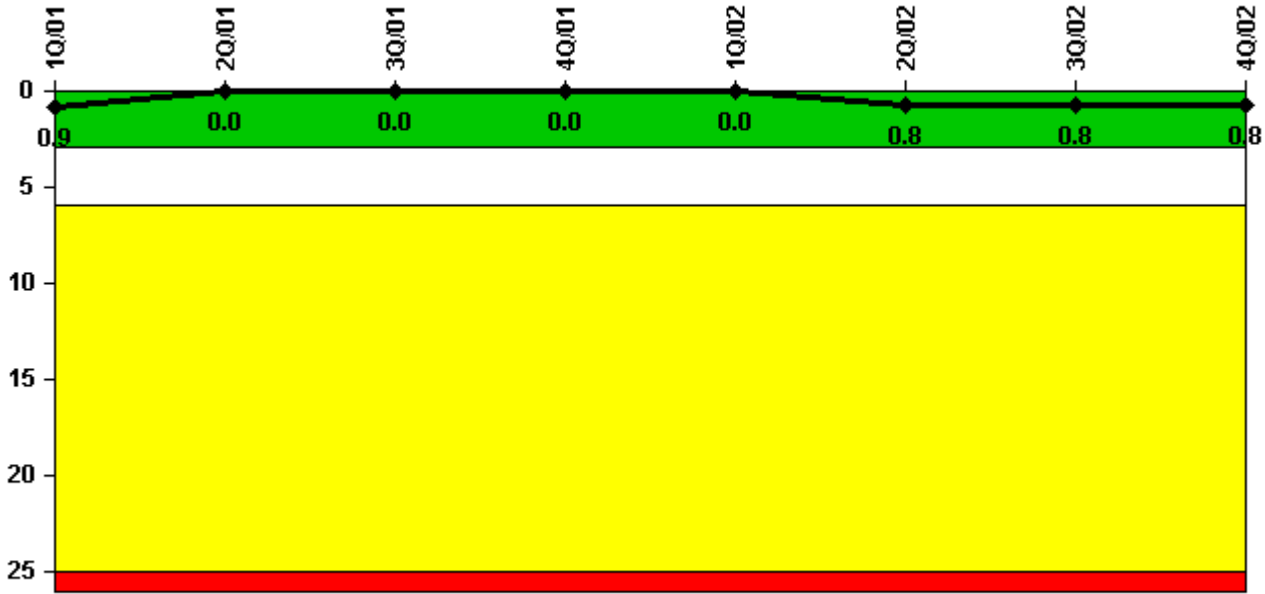


# Limerick 1

## 4Q/2002 Performance Indicators

Licensee's General Comments: none

### Unplanned Scrams per 7000 Critical Hrs



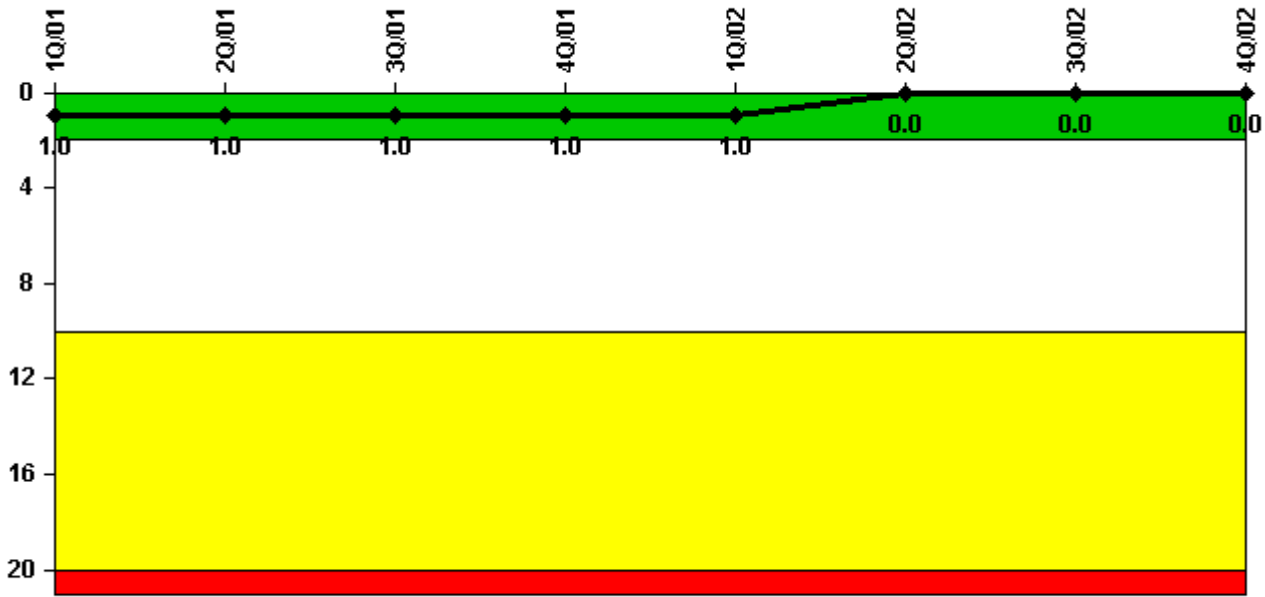
Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

### Notes

Unplanned Scrams per 7000 Critical Hrs	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02
Unplanned scrams	0	0	0	0	0	1.0	0	0
Critical hours	2142.6	2183.0	2208.0	2209.0	1797.5	2098.7	2208.0	2209.0
Indicator value	0.9	0	0	0	0	0.8	0.8	0.8

Licensee Comments: none

### Scrams with Loss of Normal Heat Removal



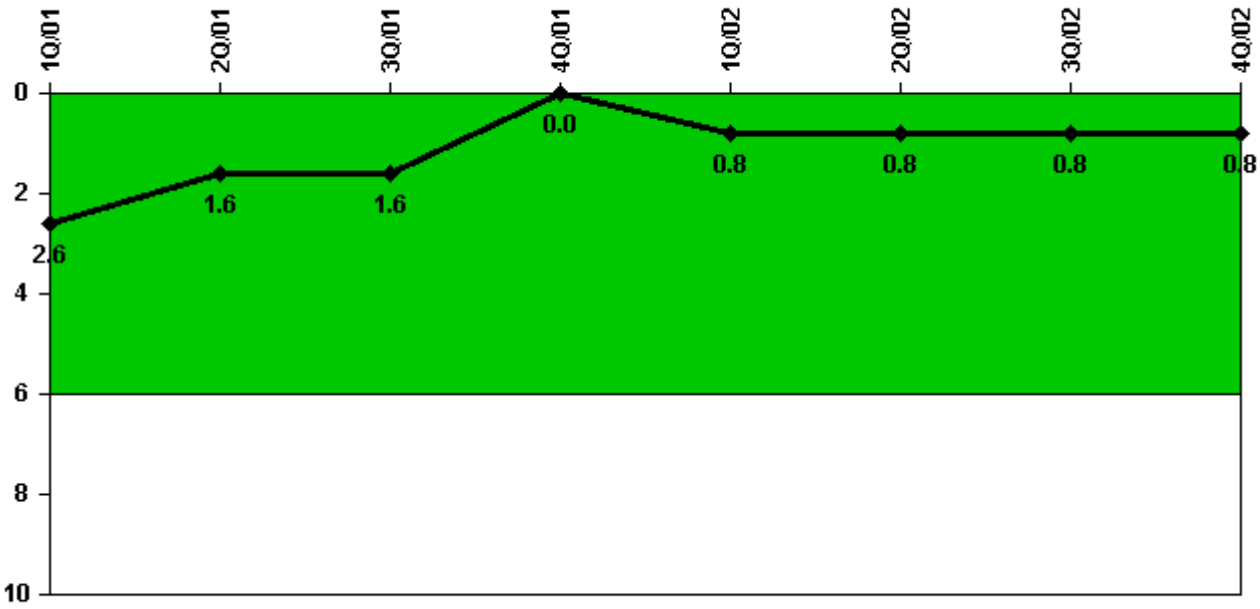
Thresholds: White > 2.0 Yellow > 10.0 Red > 20.0

#### Notes

Scrams with Loss of Normal Heat Removal	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02
Scrams	0	0	0	0	0	0	0	0
Indicator value	1.0	1.0	1.0	1.0	1.0	0	0	0

Licensee Comments: none

### Unplanned Power Changes per 7000 Critical Hrs



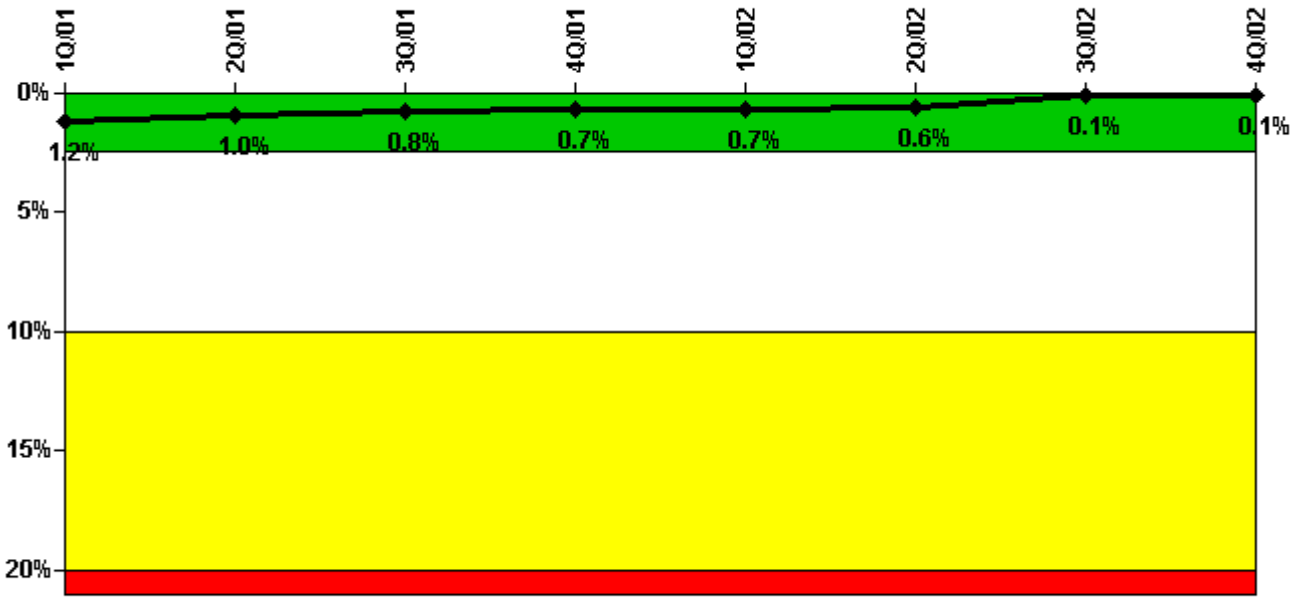
Thresholds: White > 6.0

#### Notes

Unplanned Power Changes per 7000 Critical Hrs	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02
Unplanned power changes	0	0	0	0	1.0	0	0	0
Critical hours	2142.6	2183.0	2208.0	2209.0	1797.5	2098.7	2208.0	2209.0
Indicator value	2.6	1.6	1.6	0	0.8	0.8	0.8	0.8

Licensee Comments: none

### Safety System Unavailability, Emergency AC Power, >2EDG



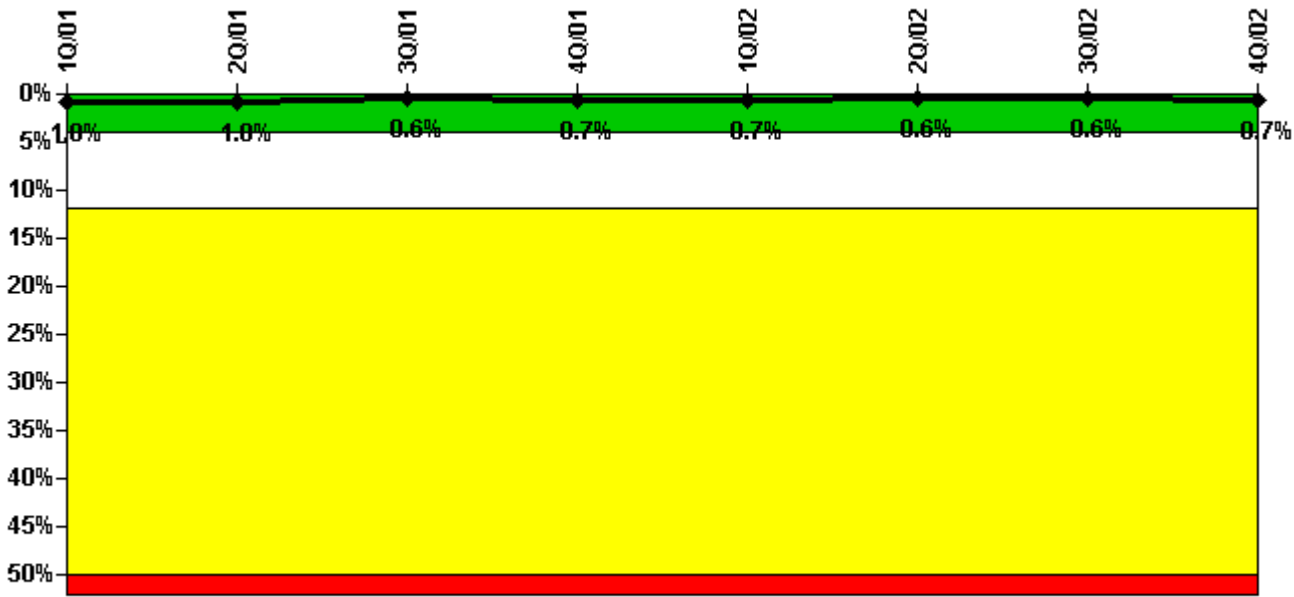
Thresholds: White > 2.5% Yellow > 10.0% Red > 20.0%

#### Notes

Safety System Unavailability, Emergency AC Power, >2EDG	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02
<b>Train 1</b>								
Planned unavailable hours	0	1.00	0	0.57	0	0	0.50	0
Unplanned unavailable hours	0	0	0	0	0	0	4.70	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	2183.00	2208.00	2209.00	1983.82	2159.64	2208.00	2209.00
<b>Train 2</b>								
Planned unavailable hours	0.82	1.27	1.72	0	0	0	0.88	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	2160.00	2183.00	2208.00	2209.00	1983.82	2159.64	2208.00	2209.00
<b>Train 3</b>								
Planned unavailable hours	0.41	0	0	0	0	0	0	0
Unplanned unavailable hours	4.77	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	2183.00	2208.00	2209.00	1983.82	2159.64	2208.00	2209.00
<b>Train 4</b>								
Planned unavailable hours	7.47	0.50	0	0.58	0	0	0	0
Unplanned unavailable hours	0	0	2.13	0	0	0	6.58	1.93
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	2183.00	2208.00	2209.00	1983.82	2159.64	2208.00	2209.00
<b>Indicator value</b>	<b>1.2%</b>	<b>1.0%</b>	<b>0.8%</b>	<b>0.7%</b>	<b>0.7%</b>	<b>0.6%</b>	<b>0.1%</b>	<b>0.1%</b>

Licensee Comments: none

### Safety System Unavailability, High Pressure Injection System (HPCI)



Thresholds: White > 4.0% Yellow > 12.0% Red > 50.0%

#### Notes

Safety System Unavailability, High Pressure Injection System (HPCI)	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02
<b>Train 1</b>								
Planned unavailable hours	3.70	29.00	3.00	24.50	7.30	20.90	18.40	14.60
Unplanned unavailable hours	0	2.30	0.50	0	5.60	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	2142.60	2183.00	2208.00	2209.00	1797.50	2098.70	2208.00	2209.00
Indicator value	1.0%	1.0%	0.6%	0.7%	0.7%	0.6%	0.6%	0.7%

Licensee Comments:

4Q/02: The following data has been added (planned unavailability) to account for the time the flow controller was in the manual position without proper written restoration procedures. No color change resulted: 1st QTR 2000 Feb-1.8, 2nd QTR 2000 Apr-3.4, Jun - 2.6, 3rd QTR 2000 Sep- 2.7, 4th QTR 2000 Dec- 1.6, 1st QTR 2001 Mar- 2.1, 2nd QTR 2001 Jun-2.4 3rd QTR 2001 Sep -1.4, 4th QTR 2001 Dec-1.4, 1st QTR 2002 Feb-1.9, Mar-1.7, 2nd QTR 2002 Jun-3.1, 3rd QTR 2002 Sep-2.6

3Q/02: Changed per 4th Qtr 2002 comment.

2Q/02: Changed per 4th Qtr 2002 comment.

1Q/02: Changed per 4th Qtr 2002 comment.

4Q/01: Changed per 4th Qtr 2002 comment.

3Q/01: Changed per 4th Qtr 2002 comment.

2Q/01: Changed per 4th Qtr 2002 comment.

1Q/01: Changed per 4th Qtr 2002 comment.

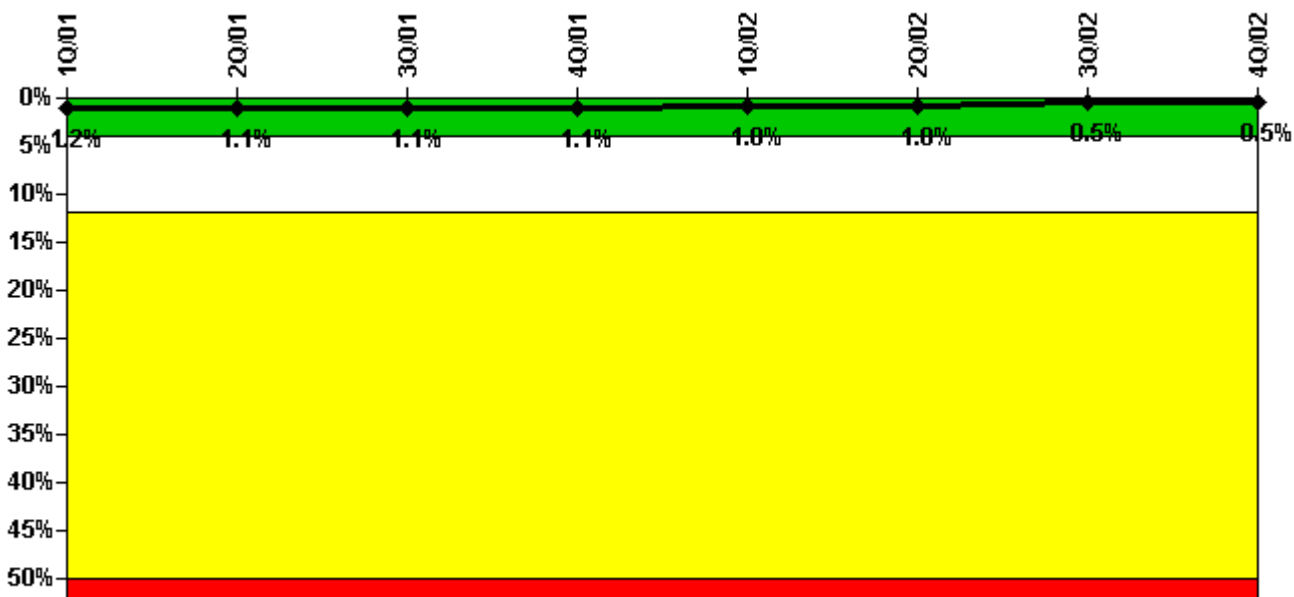
4Q/00: Changed per 4th Qtr 2002 comment.

3Q/00: Changed per 4th Qtr 2002 comment.

2Q/00: 184.6 hours fault exposure unavailability from May, 1999 and 467.9 hours fault exposure unavailability from June, 1999 have been removed from this PI. These fault exposure hours were the result of a HPCI failure to start that occurred in June, 1999 due to EG-R corrosion. These fault exposure hours are being removed from the PI because 4 quarters have elapsed from the time of discovery and the following criteria of NEI 99-02, Revision 0, section 2.2 have been met: 1) The fault exposure hours associated with this item are greater than 336 hours. 2) Corrective actions to prevent recurrence of EG-R binding have been implemented. 3) NRC Inspection Report 05000352/2000-1; 05000353/2000-1 concluded that "...corrective actions for the June 1999 Unit 1 HPCI system failure were appropriate and had been implemented in a timely manner. No additional supplemental inspection is required for this issue." Changed per 4th Qtr 2002 comment.

1Q/00: Changed per 4th Qtr 2002 comment.

### Safety System Unavailability, Heat Removal System (RCIC)



Thresholds: White > 4.0% Yellow > 12.0% Red > 50.0%

### Notes

Safety System Unavailability, Heat Removal System (RCIC)	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02
Train 1								
Planned unavailable hours	9.50	29.20	3.60	7.70	2.60	23.70	2.60	6.30
Unplanned unavailable hours	0	0	3.10	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	2142.60	2183.00	2208.00	2209.00	1797.50	2098.70	2208.00	2209.00
Indicator value	1.2%	1.1%	1.1%	1.1%	1.0%	1.0%	0.5%	0.5%

Licensee Comments:

4Q/02: The following data has been added (planned unavailability) to account for the time the flow controller was in the manual position without proper written restoration procedures. No color change resulted; 1st QTR 2000 Mar-1.0, 2nd QTR 2000 Apr-2.7, Jun-1.8, 3rd QTR 2000 Sep-0.8, 4th QTR 2000 Dec-2.5, 1st QTR 2001 Mar-1.8, 2nd QTR 2001 Jun-1.2, 3rd QTR 2001 Sep-1.4, 4th QTR 2001 Dec-1.1, 1st QTR 2002 Mar-1.2, 2nd QTR 2002 Jun-1.0, 3rd QTR 2002 Sep-1.2

3Q/02: Changed per 4th Qtr 2002 comment.

2Q/02: Changed per 4th Qtr 2002 comment.

1Q/02: Changed per 4th Qtr 2002 comment.

4Q/01: Changed per 4th Qtr 2002 comment.

3Q/01: Changed per 4th Qtr 2002 comment.

2Q/01: Changed per 4th Qtr 2002 comment.

1Q/01: Changed per 4th Qtr 2002 comment.

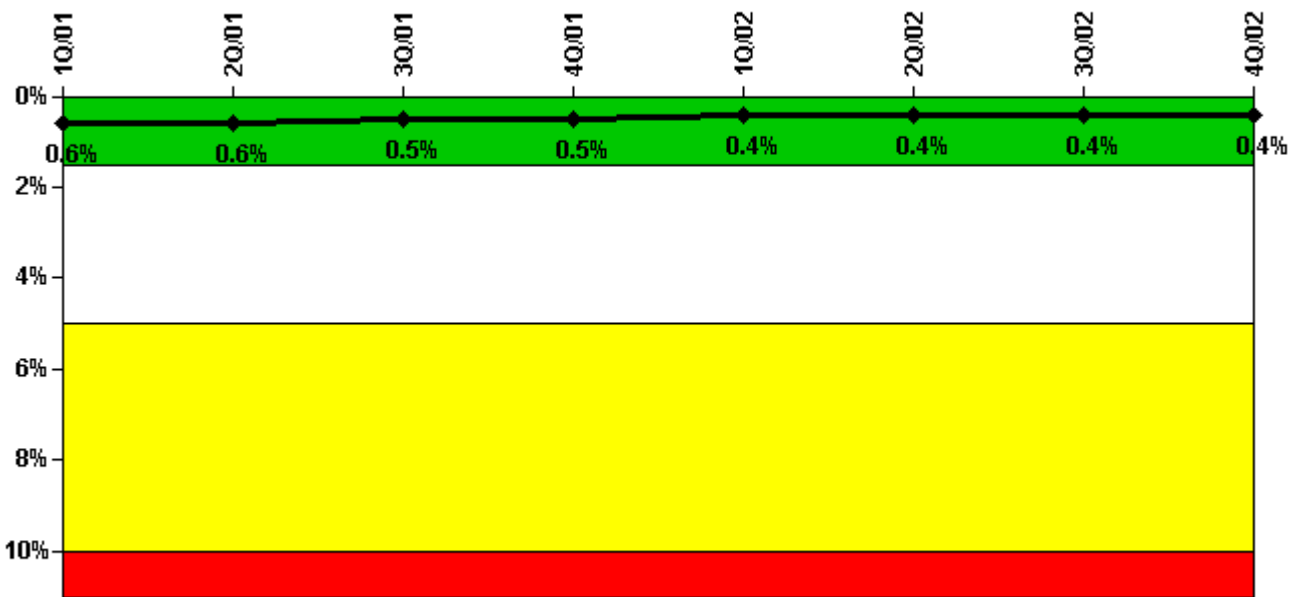
4Q/00: Changed per 4th Qtr 2002 comment.

3Q/00: Planned unavailability data was revised historically from Jan 98 to present to account for (additional) unavailability which originally was not accounted for. Changed per 4th Qtr 2002 comment.

2Q/00: Changed per 4th Qtr 2002 comment.

1Q/00: Changed per 4th Qtr 2002 comment.

### Safety System Unavailability, Residual Heat Removal System



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

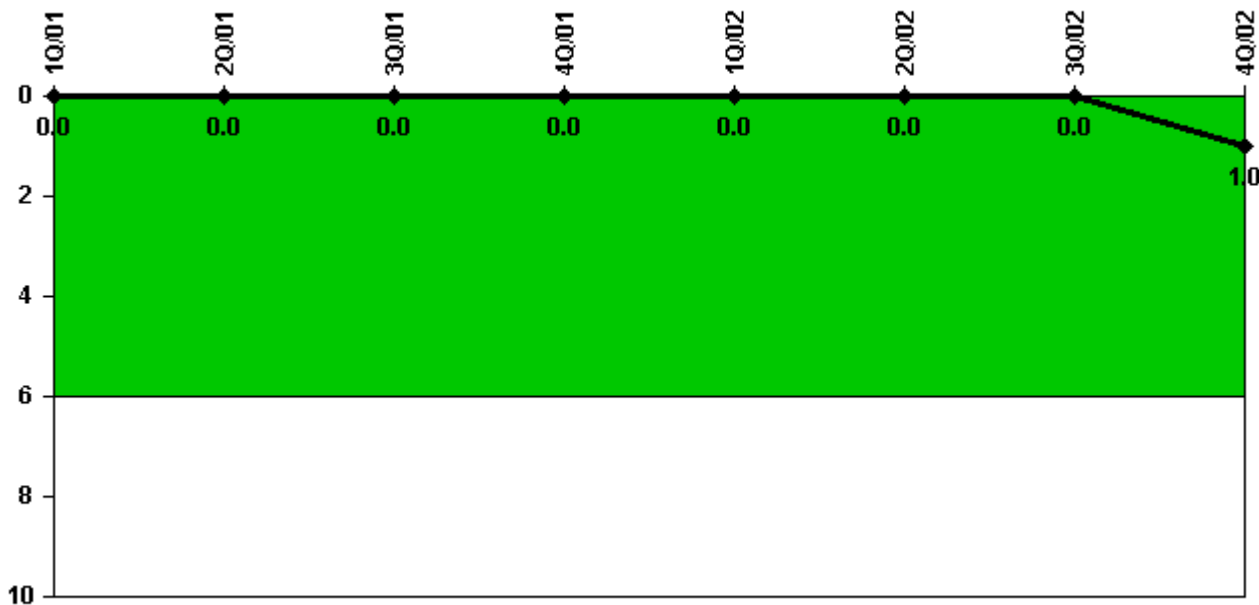
Notes

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Safety System Unavailability, Residual Heat Removal System	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02
<b>Train 1</b>								
Planned unavailable hours	25.55	0	0	0	17.70	1.22	2.53	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	2160.00	2183.00	2208.00	2209.00	2160.00	2183.00	2208.00	2209.00
<b>Train 2</b>								
Planned unavailable hours	0	0	0	19.67	0.38	0	0	24.28
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	2183.00	2208.00	2209.00	2160.00	2183.00	2208.00	2209.00
<b>Indicator value</b>	<b>0.6%</b>	<b>0.6%</b>	<b>0.5%</b>	<b>0.5%</b>	<b>0.4%</b>	<b>0.4%</b>	<b>0.4%</b>	<b>0.4%</b>

Licensee Comments: none

### Safety System Functional Failures (BWR)



Thresholds: White > 6.0

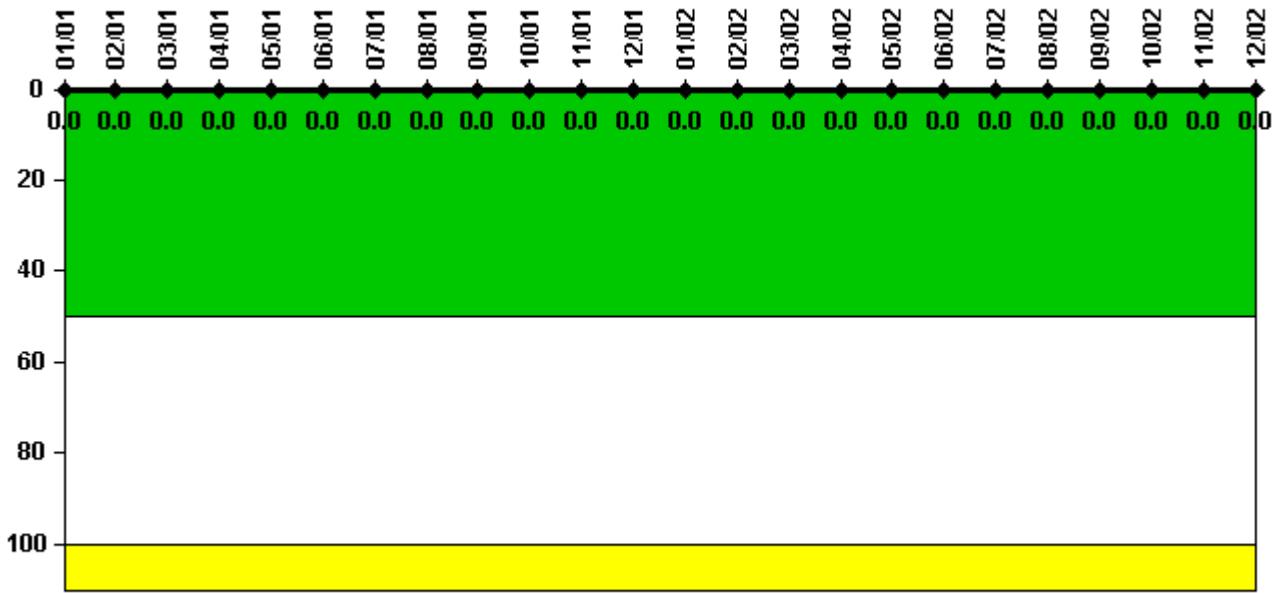
### Notes

Safety System Functional Failures (BWR)	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02
Safety System Functional Failures	0	0	0	0	0	0	0	1
<b>Indicator value</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>

Licensee Comments: none



### Reactor Coolant System Activity



Thresholds: White > 50.0 Yellow > 100.0

**Notes**

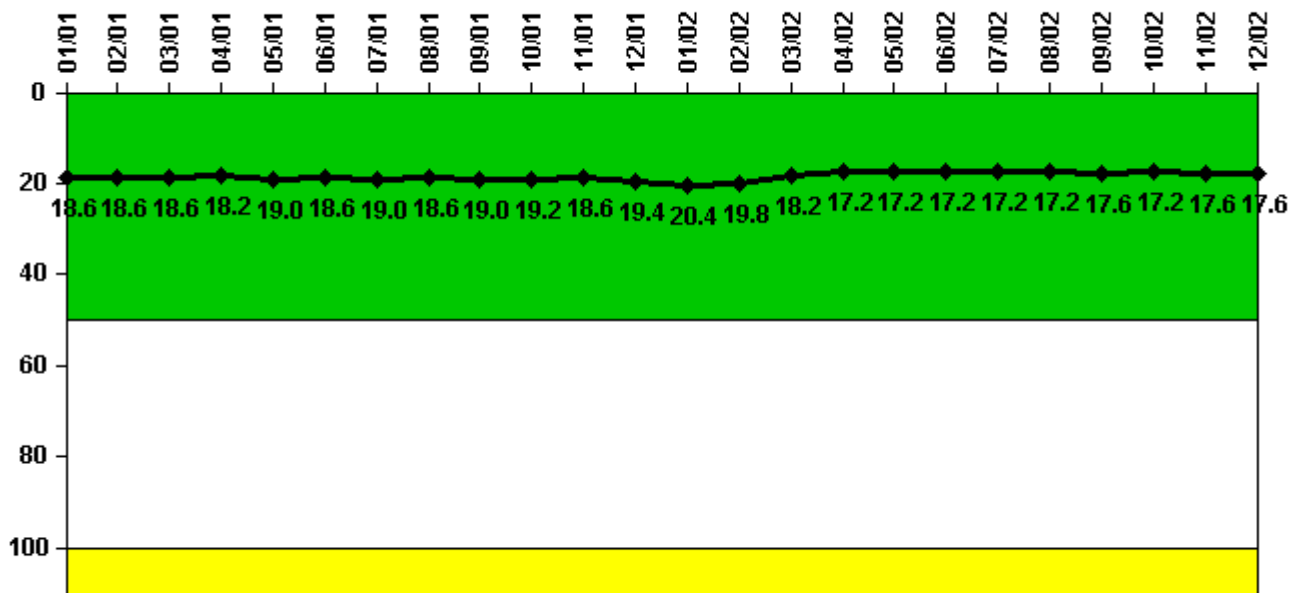
Reactor Coolant System Activity	1/01	2/01	3/01	4/01	5/01	6/01	7/01	8/01	9/01	10/01	11/01	12/01
Maximum activity	0.000039	0.000029	0.000032	0.000022	0.000030	0.000028	0.000025	0.000023	0.000018	0.000022	0.000043	0.000045
Technical specification limit	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Indicator value	0	0	0	0	0	0	0	0	0	0	0	0

Reactor Coolant System Activity	1/02	2/02	3/02	4/02	5/02	6/02	7/02	8/02	9/02	10/02	11/02	12/02
Maximum activity	0.000035	0.000032	0.000014	0.000022	0.000017	0.000014	0.000006	0.000007	0.000008	0.000007	0.000014	0.000009
Technical specification limit	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
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

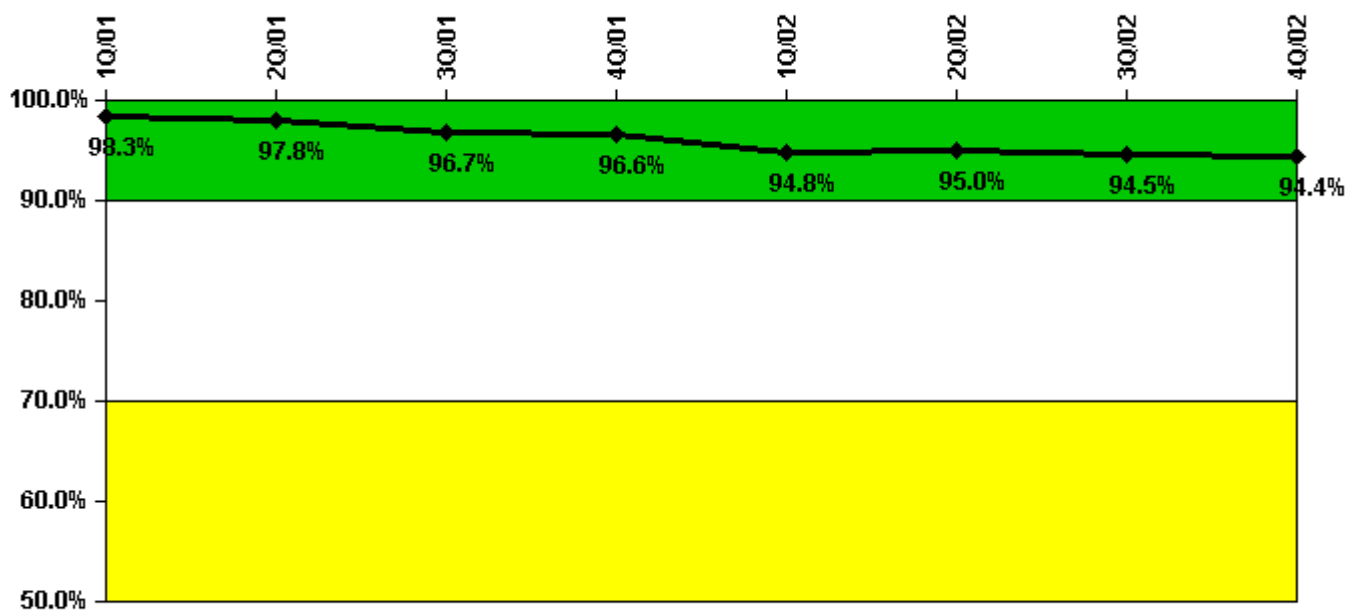
Reactor Coolant System Leakage	1/01	2/01	3/01	4/01	5/01	6/01	7/01	8/01	9/01	10/01	11/01	12/01
Maximum leakage	4.660	4.660	4.660	4.560	4.760	4.660	4.760	4.660	4.760	4.810	4.660	4.860
Technical specification limit	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
Indicator value	18.6	18.6	18.6	18.2	19.0	18.6	19.0	18.6	19.0	19.2	18.6	19.4

Reactor Coolant System Leakage	1/02	2/02	3/02	4/02	5/02	6/02	7/02	8/02	9/02	10/02	11/02	12/02
Maximum leakage	5.110	4.960	4.560	4.300	4.300	4.300	4.300	4.300	4.400	4.300	4.400	4.400
Technical specification limit	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
Indicator value	20.4	19.8	18.2	17.2	17.2	17.2	17.2	17.2	17.6	17.2	17.6	17.6

Licensee Comments: none

### Drill/Exercise Performance



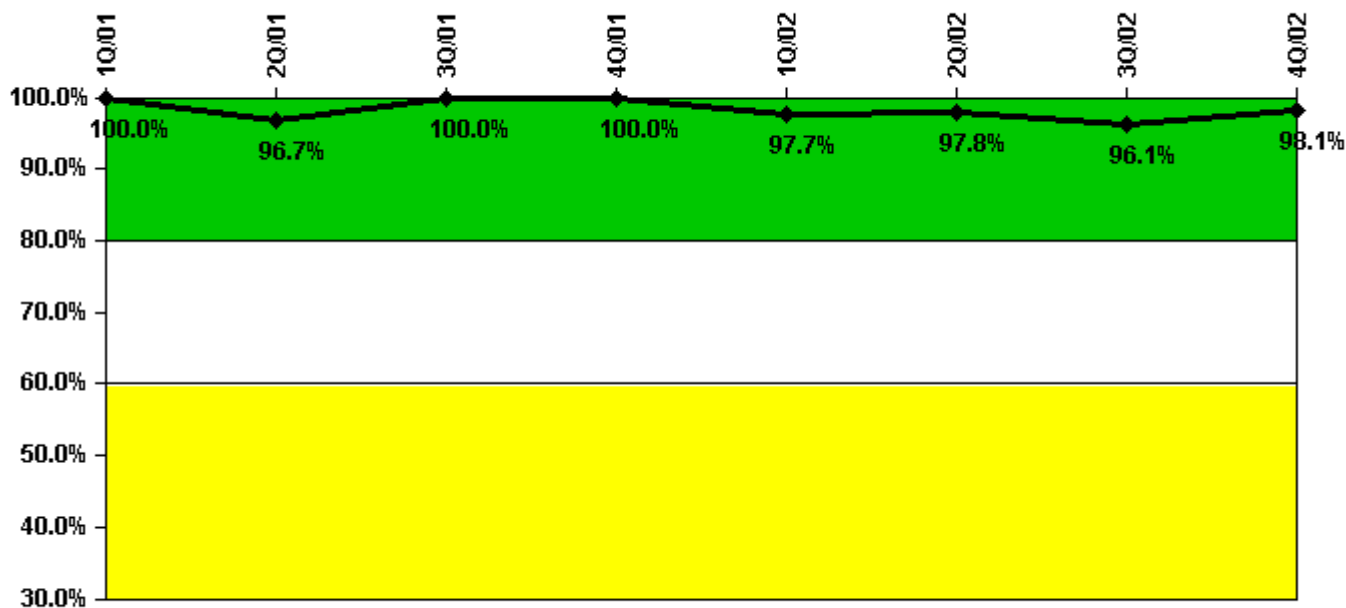
Thresholds: White < 90.0% Yellow < 70.0%

### Notes

Drill/Exercise Performance	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02
Successful opportunities	32.0	3.0	8.0	6.0	16.0	32.0	5.0	15.0
Total opportunities	33.0	4.0	10.0	6.0	16.0	34.0	6.0	15.0
Indicator value	98.3%	97.8%	96.7%	96.6%	94.8%	95.0%	94.5%	94.4%

Licensee Comments: none

### ERO Drill Participation



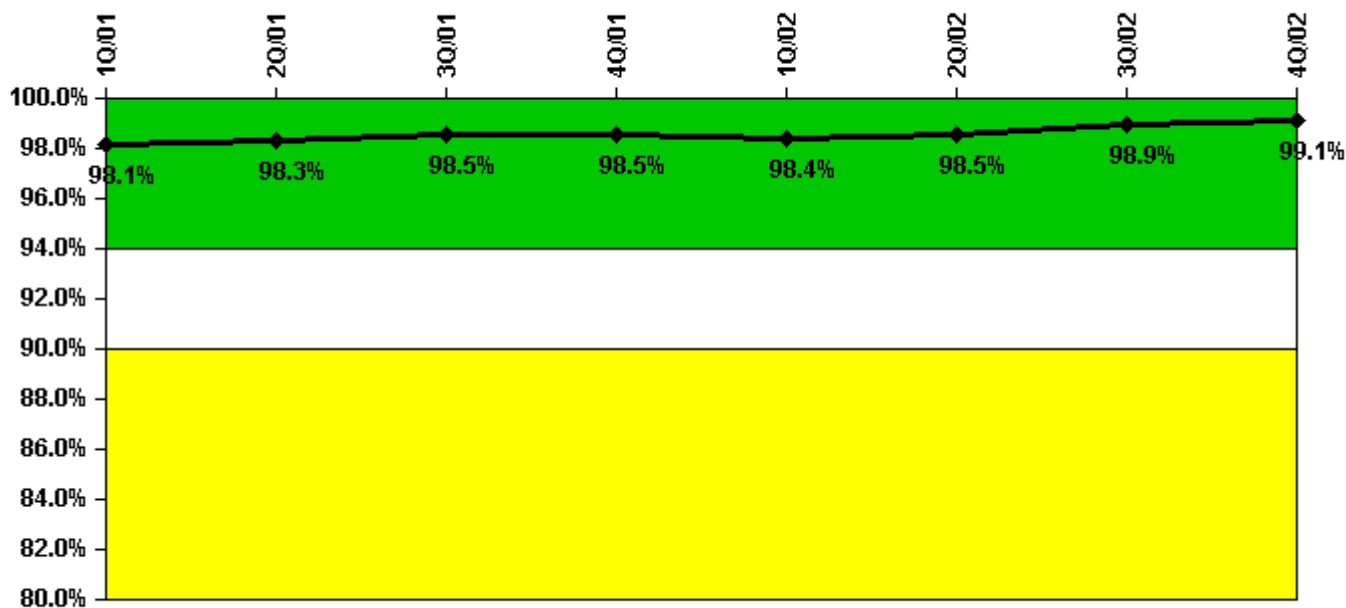
Thresholds: White < 80.0% Yellow < 60.0%

#### Notes

ERO Drill Participation	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02
Participating Key personnel	59.0	58.0	43.0	45.0	43.0	44.0	49.0	52.0
Total Key personnel	59.0	60.0	43.0	45.0	44.0	45.0	51.0	53.0
Indicator value	100.0%	96.7%	100.0%	100.0%	97.7%	97.8%	96.1%	98.1%

Licensee Comments: none

### Alert & Notification System



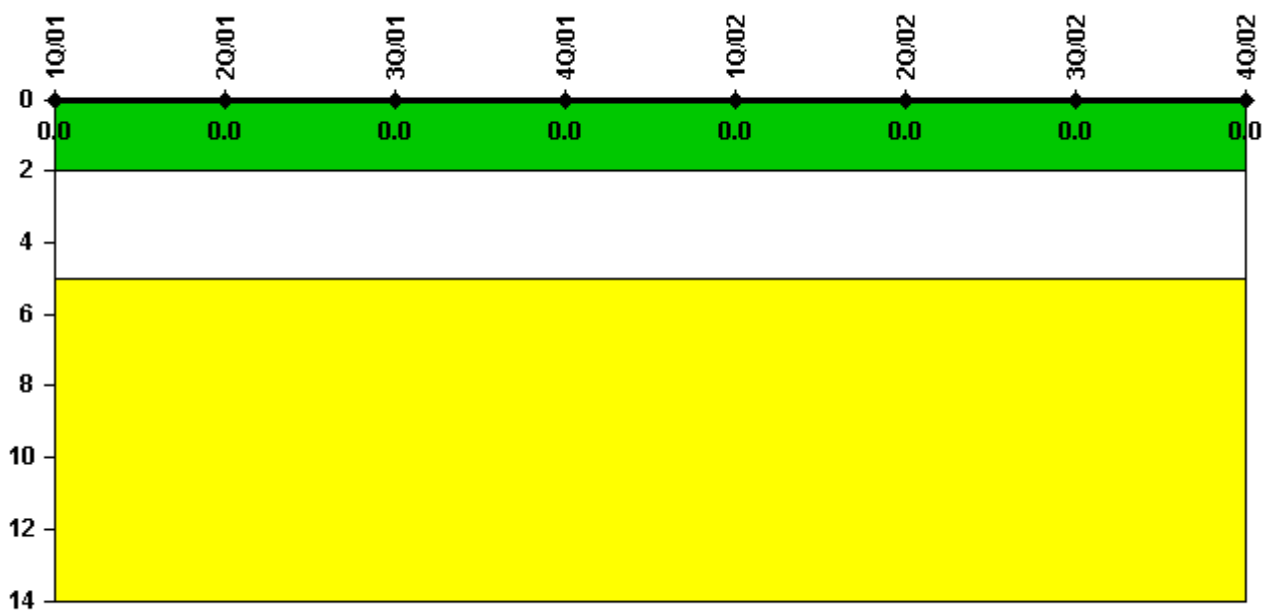
Thresholds: White < 94.0% Yellow < 90.0%

#### Notes

Alert & Notification System	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02
Successful siren-tests	2125	2118	2088	2119	2122	2124	2121	2298
Total sirens-tests	2145	2145	2145	2145	2145	2145	2145	2310
Indicator value	98.1%	98.3%	98.5%	98.5%	98.4%	98.5%	98.9%	99.1%

Licensee Comments: none

### Occupational Exposure Control Effectiveness



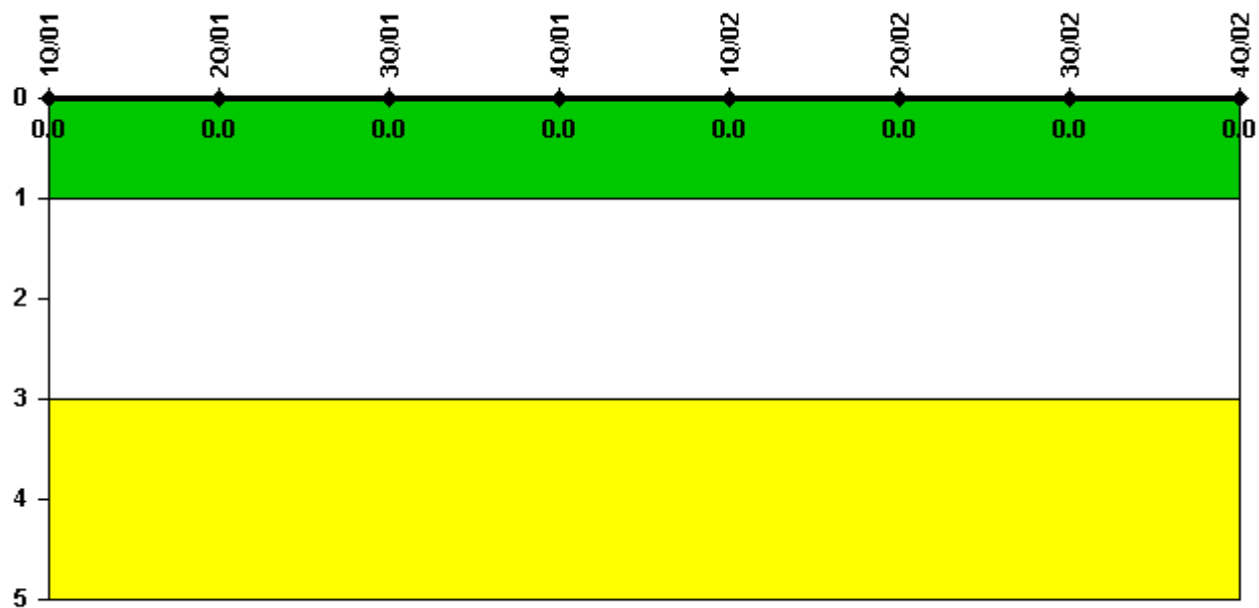
Thresholds: White > 2.0 Yellow > 5.0

#### Notes

Occupational Exposure Control Effectiveness	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02
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



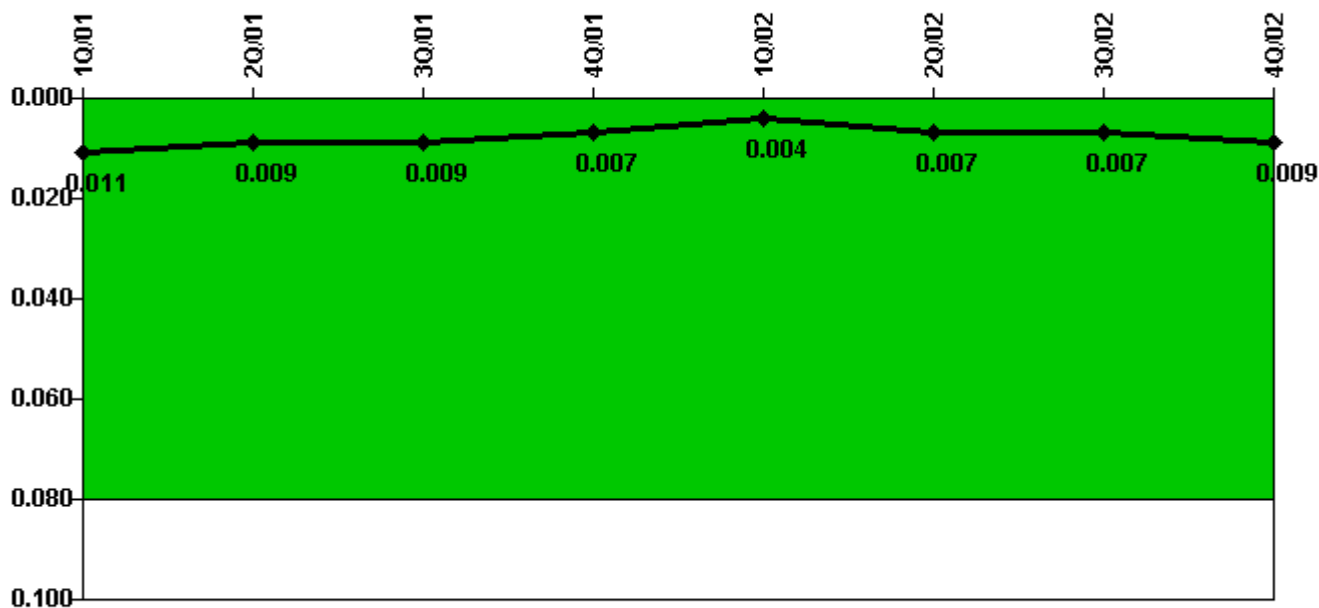
Thresholds: White > 1.0 Yellow > 3.0

#### Notes

RETS/ODCM Radiological Effluent	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02
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

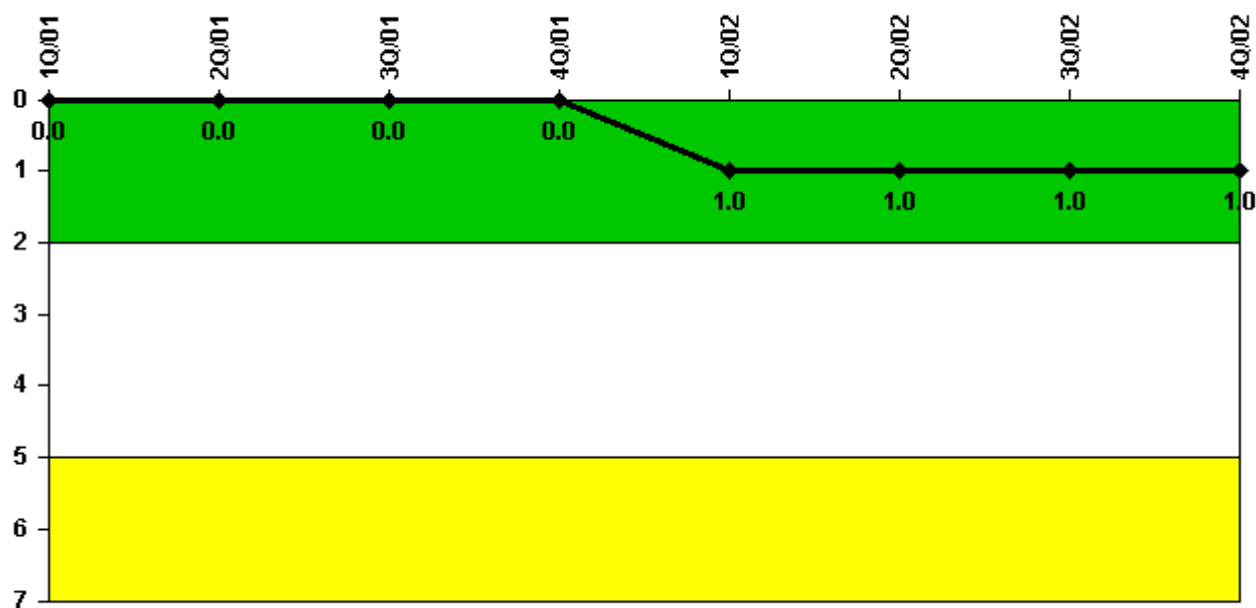
#### Notes

Protected Area Security Performance Index	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02
IDS compensatory hours	85.50	3.70	75.20	13.80	36.60	92.60	64.70	60.90
CCTV compensatory hours	45.5	5.6	1.6	8.8	9.6	13.1	0	26.4
IDS normalization factor	2.35	2.35	2.35	2.35	2.35	2.35	2.35	2.35
CCTV normalization factor	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
<b>Index Value</b>	<b>0.011</b>	<b>0.009</b>	<b>0.009</b>	<b>0.007</b>	<b>0.004</b>	<b>0.007</b>	<b>0.007</b>	<b>0.009</b>

Licensee Comments: none



### Personnel Screening Program



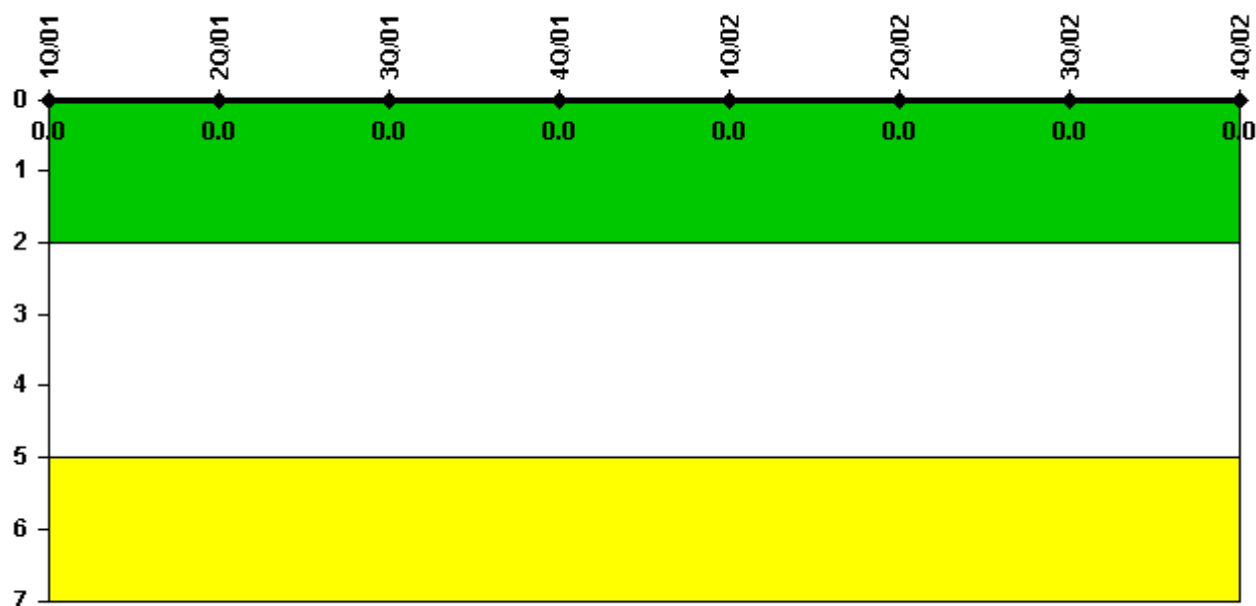
Thresholds: White > 2.0 Yellow > 5.0

#### Notes

Personnel Screening Program	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02
Program failures	0	0	0	0	1	0	0	0
Indicator value	0	0	0	0	1	1	1	1

Licensee Comments: none

### FFD/Personnel Reliability



Thresholds: White > 2.0 Yellow > 5.0

#### Notes

FFD/Personnel Reliability	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02
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](#) | [Reactor Oversight Process](#)

Last Modified: January 30, 2003