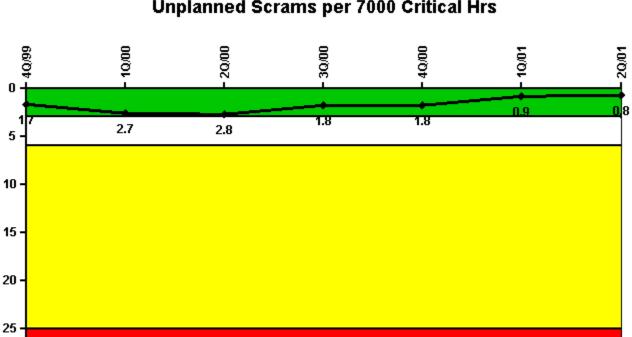
# **Calvert Cliffs 1**

### 2Q/2001 Performance Indicators

Licensee's General Comments: none



Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

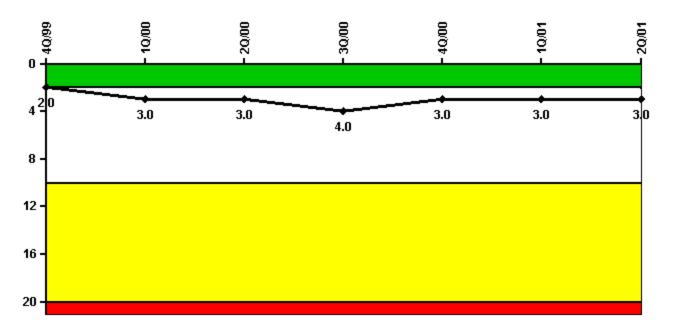
# Notes

Unplanned Scrams per 7000 Critical Hrs	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01
Unplanned scrams	0	1.0	0	1.0	0	0	0
Critical hours	2209.0	1649.1	1634.4	2181.5	2209.0	2160.0	2157.2
Indicator value	1.7	2.7	2.8	1.8	1.8	0.9	0.8

Licensee Comments: none

# **Unplanned Scrams per 7000 Critical Hrs**



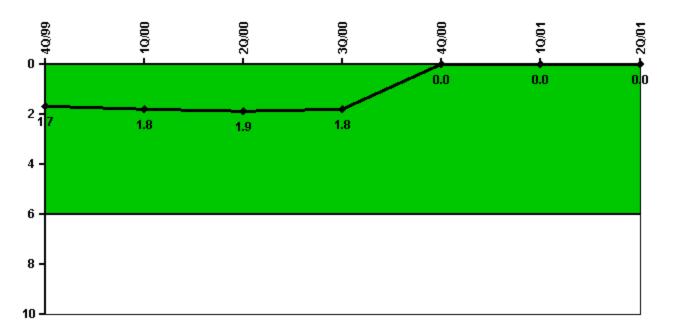


Thresholds: White > 2.0 Yellow > 10.0 Red > 20.0

# Notes

Scrams with Loss of Normal Heat Removal	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01
Scrams	0	1.0	0	1.0	0	0	0
Indicator value	2.0	3.0	3.0	4.0	3.0	3.0	3.0

# Unplanned Power Changes per 7000 Critical Hrs

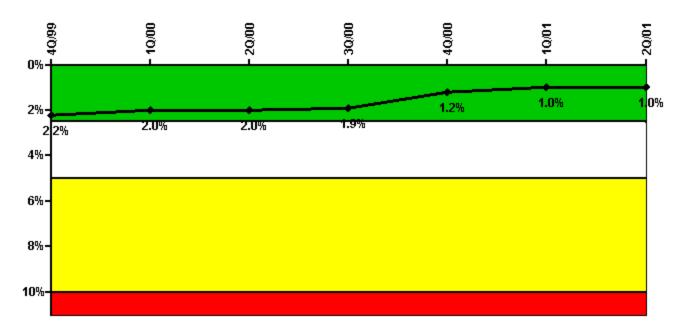


## Thresholds: White > 6.0

## Notes

Unplanned Power Changes per 7000 Critical Hrs	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01
Unplanned power changes	2.0	0	0	0	0	0	0
Critical hours	2209.0	1649.1	1634.4	2181.5	2209.0	2160.0	2157.2
Indicator value	1.7	1.8	1.9	1.8	0	0	0

# 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
Train 1							
Planned unavailable hours	0	21.49	25.81	29.53	3.73	42.22	8.35
Unplanned unavailable hours	0	0	28.03	1.10	0	10.72	29.80
Fault exposure hours	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0
Required hours	2209.00	2184.00	2183.00	2208.00	2209.00	2160.00	2183.00
Train 2							
Planned unavailable hours	0.25	25.50	5.00	8.92	0	33.50	0
Unplanned unavailable hours	0	0	0	3.82	6.33	1.57	0
Fault exposure hours	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0
Required hours	2209.00	2184.00	2183.00	2208.00	2209.00	2160.00	2183.00
Indicator value	2.2%	2.0%	2.0%	1.9%	1.2%	1.0%	1.0%

Licensee Comments:

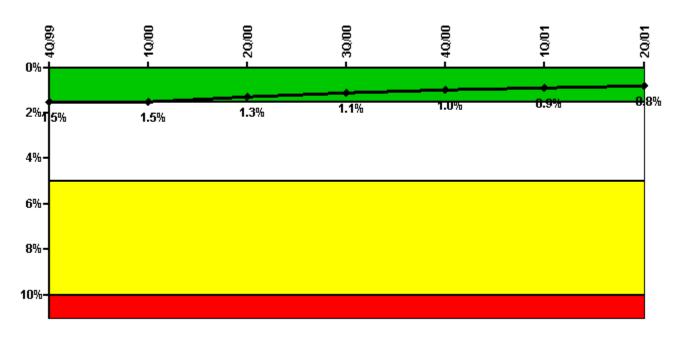
1Q/01: This change removes planned and unplanned unavailable hours in 3Q/2000 and 1Q/2001 for train 2 of the Emergency AC Power system that were previously submitted that accounted for unavailable hours incurred during emergency diesel generator (EDG) testing when performing air barring of the EDG. Calvert Cliffs has reversed its decision and has determined that air barring of the EDG during testing does not render the EDG unavailable because restoration actions are virtually certain to be successful during accident conditions. Excluding air barring as a cause of unavailable hours during EDG testing meets all requirements in NEI 99-02. The change does not affect the "color" of the indicator.

4Q/00: This change removes planned unavailable hours in 1Q/2000 through 1Q/2001 for train 2 of the Emergency AC Power system that were previously submitted that accounted for unavailable hours incurred during emergency diesel generator (EDG) testing when performing air barring of the EDG. Calvert Cliffs has reversed its decision and has determined that air barring of the EDG during testing does not render the EDG unavailable because restoration actions are virtually certain to be successful during accident conditions. Excluding air barring as a cause of planned unavailable hours during EDG testing meets all requirements in NEI 99-02. This change also adds 6.33 hours of unplanned unavailable hours in 4Q/2000 for train 2 of the Emergency AC Power system due to an oversight in reporting unavailable hours for one evolution. The changes do not affect the "color" of the indicator.

3Q/00: This change removes planned and unplanned unavailable hours in 3Q/2000 and 1Q/2001 for train 2 of the Emergency AC Power system that were previously submitted that accounted for unavailable hours incurred during emergency diesel generator (EDG) testing when performing air barring of the EDG. Calvert Cliffs has reversed its decision and has determined that air barring of the EDG during testing does not render the EDG unavailable because restoration actions are virtually certain to be successful during accident conditions. Excluding air barring as a cause of unavailable hours during EDG testing meets all requirements in NEI 99-02. The change does not affect the "color" of the indicator.

2Q/00: This change removes planned unavailable hours in 1Q/2000 through 1Q/2001 for train 2 of the Emergency AC Power system that were previously submitted that accounted for unavailable hours incurred during emergency diesel generator (EDG) testing when performing air barring of the EDG. Calvert Cliffs has reversed its decision and has determined that air barring of the EDG during testing does not render the EDG unavailable because restoration actions are virtually certain to be successful during accident conditions. Excluding air barring as a cause of planned unavailable hours during EDG testing meets all requirements in NEI 99-02. The change does not affect the "color" of the indicator.

1Q/00: This change removes planned unavailable hours in 1Q/2000 through 1Q/2001 for train 2 of the Emergency AC Power system that were previously submitted that accounted for unavailable hours incurred during emergency diesel generator (EDG) testing when performing air barring of the EDG. Calvert Cliffs has reversed its decision and has determined that air barring of the EDG during testing does not render the EDG unavailable because restoration actions are virtually certain to be successful during accident conditions. Excluding air barring as a cause of planned unavailable hours during EDG testing meets all requirements in NEI 99-02. The change does not affect the "color" of the indicator.



Safety System Unavailability, High Pressure Injection System (HPSI)

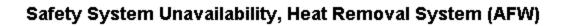
Thresholds: White > 1.5% Yellow > 5.0% Red > 10.0%

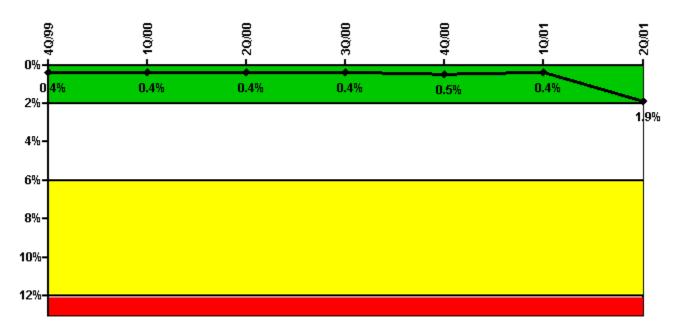
## Notes

Safety System Unavailability, High Pressure Injection System (HPSI)	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01
Train 1							
Planned unavailable hours	14.02	21.63	1.21	0.38	18.82	14.95	6.27
Unplanned unavailable hours	0	1.50	7.82	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0
Required hours	2209.00	1649.10	1634.40	2181.50	2209.00	2160.00	2157.20
Train 2							

Indicator value	1.5%	1.5%	1.3%	1.1%	1.0%	0.9%	0.8%
Required hours	2209.00	1649.10	1634.40	2181.50	2209.00	2160.00	2157.20
Effective Reset hours	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0
Unplanned unavailable hours	0	1.05	0	0	0	0	0
Planned unavailable hours	20.25	21.60	1.04	8.58	9.46	27.21	0.35

Licensee Comments: none





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
Train 1							
Planned unavailable hours	0	1.00	1.00	2.50	2.50	1.00	8.17
Unplanned unavailable hours	0	7.67	0	0	0	0	56.83
Fault exposure hours	0	0	0	0	0	81.30	1092.48
Effective Reset hours	0	0	0	0	0	0	0
Required hours	2209.00	1649.10	1634.40	2181.50	2209.00	2160.00	2157.20
Train 2							
Planned unavailable hours	0	1.00	1.00	2.50	2.50	1.00	8.62
Unplanned unavailable hours	0	7.67	0	0	0	0	10.18
Fault exposure hours	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0
Required hours	2209.00	1649.10	1634.40	2181.50	2209.00	2160.00	2157.20

Train 3							
Planned unavailable hours	0	0	18.33	3.16	16.00	0	1.92
Unplanned unavailable hours	0	0	0	0	0	10.50	0
Fault exposure hours	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0
Required hours	2209.00	1649.10	1634.40	2181.50	2209.00	2160.00	2157.20
Indicator value	0.4%	0.4%	0.4%	0.4%	0.5%	0.4%	1.9%

Licensee Comments:

1Q/01: Previously submitted data for the number of fault exposure hours during the quarter for Train 2 has been revised from 0 to 81.3 hours. This change is necessary due to No. 11 Auxiliary Feedwater pump failing its surveillance test on May 16, 2001. This resulted in fault exposure hours equal to one-half the time between the failure's time of discovery and the last successful surveillance test in February 2001. This change only affects Q1/2001 and does not affect the color of this indicator in Q1/2001.

10/00 20,00 30/00 40,00 20/01 40,09 10/01 0% 0.6% 0.7% <del>0.0</del>% 0 1,2% 2% 1.3% 1.3% 4%· 6% **8**%· 10%

Safety System Unavailability, Residual Heat Removal System

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

## Notes

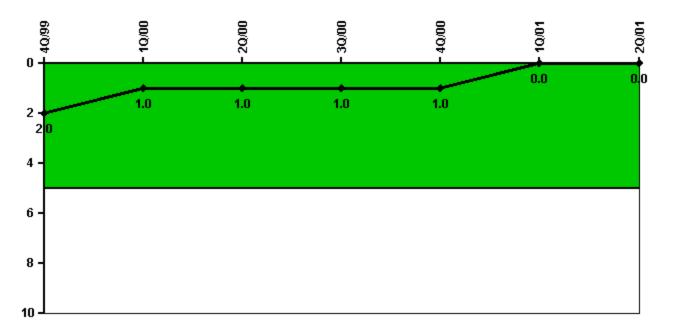
Safety System Unavailability, Residual Heat Removal System	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01
Train 1							
Planned unavailable hours	0	0	0	0	0	0	0
Unplanned unavailable hours	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0
Required hours	0	489.20	454.30	0	0	0	0
Train 2							

Planned unavailable hours	0	0	0	0	0	0	0
Unplanned unavailable hours	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0
Required hours	0	489.20	454.30	0	0	0	0
Train 3							
Planned unavailable hours	16.88	25.11	1.58	1.89	23.94	27.96	13.28
Unplanned unavailable hours	0	1.95	7.82	1.10	0	0	0
Fault exposure hours	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0
Required hours	2209.00	1694.80	1728.70	2208.00	2209.00	2160.00	2183.00
Train 4							
Planned unavailable hours	19.44	21.74	2.18	9.52	23.47	31.01	1.48
Unplanned unavailable hours	0	0	0	0	22.90	0	0
Fault exposure hours	0	0	0	0	673.40	0	0
Effective Reset hours	0	0	0	0	0	0	0
Required hours	2209.00	1694.80	1728.70	2208.00	2209.00	2160.00	2183.00
Indicator value	0.8%	0.8%	0.7%	0.6%	1.3%	1.3%	1.2%

Licensee Comments:

4Q/00: Fault exposure hours associated with No. 12 Containment Spray Pump Circuit Breaker failing to close upon receipt of an auto-start signal have been increased based on additional information obtained during the performance of the Root Cause Analysis. The Root Cause Analysis, completed following submittal of the original data, determined the breaker was inoperable for the entire time between the last successful operation of the breaker on October 10, 2000 and the failure's time of discovery on November 10, 2000. Expansion of the fault exposure hours necessitated two existing planned and one unplanned unavailable hour durations to be adjusted to prevent a duplication of reported unavailable hours. This change does not affect the color of the indicator.

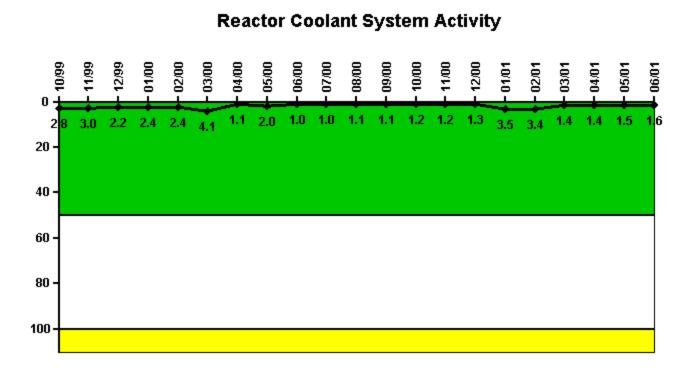




## Thresholds: White > 5.0

## Notes

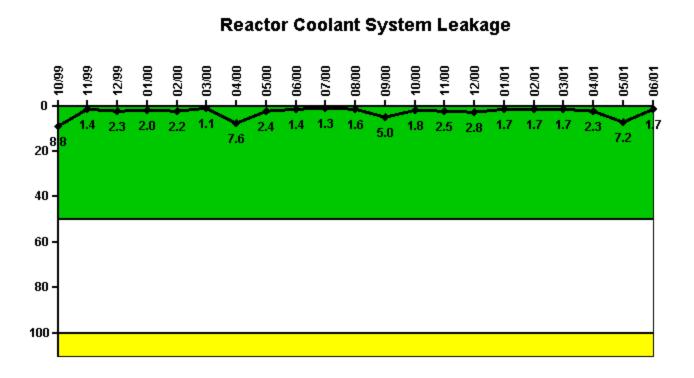
Safety System Functional Failures (PWR)	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01
Safety System Functional Failures	0	1	0	0	0	0	0
Indicator value	2	1	1	1	1	0	0



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	0.027500	0.029600	0.022400	0.024200	0.023700	0.041000	0.010600	0.019600	0.010200	0.010100	0.010700	0.011000
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	2.8	3.0	2.2	2.4	2.4	4.1	1.1	2.0	1.0	1.0	1.1	1.1
Reactor Coolant System Activity	10/00	11/00	12/00	1/01	2/01		4 (01	5/01	6 (01			
		11/00	12/00	1/01	2/01	3/01	4/01	5/01	6/01			
	0.012200											
	<u> </u>	0.011900	0.012600	0.035400	0.033600	0.014400		0.015200	0.016100			
Maximum activity	0.012200	0.011900	0.012600	0.035400	0.033600	0.014400	0.014400	0.015200	0.016100			

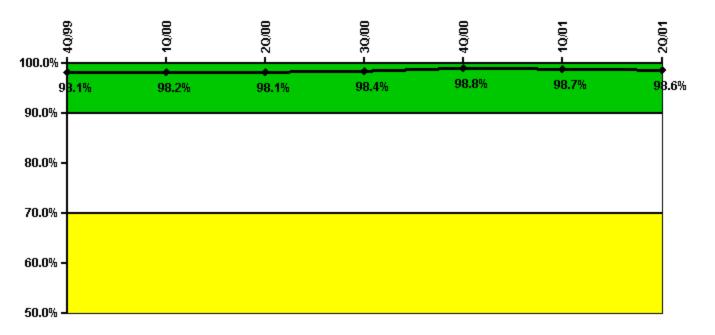


Thresholds: White > 50.0 Yellow > 100.0

#### 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	0.877	0.136	0.233	0.197	0.224	0.109	0.765	0.242	0.144	0.127	0.163	0.500
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	8.8	1.4	2.3	2.0	2.2	1.1	7.6	2.4	1.4	1.3	1.6	5.0
Reactor Coolant System Leakage	10/00	11/00	12/00	1/01	2/01	3/01	4/01	5/01	6/01			
Reactor Coolant System Leakage Maximum leakage	<b>10/00</b> 0.176			<b>1/01</b> 0.170				<u> </u>				
		0.251		0.170	0.165	0.170	0.230	0.720				
Maximum leakage	0.176	0.251	0.277	0.170	0.165	0.170	0.230	0.720	0.170			

# 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
Successful opportunities	57.0	10.0	19.0	32.0	33.0	11.0	22.0
Total opportunities	59.0	10.0	19.0	33.0	33.0	11.0	22.0
Indicator value	98.1%	98.2%	98.1%	98.4%	98.8%	98.7%	98.6%

#### Licensee Comments:

1Q/01: Previously submitted data for both the number of opportunities performed timely and accurately during the quarter, and the number of opportunities during the quarter has been revised from 16 to 11. This change is necessary following discovery that previously reported data included data regarding licensed operators who participated in evaluated scenarios in the role of Shift Manager or Shift Manager Alternate to maintain active Reactor Operator and Senior Reactor Operator licenses, who were not designated as qualified Shift Managers and Shift Manager Alternates. The time periods affected by this change include 3Q/1999 through 1Q/2001. This change does not affect the color of this indicator.

4Q/00: Previously submitted data for the number of opportunities performed timely and accurately during the quarter, and the number of opportunities during the quarter has been revised. This change is necessary following discovery that previously reported data included data regarding licensed operators who participated in evaluated scenarios in the role of Shift Manager or Shift Manager Alternate to maintain active Reactor Operator and Senior Reactor Operator licenses, who were not designated as qualified Shift Managers and Shift Manager Alternates. The time periods affected by this change include 3Q/1999 through 1Q/2001. This change does not affect the color of this indicator.

3Q/00: Previously submitted data for the number of opportunities performed timely and accurately during the quarter, and the number of opportunities during the quarter has been revised. This change is necessary following discovery that previously reported data included data regarding licensed operators who participated in evaluated scenarios in the role of Shift Manager or Shift Manager Alternate to maintain active Reactor Operator and Senior Reactor Operator licenses, who were not designated as qualified Shift Managers and Shift Manager Alternates. The time periods affected by this change include 3Q/1999 through 1Q/2001. This change does not affect the color of this indicator.

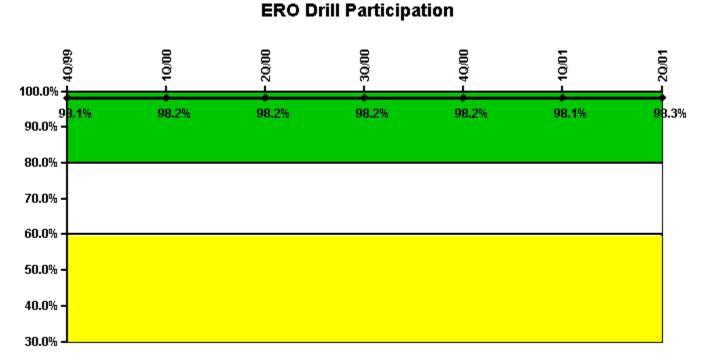
2Q/00: Previously submitted data for the number of opportunities performed timely and accurately during the quarter, and the number of opportunities during the quarter has been revised from 26 to 19. This change is necessary following discovery that previously reported data included data regarding licensed operators who participated in evaluated scenarios in the role of Shift Manager or Shift Manager Alternate to maintain active Reactor Operator and Senior Reactor Operator licenses, who were not designated as qualified Shift Managers and Shift Manager Alternates. The time periods affected by this change include 3Q/1999 through 1Q/2001. This change does not affect the color of this indicator.

1Q/00: Previously submitted data for both the number of opportunities performed timely and accurately during the quarter, and the number of

opportunities during the quarter has been revised from 16 to 10. This change is necessary following discovery that previously reported data included data regarding licensed operators who participated in evaluated scenarios in the role of Shift Manager or Shift Manager Alternate to maintain active Reactor Operator and Senior Reactor Operator licenses, who were not designated as qualified Shift Managers and Shift Manager Alternates. The time periods affected by this change include 3Q/1999 through 1Q/2001. This change does not affect the color of this indicator.

4Q/99: Previously submitted data for the number of opportunities performed timely and accurately during the quarter, and the number of opportunities during the quarter has been revised. This change is necessary following discovery that previously reported data included data regarding licensed operators who participated in evaluated scenarios in the role of Shift Manager or Shift Manager Alternate to maintain active Reactor Operator and Senior Reactor Operator licenses, who were not designated as qualified Shift Managers and Shift Manager Alternates. The time periods affected by this change include 3Q/1999 through 1Q/2001. This change does not affect the color of this indicator.

3Q/99: Previously submitted data for both the number of opportunities performed timely and accurately during the quarter, and the number of opportunities during the quarter have been revised from 50 to 34. This change is necessary following discovery that previously reported data included data regarding licensed operators who participated in evaluated scenarios in the role of Shift Manager or Shift Manager Alternate to maintain active Reactor Operator and Senior Reactor Operator licenses, who were not designated as qualified Shift Managers and Shift Manager Alternates. The time periods affected by this change include 3Q/1999 through 1Q/2001. This change does not affect the color of this indicator.

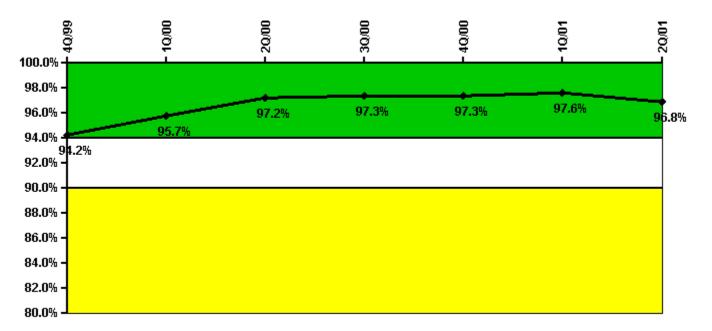


Thresholds: White < 80.0% Yellow < 60.0%

## Notes

ERO Drill Participation	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01
Participating Key personnel	52.0	56.0	56.0	55.0	54.0	53.0	59.0
Total Key personnel	53.0	57.0	57.0	56.0	55.0	54.0	60.0
Indicator value	98.1%	98.2%	98.2%	98.2%	98.2%	98.1%	98.3%



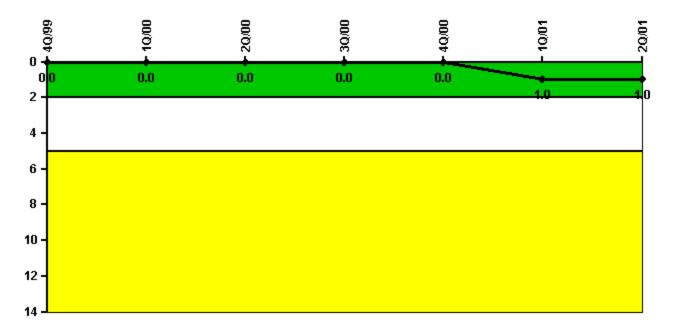


Thresholds: White < 94.0% Yellow < 90.0%

# Notes

Alert & Notification System	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01
Successful siren-tests	861	929	929	906	1039	990	944
Total sirens-tests	885	950	955	936	1068	1002	1002
Indicator value	94.2%	95.7%	97.2%	97.3%	97.3%	97.6%	96.8%

# **Occupational Exposure Control Effectiveness**

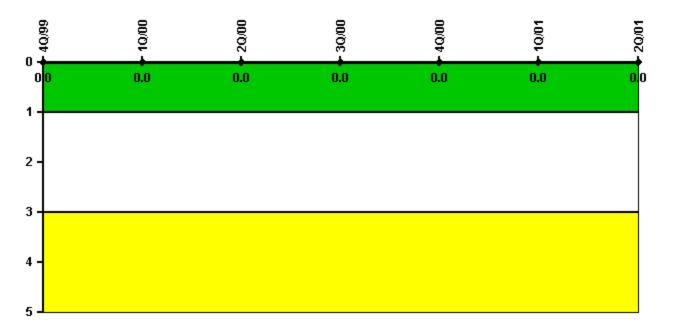


Thresholds: White > 2.0 Yellow > 5.0

## Notes

Occupational Exposure Control Effectiveness	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01
High radiation area occurrences	0	0	0	0	0	1	0
Very high radiation area occurrences	0	0	0	0	0	0	0
Unintended exposure occurrences	0	0	0	0	0	0	0
Indicator value	0	0	0	0	0	1	1

# **RETS/ODCM Radiological Effluent**

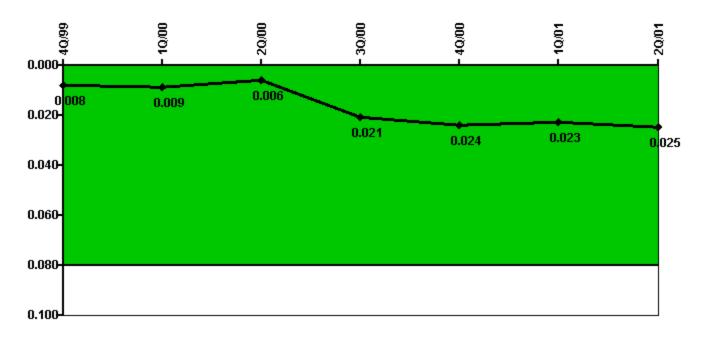


Thresholds: White > 1.0 Yellow > 3.0

# Notes

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

# **Protected Area Security Performance Index**

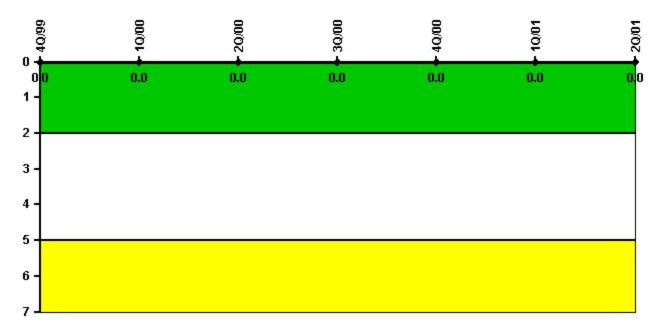


#### Thresholds: White > 0.080

## Notes

Protected Area Security Performance Index	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01
IDS compensatory hours	50.10	46.00	38.60	390.70	116.70	14.80	85.60
CCTV compensatory hours	0	0	0	0	0	0	0
IDS normalization factor	1.40	1.40	1.40	1.40	1.40	1.40	1.40
CCTV normalization factor	1.2	1.2	1.2	1.2	1.2	1.2	1.2
Index Value	0.008	0.009	0.006	0.021	0.024	0.023	0.025



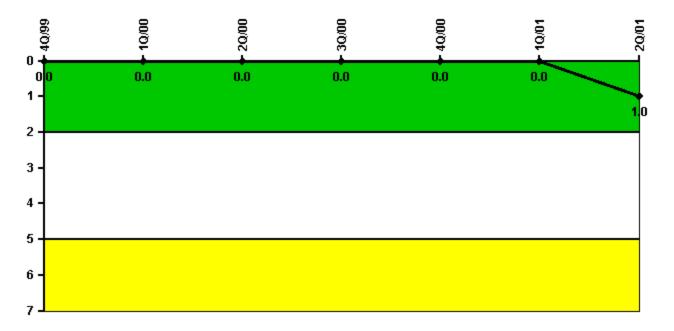


Thresholds: White > 2.0 Yellow > 5.0

## Notes

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

# **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
Program Failures	0	0	0	0	0	0	1
Indicator value	0	0	0	0	0	0	1

Licensee Comments:

2Q/01: A reportable event occurred in May 2001, which was inadvertently omitted from the 2Q/2001 indicator report. This change did not change the color of the indicator.

Letter Summary | Inspection Findings Summary | Action Matrix Summary | Reactor Oversight Process

Last Modified: March 27, 2002