Kewaunee

## 4Q/2006 Performance Indicators

## Unplanned Scrams per 7000 Critical Hrs



Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

## Notes

| Unplanned Scrams per 7000 Critical Hrs | $\mathbf{1 Q / 0 5}$ | $\mathbf{2 Q / 0 5}$ | $\mathbf{3 Q / 0 5}$ | $\mathbf{4 Q / 0 5}$ | $\mathbf{1 Q / 0 6}$ | $\mathbf{2 Q / 0 6}$ | $\mathbf{3 Q / 0 6}$ | $\mathbf{4 Q / 0 6}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Unplanned scrams | 0 | 0 | 0 | 1.0 | 0 | 1.0 | 0 | 2.0 |
| Critical hours | 1205.2 | 0 | 2189.6 | 2097.8 | 2160.0 | 1575.9 | 1512.7 | 1505.1 |
|  |  |  |  |  |  |  |  |  |
| I ndicator value | $\mathbf{0}$ | $\mathbf{0}$ | $\mathbf{0}$ | $\mathbf{1 . 3}$ | $\mathbf{1 . 1}$ | $\mathbf{1 . 7}$ | $\mathbf{1 . 9}$ | $\mathbf{3 . 1}$ |

## 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 | $\mathbf{1 Q / 0 5}$ | $\mathbf{2 Q / 0 5}$ | $\mathbf{3 Q / 0 5}$ | $\mathbf{4 Q / 0 5}$ | $\mathbf{1 Q / 0 6}$ | $\mathbf{2 Q / 0 6}$ | 3Q/06 | 4Q/06 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Scrams | 0 | 0 | 0 | 0 | 0 | 1.0 | 0 | 0 |
|  |  |  |  |  |  |  |  |  |
| I ndicator value | 0 | 0 | 0 | 0 | 0 | 1.0 | 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 | $\mathbf{1 Q / 0 5}$ | $\mathbf{2 Q / 0 5}$ | $\mathbf{3 Q} / \mathbf{0 5}$ | $\mathbf{4 Q} / \mathbf{0 5}$ | $\mathbf{1 Q / 0 6}$ | $\mathbf{2 Q} / \mathbf{0 6}$ | $\mathbf{3 Q} / \mathbf{0 6}$ | $\mathbf{4 Q} / \mathbf{0 6}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Unplanned power changes | 1.0 | 0 | 0 | 1.0 | 1.0 | 1.0 | 0 | 3.0 |
| Critical hours | 1205.2 | 0 | 2189.6 | 2097.8 | 2160.0 | 1575.9 | 1512.7 | 1505.1 |
|  |  |  |  |  |  |  |  |  |
| Indicator value | $\mathbf{1 . 1}$ | $\mathbf{1 . 6}$ | $\mathbf{1 . 6}$ | $\mathbf{2 . 5}$ | $\mathbf{2 . 2}$ | $\mathbf{2 . 6}$ | $\mathbf{2 . 9}$ | $\mathbf{5 . 2}$ |

Licensee Comments: none

Safety System Functional Failures (PWR)


Thresholds: White > 5.0

## Notes

| Safety System Functional Failures (PWR) | 1Q/ 05 | 2Q/ 05 | 3Q/05 | 4Q/05 | 1Q/06 | 2Q/06 | 3Q/06 | 4Q/ 06 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Safety System Functional Failures | 1 | 3 | 0 | 1 | 0 | 1 | 2 | 1 |
|  |  |  |  |  |  |  |  |  |
| I ndicator value | 2 | 5 | 5 | 5 | 4 | $\mathbf{2}$ | $\mathbf{4}$ | $\mathbf{4}$ |

Licensee Comments:
4Q/06: Added LER 2006-009, DG A inoperable due to identified fuel oil leak. Removed LER 2006-004, Incorrect Assumption regarding de-rate of EDGs during elevated load operation. This was reported under LER 2006-004 during 3rd QTR 2006 and removed in the 4th QTR after a past operability engineering evaluation determined that the EDGs would have been capable of performing its function during the time period in question (CA027907). LER 2006-003, Both trains of RHR inoperable due to internal flooding vulnerability was counted as an SSFF in 3rd QTR 2006. An engineering evaluation is in progress to determine if adequate flooding sources are available to actually cause both trains of RHR to become inoperable. The evaluation is expected to be completed in the 1st QTR of 2007.

3Q/06: July -- LERs 2006-003-00, 2006-004-00, and 2006-005-00 2nd Quarter LER 2006-002-00

Mitigating Systems Performance Index, Emergency AC Power System


Thresholds: White > $1.00 \mathrm{E}-6$ Yellow > 1.00E-5 Red > 1.00E-4

## Notes

| Mitigating Systems Performance Index, Emergency AC Power System | 1Q/ 05 | 2Q/ 05 | 3Q/ 05 | 4Q/ 05 | 1Q/ 06 | 2Q/ 06 | 3Q/ 06 | 4Q/ 06 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| UAI ( $\triangle$ CDF) |  |  |  |  |  | -8.00E-08 | $\begin{array}{r} -3.90 \mathrm{E}- \\ 08 \end{array}$ | $\begin{array}{r} -8.00 \mathrm{E}- \\ 09 \end{array}$ |
| URI ( $\triangle$ CDF) |  |  |  |  |  | -1.30E-06 | $5.30 \mathrm{E}-07$ | $5.40 \mathrm{E}-07$ |
| PLE |  |  |  |  |  | NO | NO | NO |
|  |  |  |  |  |  |  |  |  |
| I ndicator value |  |  |  |  |  | $\begin{array}{r} -1.38 \mathrm{E}- \\ 06 \end{array}$ | $\begin{array}{r} \text { 4.91E- } \\ 07 \end{array}$ | $\begin{array}{r} 5.32 \mathrm{E}- \\ 07 \end{array}$ |

Licensee Comments:
4Q/06: Changed PRA Parameter(s). Removed failure of EDG A that was reported in 3rd QTR 2006. The failure was postulated for EDG A under high load and high combustion air temperature conditions. A past operability engineering evaluation (CA027907) determined that the EDG would have been capable of performing its function for the mission time during the time period in question.

3Q/06: Changed PRA Parameter(s). One MSPI failure is under investigation. Updated the CDF for the unit. The change has been made to be in effect as of July 1, 2006 as it reflects the PRA and Basis Document in effect for 3rd quarter 2006.

2Q/06: The PRA Parameters were changed before the end of June to reflect the June 2006 PRA. The change has been made to be in effect as of July 1, 2006 as it reflects the PRA and Basis Document in effect for 3rd quarter 2006. This change does not change the resulting color (green).

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 | 1Q/ 05 | 2Q/ 05 | 3Q/ 05 | 4Q/ 05 | 1Q/ 06 | 2Q/ 06 | 3Q/ 06 | 4Q/ 06 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| UAI ( $\triangle$ CDF) |  |  |  |  |  | $\begin{array}{r} -5.00 \mathrm{E}- \\ 09 \end{array}$ | $\begin{array}{r} -5.60 \mathrm{E}- \\ 09 \end{array}$ | $\begin{array}{r} -6.20 \mathrm{E}- \\ 09 \end{array}$ |
| URI ( $\triangle$ CDF) |  |  |  |  |  | $2.20 \mathrm{E}-08$ | 5.00E-08 | $4.20 \mathrm{E}-08$ |
| PLE |  |  |  |  |  | NO | NO | NO |
|  |  |  |  |  |  |  |  |  |
| I ndicator value |  |  |  |  |  | $\begin{array}{r} 1.70 \mathrm{E}- \\ 08 \end{array}$ | 4.44E- <br> 08 | 3.58E- <br> 08 |

Licensee Comments:
4Q/06: Changed PRA Parameter(s).
3Q/06: Changed PRA Parameter(s). Updated the CDF for the unit. The change has been made to be in effect as of July 1, 2006 as it reflects the PRA and Basis Document in effect for 3rd quarter 2006.

## Mitigating Systems Performance Index, Heat Removal System



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

## Notes

| Mitigating Systems Performance I ndex, Heat Removal System | 1Q/ 05 | 2Q/ 05 | 3Q/ 05 | 4Q/ 05 | 1Q/ 06 | 2Q/ 06 | 3Q/ 06 | 4Q/ 06 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| UAI ( $\triangle$ CDF) |  |  |  |  |  | $2.30 \mathrm{E}-07$ | $2.10 \mathrm{E}-07$ | $2.20 \mathrm{E}-07$ |
| URI ( $\triangle$ CDF) |  |  |  |  |  | -5.00E-07 | -4.30E-07 | -4.50E-07 |
| PLE |  |  |  |  |  | NO | NO | NO |
|  |  |  |  |  |  |  |  |  |
| I ndicator value |  |  |  |  |  | -2.70E-07 | -2.20E-07 | -2.30E-07 |

Licensee Comments: none

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 | 1Q/ 05 | 2Q/ 05 | 3Q/ 05 | 4Q/ 05 | 1Q/ 06 | 2Q/ 06 | 3Q/ 06 | 4Q/ 06 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| UAI ( $\triangle$ CDF) |  |  |  |  |  | $2.90 \mathrm{E}-08$ | 5.90E-08 | $6.40 \mathrm{E}-08$ |
| URI ( $\triangle C D F$ ) |  |  |  |  |  | $\begin{array}{r} -2.30 \mathrm{E}- \\ 08 \end{array}$ | $\begin{array}{r} -4.50 \mathrm{E}- \\ 08 \end{array}$ | -5.00E- $08$ |
| PLE |  |  |  |  |  | NO | NO | NO |
|  |  |  |  |  |  |  |  |  |
| I ndicator value |  |  |  |  |  | $\begin{array}{r} \text { 6.00E- } \\ 09 \end{array}$ | 1.40E- $08$ | 1.40E08 |

Licensee Comments: none

Mitigating Systems Performance Index, Cooling Water Systems


Thresholds: White > $1.00 \mathrm{E}-6$ Yellow > 1.00E-5 Red > 1.00E-4

## Notes

| Mitigating Systems Performance I ndex, Cooling Water Systems | 1Q/ 05 | 2Q/ 05 | 3Q/ 05 | 4Q/ 05 | 1Q/ 06 | 2Q/ 06 | 3Q/ 06 | 4Q/ 06 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| UAI ( $\triangle C D F$ ) |  |  |  |  |  | -2.70E-08 | -1.40E-07 | -1.40E-07 |
| URI ( $\triangle C D F$ ) |  |  |  |  |  | -8.00E-08 | $2.80 \mathrm{E}-07$ | $2.90 \mathrm{E}-07$ |
| PLE |  |  |  |  |  | NO | NO | NO |
|  |  |  |  |  |  |  |  |  |
| I ndicator value |  |  |  |  |  | -1.07E-07 | 1.40E-07 | 1.50E-07 |

Licensee Comments: none

## Reactor Coolant System Activity



Thresholds: White > 50.0 Yellow > 100.0

## Notes



Licensee Comments: none


Thresholds: White > 50.0 Yellow > 100.0

## Notes

| Reactor Coolant System Leakage | 1/ 05 | 2/ 05 | 3/05 | 4/ 05 | 5/ 05 | 6/ 05 | 7/05 | 8/05 | 9/ 05 | 10/05 | 11/05 | 12/05 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Maximum leakage | 0.133 | 0.129 | N/A | N/A | N/A | 0.156 | 0.227 | 0.181 | 0.175 | 0.188 | 0.192 | 0.347 |
| 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 |
| I ndicator value | 1.3 | 1.3 | N/ A | N/ A | N/ A | 1.6 | 2.3 | 1.8 | 1.8 | 1.9 | 1.9 | 3.5 |
| Reactor Coolant System Leakage | 1/ 06 | 2/ 06 | 3/06 | 4/ 06 | 5/ 06 | 6/ 06 | 7/ 06 | 8/ 06 | 9/ 06 | 10/ 06 | 11/06 | 12/ 06 |
| Maximum leakage | 0.285 | 0.247 | 0.279 | 0.197 | 0.404 | 0.345 | 0.268 | 0.200 | 0.200 | 0.157 | 0.137 | 0.191 |
| 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 |
| I ndicator value | 2.9 | 2.5 | 2.8 | 2.0 | 4.0 | 3.5 | 2.7 | 2.0 | 2.0 | 1.6 | 1.4 | 1.9 |

Licensee Comments: none

Drill/Exercise Performance


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

## Notes

| Drill/ Exercise Performance | 1Q/ 05 | 2Q/ 05 | 3Q/ 05 | 4Q/ 05 | 1Q/ 06 | 2Q/ 06 | 3Q/ 06 | 4Q/ 06 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Successful opportunities | 32.0 | 30.0 | 11.0 | 49.0 | 31.0 | 23.0 | 6.0 | 23.0 |
| Total opportunities | 32.0 | 32.0 | 16.0 | 52.0 | 31.0 | 27.0 | 6.0 | 24.0 |
|  |  |  |  |  |  |  |  |  |
| I ndicator value | $\mathbf{9 4 . 7 \%}$ | $\mathbf{9 3 . 1 \%}$ | $\mathbf{9 0 . 2 \%}$ | $\mathbf{9 1 . 1 \%}$ | $\mathbf{9 2 . 9 \%}$ | $\mathbf{9 2 . 6 \%}$ | $\mathbf{9 2 . 9 \%}$ | $\mathbf{9 3 . 2 \%}$ |

Licensee Comments: none

## ERO Drill Participation



Thresholds: White $<80.0 \%$ Yellow $<60.0 \%$

## Notes

| ERO Drill Participation | $\mathbf{1 Q / 0 5}$ | $\mathbf{2 Q / 0 5}$ | $\mathbf{3 Q / 0 5}$ | $\mathbf{4 Q / 0 5}$ | $\mathbf{1 Q / 0 6}$ | $\mathbf{2 Q / 0 6}$ | $\mathbf{3 Q / 0 6}$ | $\mathbf{4 Q / 0 6}$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Participating Key personnel | 46.0 | 62.0 | 64.0 | 61.0 | 59.0 | 62.0 | 43.0 | 48.0 |
| Total Key personnel | 47.0 | 63.0 | 64.0 | 61.0 | 66.0 | 64.0 | 50.0 | 50.0 |
|  |  |  |  |  |  |  |  |  |
| I ndicator value | $\mathbf{9 7 . 9 \%}$ | $\mathbf{9 8 . 4 \%}$ | $\mathbf{1 0 0 . 0 \%}$ | $\mathbf{1 0 0 . 0 \%}$ | $\mathbf{8 9 . 4 \%}$ | $\mathbf{9 6 . 9 \%}$ | $\mathbf{8 6 . 0 \%}$ | $\mathbf{9 6 . 0 \%}$ |

Licensee Comments: none

## Alert \& Notification System



Thresholds: White < 94.0\% Yellow < 90.0\%

## Notes

| Alert \& Notification System | 1Q/ 05 | 2Q/ 05 | 3Q/ 05 | 4Q/05 | 1Q/ 06 | 2Q/06 | 3Q/ 06 | 4Q/ 06 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Successful siren-tests | 77 | 78 | 77 | 78 | 77 | 78 | 78 | 78 |
| Total sirens-tests | 78 | 78 | 77 | 78 | 78 | 78 | 78 | 78 |
|  |  |  |  |  |  |  |  |  |
| I ndicator value | $99.4 \%$ | $99.4 \%$ | $99.7 \%$ | $99.7 \%$ | $99.7 \%$ | $99.7 \%$ | $99.7 \%$ | $99.7 \%$ |

Licensee Comments: none

## Occupational Exposure Control Effectiveness



Thresholds: White > 2.0 Yellow > 5.0

## Notes

| Occupational Exposure Control Effectiveness | $\mathbf{1 Q / \mathbf { 0 5 }}$ | $\mathbf{2 Q / 0 5}$ | $\mathbf{3 Q / 0 5}$ | $\mathbf{4 Q / 0 5}$ | $\mathbf{1 Q / \mathbf { 0 6 }}$ | $\mathbf{2 Q / 0 6}$ | $\mathbf{3 Q / 0 6}$ | $\mathbf{4 Q / 0 6}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| High radiation area occurrences | 1 | 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 |
| I ndicator value | $\mathbf{1}$ | $\mathbf{1}$ | $\mathbf{1}$ | $\mathbf{1}$ | $\mathbf{0}$ | $\mathbf{0}$ | $\mathbf{0}$ | $\mathbf{0}$ |

Licensee Comments: none

## RETS/ODCM Radiological Effluent



Thresholds: White > 1.0 Yellow > 3.0

## Notes

| RETS/ ODCM Radiological Effluent | 1Q/ 05 | 2Q/ 05 | 3Q/ 05 | 4Q/ 05 | 1Q/ 06 | 2Q/ 06 | 3Q/ 06 | 4Q/ 06 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| RETS/ODCM occurrences | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|  |  |  |  |  |  |  |  |  |
| I ndicator value | $\mathbf{0}$ | $\mathbf{0}$ | $\mathbf{0}$ | $\mathbf{0}$ | $\mathbf{0}$ | $\mathbf{0}$ | $\mathbf{0}$ | $\mathbf{0}$ |

Licensee Comments: none

Physical Protection information not publicly available.

