

**D.C. Cook 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	0	0	0	0	0	0	1.0
Critical hours	0	197.0	2208.0	2209.0	2076.0	2183.0	1454.0	2008.0
Indicator value	N/A	N/A	0	0	0	0	0	0.9

Licensee Comments:

4Q/01: Unit 2 experienced a reactor trip due to a loss of rod control system voltage caused by a failed resistor in a voltage regulator for the control rod drive motor generator sets.

### Scrams with Loss of Normal Heat Removal



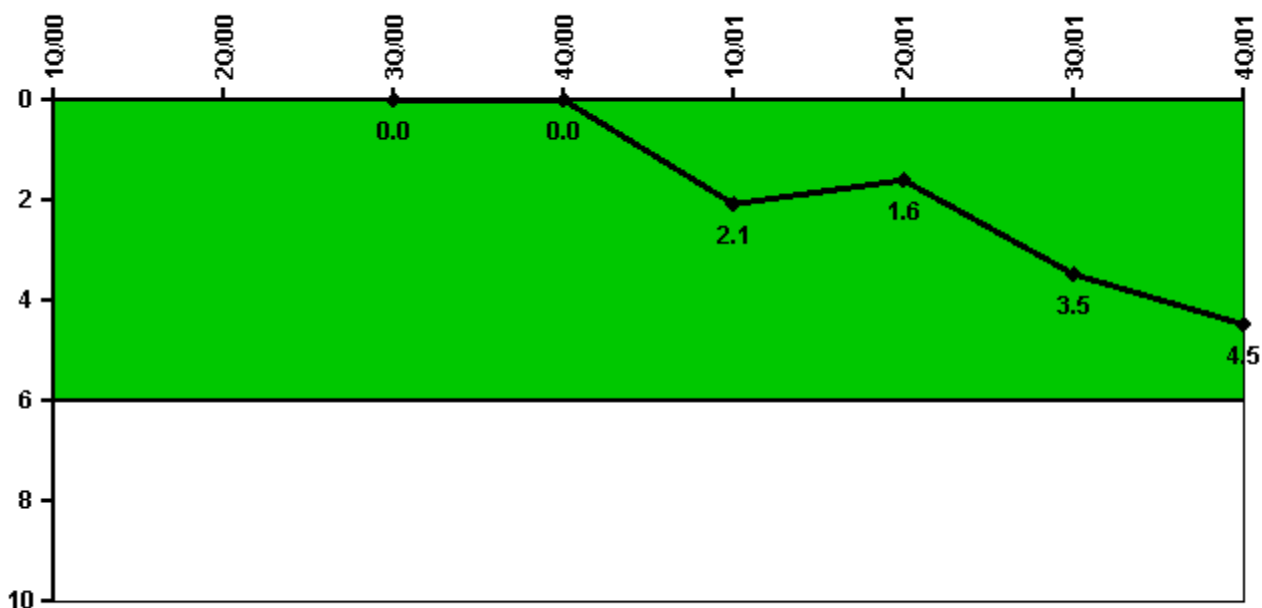
Thresholds: White > 2.0 Yellow > 10.0 Red > 20.0

#### 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	2.0	0	2.0	1.0
Critical hours	0	197.0	2208.0	2209.0	2076.0	2183.0	1454.0	2008.0
Indicator value	N/A	N/A	0	0	2.1	1.6	3.5	4.5

Licensee Comments:

4Q/01: Unit 2 reduced power to clean main feed pump condenser fouling caused by weather induced lake conditions.

### 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
<b>Train 1</b>								
Planned unavailable hours	0	4.45	8.20	20.78	0.47	5.20	0.30	1.20
Unplanned unavailable hours	0	0	0	0	0	0	0.90	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	0	2184.00	2208.00	2209.00	2160.00	2183.00	2208.00	2209.00
<b>Train 2</b>								
Planned unavailable hours	0	6.20	0	13.30	27.25	26.18	0.58	2.22
Unplanned unavailable hours	0	0	0	0	0	0	0.90	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	0	2184.00	2208.00	2209.00	2160.00	2183.00	1524.50	2209.00
<b>Indicator value</b>								<b>0.4%</b>

#### Licensee Comments:

4Q/01: In accordance with FAQ 291, approved November 15, 2001, a change report was submitted to "zero-sum" the time from 1Q1999 to 2Q2000 to provide for an indicator calculation.

4Q/00: Change made to add planned unavailable hours to train 1EDG to account for CO2 testing.

1Q/00: Hours for this quarter have been "zero-summed" to provide for a 4Q2001 indicator calculation in accordance with FAQ 291 approved November 15, 2001.

4Q/99: Hours for this quarter have been "zero-summed" to provide for a 4Q2001 indicator calculation in accordance with FAQ 291 approved November 15, 2001.

3Q/99: Hours for this quarter have been "zero-summed" to provide for a 4Q2001 indicator calculation in accordance with FAQ 291 approved November 15, 2001.

2Q/99: Hours for this quarter have been "zero-summed" to provide for a 4Q2001 indicator calculation in accordance with FAQ 291 approved November 15, 2001.

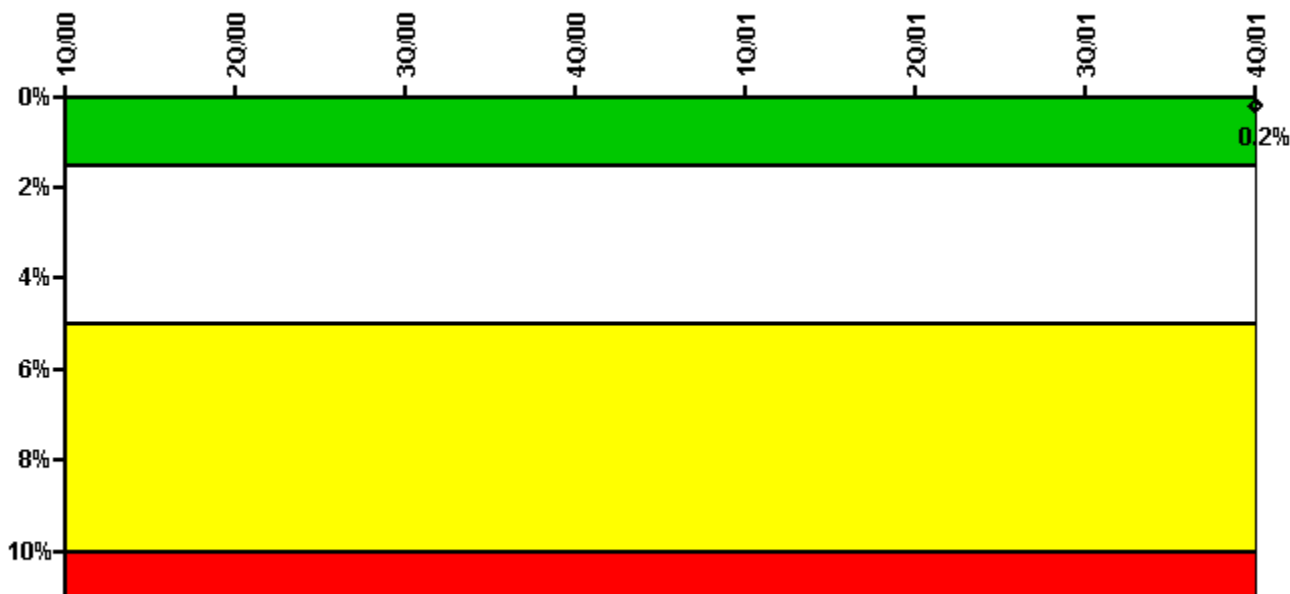
1Q/99: Hours for this quarter have been "zero-summed" to provide for a 4Q2001 indicator calculation in accordance with FAQ 291 approved November 15, 2001.

1Q/99: Hours for this quarter have been "zero-summed" to provide for a 4Q2001 indicator calculation in accordance with FAQ 291 approved

November 15, 2001.

1Q/99: Hours for this quarter have been "zero-summed" to provide for a 4Q2001 indicator calculation in accordance with FAQ 291 approved November 15, 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
<b>Train 1</b>								
Planned unavailable hours	0	0	7.50	9.18	0	0	0	15.45
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	0	581.00	2208.00	2209.00	2160.00	2183.00	1524.47	2209.00
<b>Train 2</b>								
Planned unavailable hours	0	0	0	0	16.65	0	20.92	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	0	581.00	2208.00	2209.00	2160.00	2183.00	1501.97	2209.00
<b>Train 3</b>								
Planned unavailable hours	0	0	0	3.72	13.83	0	0	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	0	453.60	2208.00	2209.00	2160.00	2183.00	1524.47	2209.00
<b>Train 4</b>								
Planned unavailable hours	0	0	4.97	0	0	5.57	0	12.48
Unplanned unavailable hours	0	11.25	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	0	453.60	2208.00	2209.00	2160.00	2183.00	1501.97	2209.00



Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	0	454.00	2208.00	2209.00	2160.00	2183.00	1579.05	2209.00
<b>Train 3</b>								
Planned unavailable hours	0	0	0	0	11.98	0	5.75	0
Unplanned unavailable hours	0	0	0	0	0	0	32.39	0
Fault exposure hours	0	78.06	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	0	454.00	2208.00	2209.00	2160.00	2183.00	1579.05	2209.00
<b>Indicator value</b>								<b>0.4%</b>

Licensee Comments:

4Q/01: In accordance with FAQ 291, approved November 15, 2001, a change report was submitted to "zero-sum" the time from 1Q1999 to 2Q2000 to provide for an indicator calculation.

3Q/01: In accordance with FAQ 291, approved November 15, 2001, a change report was submitted to remove the T/2 fault exposure hours from the PI calculation. The fault exposure hours were for Train 3, Turbine Driven Auxiliary Feed Pump (TDAFP). The fault exposure was a demand failure where the time of occurrence and exposure is unknown. Fault exposure hours were estimated using half of the time (T/2) since the last successful test of the TDAFP. The total T/2 fault exposure was 1007.49 hours.

2Q/01: In accordance with FAQ 291, approved November 15, 2001, a change report was submitted to remove the T/2 fault exposure hours from the PI calculation.

4Q/00: Change report submitted to remove unplanned unavailable hours for the TDAFP as the result of an evaluation performed that determined the TDAFP was available. Also, the 10.41 hours of planned unavailable hours has been moved to train 2 to correct a train reporting error.

1Q/00: Hours for this quarter have been "zero-summed" to provide for a 4Q2001 indicator calculation in accordance with FAQ 291 approved November 15, 2001.

4Q/99: Hours for this quarter have been "zero-summed" to provide for a 4Q2001 indicator calculation in accordance with FAQ 291 approved November 15, 2001.

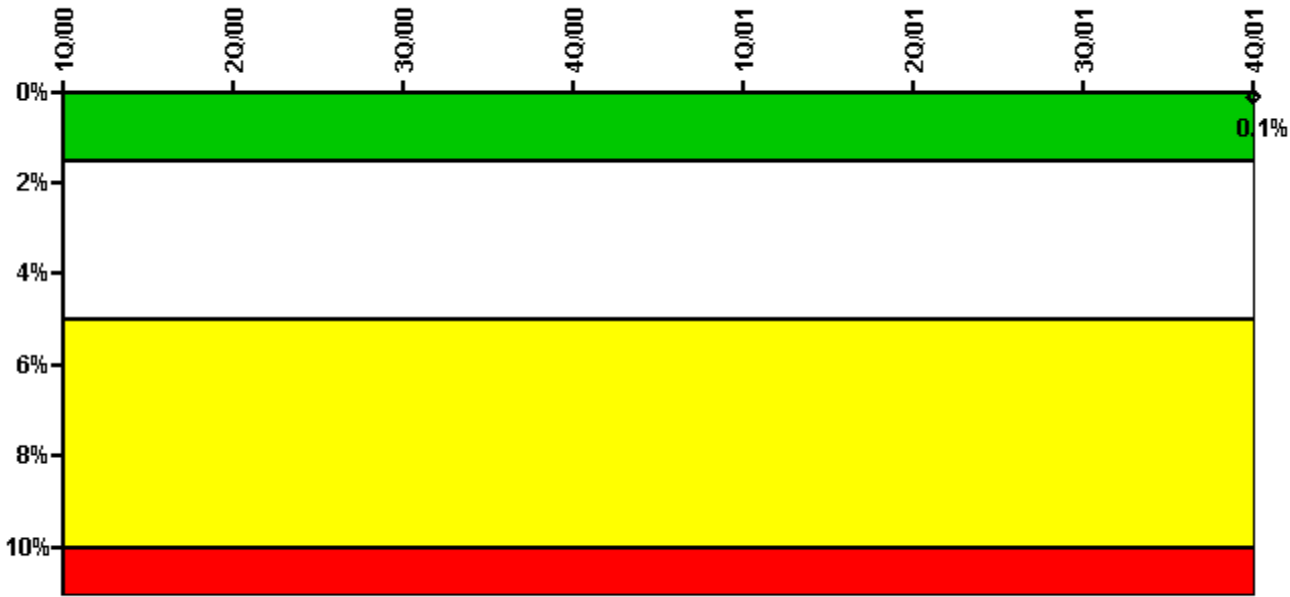
3Q/99: Hours for this quarter have been "zero-summed" to provide for a 4Q2001 indicator calculation in accordance with FAQ 291 approved November 15, 2001.

2Q/99: Hours for this quarter have been "zero-summed" to provide for a 4Q2001 indicator calculation in accordance with FAQ 291 approved November 15, 2001.

1Q/99: Hours for this quarter have been "zero-summed" to provide for a 4Q2001 indicator calculation in accordance with FAQ 291 approved November 15, 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
<b>Train 1</b>								
Planned unavailable hours	0	0	0	11.70	6.63	0	11.78	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	0	2184.00	2208.00	2209.00	2160.00	2183.00	2208.00	2209.00
<b>Train 2</b>								
Planned unavailable hours	0	0	0	0	6.97	0	0	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	0	2184.00	2208.00	2209.00	2160.00	2183.00	2208.00	2209.00
<b>Indicator value</b>								<b>0.1%</b>

#### Licensee Comments:

4Q/01: In accordance with FAQ 291, approved November 15, 2001, a change report was submitted to "zero-sum" the time from 1Q1999 to 2Q2000 to provide for an indicator calculation.

1Q/00: Hours for this quarter have been "zero-summed" to provide for a 4Q2001 indicator calculation in accordance with FAQ 291 approved November 15, 2001.

4Q/99: Hours for this quarter have been "zero-summed" to provide for a 4Q2001 indicator calculation in accordance with FAQ 291 approved November 15, 2001.

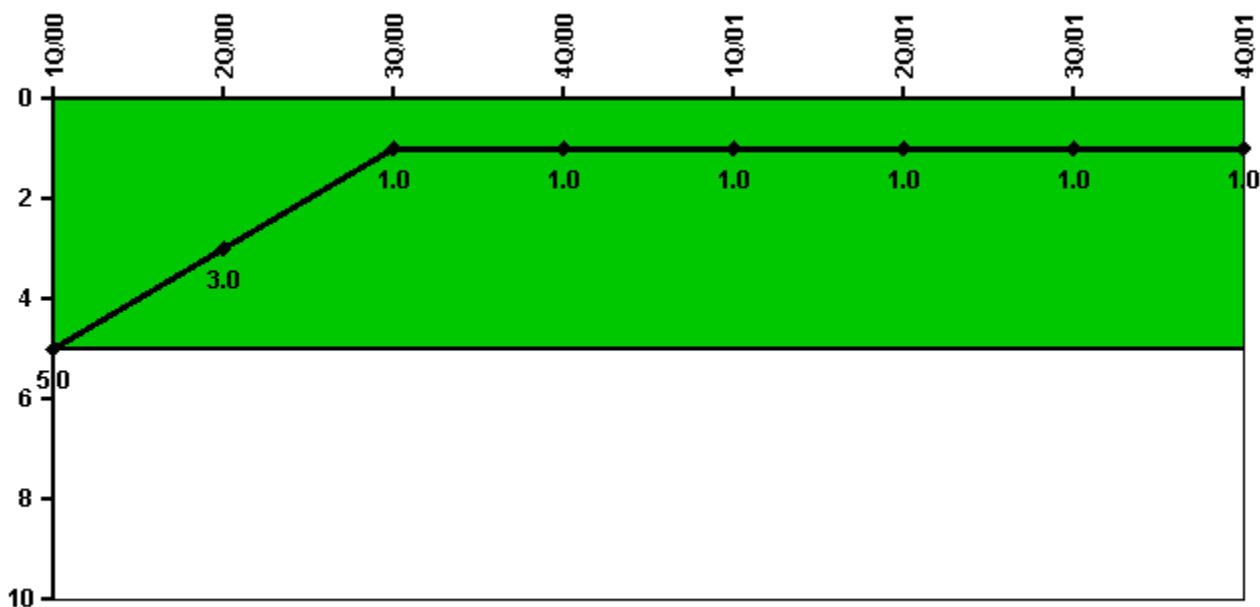
3Q/99: Hours for this quarter have been "zero-summed" to provide for a 4Q2001 indicator calculation in accordance with FAQ 291 approved November 15, 2001.

2Q/99: Hours for this quarter have been "zero-summed" to provide for a 4Q2001 indicator calculation in accordance with FAQ 291 approved November 15, 2001.

1Q/99: Hours for this quarter have been "zero-summed" to provide for a 4Q2001 indicator calculation in accordance with FAQ 291 approved November 15, 2001.



### Safety System Functional Failures (PWR)



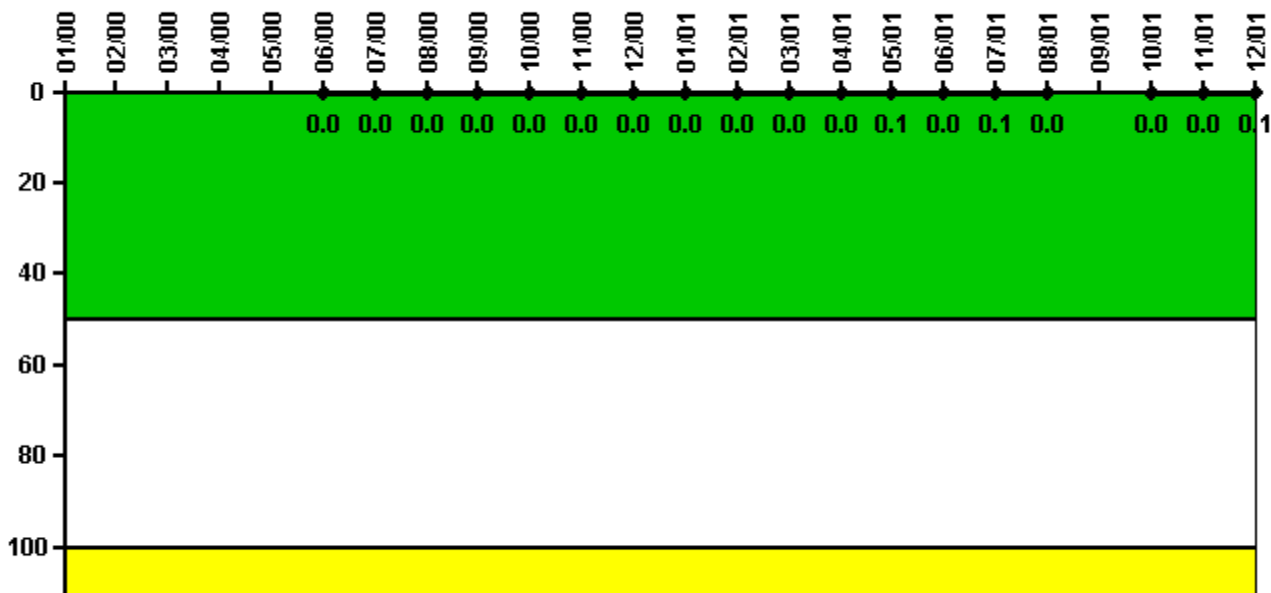
Thresholds: White > 5.0

#### 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	1	0	0	0	1	0	0	0
Indicator value	5	3	1	1	1	1	1	1

Licensee Comments: none

### Reactor Coolant System Activity



Thresholds: White > 50.0 Yellow > 100.0

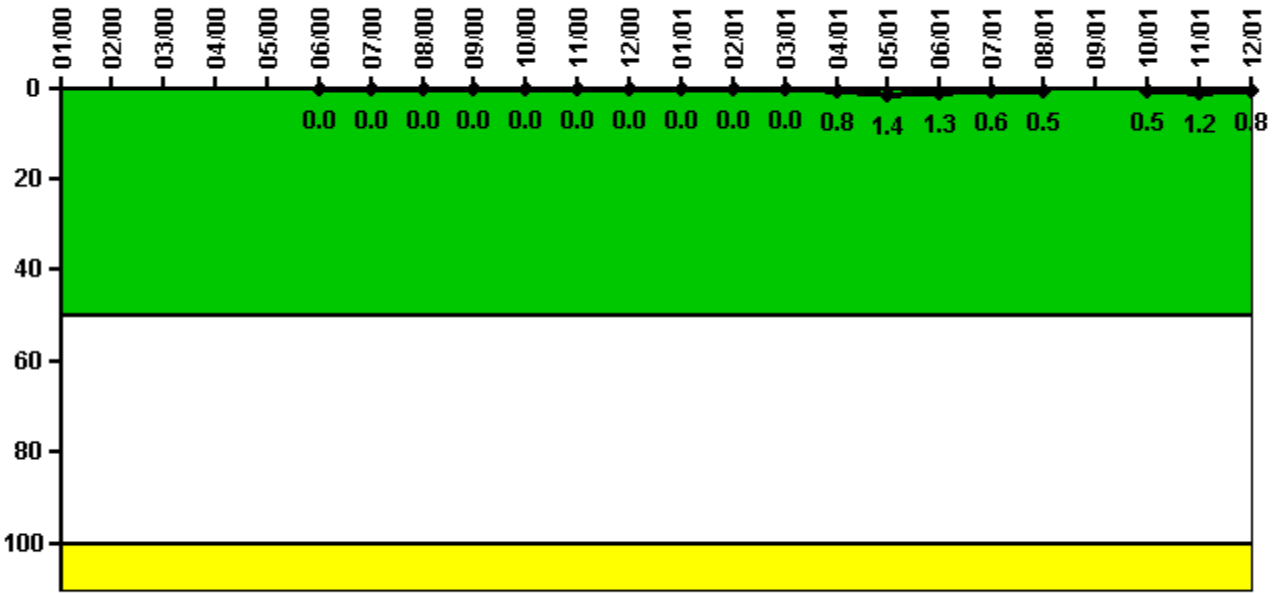
**Notes**

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				N/A	N/A	0.000200	0.000311	0.000337	0.000364	0.000363	0.000386	0.000370
Technical specification limit				1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value				N/A	N/A	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	0.000394	0.000414	0.000401	0.000407	0.000508	0.000452	0.000677	0.000474	N/A	0.000480	0.000497	0.000515
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	0.1	0	0.1	0	N/A	0	0	0.1

Licensee Comments: none

### Reactor Coolant System Leakage



Thresholds: White > 50.0 Yellow > 100.0

#### Notes

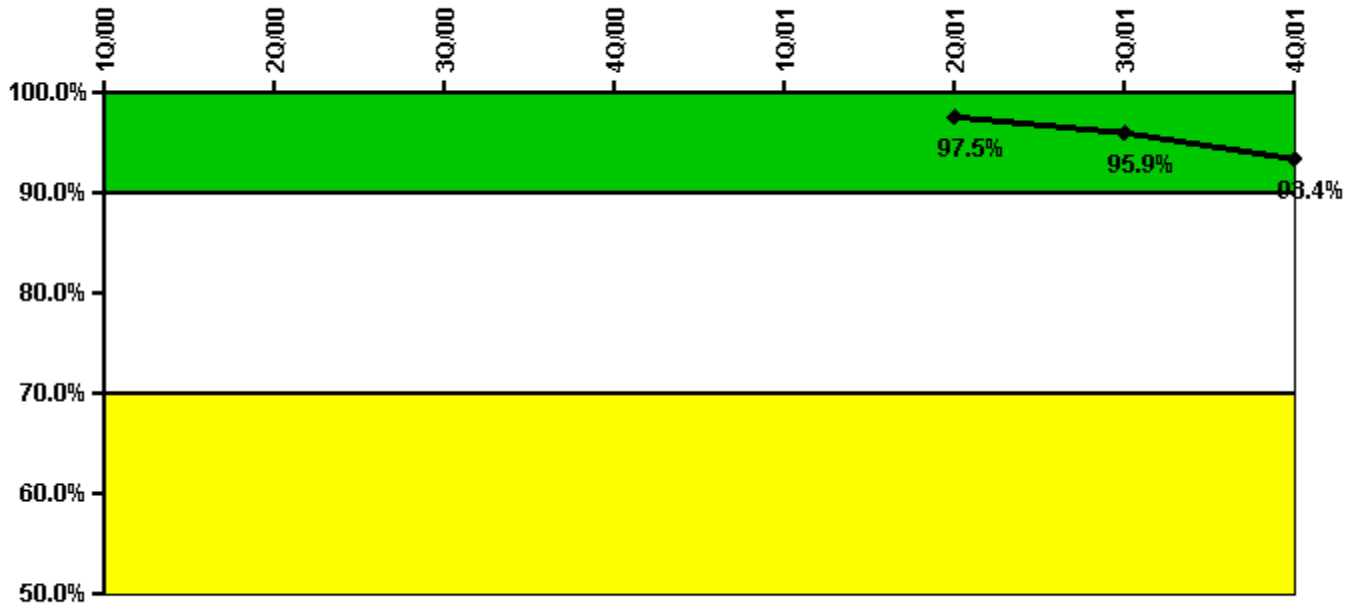
Reactor Coolant System Leakage	1/00	2/00	3/00	4/00	5/00	6/00	7/00	8/00	9/00	10/00	11/00	12/00
Maximum leakage				N/A	N/A	0	0	0	0	0	0	0
Technical specification limit				10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value				N/A	N/A	0	0	0	0	0	0	0

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	0	0	0	0.090	0.150	0.140	0.070	0.050	N/A	0.050	0.130	0.090
Technical specification limit	10.0	10.0	10.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0
Indicator value	0	0	0	0.8	1.4	1.3	0.6	0.5	N/A	0.5	1.2	0.8

Licensee Comments: none

### Drill/Exercise Performance



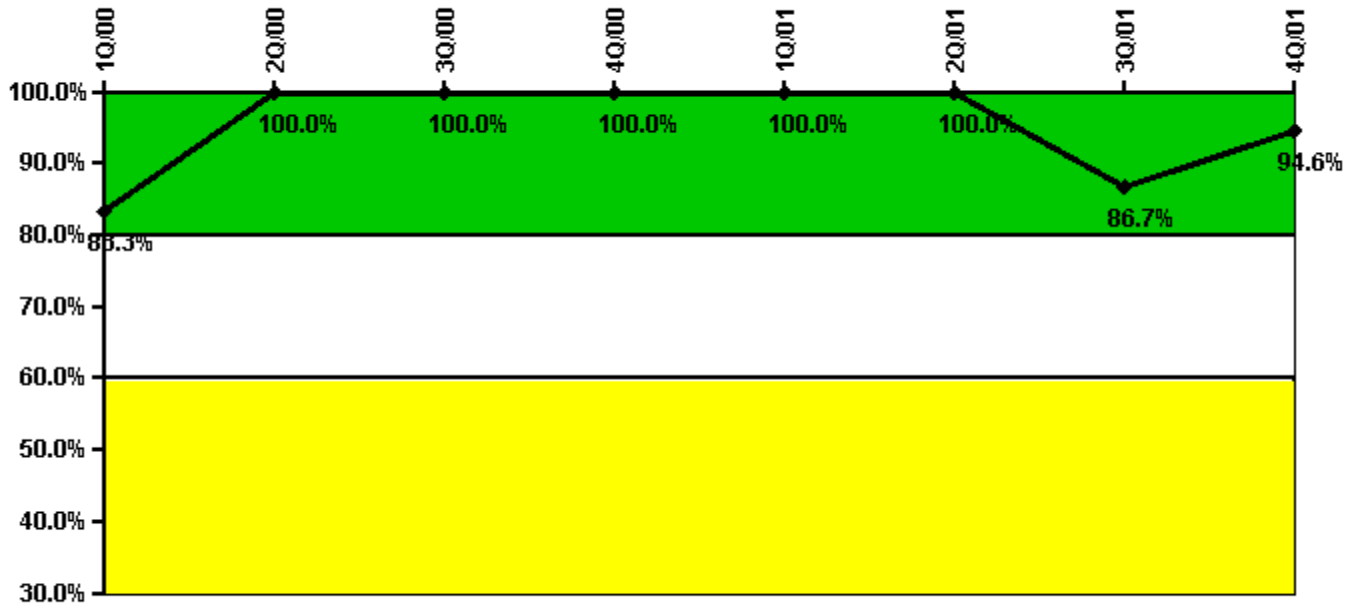
Thresholds: White < 90.0% Yellow < 70.0%

### Notes

Drill/Exercise Performance	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01
Successful opportunities	25.0	56.0	54.0	24.0	44.0	35.0	69.0	89.0
Total opportunities	25.0	59.0	55.0	26.0	44.0	36.0	76.0	103.0
Indicator value						97.5%	95.9%	93.4%

Licensee Comments: none

### ERO Drill Participation



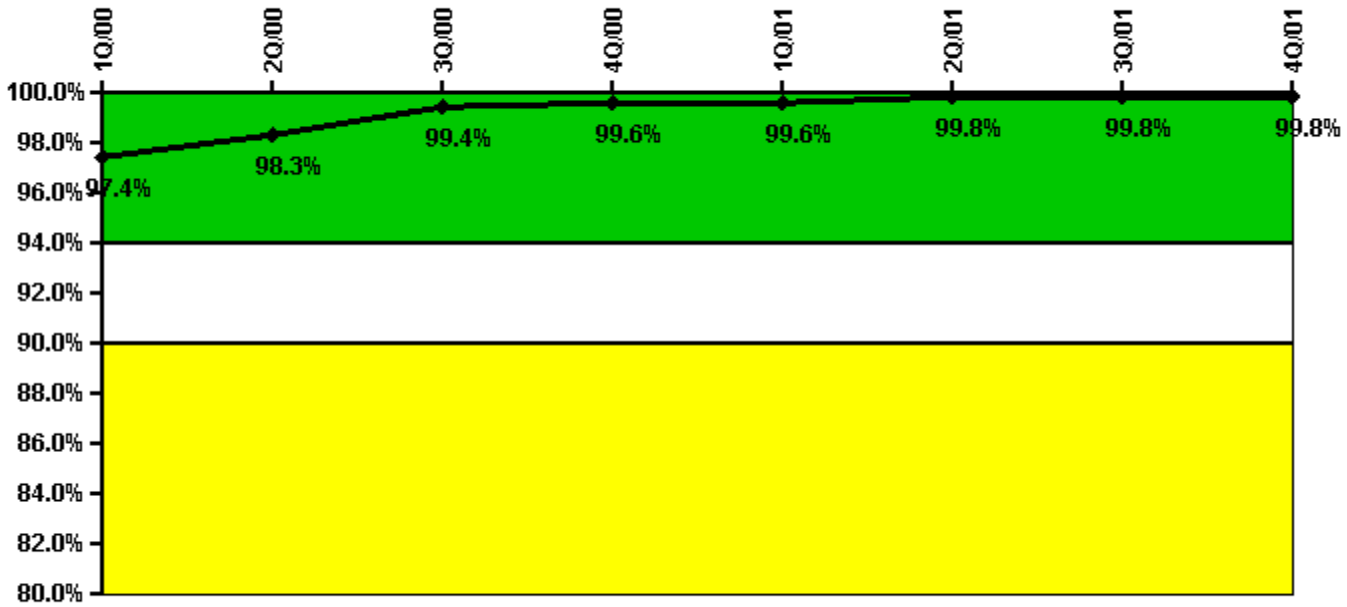
Thresholds: White < 80.0% Yellow < 60.0%

#### Notes

ERO Drill Participation	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01
Participating Key personnel	35.0	46.0	48.0	50.0	54.0	55.0	111.0	123.0
Total Key personnel	42.0	46.0	48.0	50.0	54.0	55.0	128.0	130.0
Indicator value	83.3%	100.0%	100.0%	100.0%	100.0%	100.0%	86.7%	94.6%

Licensee Comments: none

### Alert & Notification System



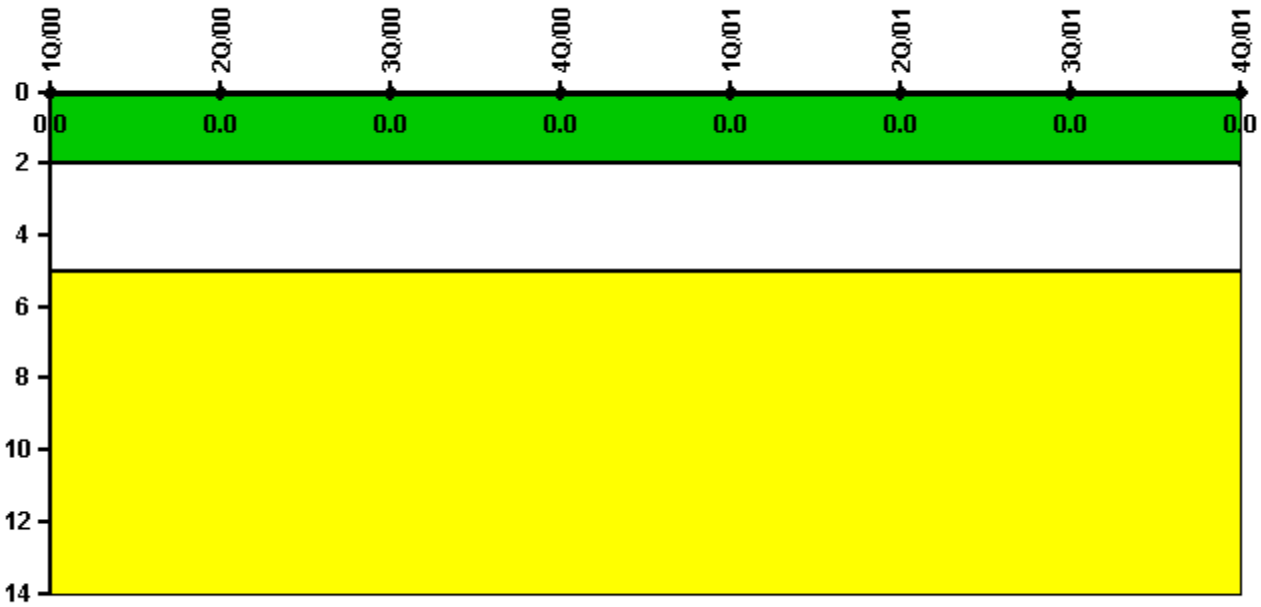
Thresholds: White < 94.0% Yellow < 90.0%

#### Notes

Alert & Notification System	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01
Successful siren-tests	209	209	210	209	209	210	210	209
Total sirens-tests	210	210	210	210	210	210	210	210
Indicator value	97.4%	98.3%	99.4%	99.6%	99.6%	99.8%	99.8%	99.8%

Licensee Comments: none

### Occupational Exposure Control Effectiveness



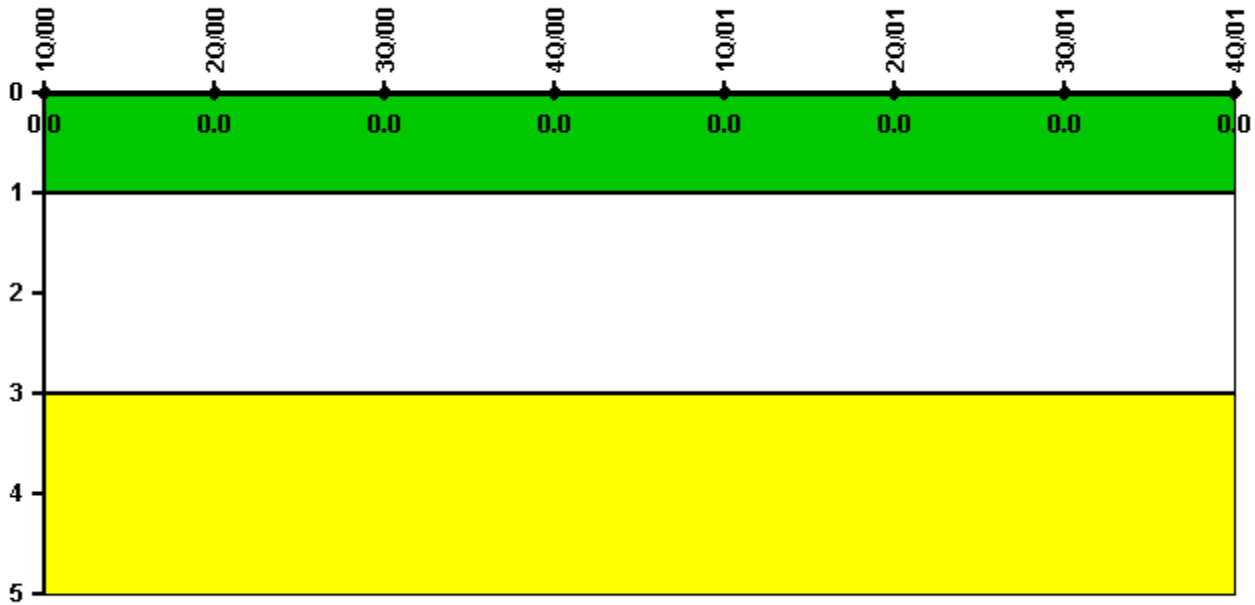
Thresholds: White > 2.0 Yellow > 5.0

#### 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
<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

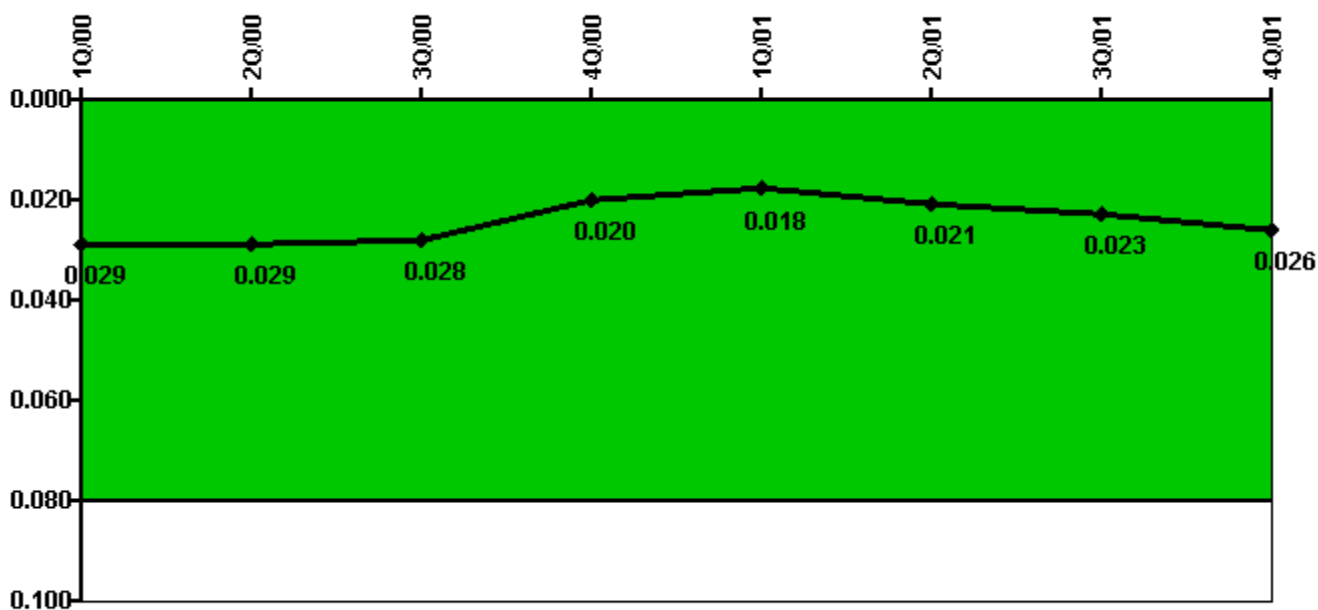
#### Notes

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

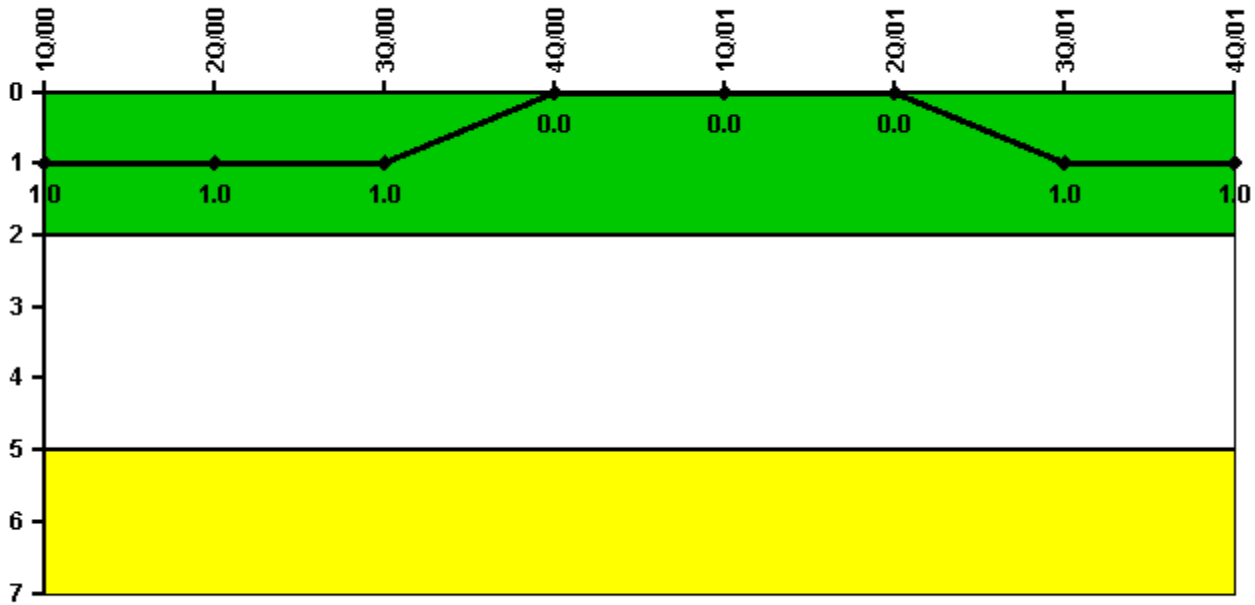
#### Notes

Protected Area Security Performance Index	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01
IDS compensatory hours	364.70	31.80	4.05	40.38	376.40	97.80	49.50	103.70
CCTV compensatory hours	38.5	0	0.1	0	0	0.3	0	0
IDS normalization factor	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40
CCTV normalization factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
<b>Index Value</b>	<b>0.029</b>	<b>0.029</b>	<b>0.028</b>	<b>0.020</b>	<b>0.018</b>	<b>0.021</b>	<b>0.023</b>	<b>0.026</b>

Licensee Comments:

4Q/01: In accordance with NEI 99-02, compensatory hours associated with scheduled equipment upgrades that are being performed and those compensatory hours for configuration issues associated with the equipment upgrades are excluded.

### Personnel Screening Program



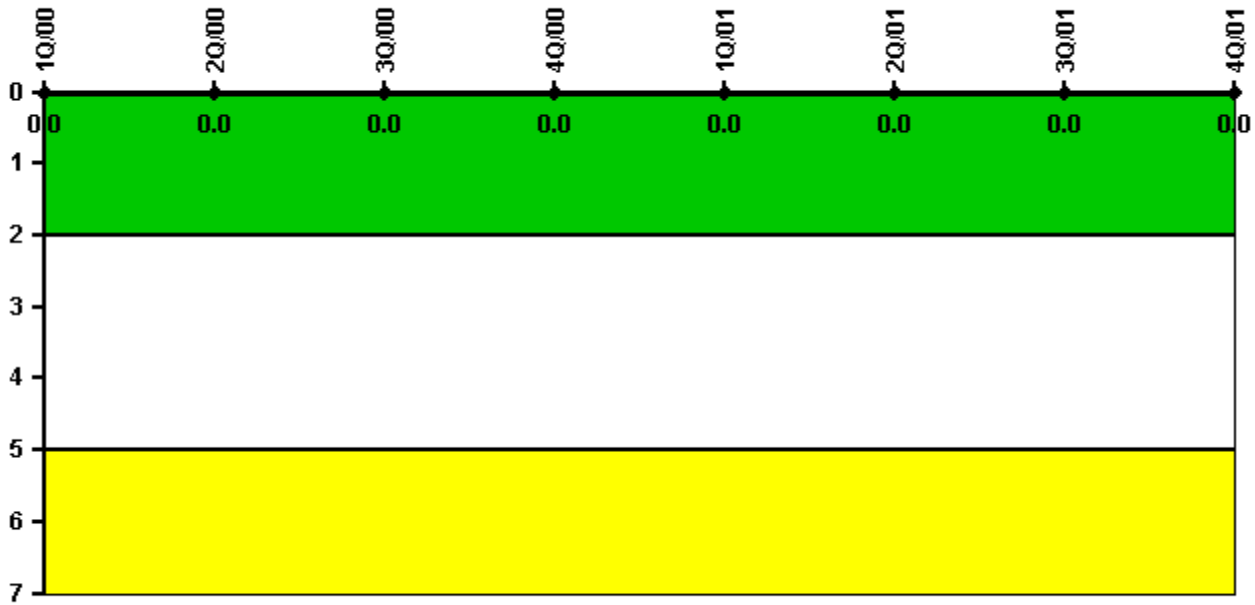
Thresholds: White > 2.0 Yellow > 5.0

#### 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	1	0
Indicator value	1	1	1	0	0	0	1	1

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