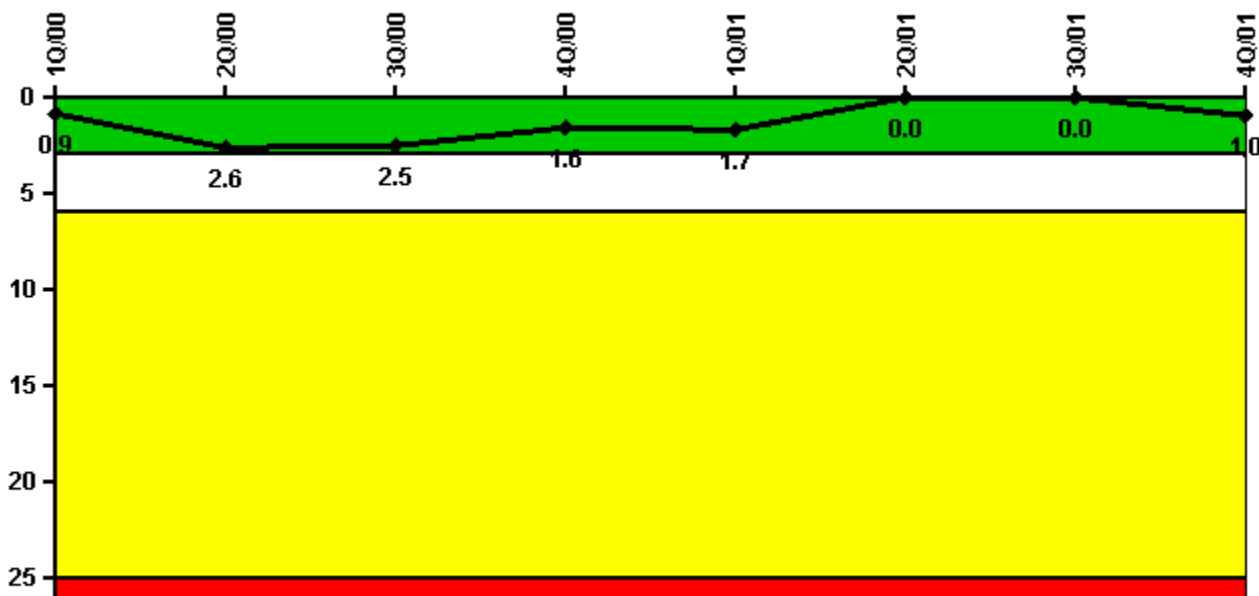


North Anna 2

4Q/2001 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/00	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01
Unplanned scrams	0	2.0	0	0	0	0	0	1.0
Critical hours	2184.0	2150.1	2208.0	2209.0	1626.4	1979.3	2208.0	1017.0
Indicator value	0.9	2.6	2.5	1.6	1.7	0	0	1.0

Licensee Comments:

4Q/01: North Anna Unit 2 was shutdown for reactor head inspection during November 2001.

Scrams with Loss of Normal Heat Removal



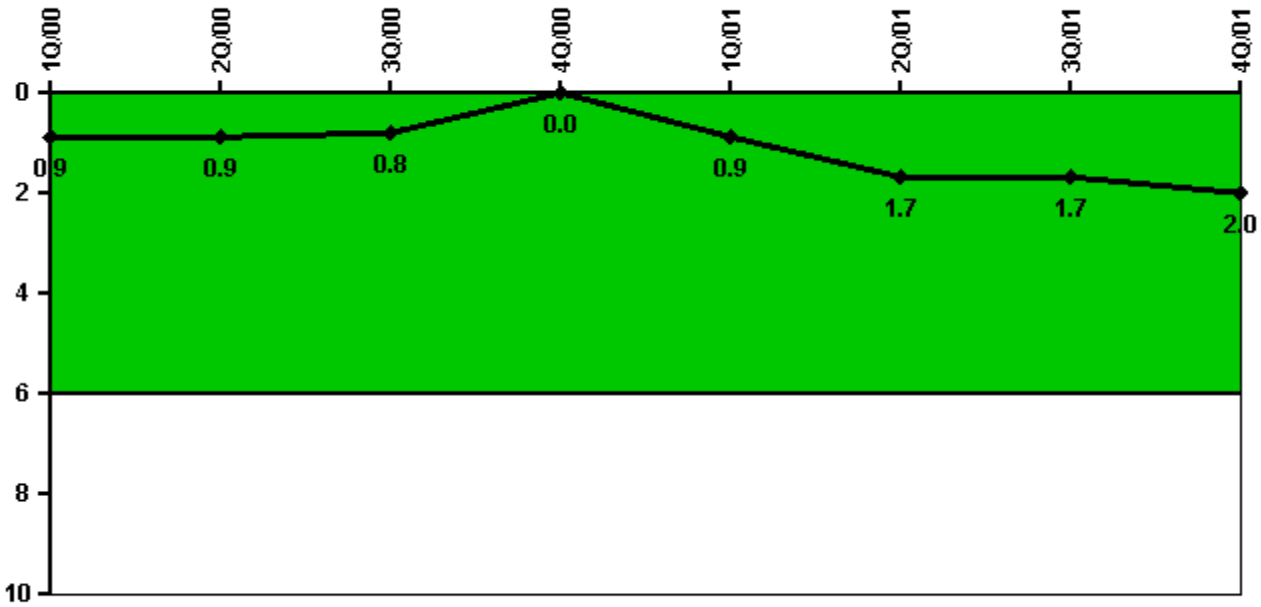
Thresholds: White > 2.0 Yellow > 10.0 Red > 20.0

Notes

Scrams with Loss of Normal Heat Removal	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01
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

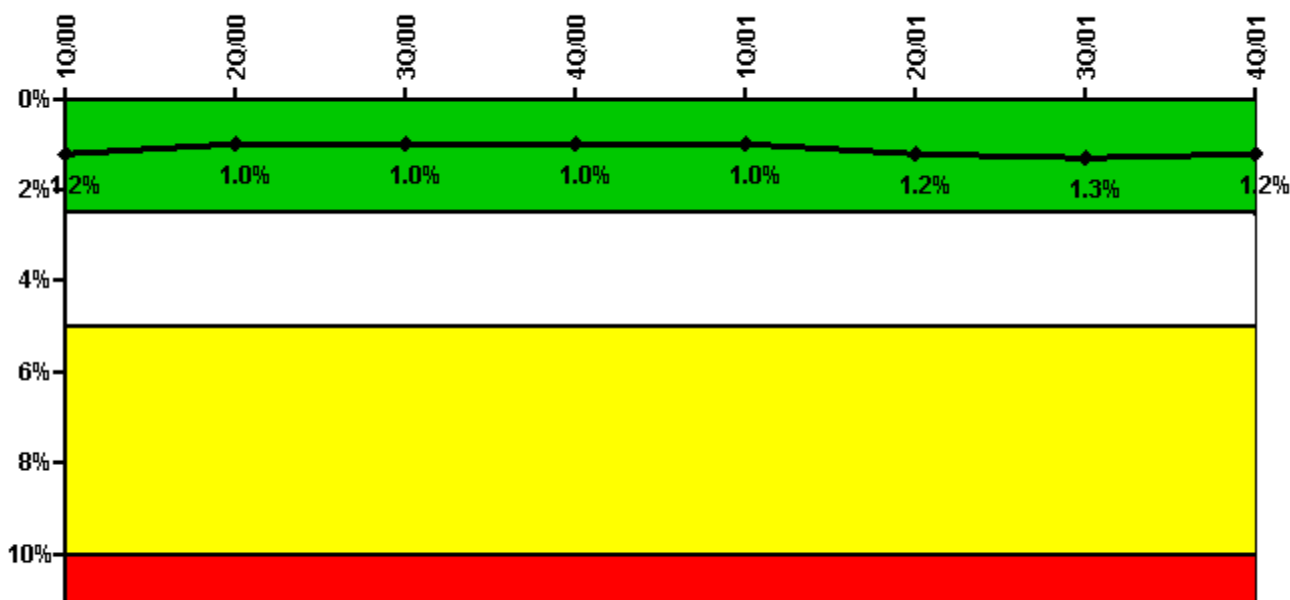
Notes

Unplanned Power Changes per 7000 Critical Hrs	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01
Unplanned power changes	0	0	0	0	1.0	1.0	0	0
Critical hours	2184.0	2150.1	2208.0	2209.0	1626.4	1979.3	2208.0	1017.0
Indicator value	0.9	0.9	0.8	0	0.9	1.7	1.7	2.0

Licensee Comments:

4Q/01: North Anna Unit 2 was shutdown for reactor head inspection during November 2001.

Safety System Unavailability, Emergency AC Power



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

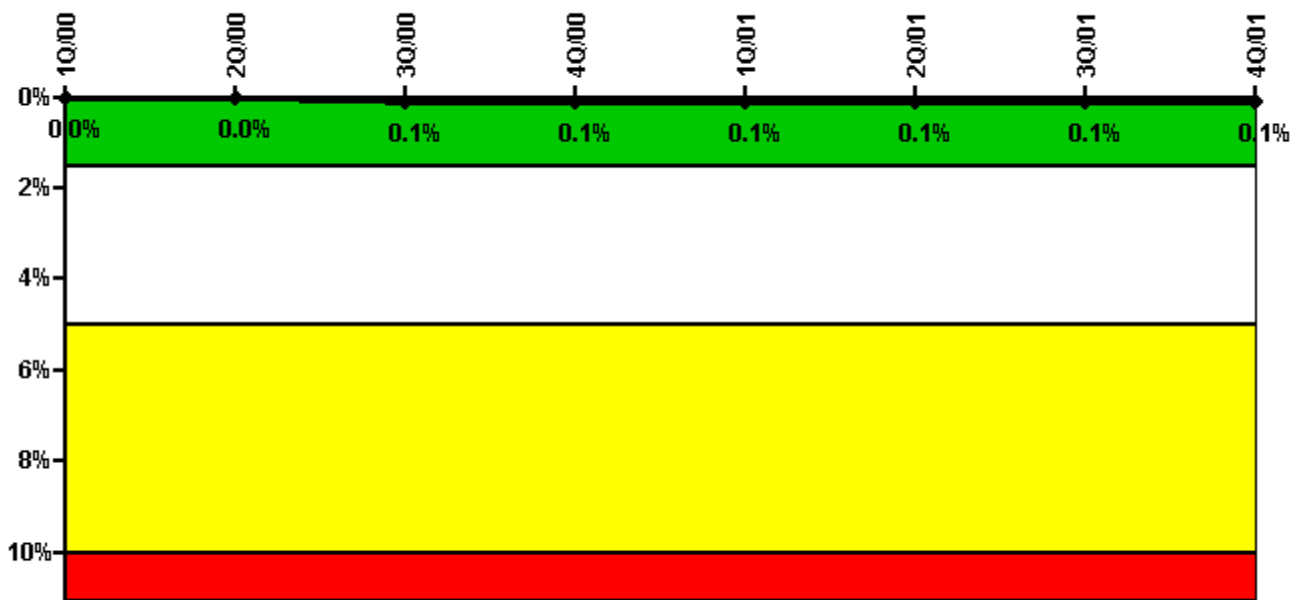
Notes

Safety System Unavailability, Emergency AC Power	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01
Train 1								
Planned unavailable hours	10.76	10.35	9.79	34.51	44.53	58.32	10.45	33.28
Unplanned unavailable hours	0	0.08	0	0	1.19	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	2184.00	2183.00	2208.00	2209.00	1915.75	2094.90	2208.00	1654.37
Train 2								
Planned unavailable hours	9.72	6.42	18.10	34.97	10.40	68.80	29.19	20.13
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	2184.00	2183.00	2208.00	2209.00	1915.75	2094.90	2208.00	1654.37
Indicator value	1.2%	1.0%	1.0%	1.0%	1.0%	1.2%	1.3%	1.2%

Licensee Comments:

4Q/01: North Anna Unit 2 was shutdown for reactor head inspection during November 2001.

Safety System Unavailability, High Pressure Injection System (HPSI)



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

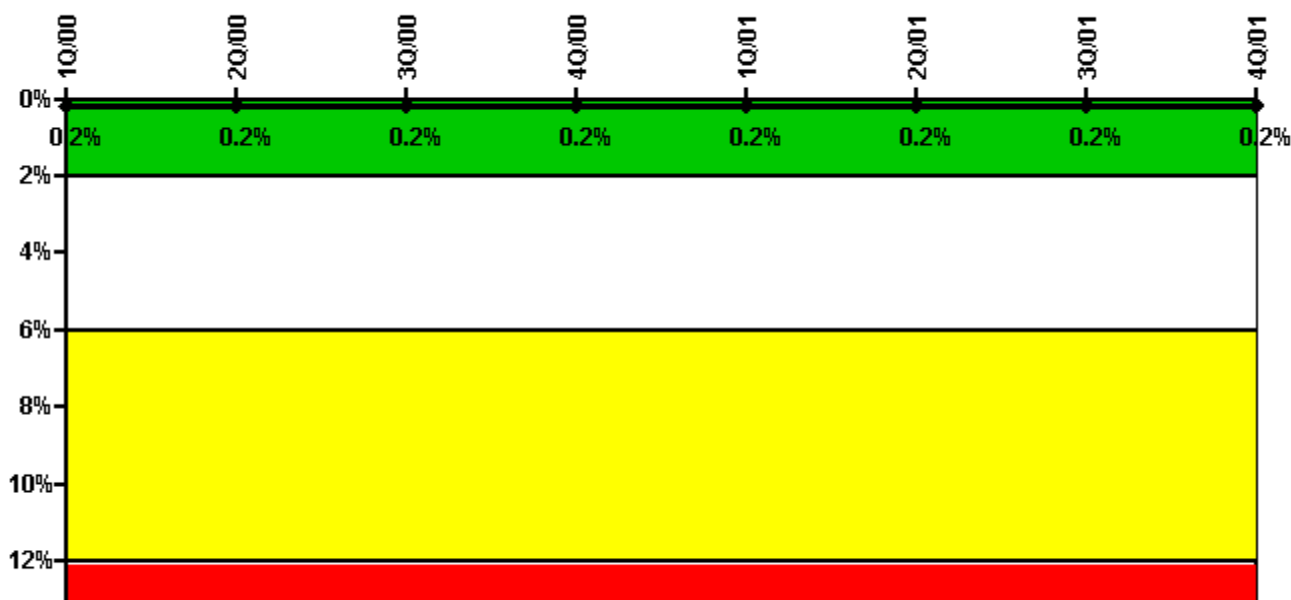
Notes

Safety System Unavailability, High Pressure Injection System (HPSI)	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01
Train 1								
Planned unavailable hours	2.76	11.87	27.90	1.00	1.13	1.22	1.60	1.95
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	2184.00	2183.00	2208.00	2209.00	1671.50	1998.90	2208.00	1095.73
Train 2								
Planned unavailable hours	0.50	0.83	3.13	0.93	1.47	1.58	1.43	1.50
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	2184.00	2183.00	2208.00	2209.00	1671.50	1998.90	2208.00	1095.73
Indicator value	0%	0%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%

Licensee Comments:

4Q/01: North Anna Unit 2 was shutdown for reactor head inspection during November 2001.

Safety System Unavailability, Heat Removal System (AFW)



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

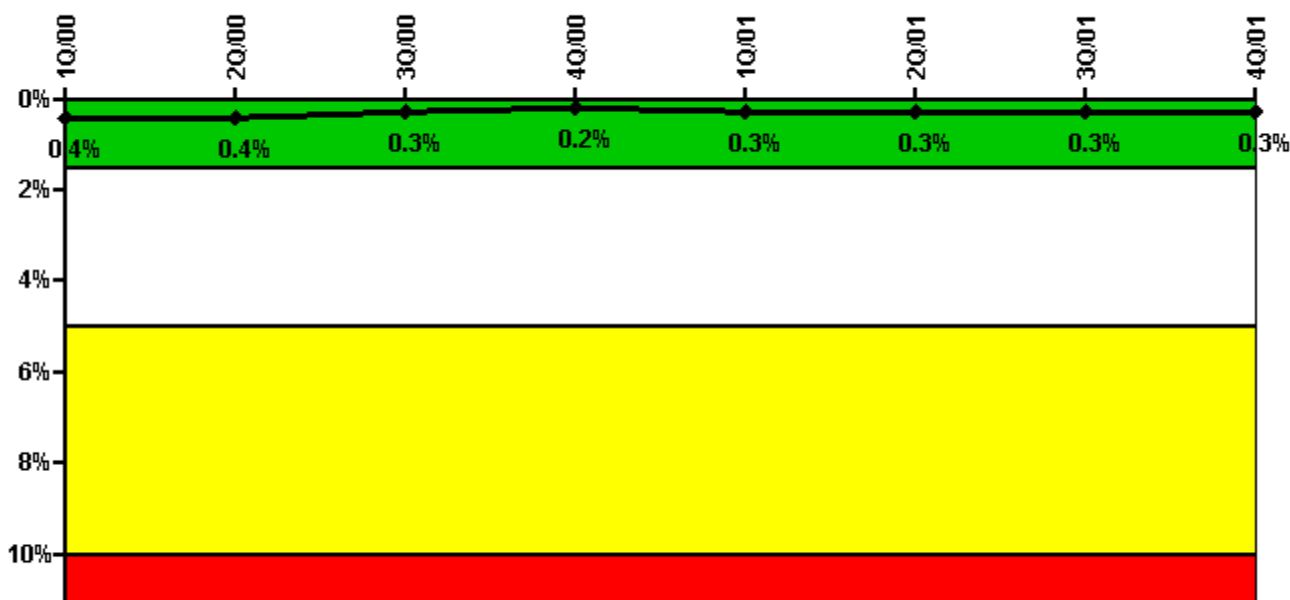
Notes

Safety System Unavailability, Heat Removal System (AFW)	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01
Train 1								
Planned unavailable hours	1.38	1.18	0.97	19.50	1.32	0.85	0.92	1.23
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	2184.00	2183.00	2208.00	2209.00	1667.17	1998.90	2208.00	1085.55
Train 2								
Planned unavailable hours	1.73	2.42	1.17	14.00	1.23	1.48	1.12	0
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	2184.00	2183.00	2208.00	2209.00	1667.70	1998.90	2208.00	1085.55
Train 3								
Planned unavailable hours	9.95	4.73	3.12	7.37	3.53	6.58	2.98	5.05
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	2184.00	2183.00	2208.00	2209.00	1667.17	1998.90	2208.00	1085.55
Indicator value	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%

Licensee Comments:

4Q/01: North Anna Unit 2 was shutdown for reactor head inspection during November 2001.

Safety System Unavailability, Residual Heat Removal System



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

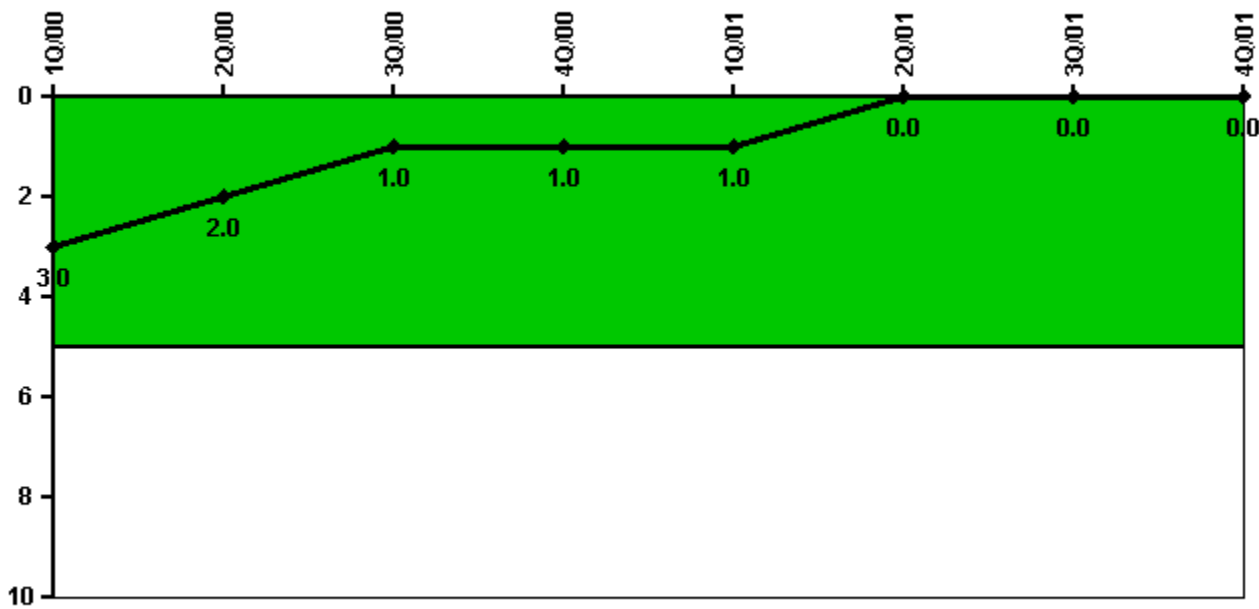
Notes

Safety System Unavailability, Residual Heat Removal System	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01
Train 1								
Planned unavailable hours	7.50	3.59	16.48	11.82	29.31	5.04	4.18	1.85
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	2184.00	2183.00	2208.00	2209.00	1671.50	2006.70	2208.00	1095.73
Train 2								
Planned unavailable hours	5.10	60.54	15.99	9.23	26.81	10.20	2.50	0
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	2184.00	2183.00	2208.00	2209.00	1671.50	2006.70	2208.00	1095.73
Train 3								
Planned unavailable hours	0	0	0	0	5.95	0	0	5.36
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	2184.00	2183.00	2208.00	2209.00	1917.30	2183.00	2208.00	1736.49
Train 4								
Planned unavailable hours	0	0	6.13	6.20	9.05	7.13	0	3.15
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	2184.00	2183.00	2208.00	2209.00	1917.30	2183.00	2208.00	1736.49
Indicator value	0.4%	0.4%	0.3%	0.2%	0.3%	0.3%	0.3%	0.3%

Licensee Comments:

4Q/01: North Anna Unit 2 was shutdown for reactor head inspection during November 2001.

Safety System Functional Failures (PWR)



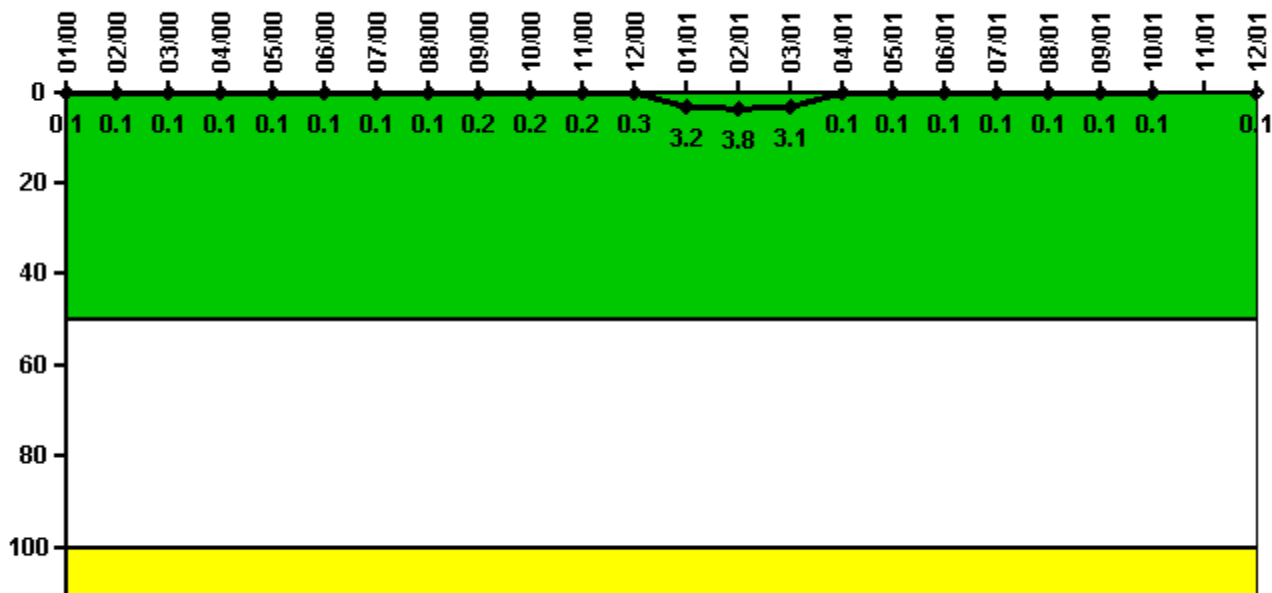
Thresholds: White > 5.0

Notes

Safety System Functional Failures (PWR)	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01
Safety System Functional Failures	0	1	0	0	0	0	0	0
Indicator value	3	2	1	1	1	0	0	0

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	0.000776	0.000896	0.000920	0.001480	0.001340	0.001330	0.001280	0.001390	0.001660	0.001850	0.002240	0.002790
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	0.1	0.1	0.2	0.2	0.2	0.3

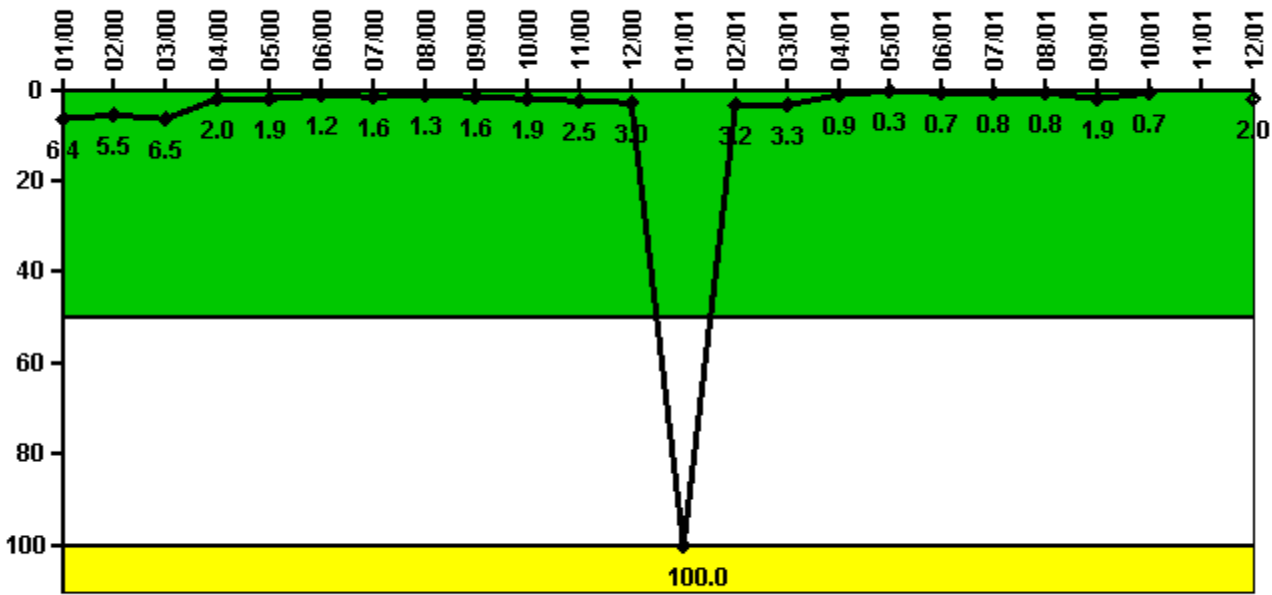
Reactor Coolant System Activity	1/01	2/01	3/01	4/01	5/01	6/01	7/01	8/01	9/01	10/01	11/01	12/01
Maximum activity	0.031600	0.038000	0.031000	0.000703	0.000727	0.000804	0.000956	0.001140	0.001020	0.001190	N/A	0.001120
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	3.2	3.8	3.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	N/A	0.1

Licensee Comments:

12/01: Unavailability of data for November 2001 due to plant conditions that do not require RCS activity to be calculated.

12/01: Unavailability of data for November 2001 due to plant conditions that do not require RCS activity to be calculated.

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	0.644	0.549	0.646	0.205	0.192	0.115	0.155	0.130	0.155	0.193	0.247	0.298
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	6.4	5.5	6.5	2.0	1.9	1.2	1.6	1.3	1.6	1.9	2.5	3.0

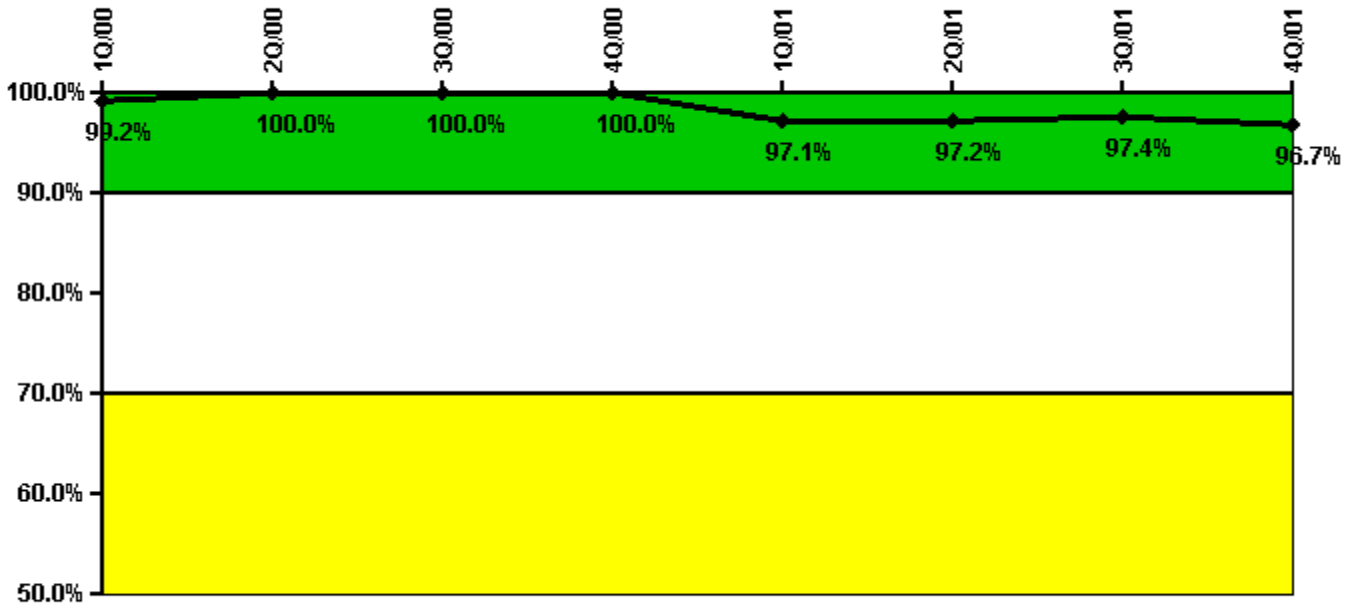
Reactor Coolant System Leakage	1/01	2/01	3/01	4/01	5/01	6/01	7/01	8/01	9/01	10/01	11/01	12/01
Maximum leakage	10.002	0.322	0.330	0.086	0.030	0.072	0.080	0.079	0.185	0.072	N/A	0.198
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	100.0	3.2	3.3	0.9	0.3	0.7	0.8	0.8	1.9	0.7	N/A	2.0

Licensee Comments:

12/01: Unavailability of data for November 2001 due to plant conditions that do not require RCS activity to be calculated.

12/01: Unavailability of data for November 2001 due to plant conditions that do not require RCS activity to be calculated.

Drill/Exercise Performance



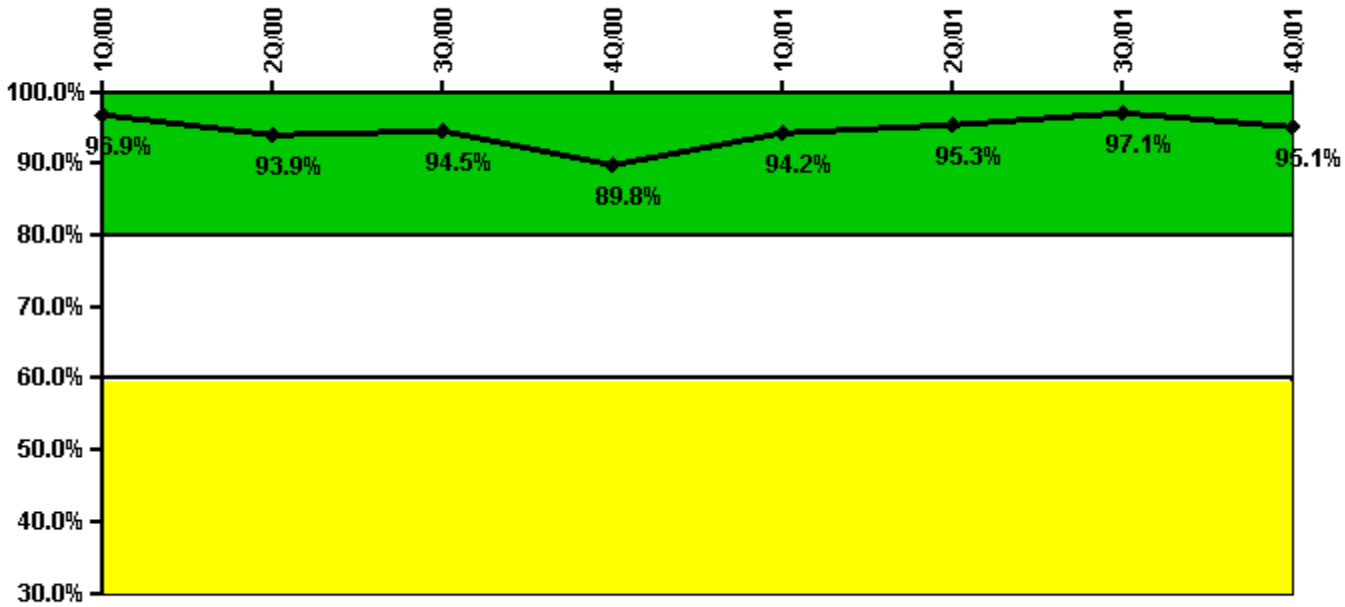
Thresholds: White < 90.0% Yellow < 70.0%

Notes

Drill/Exercise Performance	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01
Successful opportunities	25.0	2.0	4.0	18.0	30.0	18.0	16.0	35.0
Total opportunities	25.0	2.0	4.0	18.0	35.0	18.0	16.0	35.0
Indicator value	99.2%	100.0%	100.0%	100.0%	97.1%	97.2%	97.4%	96.7%

Licensee Comments: none

ERO Drill Participation



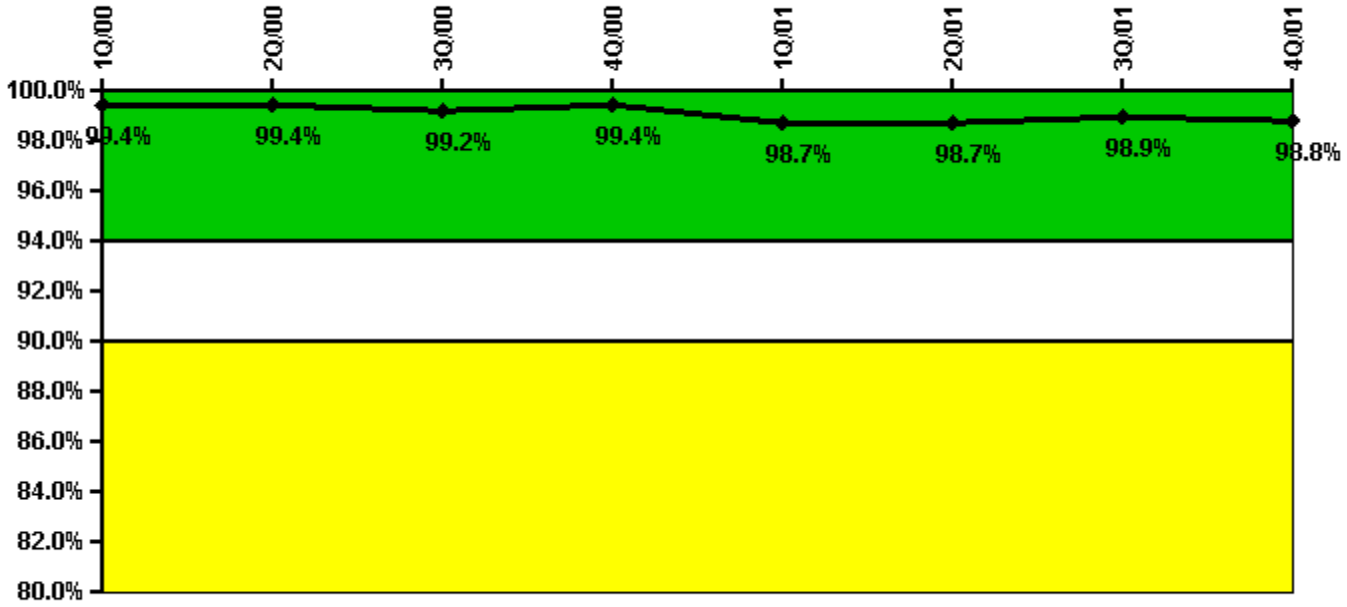
Thresholds: White < 80.0% Yellow < 60.0%

Notes

ERO Drill Participation	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01
Participating Key personnel	125.0	123.0	121.0	115.0	98.0	101.0	101.0	98.0
Total Key personnel	129.0	131.0	128.0	128.0	104.0	106.0	104.0	103.0
Indicator value	96.9%	93.9%	94.5%	89.8%	94.2%	95.3%	97.1%	95.1%

Licensee Comments: none

Alert & Notification System



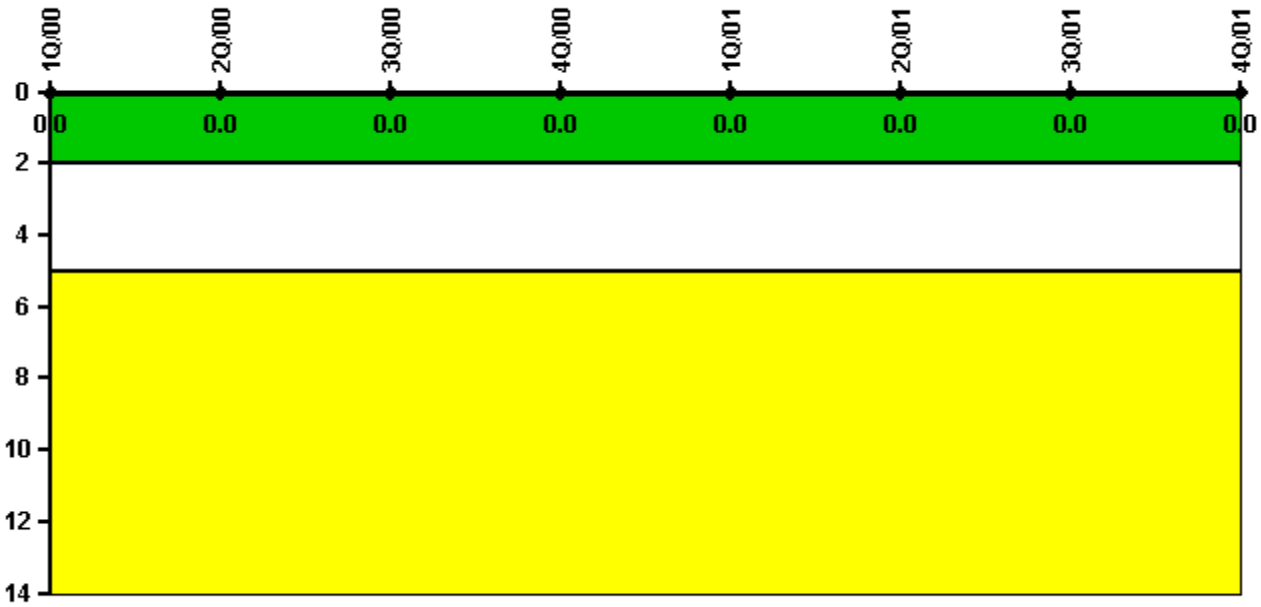
Thresholds: White < 94.0% Yellow < 90.0%

Notes

Alert & Notification System	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01
Successful siren-tests	382	384	380	384	414	427	431	431
Total sirens-tests	385	385	385	385	427	429	434	434
Indicator value	99.4%	99.4%	99.2%	99.4%	98.7%	98.7%	98.9%	98.8%

Licensee Comments: none

Occupational Exposure Control Effectiveness



Thresholds: White > 2.0 Yellow > 5.0

Notes

Occupational Exposure Control Effectiveness	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01
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



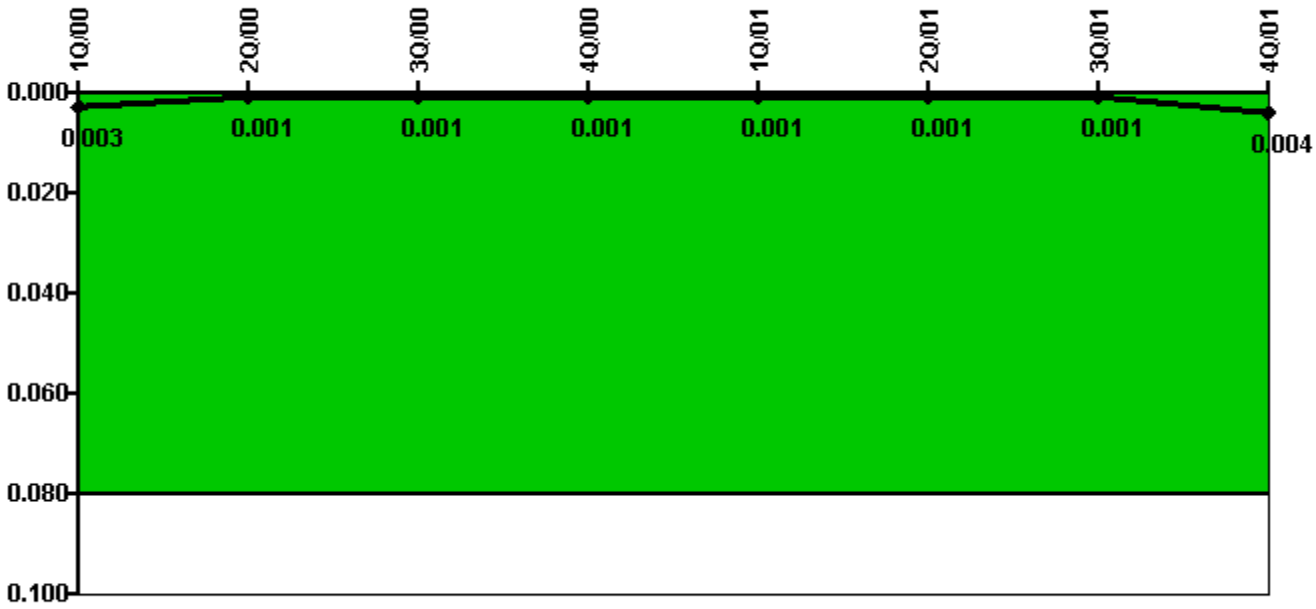
Thresholds: White > 1.0 Yellow > 3.0

Notes

RETS/ODCM Radiological Effluent	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01
RETS/ODCM occurrences	0	0	0	0	0	0	0	0
Indicator value	0	0	0	0	0	0	0	0

Licensee Comments: none

Protected Area Security Performance Index



Thresholds: White > 0.080

Notes

Protected Area Security Performance Index	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01
IDS compensatory hours	5.00	0	0	10.30	6.20	0	6.90	56.70
CCTV compensatory hours	0	0	0	0	0	0	0	0
IDS normalization factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
CCTV normalization factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Index Value	0.003	0.001	0.001	0.001	0.001	0.001	0.001	0.004

Licensee Comments:

4Q/01: Performance reflects 17.4 hours of CCTV camera operation during this reporting period with zero (0) failures.

Personnel Screening Program



Thresholds: White > 2.0 Yellow > 5.0

Notes

Personnel Screening Program	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01
Program failures	0	0	0	0	0	0	0	0
Indicator value	0	0	0	0	0	0	0	0

Licensee Comments: none

FFD/Personnel Reliability



Thresholds: White > 2.0 Yellow > 5.0

Notes

FFD/Personnel Reliability	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01
Program Failures	0	0	0	0	0	0	0	0
Indicator value	0	0	0	0	0	0	0	0

Licensee Comments: none

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

Last Modified: March 15, 2002