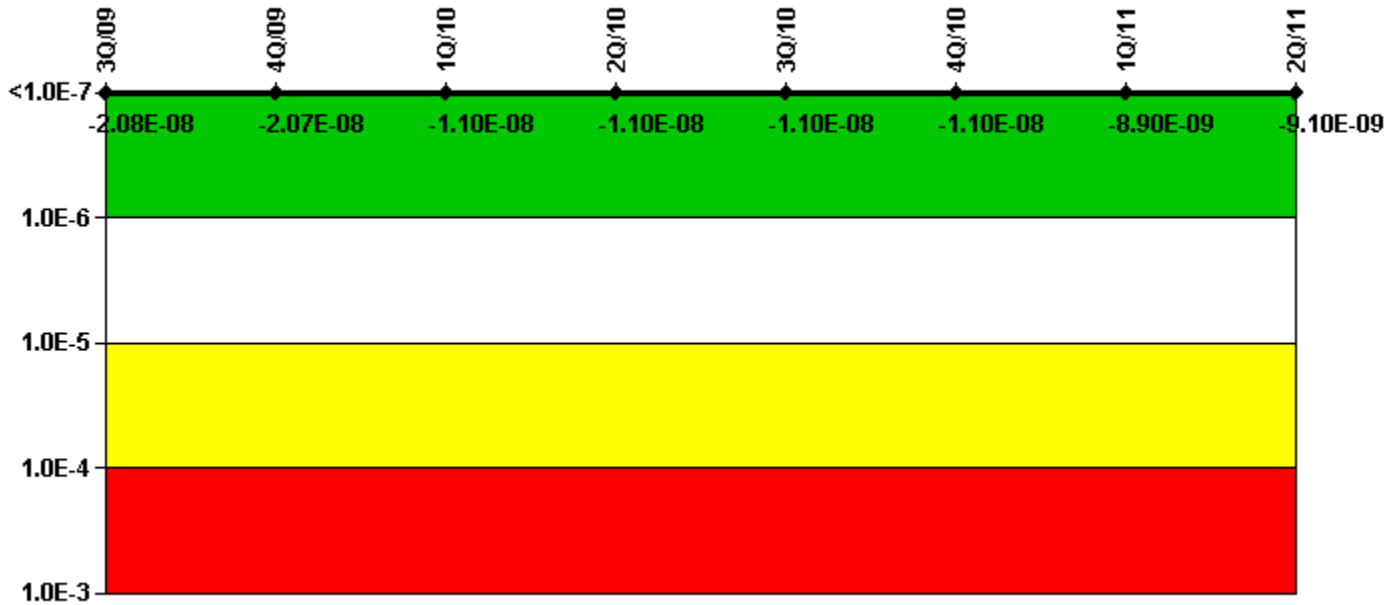
Notes

| Mitigating Systems Performance Index, Emergency AC Power System | 3Q/09 | 4Q/09 | 1Q/10 | 2Q/10 | 3Q/10 | 4Q/10 | 1Q/11 | 2Q/11 |
|---|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| UAI (Δ CDF) | 4.40E-08 | 5.40E-08 | 1.82E-08 | 1.60E-08 | 2.03E-08 | 2.09E-08 | 2.25E-08 | 2.08E-08 |
| URI (Δ CDF) | -8.70E-09 | -1.40E-08 | -1.97E-08 | -9.34E-09 | -1.10E-08 | -1.25E-08 | -1.40E-08 | -1.72E-08 |
| PLE | NO | NO | NO | NO | NO | NO | NO | NO |
| Indicator value | 3.53E-08 | 4.00E-08 | -1.50E-09 | 6.70E-09 | 9.30E-09 | 8.30E-09 | 8.50E-09 | 3.70E-09 |

Licensee Comments:

2Q/11: Changed PRA Parameter(s). A PVNGS PRA Model was completed in January 2011 with a corresponding MSPI Basis Document revision in March 2011. The PRA model revision was a periodic update to the model. As a result of the PRA model change, the Core Damage Frequency and Fussel-Vesely for all monitored trains and components were revised in CDE.

Mitigating Systems Performance Index, High Pressure Injection System



Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

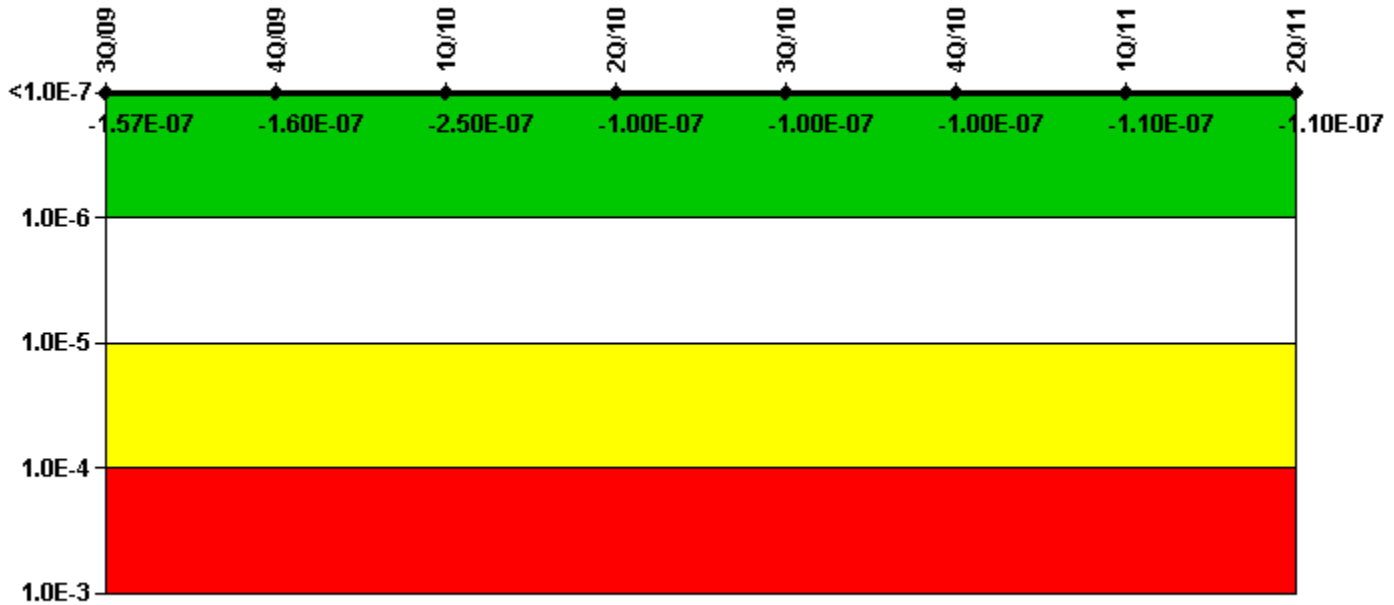
Notes

| Mitigating Systems Performance Index, High Pressure Injection System | 3Q/09 | 4Q/09 | 1Q/10 | 2Q/10 | 3Q/10 | 4Q/10 | 1Q/11 | 2Q/11 |
|--|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| UAI (ΔCDF) | 1.20E-09 | 1.30E-09 | 2.80E-09 | 2.19E-09 | 1.72E-09 | 1.54E-09 | 3.72E-09 | 2.65E-09 |
| URI (ΔCDF) | -2.20E-08 | -2.20E-08 | -1.40E-08 | -1.34E-08 | -1.32E-08 | -1.29E-08 | -1.26E-08 | -1.17E-08 |
| PLE | NO | NO | NO | NO | NO | NO | NO | NO |
| Indicator value | -2.08E-08 | -2.07E-08 | -1.10E-08 | -1.10E-08 | -1.10E-08 | -1.10E-08 | -8.90E-09 | -9.10E-09 |

Licensee Comments:

2Q/11: Changed PRA Parameter(s). A PVNGS PRA Model was completed in January 2011 with a corresponding MSPI Basis Document revision in March 2011. The PRA model revision was a periodic update to the model. As a result of the PRA model change, the Core Damage Frequency and Fussel-Vesely for all monitored trains and components were revised in CDE.

Mitigating Systems Performance Index, Heat Removal System



Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

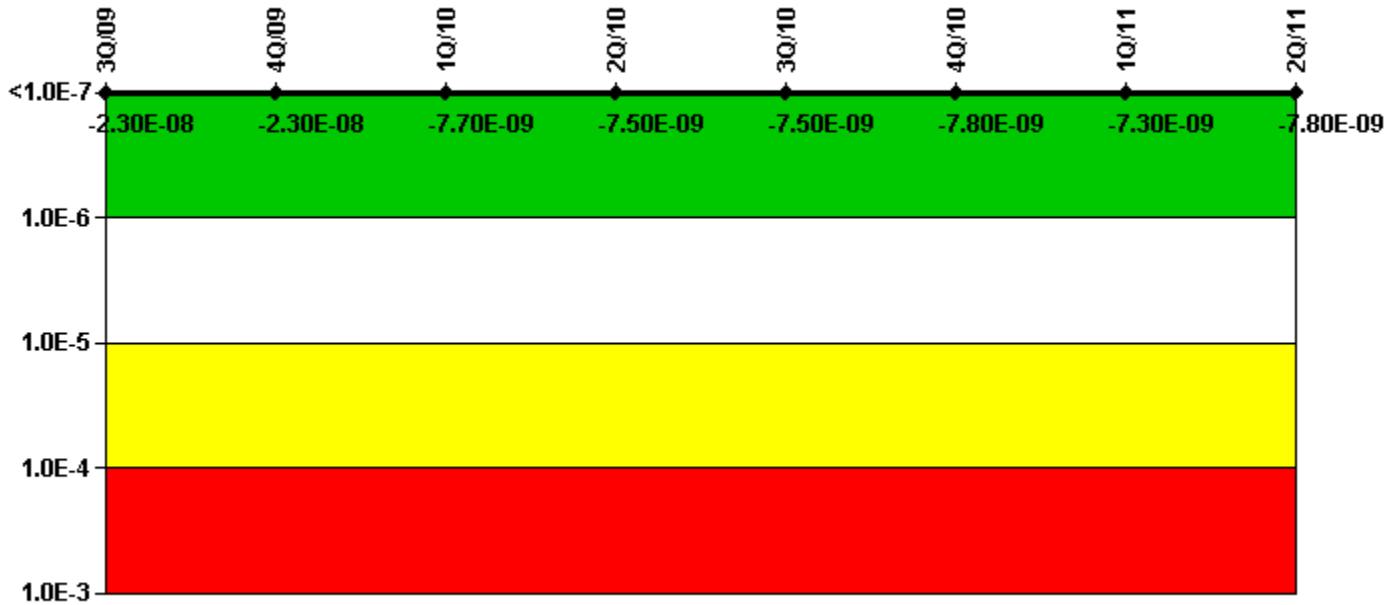
Notes

| Mitigating Systems Performance Index, Heat Removal System | 3Q/09 | 4Q/09 | 1Q/10 | 2Q/10 | 3Q/10 | 4Q/10 | 1Q/11 | 2Q/11 |
|---|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| UAI (Δ CDF) | -6.00E-08 | -6.00E-08 | -1.08E-07 | -4.30E-08 | -4.30E-08 | -4.33E-08 | -4.33E-08 | -4.36E-08 |
| URI (Δ CDF) | -9.70E-08 | -1.00E-07 | -1.42E-07 | -5.81E-08 | -5.98E-08 | -6.15E-08 | -6.31E-08 | -6.26E-08 |
| PLE | NO | NO | NO | NO | NO | NO | NO | NO |
| Indicator value | -1.57E-07 | -1.60E-07 | -2.50E-07 | -1.00E-07 | -1.00E-07 | -1.00E-07 | -1.10E-07 | -1.10E-07 |

Licensee Comments:

2Q/11: Changed PRA Parameter(s). A PVNGS PRA Model was completed in January 2011 with a corresponding MSPI Basis Document revision in March 2011. The PRA model revision was a periodic update to the model. As a result of the PRA model change, the Core Damage Frequency and Fussel-Vesely for all monitored trains and components were revised in CDE.

Mitigating Systems Performance Index, Residual Heat Removal System



Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

| Mitigating Systems Performance Index, Residual Heat Removal System | 3Q/09 | 4Q/09 | 1Q/10 | 2Q/10 | 3Q/10 | 4Q/10 | 1Q/11 | 2Q/11 |
|--|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| UAI (Δ CDF) | -7.31E-10 | -6.52E-10 | -5.35E-10 | -5.76E-10 | -6.87E-10 | -1.10E-09 | -7.28E-10 | -1.37E-09 |
| URI (Δ CDF) | -2.25E-08 | -2.23E-08 | -7.14E-09 | -6.90E-09 | -6.78E-09 | -6.67E-09 | -6.55E-09 | -6.41E-09 |
| PLE | NO | NO | NO | NO | NO | NO | NO | NO |
| Indicator value | -2.30E-08 | -2.30E-08 | -7.70E-09 | -7.50E-09 | -7.50E-09 | -7.80E-09 | -7.30E-09 | -7.80E-09 |

Licensee Comments:

2Q/11: Changed PRA Parameter(s). A PVNGS PRA Model was completed in January 2011 with a corresponding MSPI Basis Document revision in March 2011. The PRA model revision was a periodic update to the model. As a result of the PRA model change, the Core Damage Frequency and Fussel-Vesely for all monitored trains and components were revised in CDE.

Mitigating Systems Performance Index, Cooling Water Systems



Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

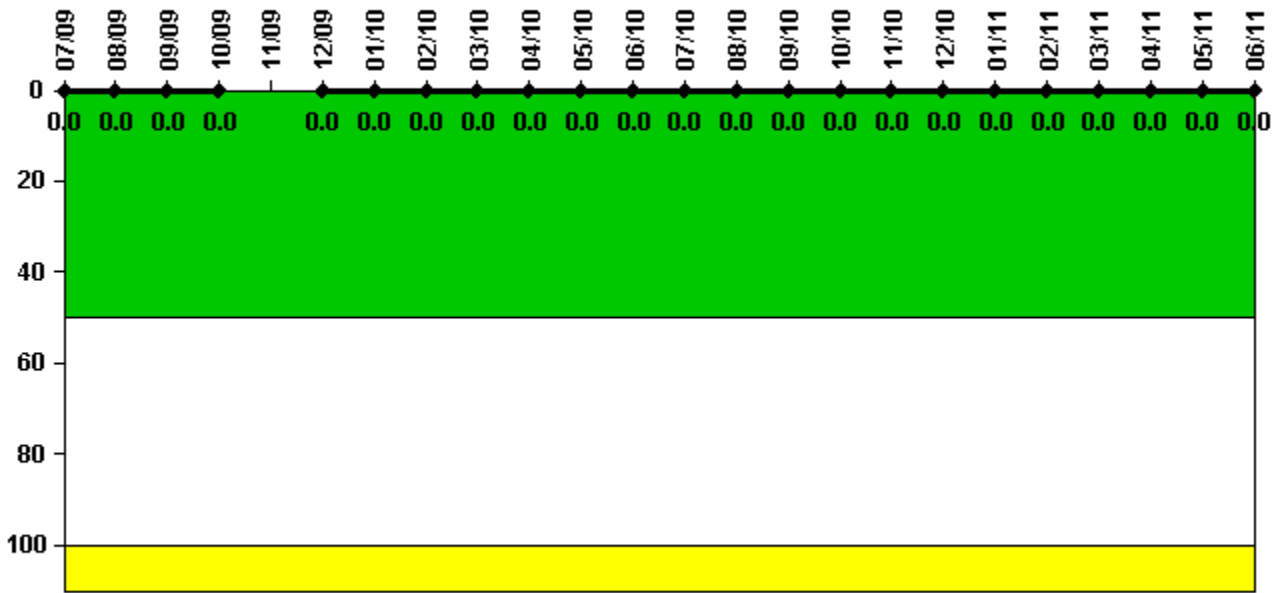
Notes

| Mitigating Systems Performance Index, Cooling Water Systems | 3Q/09 | 4Q/09 | 1Q/10 | 2Q/10 | 3Q/10 | 4Q/10 | 1Q/11 | 2Q/11 |
|---|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| UAI (Δ CDF) | 1.30E-09 | 1.30E-09 | 7.54E-09 | 6.91E-09 | 4.90E-09 | 2.93E-09 | 3.52E-09 | 2.87E-09 |
| URI (Δ CDF) | -1.90E-07 | -1.90E-07 | -4.99E-08 | -4.05E-08 | -4.09E-08 | -4.13E-08 | -4.17E-08 | -4.40E-08 |
| PLE | NO | NO | NO | NO | NO | NO | NO | NO |
| Indicator value | -1.89E-07 | -1.89E-07 | -4.20E-08 | -3.40E-08 | -3.60E-08 | -3.80E-08 | -3.80E-08 | -4.10E-08 |

Licensee Comments:

2Q/11: Changed PRA Parameter(s). A PVNGS PRA Model was completed in January 2011 with a corresponding MSPI Basis Document revision in March 2011. The PRA model revision was a periodic update to the model. As a result of the PRA model change, the Core Damage Frequency and Fussel-Vesely for all monitored trains and components were revised in CDE.

Reactor Coolant System Activity



Thresholds: White > 50.0 Yellow > 100.0

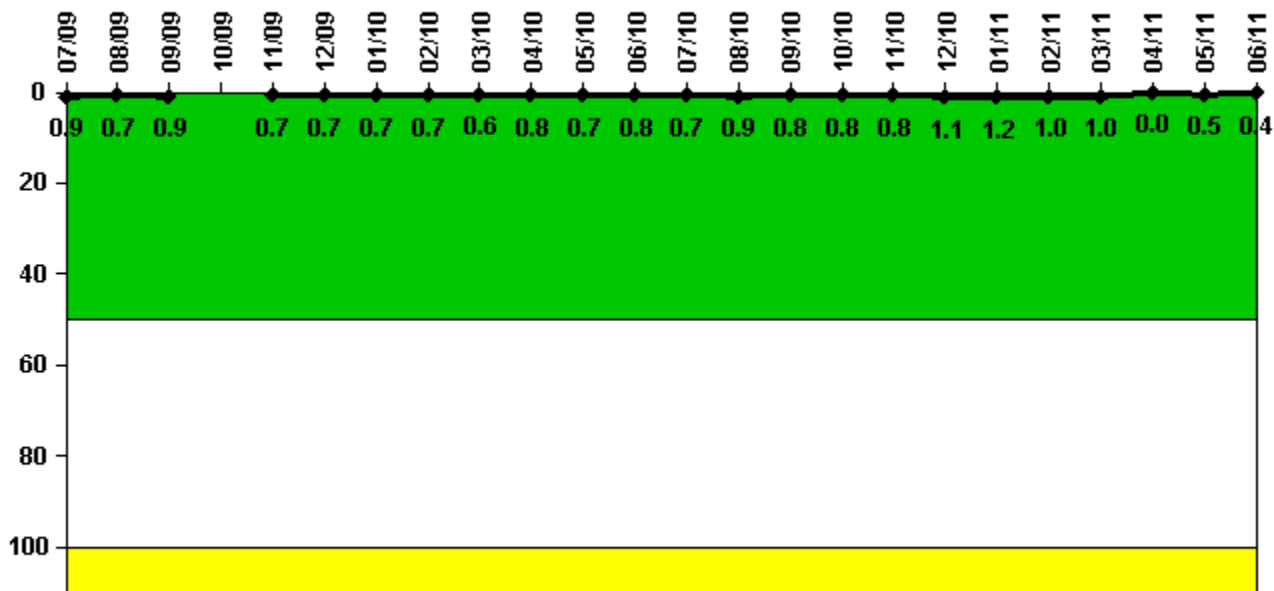
Notes

| Reactor Coolant System Activity | 7/09 | 8/09 | 9/09 | 10/09 | 11/09 | 12/09 | 1/10 | 2/10 | 3/10 | 4/10 | 5/10 | 6/10 |
|---------------------------------|----------|----------|----------|----------|-------|----------|----------|----------|----------|----------|----------|----------|
| Maximum activity | 0.000297 | 0.000295 | 0.000301 | 0.000292 | N/A | 0.000224 | 0.000226 | 0.000229 | 0.000237 | 0.000242 | 0.000250 | 0.000260 |
| 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 | 0 | 0 | 0 | N/A | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| Reactor Coolant System Activity | 7/10 | 8/10 | 9/10 | 10/10 | 11/10 | 12/10 | 1/11 | 2/11 | 3/11 | 4/11 | 5/11 | 6/11 |
|---------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Maximum activity | 0.000253 | 0.000258 | 0.000269 | 0.000270 | 0.000273 | 0.000278 | 0.000286 | 0.000293 | 0.000295 | 0.000250 | 0.000187 | 0.000195 |
| 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Licensee Comments: none

Reactor Coolant System Leakage



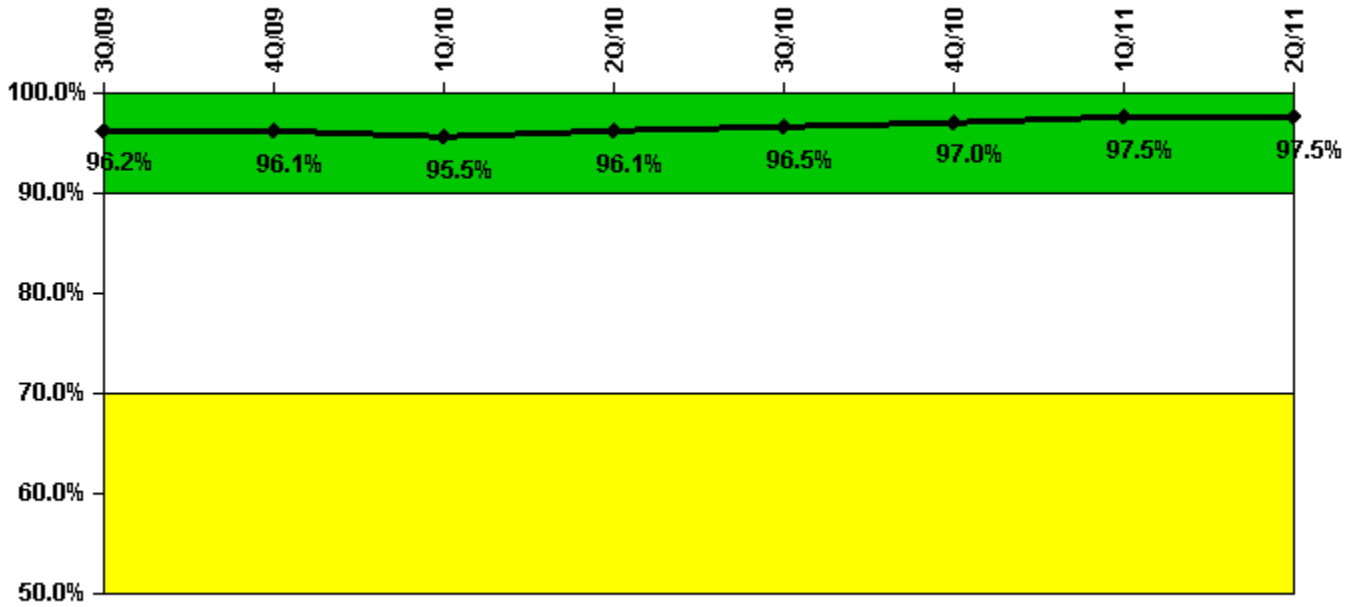
Thresholds: White > 50.0 Yellow > 100.0

Notes

| Reactor Coolant System Leakage | 7/09 | 8/09 | 9/09 | 10/09 | 11/09 | 12/09 | 1/10 | 2/10 | 3/10 | 4/10 | 5/10 | 6/10 |
|--------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Maximum leakage | 0.085 | 0.069 | 0.087 | N/A | 0.068 | 0.068 | 0.068 | 0.067 | 0.058 | 0.076 | 0.067 | 0.077 |
| 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 | 0.9 | 0.7 | 0.9 | N/A | 0.7 | 0.7 | 0.7 | 0.7 | 0.6 | 0.8 | 0.7 | 0.8 |
| Reactor Coolant System Leakage | 7/10 | 8/10 | 9/10 | 10/10 | 11/10 | 12/10 | 1/11 | 2/11 | 3/11 | 4/11 | 5/11 | 6/11 |
| Maximum leakage | 0.074 | 0.091 | 0.079 | 0.081 | 0.082 | 0.112 | 0.115 | 0.101 | 0.098 | 0 | 0.050 | 0.036 |
| 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 | 0.7 | 0.9 | 0.8 | 0.8 | 0.8 | 1.1 | 1.2 | 1.0 | 1.0 | 0 | 0.5 | 0.4 |

Licensee Comments: none

Drill/Exercise Performance



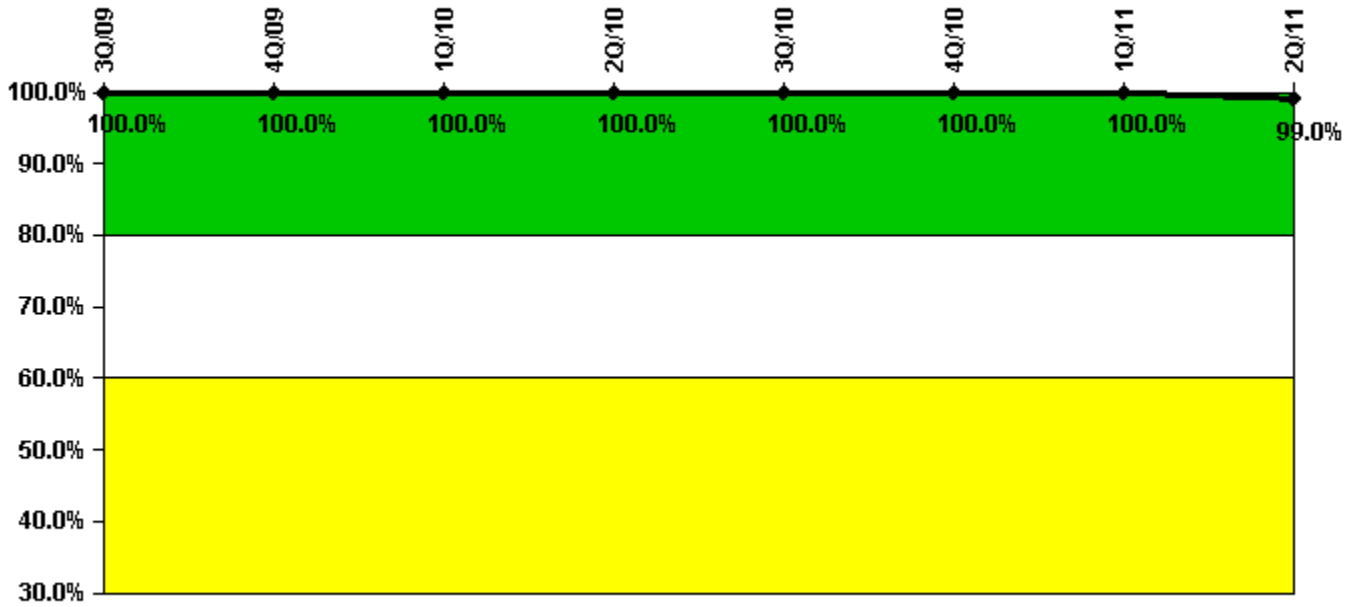
Thresholds: White < 90.0% Yellow < 70.0%

Notes

| Drill/Exercise Performance | 3Q/09 | 4Q/09 | 1Q/10 | 2Q/10 | 3Q/10 | 4Q/10 | 1Q/11 | 2Q/11 |
|----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| Successful opportunities | 49.0 | 13.0 | 86.0 | 81.0 | 126.0 | 20.0 | 91.0 | 10.0 |
| Total opportunities | 50.0 | 14.0 | 90.0 | 84.0 | 127.0 | 20.0 | 93.0 | 10.0 |
| Indicator value | 96.2% | 96.1% | 95.5% | 96.1% | 96.5% | 97.0% | 97.5% | 97.5% |

Licensee Comments: none

ERO Drill Participation



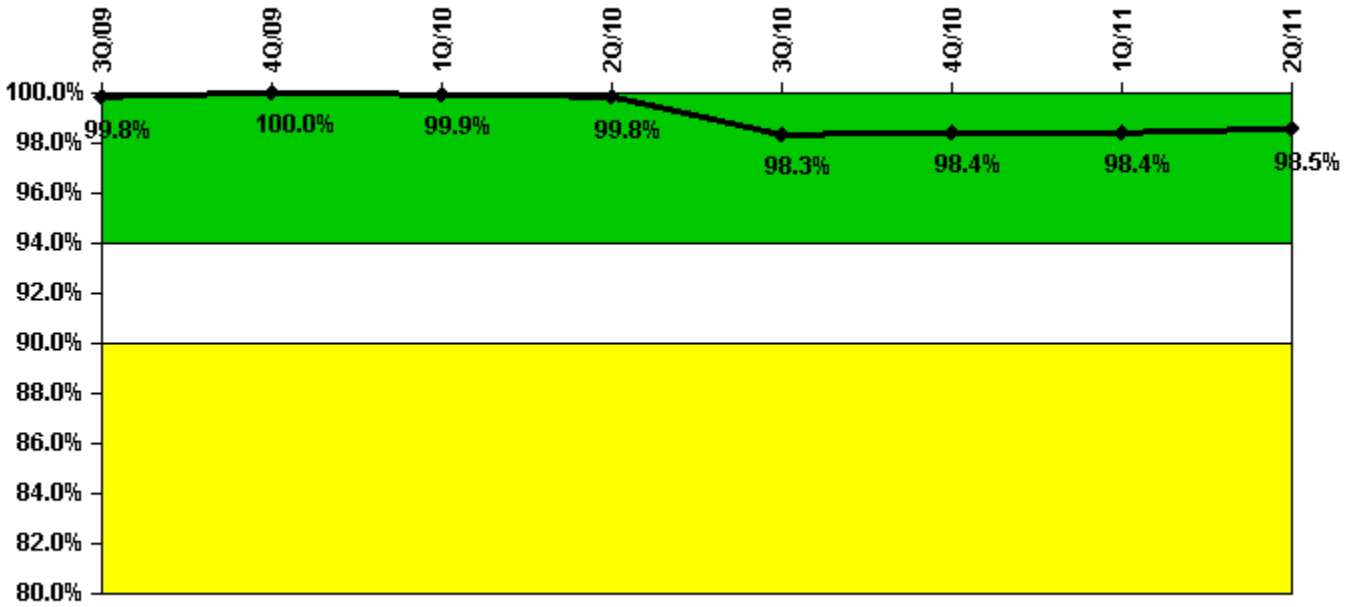
Thresholds: White < 80.0% Yellow < 60.0%

Notes

| ERO Drill Participation | 3Q/09 | 4Q/09 | 1Q/10 | 2Q/10 | 3Q/10 | 4Q/10 | 1Q/11 | 2Q/11 |
|-----------------------------|--------|--------|--------|--------|--------|--------|--------|-------|
| Participating Key personnel | 95.0 | 92.0 | 97.0 | 102.0 | 97.0 | 101.0 | 92.0 | 95.0 |
| Total Key personnel | 95.0 | 92.0 | 97.0 | 102.0 | 97.0 | 101.0 | 92.0 | 96.0 |
| | | | | | | | | |
| Indicator value | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 99.0% |

Licensee Comments: none

Alert & Notification System



Thresholds: White < 94.0% Yellow < 90.0%

Notes

| Alert & Notification System | 3Q/09 | 4Q/09 | 1Q/10 | 2Q/10 | 3Q/10 | 4Q/10 | 1Q/11 | 2Q/11 |
|-----------------------------|-------|--------|-------|-------|-------|-------|-------|-------|
| Successful siren-tests | 296 | 333 | 911 | 909 | 864 | 1000 | 912 | 912 |
| Total sirens-tests | 296 | 333 | 912 | 912 | 912 | 1008 | 912 | 912 |
| | | | | | | | | |
| Indicator value | 99.8% | 100.0% | 99.9% | 99.8% | 98.3% | 98.4% | 98.4% | 98.5% |

Licensee Comments: none

Occupational Exposure Control Effectiveness



Thresholds: White > 2.0 Yellow > 5.0

Notes

| Occupational Exposure Control Effectiveness | 3Q/09 | 4Q/09 | 1Q/10 | 2Q/10 | 3Q/10 | 4Q/10 | 1Q/11 | 2Q/11 |
|---|----------|----------|----------|----------|----------|----------|----------|----------|
| 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 | 3Q/09 | 4Q/09 | 1Q/10 | 2Q/10 | 3Q/10 | 4Q/10 | 1Q/11 | 2Q/11 |
|---------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| RETS/ODCM occurrences | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Indicator value | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Licensee Comments: none

[Security](#) information not publicly available.