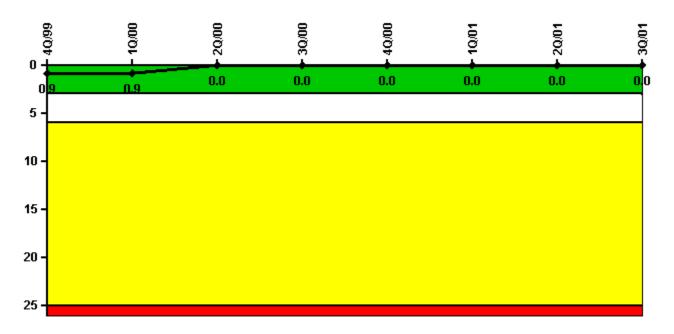
## Byron 1

#### **3Q/2001 Performance Indicators**

Licensee's General Comments: none

# Unplanned Scrams per 7000 Critical Hrs

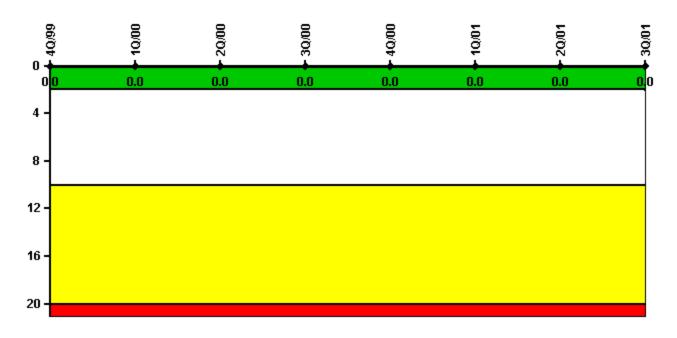


Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

### Notes

Unplanned Scrams per 7000 Critical Hrs	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01
Unplanned scrams	0	0	0	0	0	0	0	0
Critical hours	2209.0	2184.0	2183.0	2016.0	1979.4	2160.0	2183.0	2208.0
Indicator value	0.9	0.9	0	0	0	0	0	0

# Scrams with Loss of Normal Heat Removal

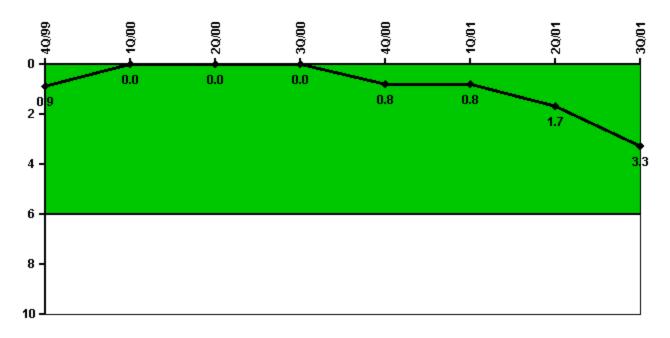


Thresholds: White > 2.0 Yellow > 10.0 Red > 20.0

### Notes

Scrams with Loss of Normal Heat Removal	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01
Scrams	0	0	0	0	0	0	0	0
Indicator value	0	0	0	0	0	0	0	0

# Unplanned Power Changes per 7000 Critical Hrs

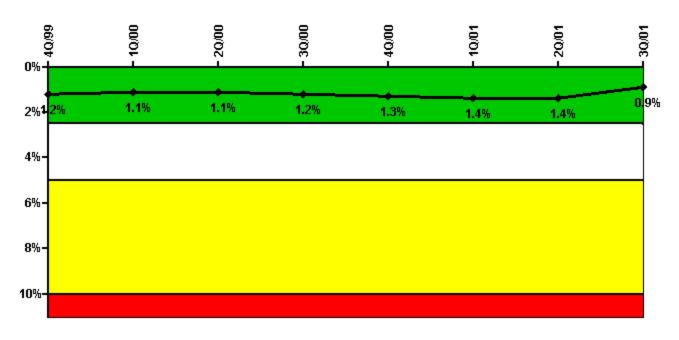


Thresholds: White > 6.0

## Notes

Unplanned Power Changes per 7000 Critical Hrs	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01
Unplanned power changes	0	0	0	0	1.0	0	1.0	2.0
Critical hours	2209.0	2184.0	2183.0	2016.0	1979.4	2160.0	2183.0	2208.0
Indicator value	0.9	0	0	0	0.8	0.8	1.7	3.3

## Safety System Unavailability, Emergency AC Power



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

### Notes

Safety System Unavailability, Emergency AC Power	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01
Train 1								
Planned unavailable hours	16.60	0	13.40	23.50	6.60	0	0	14.60
Unplanned unavailable hours	0	0	0	0	54.20	0	0	1.90
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2209.00	2184.00	2183.00	2208.00	2209.00	2160.00	2183.00	2208.00
Train 2								
Planned unavailable hours	1.00	14.60	0	0	0	44.00	0	5.80
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	2209.00	2184.00	2183.00	2208.00	2209.00	2160.00	2183.00	2208.00
Indicator value	1.2%	1.1%	1.1%	1.2%	1.3%	1.4%	1.4%	0.9%

#### Licensee Comments:

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.

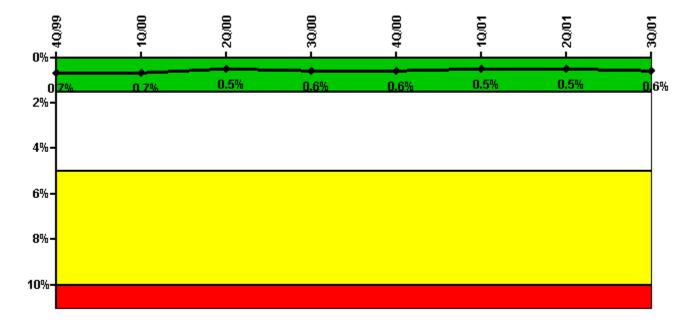
3Q/00: A revision has been made to previously submitted data for the Safety System Unavailability (SSU) performance indicator for the Emergency AC Power system for Byron Unit 1. Data for the months of February 1999, May 1999, November 1999, and August 2000 was revised as appropriate for consistency with 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 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.

1Q/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.

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



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

#### Notes

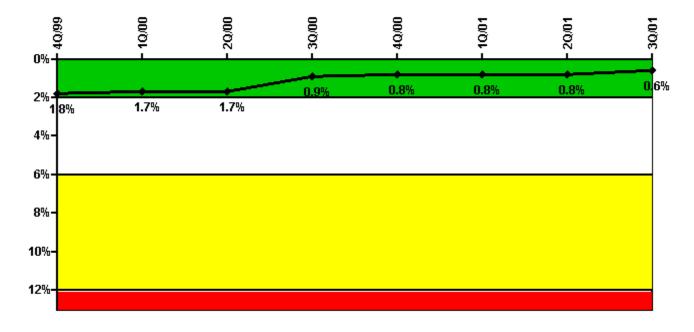
Safety System Unavailability, High Pressure Injection System (HPSI)	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01
Train 1								
Planned unavailable hours	1.00	2.00	1.50	14.00	0.60	13.60	0.60	21.20
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2209.00	2184.00	2183.00	2016.02	1979.35	2160.00	2183.00	2208.00
Train 2								
Planned unavailable hours	1.30	0.80	1.00	1.10	0.40	0.93	0	22.90
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	2209.00	2184.00	2183.00	2016.02	1979.35	2160.00	2183.00	2208.00
Train 3								

Planned unavailable hours	0	0	0	0	23.10	0	0	0.90
Unplanned unavailable hours	0	0	0	0	0	0	0	6.60
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2209.00	2184.00	2183.00	2016.02	1979.35	2160.00	2183.00	2208.00
Train 4								
Planned unavailable hours	0	0	0	0	0	0	0	39.90
Unplanned unavailable hours	0	0	0	0	0	0	0	6.60
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2209.00	2184.00	2183.00	2016.02	1979.35	2160.00	2183.00	2208.00
Indicator value	0.7%	0.7%	0.5%	0.6%	0.6%	0.5%	0.5%	0.6%

#### Licensee Comments:

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%

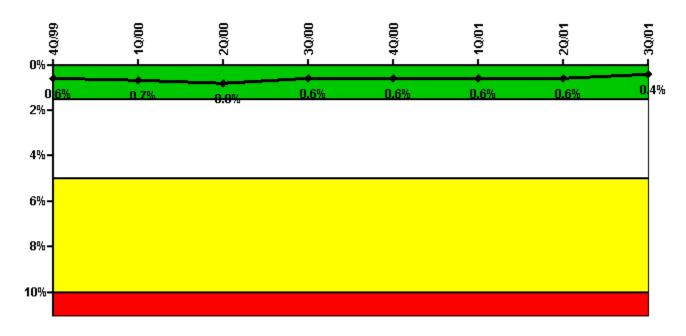
#### Notes

Safety System Unavailability, Heat Removal System (AFW)	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01
Train 1								
Planned unavailable hours	14.70	35.70	7.20	1.30	1.60	2.00	3.10	1.80
Unplanned unavailable hours	0	0	0	0	0	0	0	0
			$\overline{}$		$\overline{}$			

Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2209.00	2184.00	2183.00	2016.02	1979.35	2160.00	2183.00	2208.00
Train 2								
Planned unavailable hours	14.70	19.50	2.80	2.70	1.30	25.80	1.30	1.70
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	2209.00	2184.00	2183.00	2016.02	1979.35	2160.00	2183.00	2208.00
Indicator value	1.8%	1.7%	1.7%	0.9%	0.8%	0.8%	0.8%	0.6%

Licensee Comments: none

# 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	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01
Train 1								
Planned unavailable hours	3.80	2.40	20.20	25.60	3.50	0.90	0.30	0.20
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	2209.00	2184.00	2183.00	2208.00	2209.00	2160.00	2183.00	2208.00
Train 2								
Planned unavailable hours	2.00	61.50	1.60	2.10	4.50	0.40	0.40	0.50

Indicator value	0.6%	0.7%	0.8%	0.6%	0.6%	0.6%	0.6%	0.4%
Required hours	2209.00	2184.00	2183.00	2208.00	2209.00	2160.00	2183.00	2208.00
Effective Reset hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Unplanned unavailable hours	0	6.60	0	0	0	0	0	0

#### Licensee Comments:

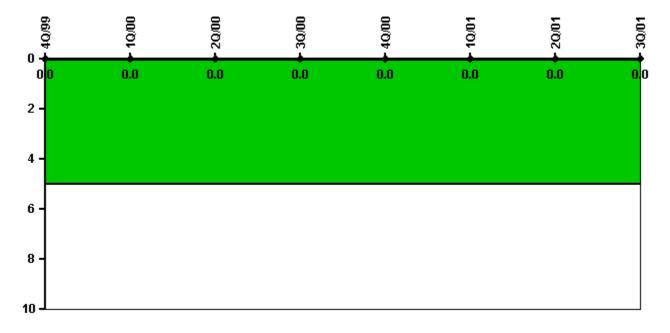
1Q/01: A revision has been made to previously submitted data for the Safety System Unavailability (SSU) performance indicator for the Residual Heat Removal (RHR) System for Byron Unit 1. Unit 1 RHR system data for the months of May 2000, July 2000, September 2000, October 2000, and January 2001 was revised as appropriate for consistency with FAQ 152 which was posted on 4-1-00 and remained in place through 6-30-01. The change to the data does not affect the color of the indicator.

4Q/00: A revision has been made to previously submitted data for the Safety System Unavailability (SSU) performance indicator for the Residual Heat Removal (RHR) System for Byron Unit 1. Unit 1 RHR system data for the months of May 2000, July 2000, September 2000, October 2000, and January 2001 was revised as appropriate for consistency with FAQ 152 which was posted on 4-1-00 and remained in place through 6-30-01. 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 Residual Heat Removal (RHR) System for Byron Unit 1. Unit 1 RHR system data for the months of May 2000, July 2000, September 2000, October 2000, and January 2001 was revised as appropriate for consistency with FAQ 152 which was posted on 4-1-00 and remained in place through 6-30-01. The change to the data does not affect the color of the indicator.

2Q/00: Addition of 1.1 Planned Unavailability Hours from 5/02/00 on 1A Residual Heat Removal Train. This time is insignificant to the calculation of the Performance Indicator, and does not change the "color" of this indicator. A revision has been made to previously submitted data for the Safety System Unavailability (SSU) performance indicator for the Residual Heat Removal (RHR) System for Byron Unit 1. Unit 1 RHR system data for the months of May 2000, July 2000, September 2000, October 2000, and January 2001 was revised as appropriate for consistency with FAQ 152 which was posted on 4-1-00 and remained in place through 6-30-01. The change to the data does not affect the color of the indicator.

## Safety System Functional Failures (PWR)



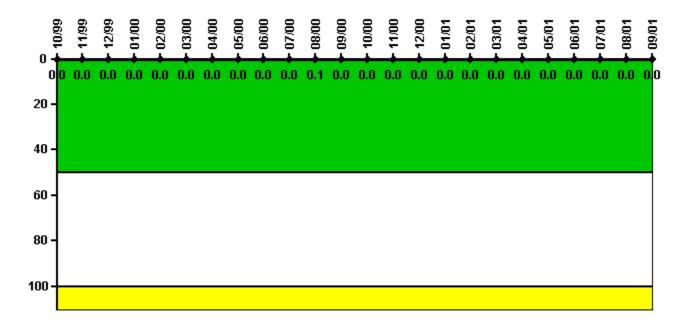
Thresholds: White > 5.0

### Notes

Safety System Functional Failures (PWR)	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01
Safety System Functional Failures	0	0	0	0	0	0	0	0
Indicator value	0	0	0	0	0	0	0	0

Licensee Comments: none

# **Reactor Coolant System Activity**

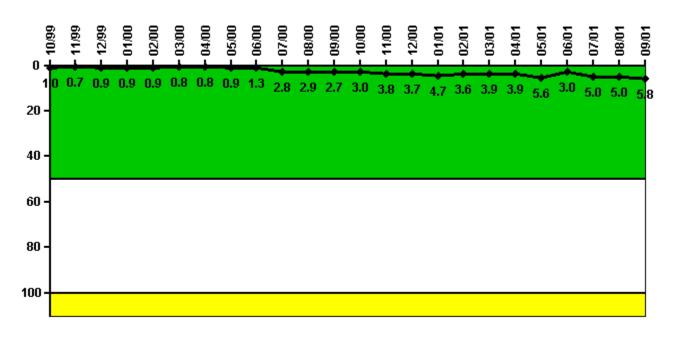


Thresholds: White > 50.0 Yellow > 100.0

#### Notes

Reactor Coolant System Activity	10/99	11/99	12/99	1/00	2/00	3/00	4/00	5/00	6/00	7/00	8/00	9/00
Maximum activity	0.000303	0.000337	0.000359	0.000360	0.000387	0.000378	0.000389	0.000414	0.000421	0.000417	0.000742	0.000406
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	0.1	0
Reactor Coolant System Activity	10/00	11/00	12/00	1/01	2/01	3/01	4/01	5/01	6/01	7/01	8/01	9/01
											-, -	3/01
Maximum activity	0.000224	0.000234	0.000251	0.000265	0.000432	<del></del>	0.000315	0.000325	0.000345	0.000366	<del>-</del>	
Maximum activity Technical specification limit	0.000224					0.000292					0.000407	0.000375
						0.000292					0.000407	

# **Reactor Coolant System Leakage**

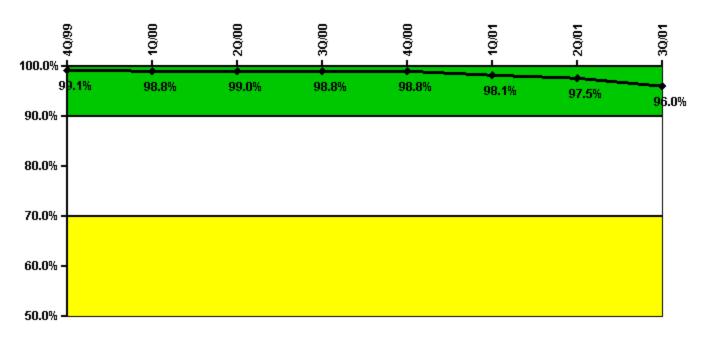


Thresholds: White > 50.0 Yellow > 100.0

#### Notes

Reactor Coolant System Leakage	10/99	11/99	12/99	1/00	2/00	3/00	4/00	5/00	6/00	7/00	8/00	9/00
Maximum leakage	0.101	0.075	0.086	0.090	0.088	0.080	0.081	0.091	0.128	0.277	0.288	0.273
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
		$\overline{}$	$\overline{}$	$\overline{}$		$\overline{}$		$\overline{}$				
Indicator value	1.0	0.7	0.9	0.9	0.9	0.8	0.8	0.9	1.3	2.8	2.9	2.7
Indicator value  Reactor Coolant System Leakage												
		11/00	12/00	1/01	2/01	3/01	4/01	5/01		7/01	8/01	
Reactor Coolant System Leakage	10/00	11/00	12/00	<b>1/01</b> 0.471	2/01	<b>3/01</b> 0.392	<b>4/01</b> 0.392	<b>5/01</b> 0.556	<b>6/01</b> 0.304	<b>7/01</b>	<b>8/01</b> 0.502	9/01
Reactor Coolant System Leakage Maximum leakage	<b>10/00</b> 0.296	<b>11/00</b> 0.377	<b>12/00</b> 0.368	<b>1/01</b> 0.471	<b>2/01</b> 0.360	<b>3/01</b> 0.392	<b>4/01</b> 0.392	<b>5/01</b> 0.556	<b>6/01</b> 0.304	<b>7/01</b>	<b>8/01</b> 0.502	<b>9/01</b>

# **Drill/Exercise Performance**

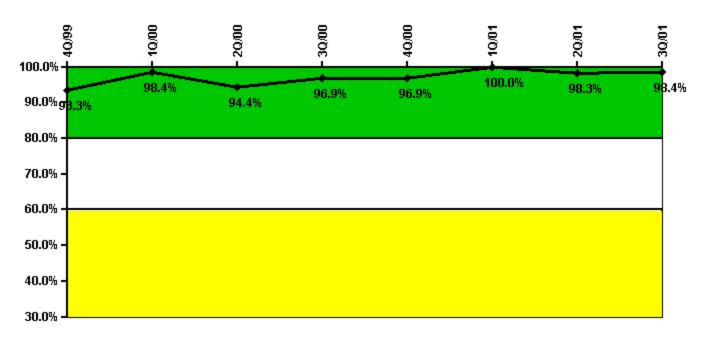


Thresholds: White < 90.0% Yellow < 70.0%

## Notes

Drill/Exercise Performance	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01
Successful opportunities	4.0	63.0	30.0	49.0	0	14.0	0	31.0
Total opportunities	4.0	64.0	30.0	50.0	0	16.0	0	35.0
Indicator value	99.1%	98.8%	99.0%	98.8%	98.8%	98.1%	97.5%	96.0%

# **ERO Drill Participation**

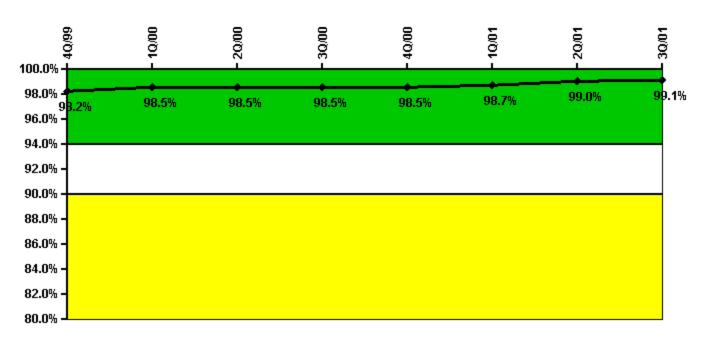


Thresholds: White < 80.0% Yellow < 60.0%

## Notes

ERO Drill Participation	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01
Participating Key personnel	56.0	61.0	68.0	63.0	63.0	63.0	59.0	60.0
Total Key personnel	60.0	62.0	72.0	65.0	65.0	63.0	60.0	61.0
Indicator value	93.3%	98.4%	94.4%	96.9%	96.9%	100.0%	98.3%	98.4%

# **Alert & Notification System**

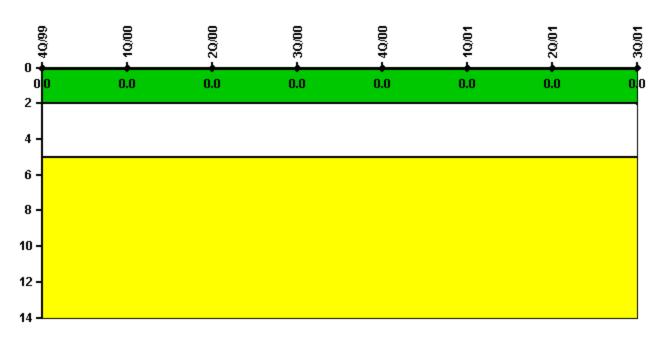


Thresholds: White < 94.0% Yellow < 90.0%

## Notes

Alert & Notification System	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01
Successful siren-tests	5883	6000	5915	5821	5864	5964	5978	5864
Total sirens-tests	5922	6110	6016	5922	5922	6016	6016	5922
Indicator value	98.2%	98.5%	98.5%	98.5%	98.5%	98.7%	99.0%	99.1%

# Occupational Exposure Control Effectiveness

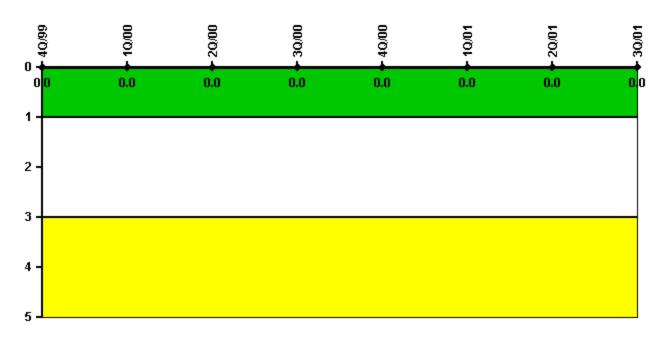


Thresholds: White > 2.0 Yellow > 5.0

## Notes

Occupational Exposure Control Effectiveness	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01	3Q/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

# **RETS/ODCM Radiological Effluent**

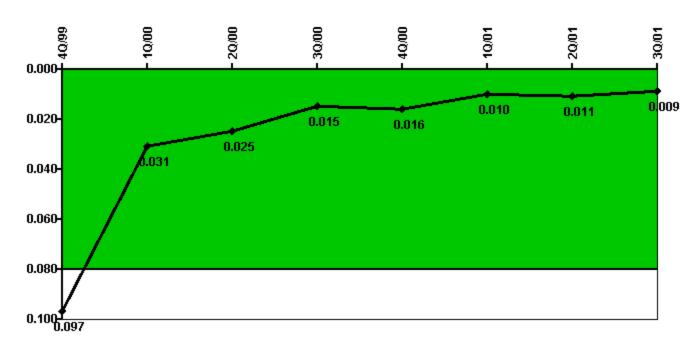


Thresholds: White > 1.0 Yellow > 3.0

## Notes

RETS/ODCM Radiological Effluent	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01
RETS/ODCM occurrences	0	0	0	0	0	0	0	0
Indicator value	0	0	0	0	0	0	0	0

# **Protected Area Security Performance Index**

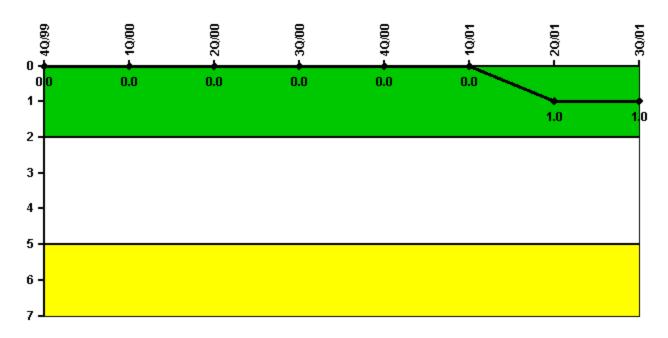


Thresholds: White > 0.080

## Notes

Protected Area Security Performance Index	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01
IDS compensatory hours	57.60	57.60	57.60	93.10	17.43	21.85	92.99	29.12
CCTV compensatory hours	6.5	67.8	6.8	0	37.5	2.6	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
Index Value	0.097	0.031	0.025	0.015	0.016	0.010	0.011	0.009

# **Personnel Screening Program**

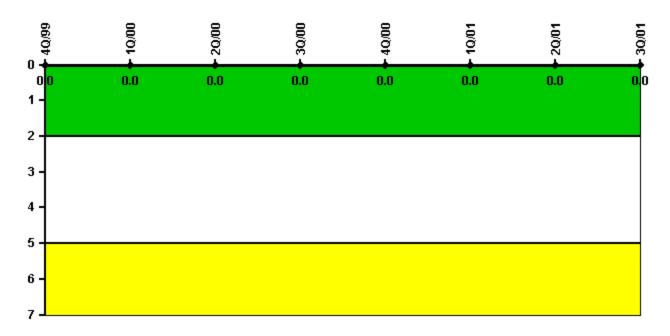


Thresholds: White > 2.0 Yellow > 5.0

## Notes

Personnel Screening Program	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01
Program failures	0	0	0	0	0	0	1	0
Indicator value	0	0	0	0	0	0	1	1

# FFD/Personnel Reliability



Thresholds: White > 2.0 Yellow > 5.0

### Notes

FFD/Personnel Reliability	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01
Program Failures	0	0	0	0	0	0	0	0
Indicator value	0	0	0	0	0	0	0	0

Licensee Comments: none

A PI Summary | Inspection Findings Summary | Action Matrix Summary | Reactor Oversight Process

Last Modified: March 26, 2002