

### Columbia Generating Station

#### 4Q/2001 Performance Indicators

Licensee's General Comments: none

#### Unplanned Scrams per 7000 Critical Hrs



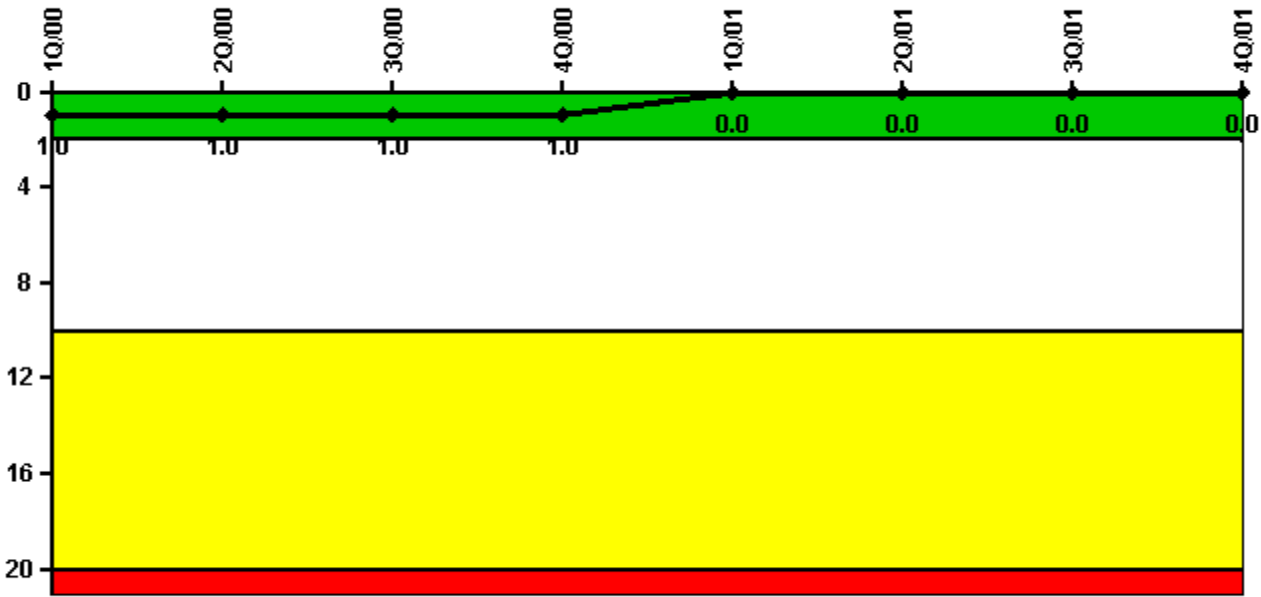
Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

#### 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	1.0	1.0	0	0	0	0	0
Critical hours	2184.0	2071.4	1996.5	2209.0	2160.0	1265.4	2080.0	2209.0
<b>Indicator value</b>	<b>0</b>	<b>0.9</b>	<b>1.8</b>	<b>1.7</b>	<b>1.7</b>	<b>0.9</b>	<b>0</b>	<b>0</b>

Licensee Comments: none

### Scrams with Loss of Normal Heat Removal



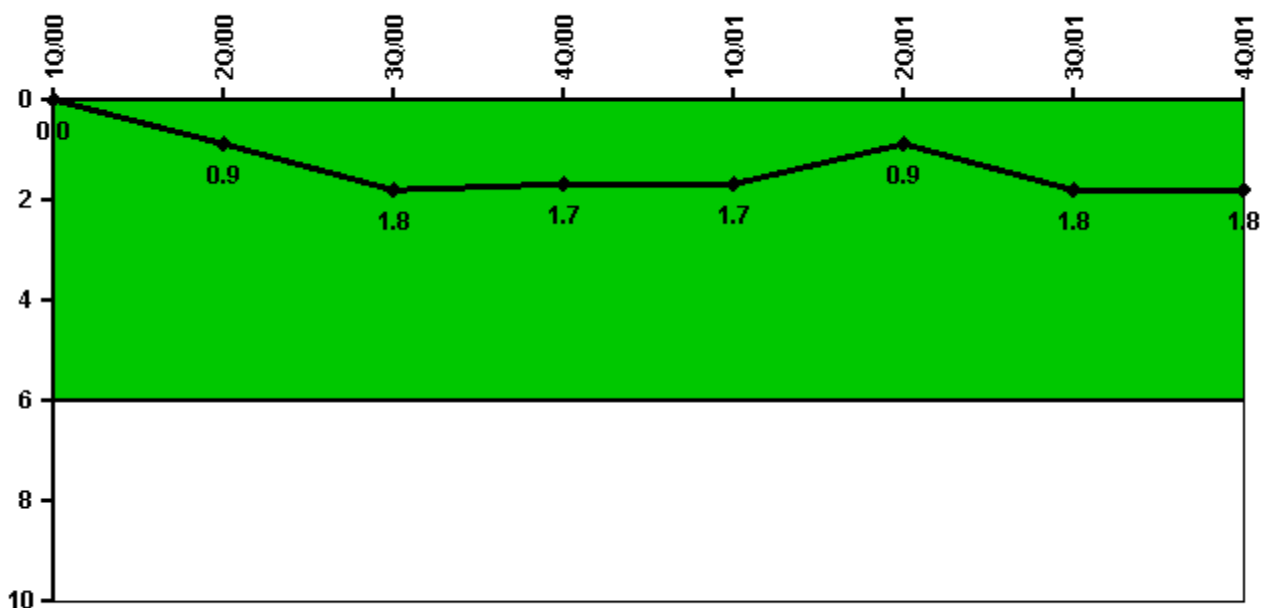
Thresholds: White > 2.0 Yellow > 10.0 Red > 20.0

#### Notes

Scrams with Loss of Normal Heat Removal	1Q/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	1.0	1.0	1.0	1.0	0	0	0	0

Licensee Comments: none

### Unplanned Power Changes per 7000 Critical Hrs



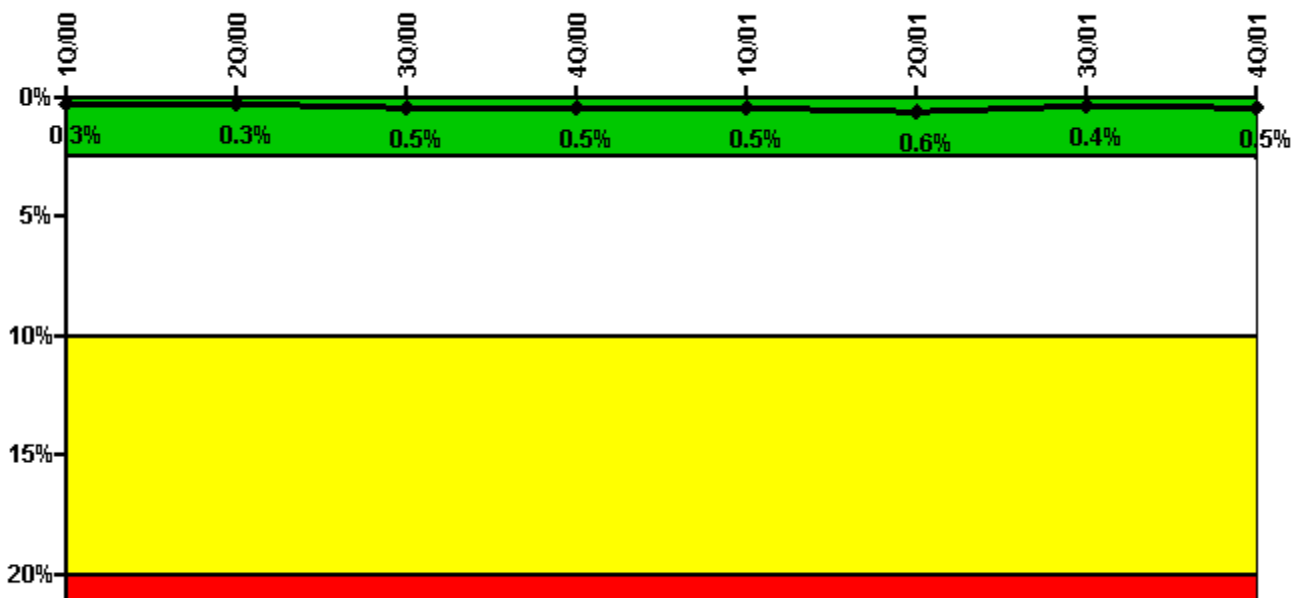
Thresholds: White > 6.0

### 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	1.0	1.0	0	0	0	2.0	0
Critical hours	2184.0	2071.4	1996.5	2209.0	2160.0	1265.4	2080.0	2209.0
Indicator value	0	0.9	1.8	1.7	1.7	0.9	1.8	1.8

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/00	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01
<b>Train 1</b>								
Planned unavailable hours	2.25	0.99	17.67	5.04	3.53	1.10	1.57	21.46
Unplanned unavailable hours	0	0	8.55	0	6.05	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	2160.00	2183.00	2208.00	2209.00
<b>Train 2</b>								
Planned unavailable hours	4.35	24.80	10.83	31.38	1.32	0.68	2.21	4.17
Unplanned unavailable hours	1.87	0	52.25	0	0	3.72	0	40.96
Fault exposure hours	0	0	0	0	0	37.88	0	4.31
Effective Reset hours	345.40	0	0	0	0	0	0	0
Required hours	2184.00	2183.00	2208.00	2209.00	2160.00	2183.00	2208.00	2209.00
<b>Train 3</b>								
Planned unavailable hours	4.76	2.80	5.47	27.29	3.42	4.17	7.04	7.12
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	2160.00	2183.00	2208.00	2209.00
<b>Indicator value</b>	<b>0.3%</b>	<b>0.3%</b>	<b>0.5%</b>	<b>0.5%</b>	<b>0.5%</b>	<b>0.6%</b>	<b>0.4%</b>	<b>0.5%</b>

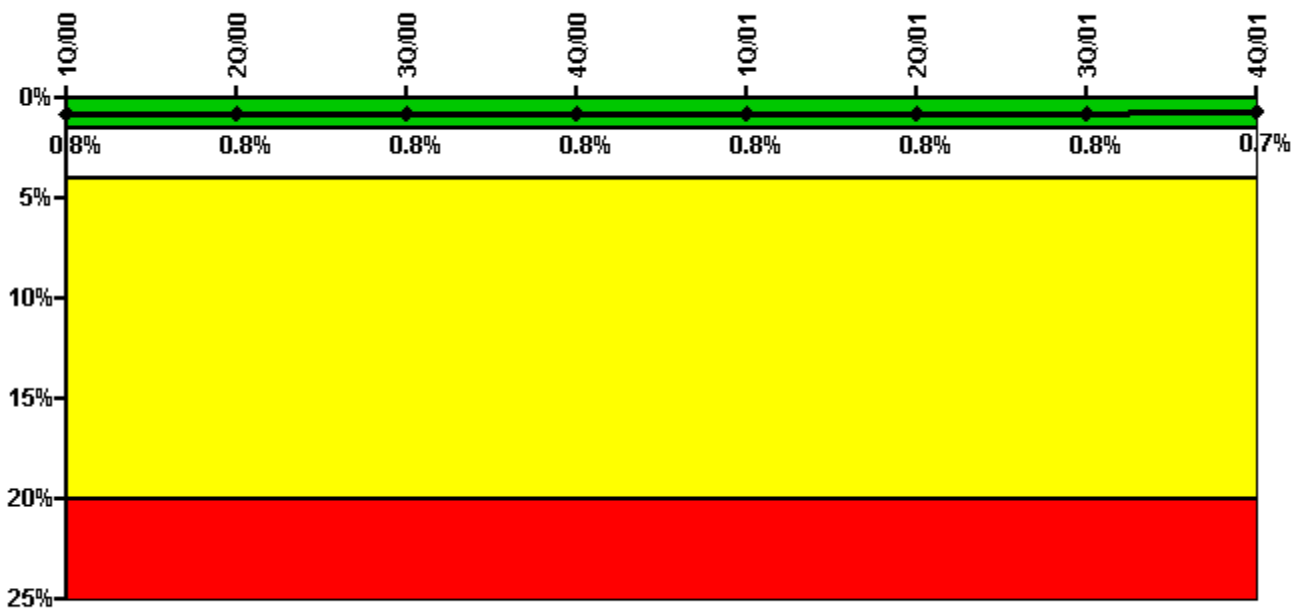
Licensee Comments:

3Q/98:

Effective Reset Comments:

1Q/00: Previously reset hours were reset under the new process.

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



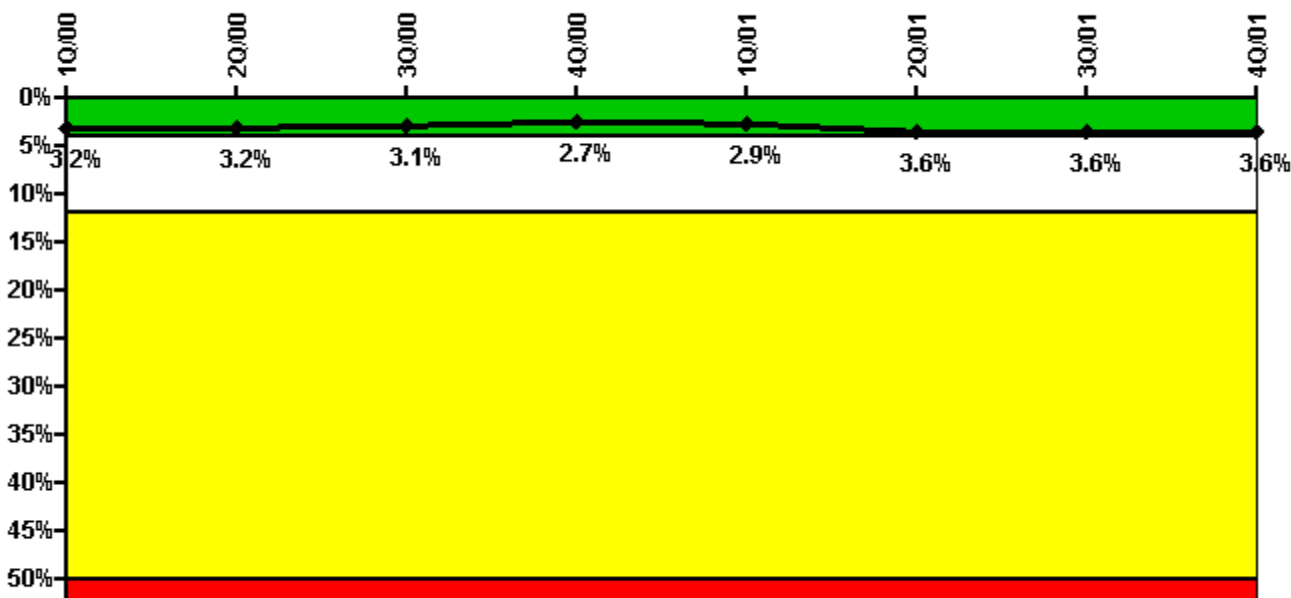
Thresholds: White > 1.5% Yellow > 4.0% Red > 20.0%

#### Notes

Safety System Unavailability, High Pressure Injection System (HPCS)	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01
<b>Train 1</b>								
Planned unavailable hours	8.14	5.61	4.18	26.10	6.81	2.19	2.97	2.32
Unplanned unavailable hours	0	0	0	0	0	0.58	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	2089.40	2037.70	2209.00	2160.00	1576.53	2094.88	2209.00
<b>Indicator value</b>	<b>0.8%</b>	<b>0.8%</b>	<b>0.8%</b>	<b>0.8%</b>	<b>0.8%</b>	<b>0.8%</b>	<b>0.8%</b>	<b>0.7%</b>

Licensee Comments: none

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



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

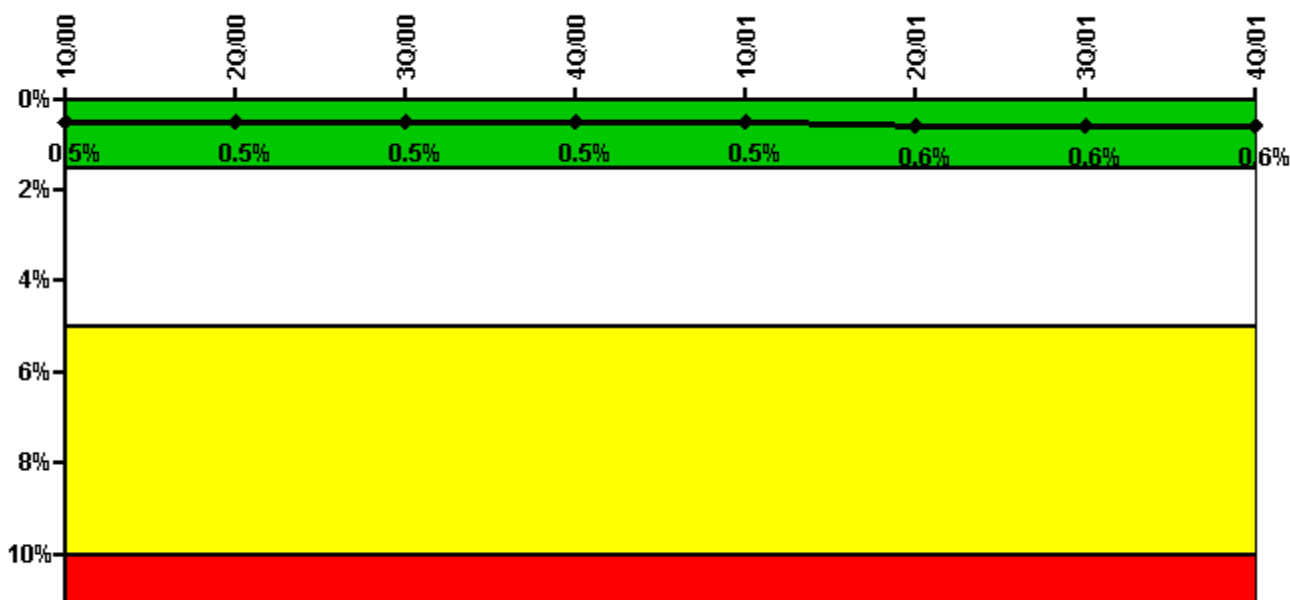
#### Notes

Safety System Unavailability, Heat Removal System (RCIC)	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01
<b>Train 1</b>								
Planned unavailable hours	22.57	23.80	5.92	13.29	3.89	4.94	1.45	10.68
Unplanned unavailable hours	0	32.28	0	0	178.90	159.53	18.23	4.00
Fault exposure hours	0	0	0	0	0	9.56	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2184.00	2080.50	1999.88	2209.00	2160.00	1244.70	2075.03	2209.00
<b>Indicator value</b>	<b>3.2%</b>	<b>3.2%</b>	<b>3.1%</b>	<b>2.7%</b>	<b>2.9%</b>	<b>3.6%</b>	<b>3.6%</b>	<b>3.6%</b>

Licensee Comments:

2Q/01: Changed 6/2001 fault exposure hours from 39.16 to 9.56.

### Safety System Unavailability, Residual Heat Removal System



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

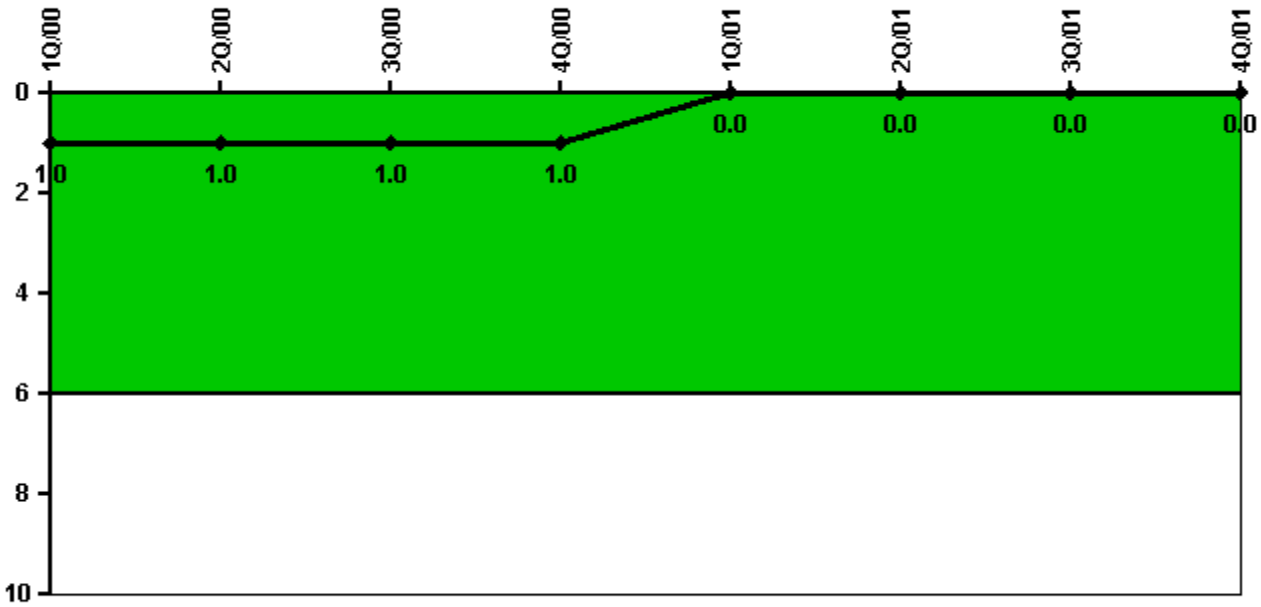
#### Notes

Safety System Unavailability, Residual Heat Removal System	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01
<b>Train 1</b>								
Planned unavailable hours	0.37	0.33	8.58	1.33	1.57	7.81	4.43	7.30
Unplanned unavailable hours	0	0	8.28	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	2160.00	2182.63	2208.00	2209.00
<b>Train 2</b>								
Planned unavailable hours	0.25	0.28	5.48	10.78	1.33	54.34	1.45	0.63
Unplanned unavailable hours	1.87	0	0	0	0	3.72	0	36.80
Fault exposure hours	0	0	0	0	0	37.88	0	4.31
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2184.00	2183.00	2208.00	2209.00	2160.00	1993.08	2208.00	2209.00
<b>Indicator value</b>	<b>0.5%</b>	<b>0.5%</b>	<b>0.5%</b>	<b>0.5%</b>	<b>0.5%</b>	<b>0.6%</b>	<b>0.6%</b>	<b>0.6%</b>

Licensee Comments:

2Q/01: Changed Train 2 6/2001 planned unavailable hours from 24.96 to 54.14.

### Safety System Functional Failures (BWR)



Thresholds: White > 6.0

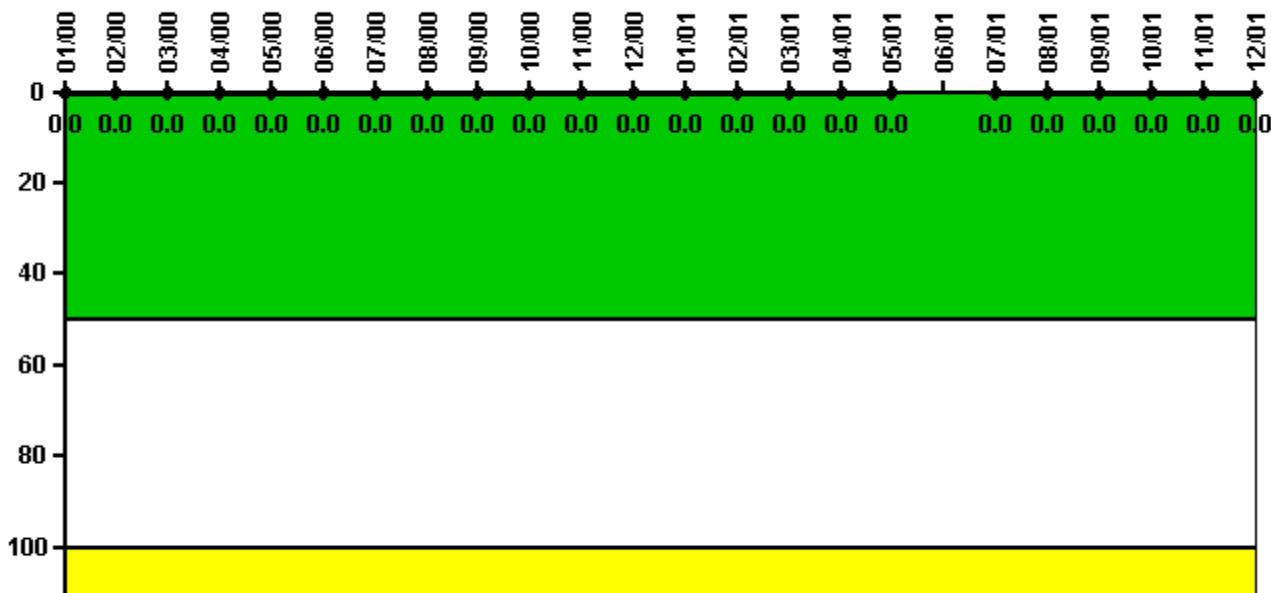
#### Notes

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

Licensee Comments: none



### Reactor Coolant System Activity



Thresholds: White > 50.0 Yellow > 100.0

#### Notes

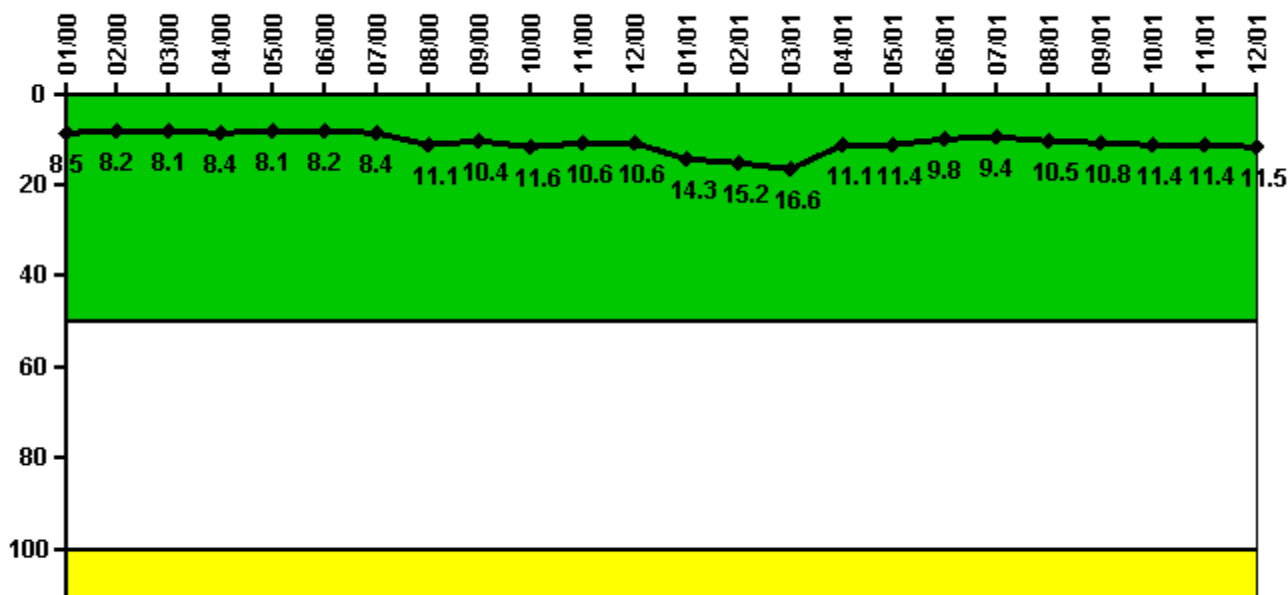
Reactor Coolant System Activity	1/00	2/00	3/00	4/00	5/00	6/00	7/00	8/00	9/00	10/00	11/00	12/00
Maximum activity	0.000031	0.000024	0.000020	0.000017	0.000018	0.000023	0.000021	0.000020	0.000020	0.000021	0.000021	0.000024
Technical specification limit	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Indicator value	0	0	0	0	0	0	0	0	0	0	0	0

Reactor Coolant System Activity	1/01	2/01	3/01	4/01	5/01	6/01	7/01	8/01	9/01	10/01	11/01	12/01
Maximum activity	0.000024	0.000022	0.000022	0.000024	0.000022	N/A	0.000015	0.000008	0.000010	0.000013	0.000014	0.000017
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	N/A	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	1/00	2/00	3/00	4/00	5/00	6/00	7/00	8/00	9/00	10/00	11/00	12/00
Maximum leakage	2.130	2.040	2.030	2.110	2.020	2.060	2.100	2.770	2.610	2.900	2.640	2.660
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	8.5	8.2	8.1	8.4	8.1	8.2	8.4	11.1	10.4	11.6	10.6	10.6

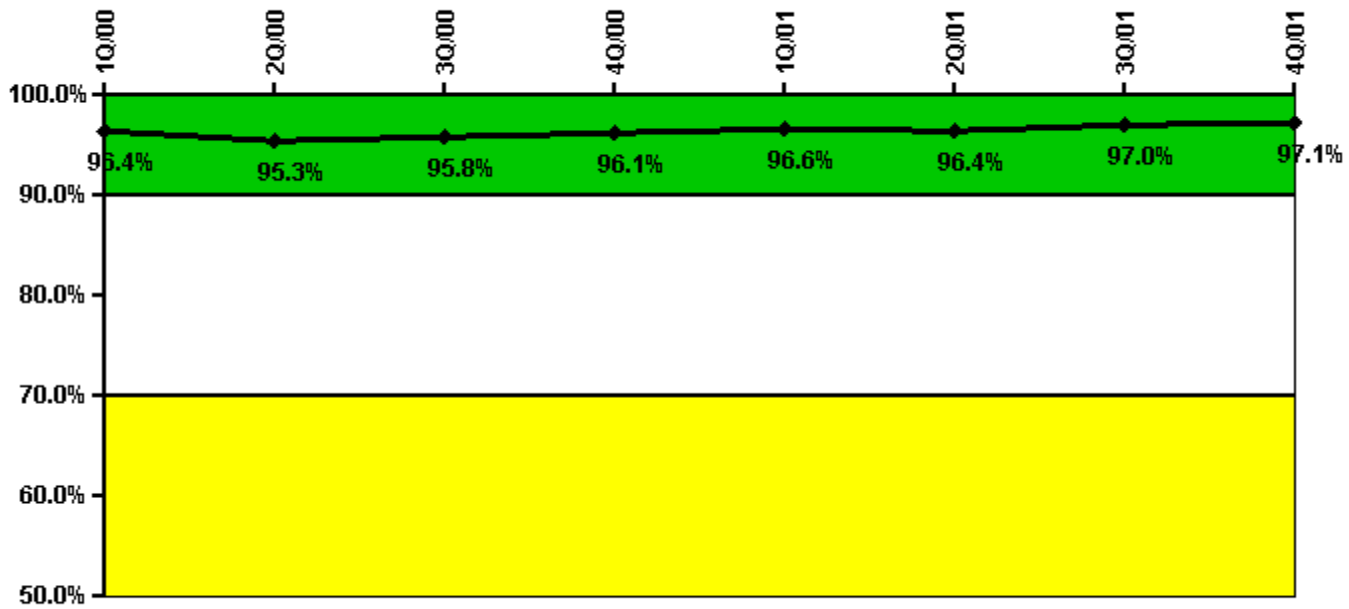
  

Reactor Coolant System Leakage	1/01	2/01	3/01	4/01	5/01	6/01	7/01	8/01	9/01	10/01	11/01	12/01
Maximum leakage	3.570	3.790	4.150	2.780	2.840	2.440	2.350	2.620	2.690	2.840	2.840	2.870
Technical specification limit	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
Indicator value	14.3	15.2	16.6	11.1	11.4	9.8	9.4	10.5	10.8	11.4	11.4	11.5

Licensee Comments:

12/01: This indicator data is RCS Total Leakage. Columbia Generating Station's Technical Specifications is for Total Leakage.

### Drill/Exercise Performance



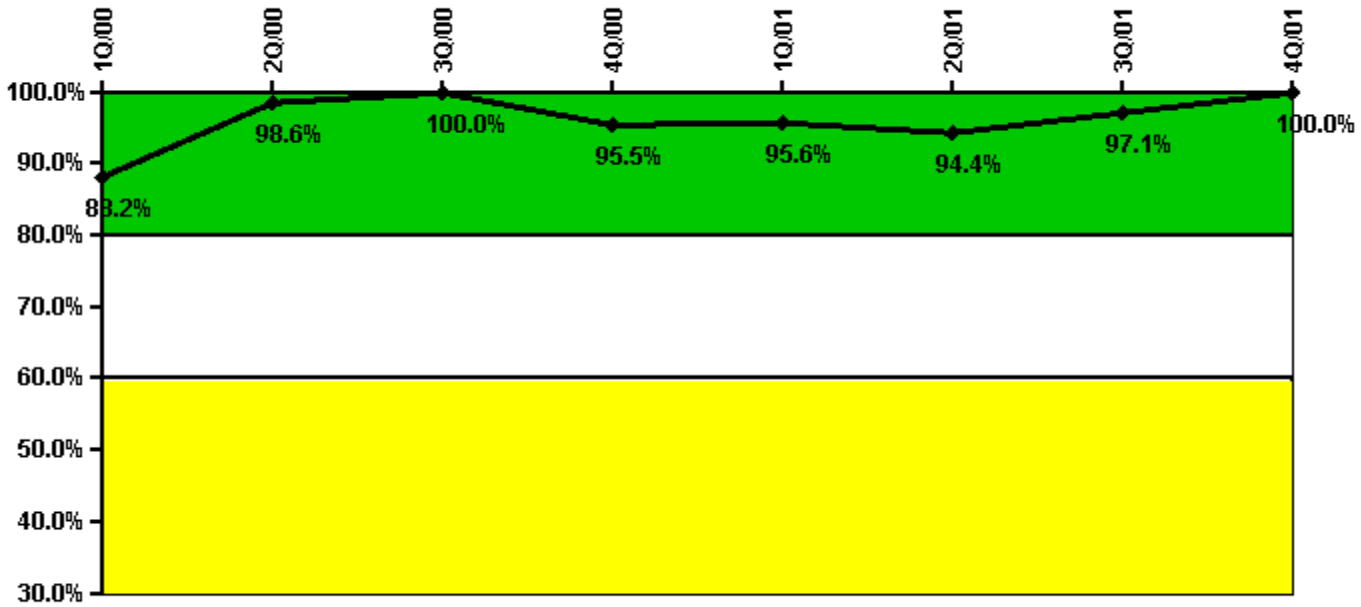
Thresholds: White < 90.0% Yellow < 70.0%

### Notes

Drill/Exercise Performance	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01
Successful opportunities	22.0	30.0	20.0	8.0	12.0	6.0	26.0	8.0
Total opportunities	23.0	32.0	21.0	8.0	12.0	6.0	26.0	8.0
Indicator value	96.4%	95.3%	95.8%	96.1%	96.6%	96.4%	97.0%	97.1%

Licensee Comments: none

### ERO Drill Participation



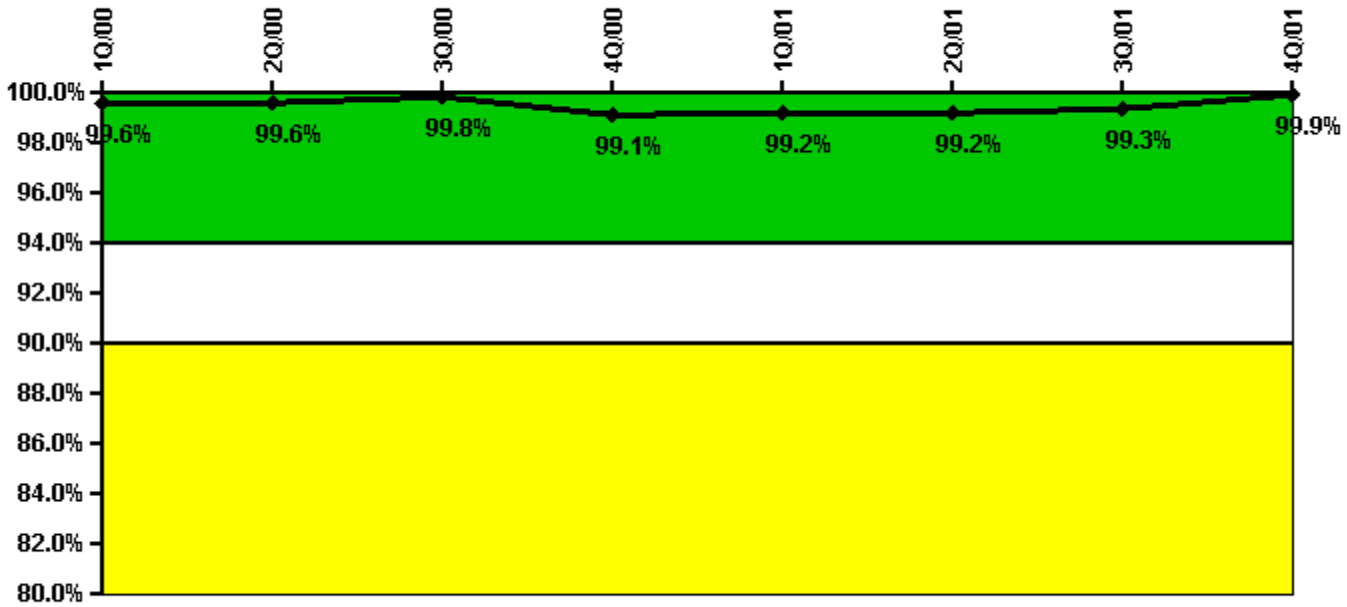
Thresholds: White < 80.0% Yellow < 60.0%

#### Notes

ERO Drill Participation	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01
Participating Key personnel	60.0	70.0	70.0	64.0	65.0	68.0	67.0	70.0
Total Key personnel	68.0	71.0	70.0	67.0	68.0	72.0	69.0	70.0
Indicator value	88.2%	98.6%	100.0%	95.5%	95.6%	94.4%	97.1%	100.0%

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	132	143	143	138	198	285	286	248
Total sirens-tests	132	143	143	143	198	286	286	248
Indicator value	99.6%	99.6%	99.8%	99.1%	99.2%	99.2%	99.3%	99.9%

Licensee Comments: none

### Occupational Exposure Control Effectiveness



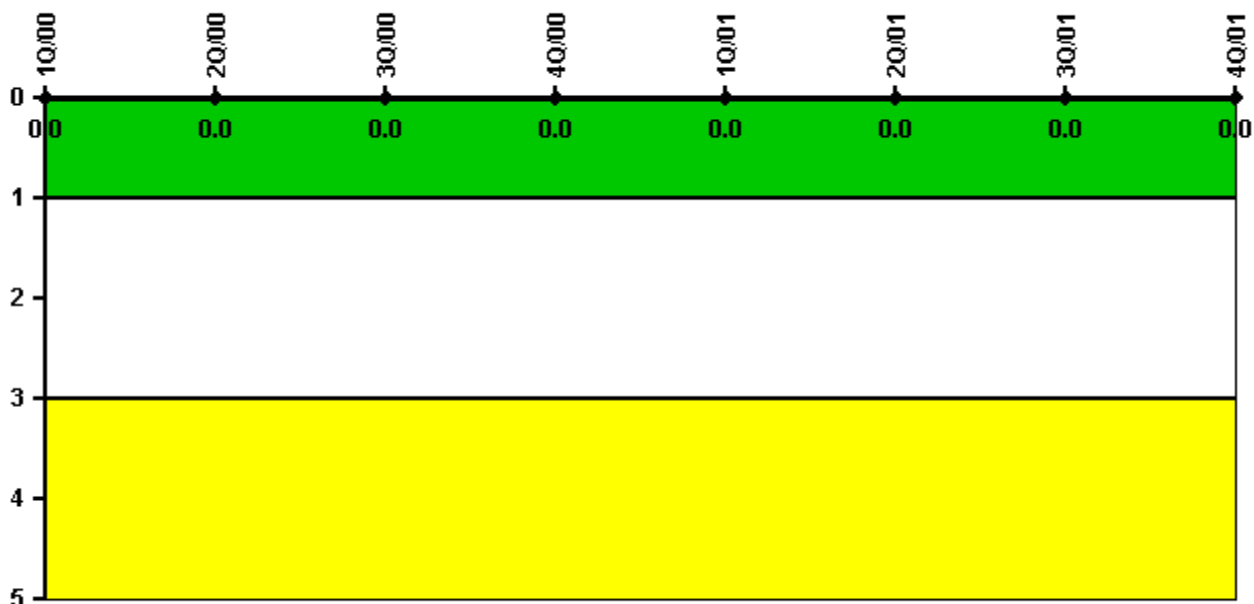
Thresholds: White > 2.0 Yellow > 5.0

#### 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
<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>0</b>

Licensee Comments: none

### RETS/ODCM Radiological Effluent



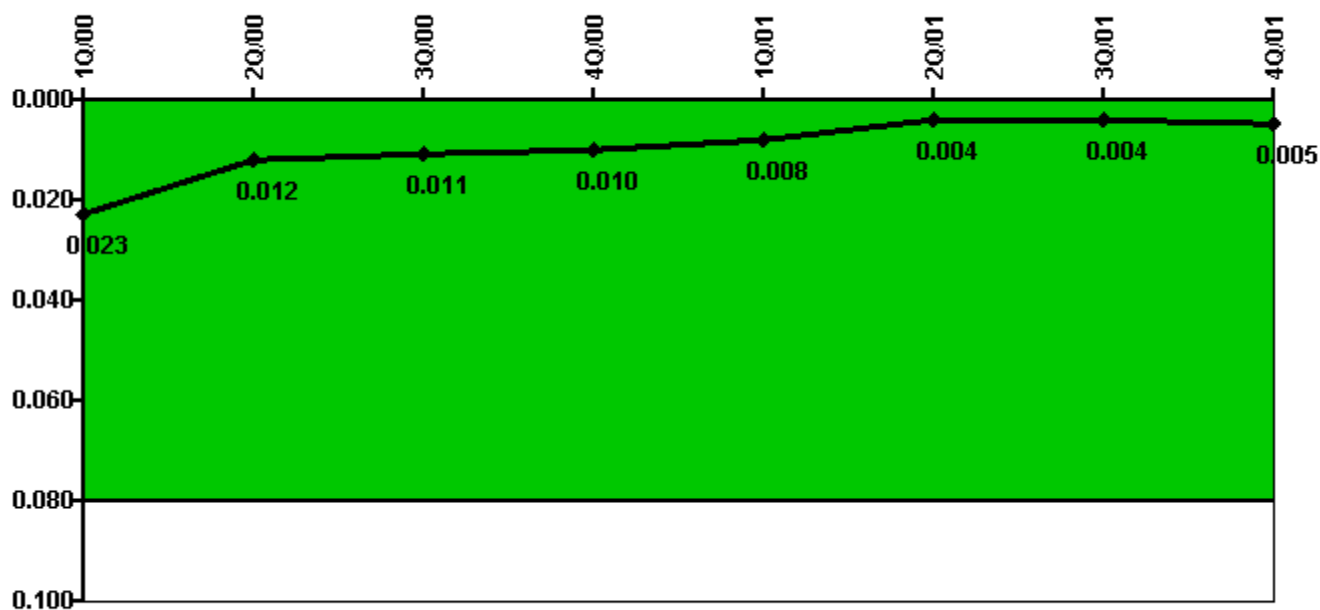
Thresholds: White > 1.0 Yellow > 3.0

#### 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

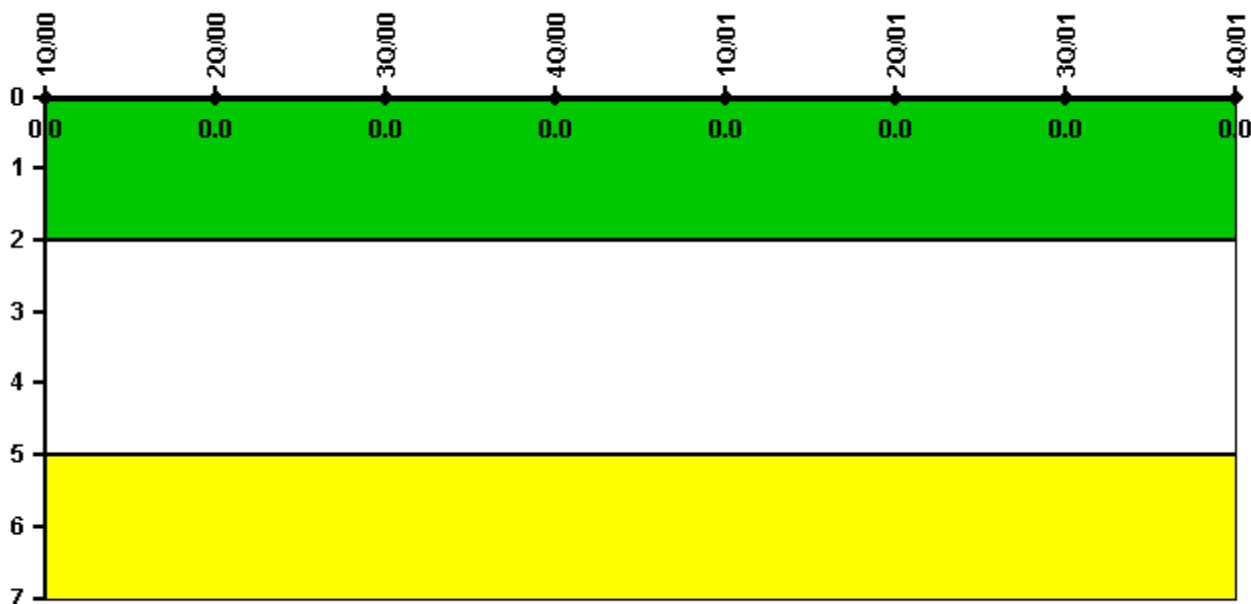
#### Notes

Protected Area Security Performance Index	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01
IDS compensatory hours	45.90	148.30	93.60	7.80	14.30	12.30	47.80	45.20
CCTV compensatory hours	12.6	7.4	5.8	0	0	0.1	34.7	0
IDS normalization factor	2.10	2.10	2.10	2.10	2.05	2.05	2.05	2.05
CCTV normalization factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
<b>Index Value</b>	<b>0.023</b>	<b>0.012</b>	<b>0.011</b>	<b>0.010</b>	<b>0.008</b>	<b>0.004</b>	<b>0.004</b>	<b>0.005</b>

Licensee Comments: none



### 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