

### Byron 1

#### 4Q/2001 Performance Indicators

Licensee's General Comments: none

#### Unplanned Scrams per 7000 Critical Hrs



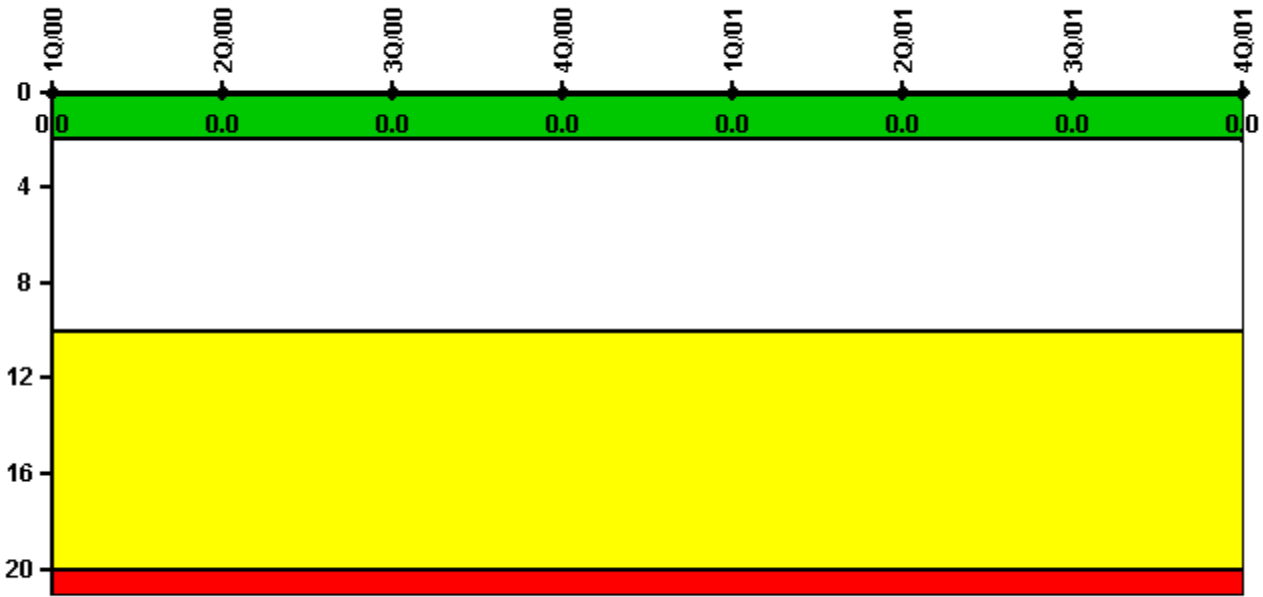
Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

#### 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	0
Critical hours	2184.0	2183.0	2016.0	1979.4	2160.0	2183.0	2208.0	2209.0
Indicator value	0.9	0	0	0	0	0	0	0

Licensee Comments: none

### Scrams with Loss of Normal Heat Removal



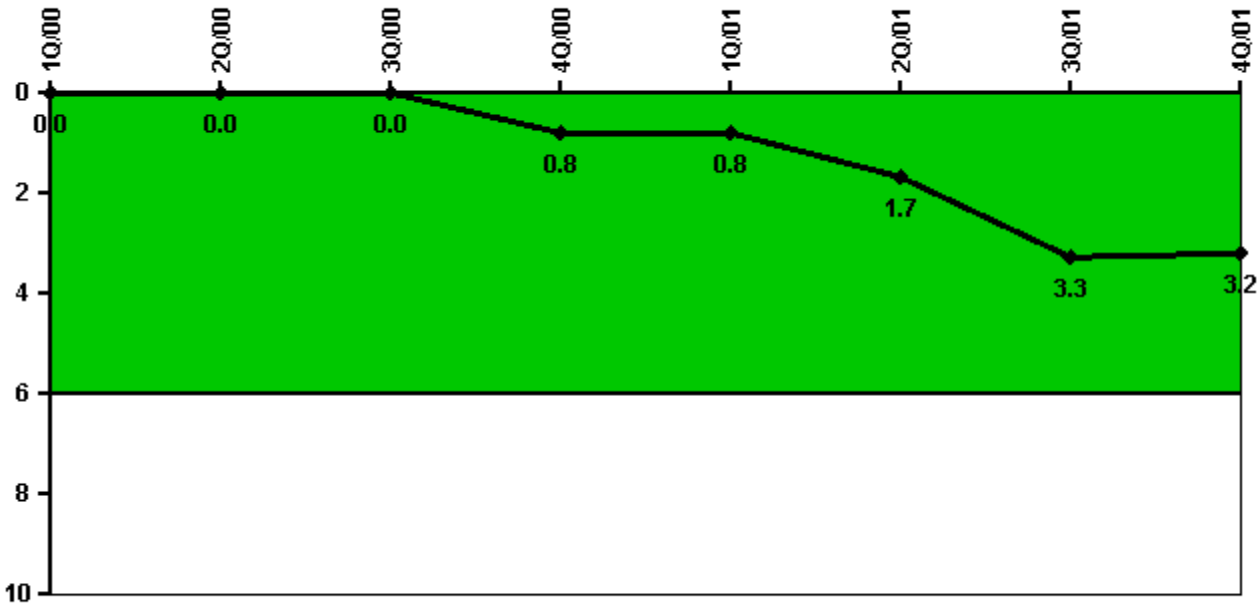
Thresholds: White > 2.0 Yellow > 10.0 Red > 20.0

#### 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	0	0	0	0	0	0	0	0

Licensee Comments: none

### Unplanned Power Changes per 7000 Critical Hrs



Thresholds: White > 6.0

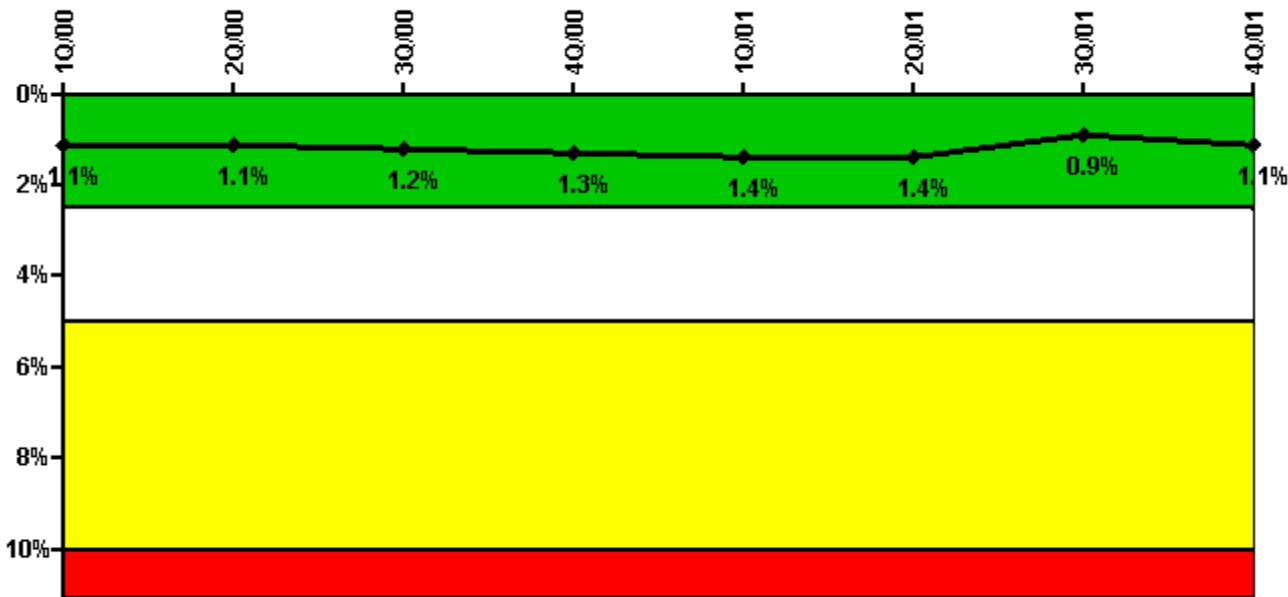
#### Notes

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	1.0	0	1.0	2.0	1.0
Critical hours	2184.0	2183.0	2016.0	1979.4	2160.0	2183.0	2208.0	2209.0
Indicator value	0	0	0	0.8	0.8	1.7	3.3	3.2

#### Licensee Comments:

4Q/01: For Byron Units 1 and 2, during September 2001, it was discovered that Main Steam Isolation Valves (MSIV) testing in Mode 3 had not been performed. A Notice of Enforcement Discretion (NOED) was requested and approved. No actual change in reactor power was initiated due to this condition. This event was not counted as an unplanned power change for September. The words in NEI 99-02 revision 1 don't support counting this event as an unplanned power change since no actual change in reactor power occurred. A Frequently Asked Question is being planned for submittal to request further clarification of this issue.

## 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	13.40	23.50	6.60	0	0	14.60	34.60
Unplanned unavailable hours	0	0	0	54.20	0	0	1.90	0.40
Fault exposure hours	0	0	0	0	0	0	0	126.90
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	14.60	0	0	0	44.00	0	5.80	5.90
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>1.1%</b>	<b>1.1%</b>	<b>1.2%</b>	<b>1.3%</b>	<b>1.4%</b>	<b>1.4%</b>	<b>0.9%</b>	<b>1.1%</b>

### Licensee Comments:

4Q/01: Effective with 4th quarter 2001, Safety System Unavailability (SSU) time is being counted for affected systems (Emergency AC Power, High Pressure Safety Injection, Auxiliary Feedwater, and Residual Heat Removal) due to Solid State Protection System (SSPS) testing when an entire train of safety systems may have the automatic feature inhibited. Frequently Asked Question (FAQ) 290, which was posted in 4th quarter 2001, alludes to this. A follow-up FAQ is being planned for submittal to further clarify the intent of FAQ 290.

4Q/00: A revision has been made to previously submitted data for the Safety System Unavailability (SSU) performance indicator for the Emergency AC Power system for Byron Unit 1. Data for the month of December 2000 was revised as appropriate for consistency with FAQ 289, which was posted on November 15, 2001. The change to the data does not affect the color of the indicator.

3Q/00: A revision has been made to previously submitted data for the Safety System Unavailability (SSU) performance indicator for the Emergency AC Power system for Byron Unit 1. Data for the months of February 1999, May 1999, November 1999, and August 2000 was revised as appropriate for consistency with FAQ 297, which was posted on December 13, 2001. The change to the data does not affect the color of the indicator.

4Q/99: A revision has been made to previously submitted data for the Safety System Unavailability (SSU) performance indicator for the Emergency AC Power system for Byron Unit 1. Data for the months of February 1999, May 1999, November 1999, and August 2000 was revised as appropriate for consistency with FAQ 297, which was posted on December 13, 2001. The change to the data does not affect the color of the indicator.

2Q/99: A revision has been made to previously submitted data for the Safety System Unavailability (SSU) performance indicator for the Emergency AC Power system for Byron Unit 1. Data for the months of February 1999, May 1999, November 1999, and August 2000 was revised



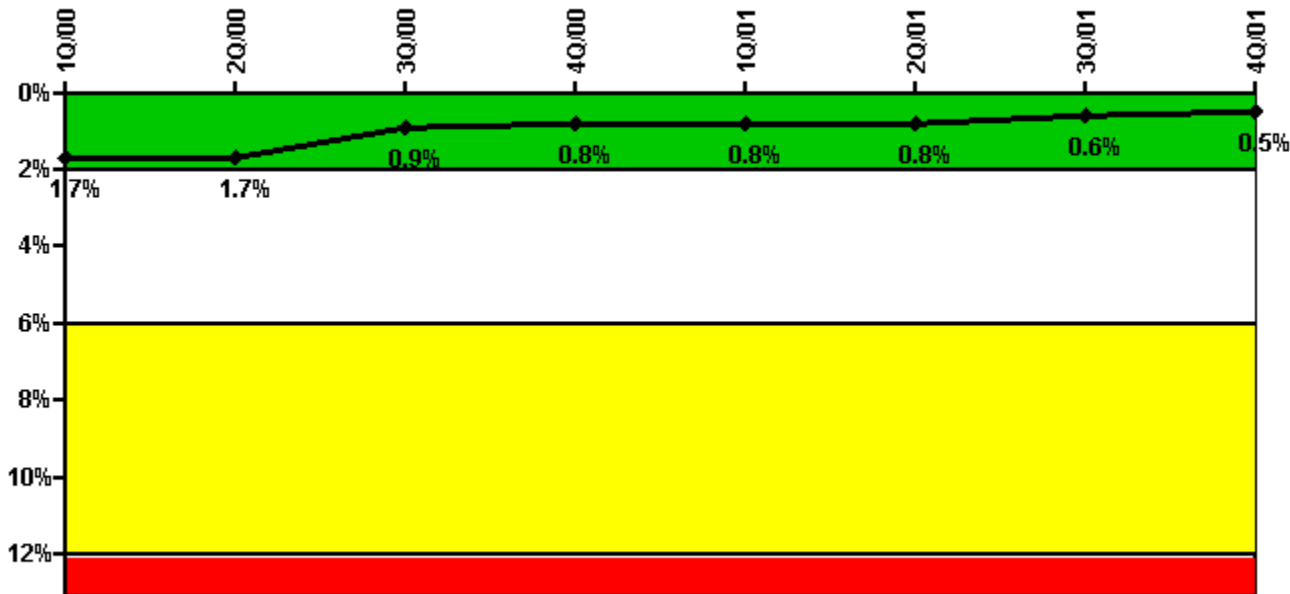
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2184.00	2183.00	2016.02	1979.35	2160.00	2183.00	2208.00	2209.00
Indicator value	0.7%	0.5%	0.6%	0.6%	0.5%	0.5%	0.6%	0.6%

Licensee Comments:

4Q/01: Effective with 4th quarter 2001, Safety System Unavailability (SSU) time is being counted for affected systems (Emergency AC Power, High Pressure Safety Injection, Auxiliary Feedwater, and Residual Heat Removal) due to Solid State Protection System (SSPS) testing when an entire train of safety systems may have the automatic feature inhibited. Frequently Asked Question (FAQ) 290, which was posted in 4th quarter 2001, alludes to this. A follow-up FAQ is being planned for submittal to further clarify the intent of FAQ 290.

1Q/99: A revision has been made to previously submitted data for the Safety System Unavailability (SSU) performance indicator for the High Pressure Safety Injection system for Byron Unit 1. Data for the month of February 1999 was revised as appropriate for consistency with FAQ 297, which was posted on December 13, 2001. The change to the data does not affect the color of the indicator.

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



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

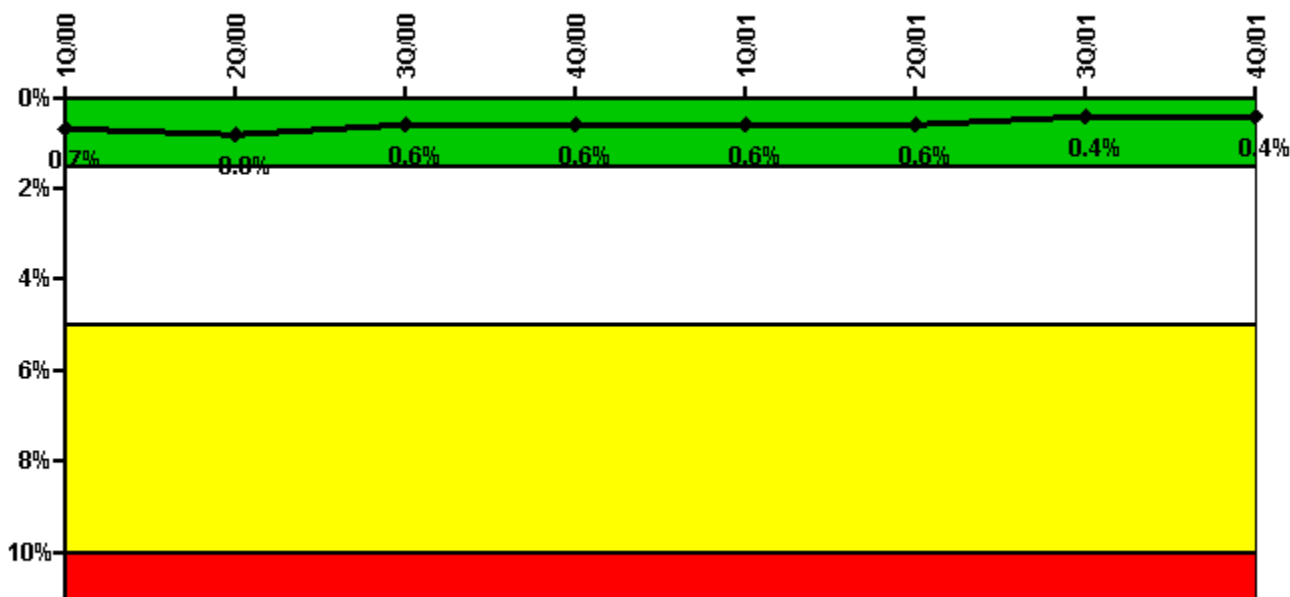
Notes

Safety System Unavailability, Heat Removal System (AFW)	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01
<b>Train 1</b>								
Planned unavailable hours	35.70	7.20	1.30	1.60	2.00	3.10	1.80	3.90
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	2016.02	1979.35	2160.00	2183.00	2208.00	2209.00
<b>Train 2</b>								
Planned unavailable hours	19.50	2.80	2.70	1.30	25.80	1.30	1.70	9.30
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	2016.02	1979.35	2160.00	2183.00	2208.00	2209.00
Indicator value	1.7%	1.7%	0.9%	0.8%	0.8%	0.8%	0.6%	0.5%

Licensee Comments:

4Q/01: Effective with 4th quarter 2001, Safety System Unavailability (SSU) time is being counted for affected systems (Emergency AC Power, High Pressure Safety Injection, Auxiliary Feedwater, and Residual Heat Removal) due to Solid State Protection System (SSPS) testing when an entire train of safety systems may have the automatic feature inhibited. Frequently Asked Question (FAQ) 290, which was posted in 4th quarter 2001, alludes to this. A follow-up FAQ is being planned for submittal to further clarify the intent of FAQ 290.

### Safety System Unavailability, Residual Heat Removal System



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

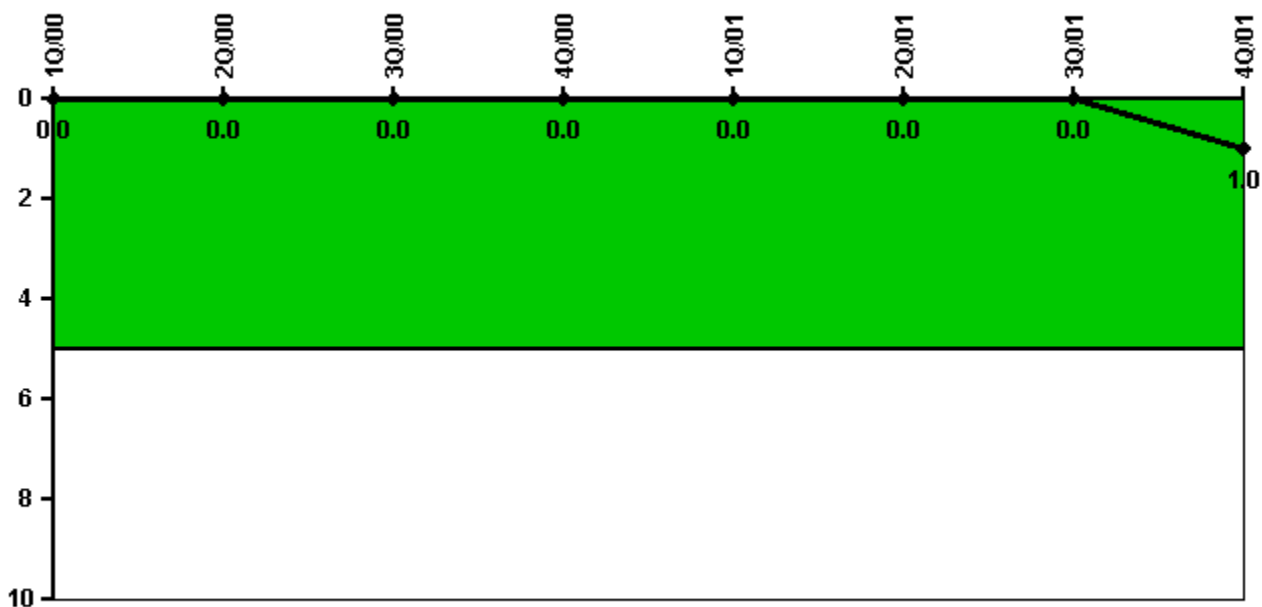
Notes

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	2.40	20.20	25.60	3.50	0.90	0.30	0.20	1.80
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>Train 2</b>								
Planned unavailable hours	61.50	1.60	2.10	4.50	0.40	0.40	0.50	5.90
Unplanned unavailable hours	6.60	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>0.7%</b>	<b>0.8%</b>	<b>0.6%</b>	<b>0.6%</b>	<b>0.6%</b>	<b>0.6%</b>	<b>0.4%</b>	<b>0.4%</b>

Licensee Comments:

4Q/01: Effective with 4th quarter 2001, Safety System Unavailability (SSU) time is being counted for affected systems (Emergency AC Power, High Pressure Safety Injection, Auxiliary Feedwater, and Residual Heat Removal) due to Solid State Protection System (SSPS) testing when an entire train of safety systems may have the automatic feature inhibited. Frequently Asked Question (FAQ) 290, which was posted in 4th quarter 2001, alludes to this. A follow-up FAQ is being planned for submittal to further clarify the intent of FAQ 290.

### Safety System Functional Failures (PWR)



Thresholds: White > 5.0

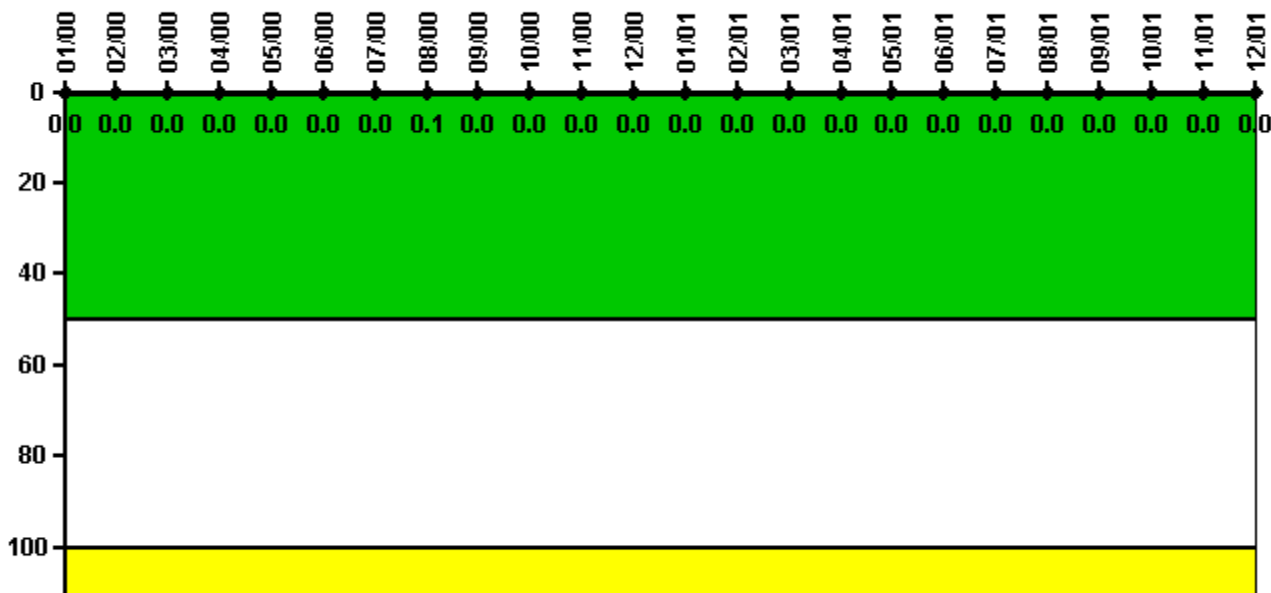
#### Notes

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

Licensee Comments: none



### Reactor Coolant System Activity



Thresholds: White > 50.0 Yellow > 100.0

#### Notes

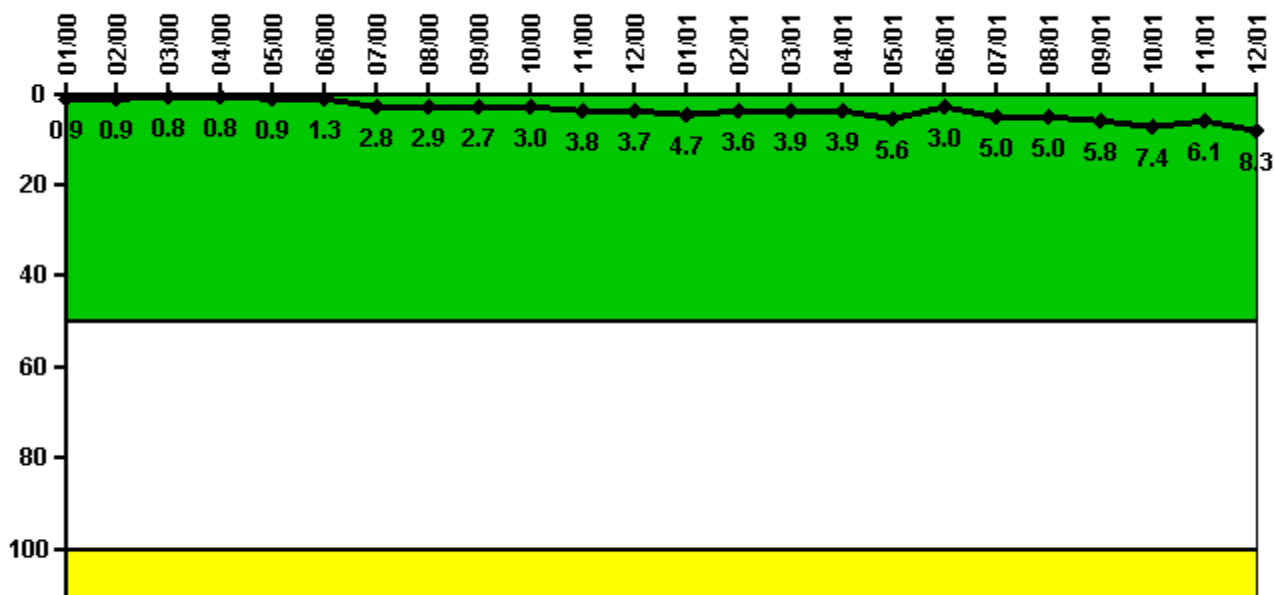
Reactor Coolant System Activity	1/00	2/00	3/00	4/00	5/00	6/00	7/00	8/00	9/00	10/00	11/00	12/00
Maximum activity	0.000360	0.000387	0.000378	0.000389	0.000414	0.000421	0.000417	0.000742	0.000406	0.000224	0.000234	0.000251
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	0	0	0	0	0	0	0	0.1	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	0.000265	0.000432	0.000292	0.000315	0.000325	0.000345	0.000366	0.000407	0.000375	0.000400	0.000413	0.000440
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	0	0	0	0	0	0	0

Licensee Comments: none

### Reactor Coolant System Leakage



Thresholds: White > 50.0 Yellow > 100.0

#### Notes

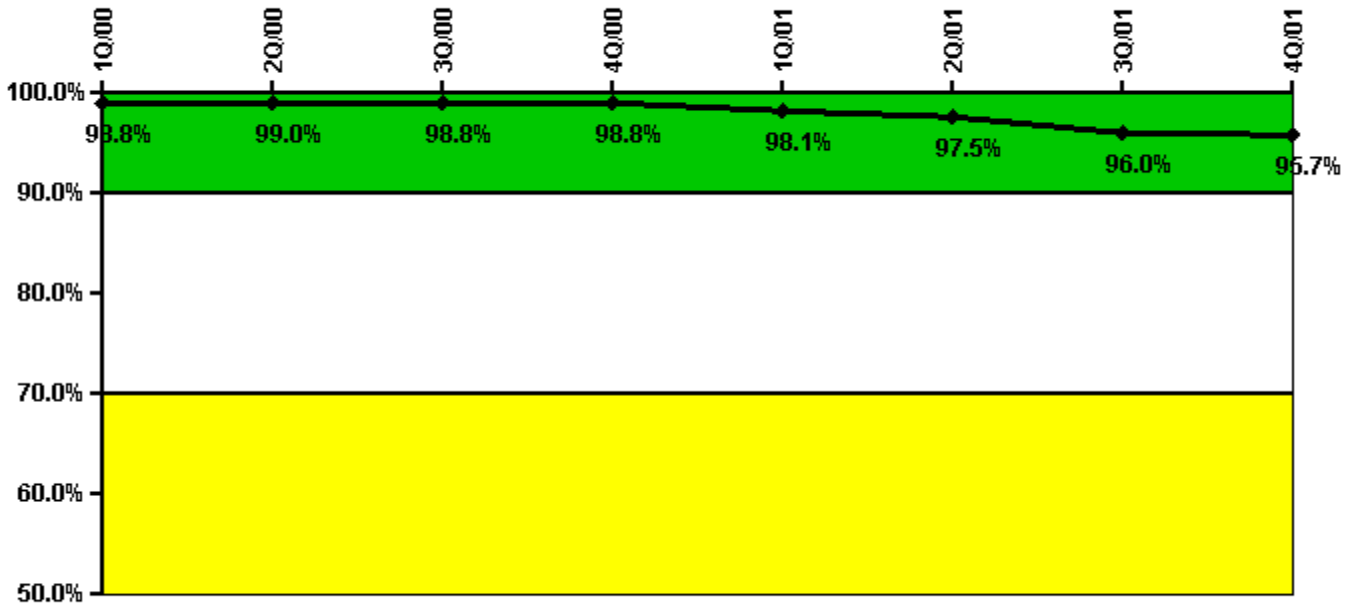
Reactor Coolant System Leakage	1/00	2/00	3/00	4/00	5/00	6/00	7/00	8/00	9/00	10/00	11/00	12/00
Maximum leakage	0.090	0.088	0.080	0.081	0.091	0.128	0.277	0.288	0.273	0.296	0.377	0.368
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	0.9	0.9	0.8	0.8	0.9	1.3	2.8	2.9	2.7	3.0	3.8	3.7

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	0.471	0.360	0.392	0.392	0.556	0.304	0.505	0.502	0.581	0.744	0.613	0.830
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	4.7	3.6	3.9	3.9	5.6	3.0	5.0	5.0	5.8	7.4	6.1	8.3

Licensee Comments: none

### Drill/Exercise Performance



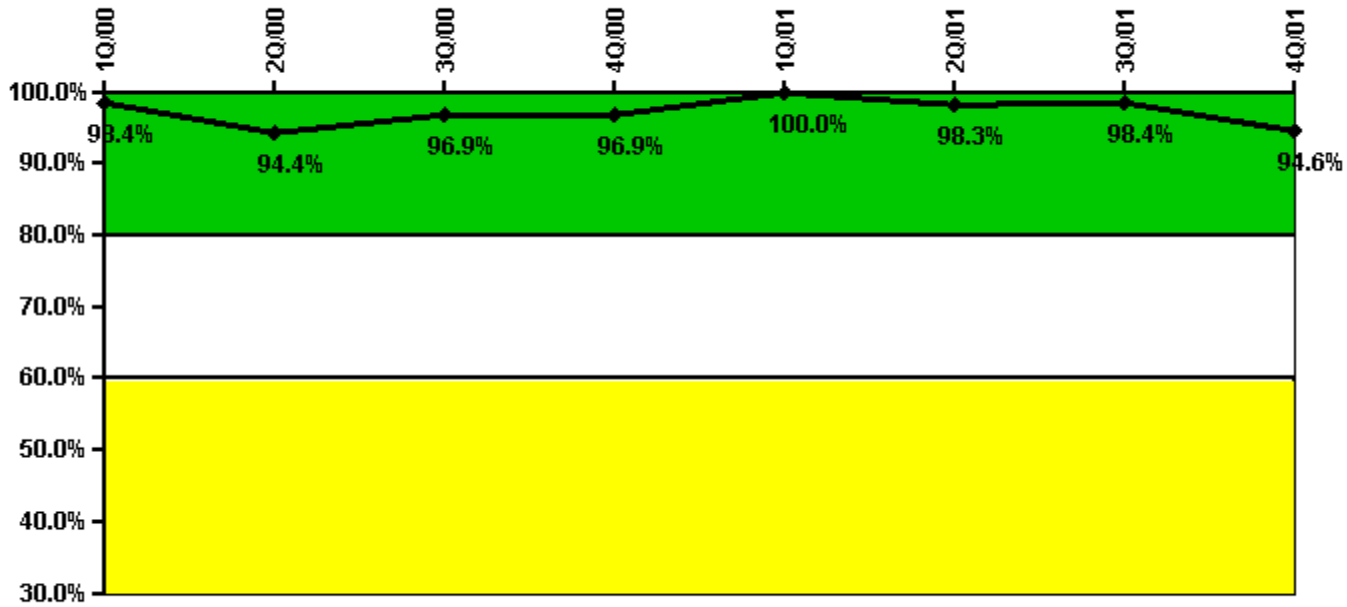
Thresholds: White < 90.0% Yellow < 70.0%

### Notes

Drill/Exercise Performance	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01
Successful opportunities	63.0	30.0	49.0	0	14.0	0	31.0	38.0
Total opportunities	64.0	30.0	50.0	0	16.0	0	35.0	40.0
Indicator value	98.8%	99.0%	98.8%	98.8%	98.1%	97.5%	96.0%	95.7%

Licensee Comments: none

### ERO Drill Participation



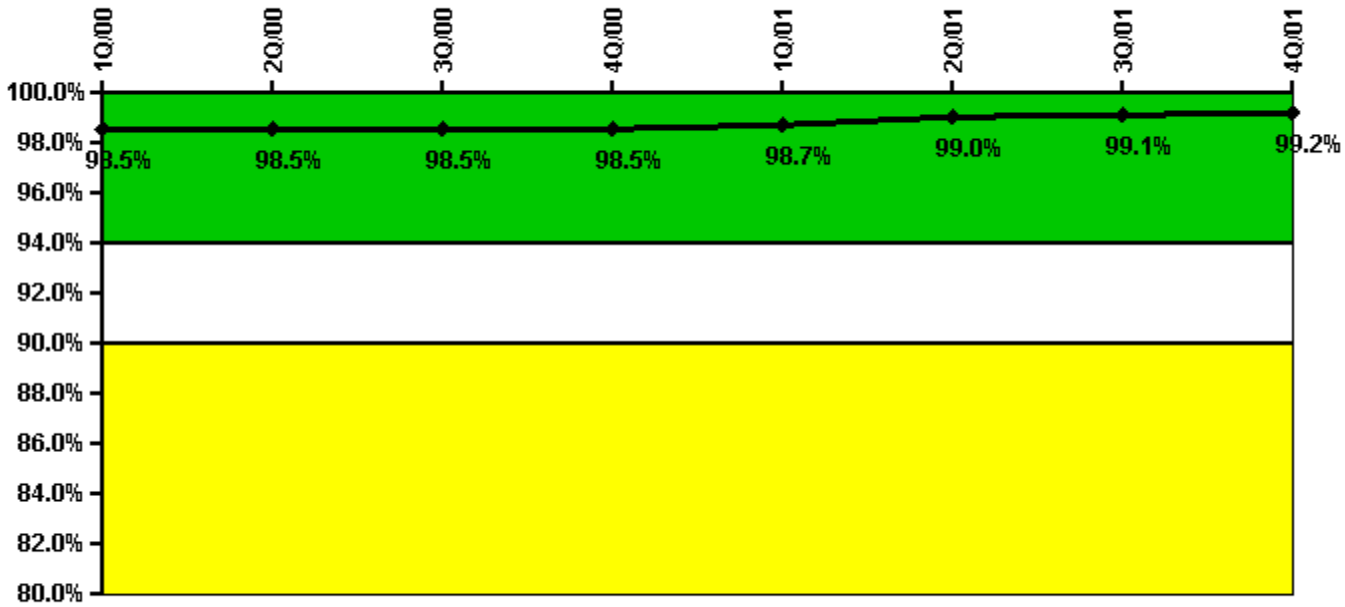
Thresholds: White < 80.0% Yellow < 60.0%

#### Notes

ERO Drill Participation	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01
Participating Key personnel	61.0	68.0	63.0	63.0	63.0	59.0	60.0	53.0
Total Key personnel	62.0	72.0	65.0	65.0	63.0	60.0	61.0	56.0
Indicator value	98.4%	94.4%	96.9%	96.9%	100.0%	98.3%	98.4%	94.6%

Licensee Comments: none

### Alert & Notification System



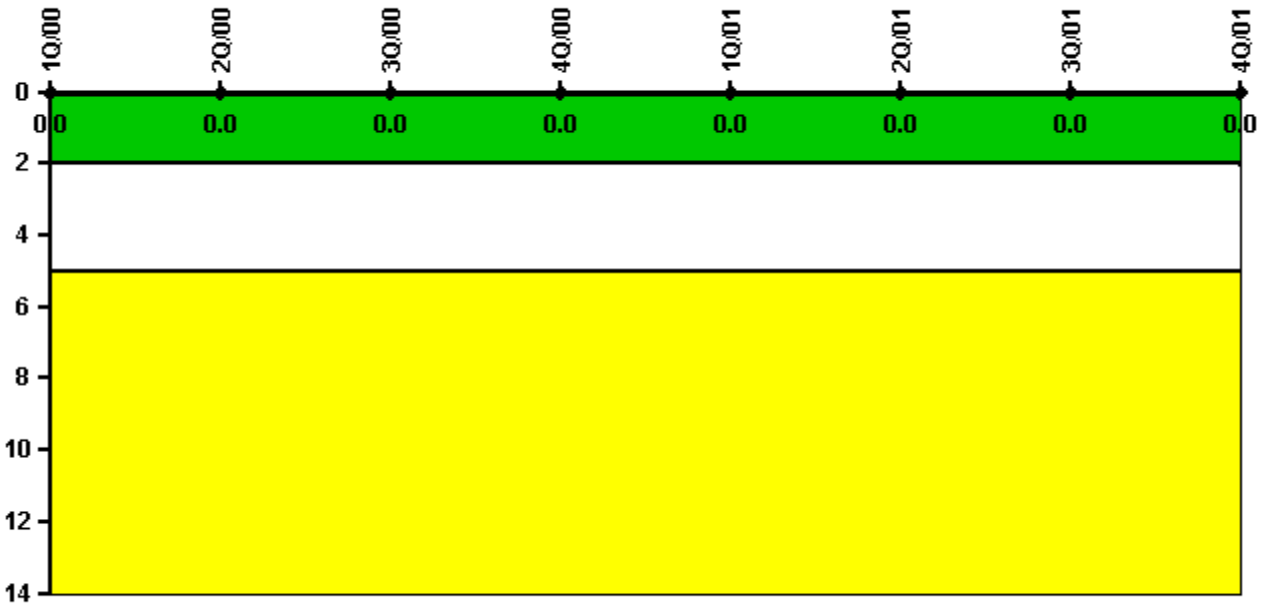
Thresholds: White < 94.0% Yellow < 90.0%

### Notes

Alert & Notification System	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01
Successful siren-tests	6000	5915	5821	5864	5964	5978	5864	5872
Total sirens-tests	6110	6016	5922	5922	6016	6016	5922	5922
Indicator value	98.5%	98.5%	98.5%	98.5%	98.7%	99.0%	99.1%	99.2%

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



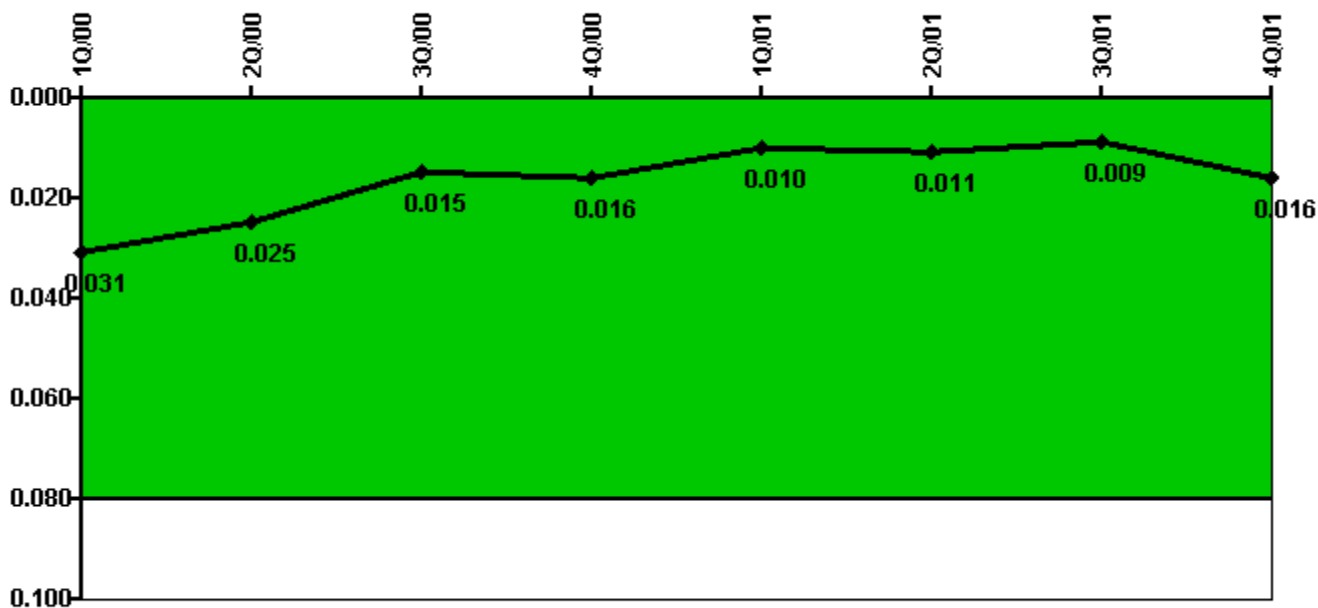
Thresholds: White > 1.0 Yellow > 3.0

#### 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

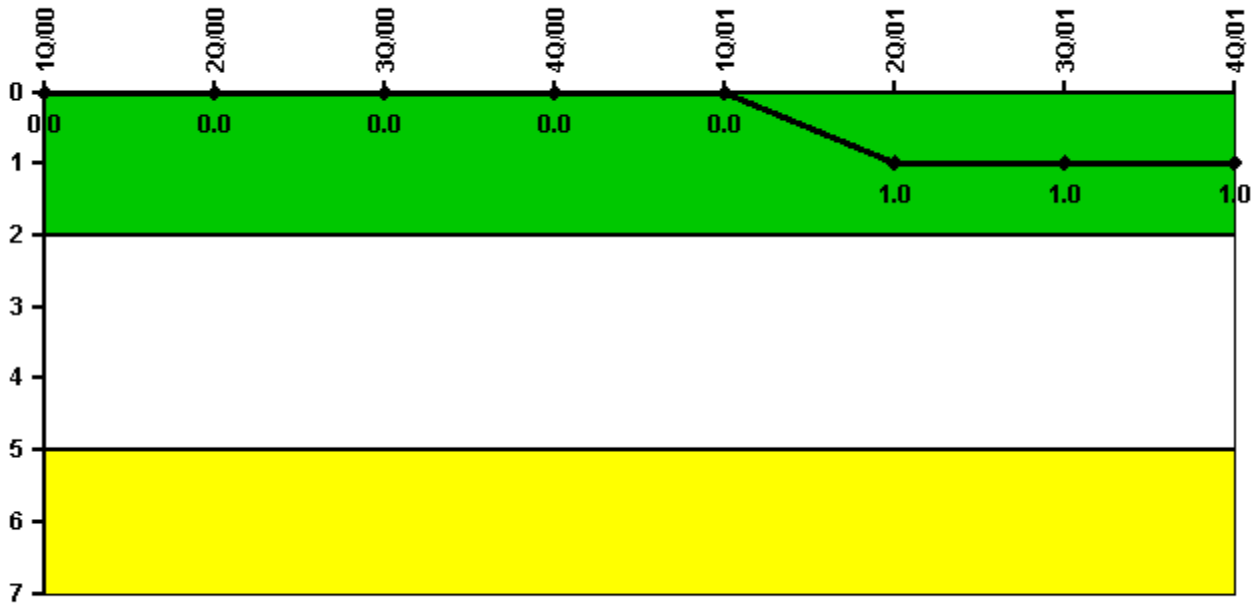
#### Notes

Protected Area Security Performance Index	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01
IDS compensatory hours	57.60	57.60	93.10	17.43	21.85	92.99	29.12	247.72
CCTV compensatory hours	67.8	6.8	0	37.5	2.6	0	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>0.031</b>	<b>0.025</b>	<b>0.015</b>	<b>0.016</b>	<b>0.010</b>	<b>0.011</b>	<b>0.009</b>	<b>0.016</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	1	0	0
Indicator value	0	0	0	0	0	1	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