

### Millstone 2

#### 1Q/2001 Performance Indicators

Licensee's General Comments: none

#### Unplanned Scrams per 7000 Critical Hrs



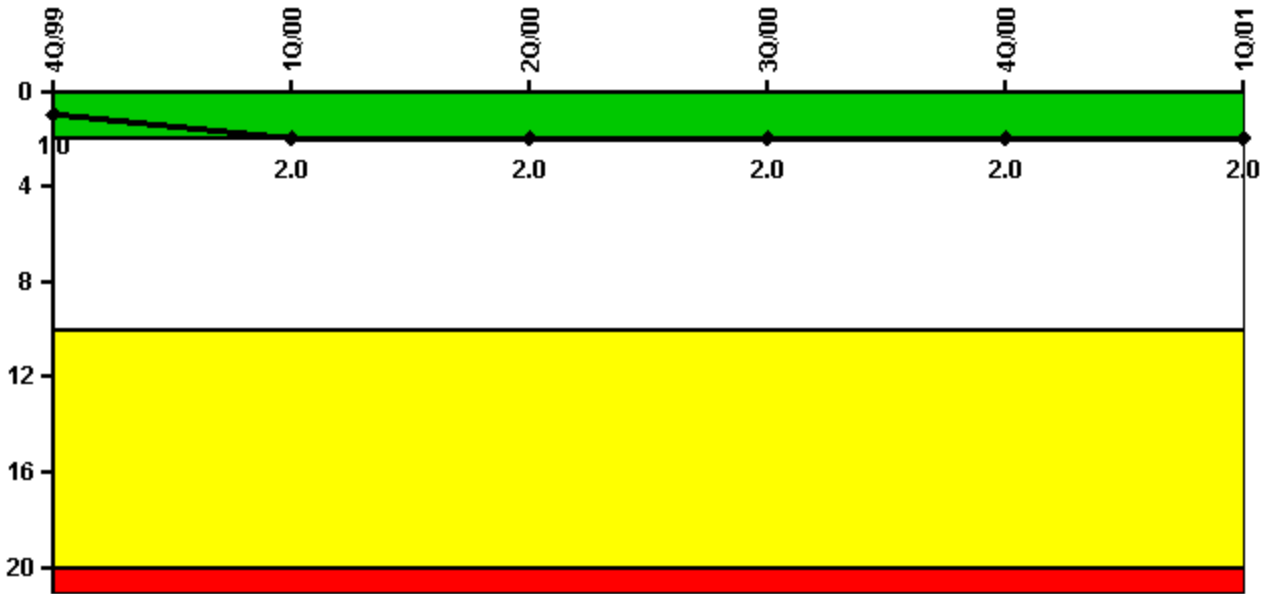
Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

#### Notes

Unplanned Scrams per 7000 Critical Hrs	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01
Unplanned scrams	0	2.0	1.0	0	0	0
Critical hours	2209.0	1772.0	1264.3	2208.0	2209.0	2160.0
<b>Indicator value</b>	<b>1.3</b>	<b>2.9</b>	<b>2.9</b>	<b>2.8</b>	<b>2.8</b>	<b>0.9</b>

Licensee Comments: none

### Scrams with Loss of Normal Heat Removal



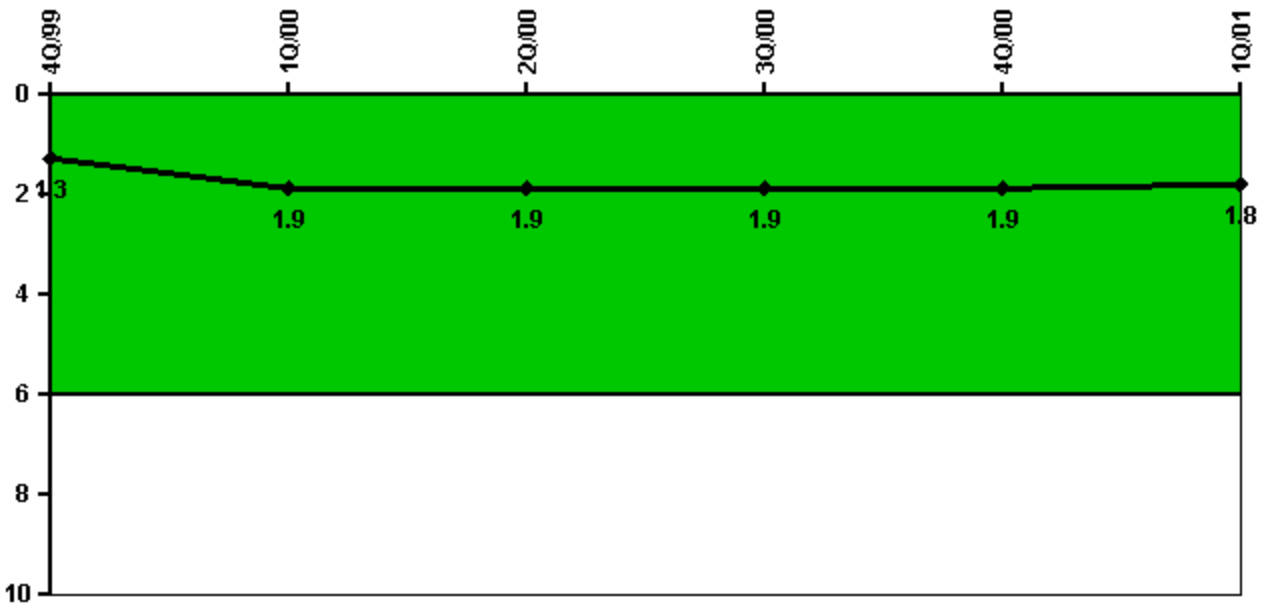
Thresholds: White > 2.0 Yellow > 10.0 Red > 20.0

#### Notes

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

Licensee Comments: none

### Unplanned Power Changes per 7000 Critical Hrs



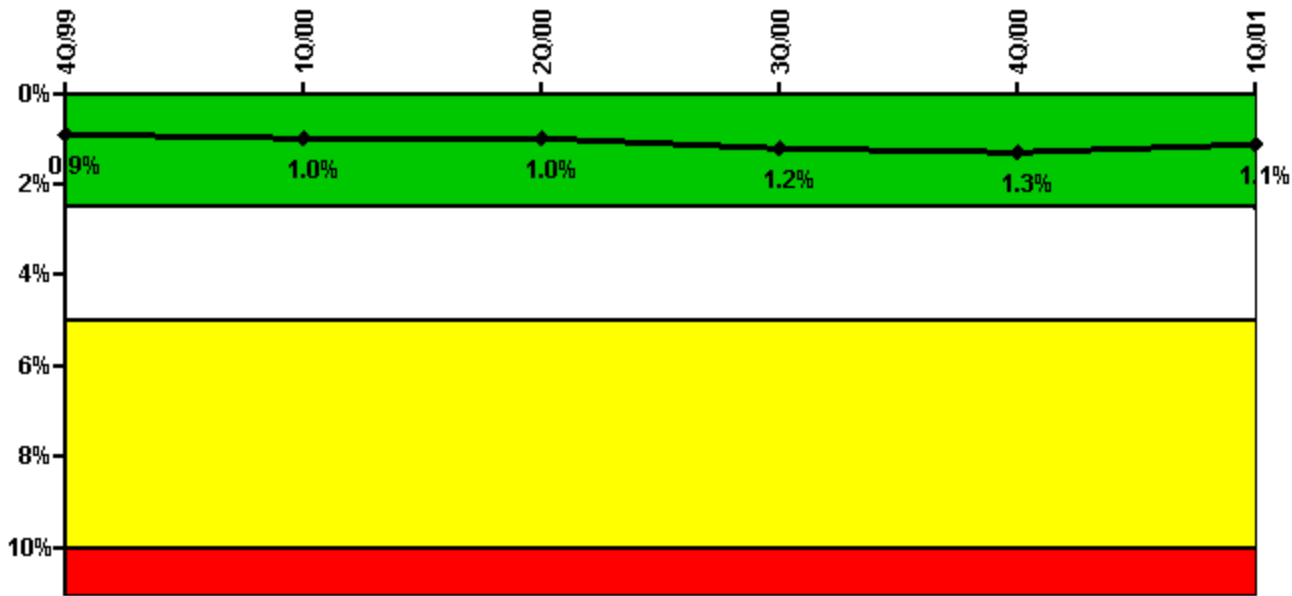
Thresholds: White > 6.0

#### Notes

Unplanned Power Changes per 7000 Critical Hrs	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01
Unplanned power changes	0	1.0	0	1.0	0	1.0
Critical hours	2209.0	1772.0	1264.3	2208.0	2209.0	2160.0
<b>Indicator value</b>	<b>1.3</b>	<b>1.9</b>	<b>1.9</b>	<b>1.9</b>	<b>1.9</b>	<b>1.8</b>

Licensee Comments: none

### 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
<b>Train 1</b>						
Planned unavailable hours	32.12	37.00	6.93	29.75	19.88	8.39
Unplanned unavailable hours	0	0	0	0	6.57	1.02
Fault exposure hours	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0
Required hours	2209.00	2184.00	2183.00	2208.00	2209.00	2160.00
<b>Train 2</b>						
Planned unavailable hours	37.98	40.20	10.54	43.27	17.75	8.39
Unplanned unavailable hours	0	0	0.02	0	0	0
Fault exposure hours	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0
Required hours	2209.00	2184.00	2183.00	2208.00	2209.00	2160.00
<b>Indicator value</b>	<b>0.9%</b>	<b>1.0%</b>	<b>1.0%</b>	<b>1.2%</b>	<b>1.3%</b>	<b>1.1%</b>

#### Licensee Comments:

1Q/01: Based on an evaluation conducted during the 2nd quarter 2001, the Planned Unavailable Hours for the 2nd, 3rd, and 4th quarters of 1999, the 3rd and 4th quarters of 2000, and the 1st quarter of 2001 were revised to account for the Diesel Generator not being available during certain testing and air roll evolutions. The addition of these unavailable hours did not result in the indicator crossing the GREEN/WHITE threshold.

4Q/00: Based on an evaluation conducted during the 2nd quarter 2001, the Planned Unavailable Hours for the 2nd, 3rd, and 4th quarters of 1999, the 3rd and 4th quarters of 2000, and the 1st quarter of 2001 were revised to account for the Diesel Generator not being available during certain testing and air roll evolutions. The addition of these unavailable hours did not result in the indicator crossing the GREEN/WHITE threshold.

3Q/00: Based on an evaluation conducted during the 2nd quarter 2001, the Planned Unavailable Hours for the 2nd, 3rd, and 4th quarters of 1999, the 3rd and 4th quarters of 2000, and the 1st quarter of 2001 were revised to account for the Diesel Generator not being available during certain testing and air roll evolutions. The addition of these unavailable hours did not result in the indicator crossing the GREEN/WHITE threshold.

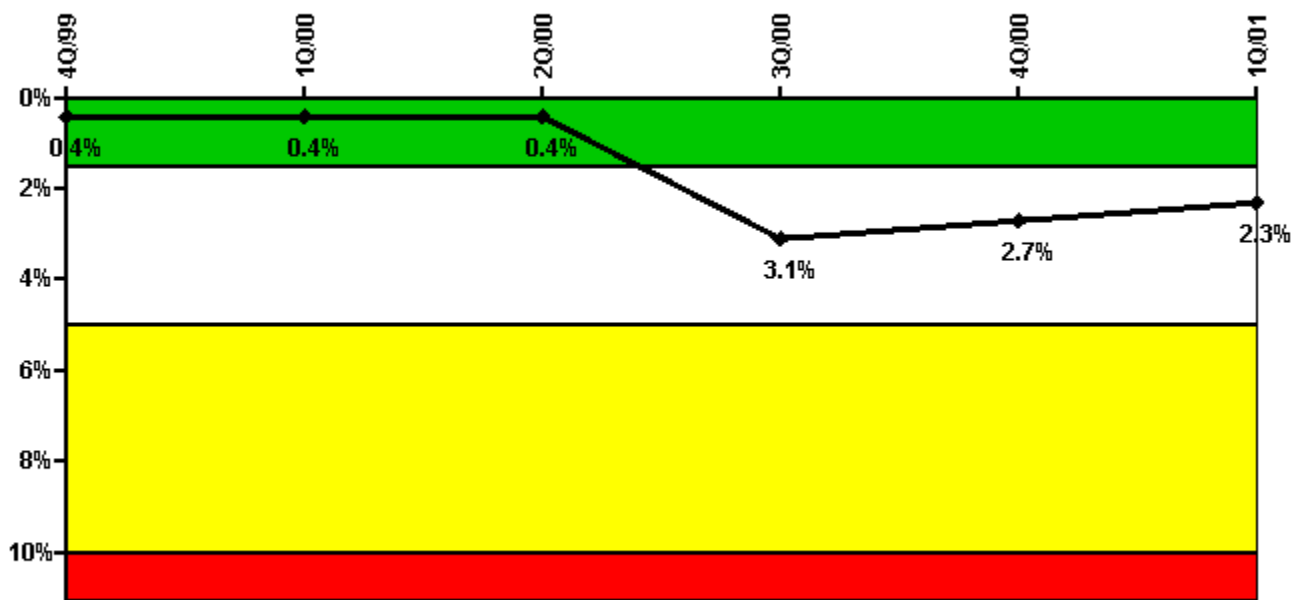
threshold.

4Q/99: Based on an evaluation conducted during the 2nd quarter 2001, the Planned Unavailable Hours for the 2nd, 3rd, and 4th quarters of 1999, the 3rd and 4th quarters of 2000, and the 1st quarter of 2001 were revised to account for the Diesel Generator not being available during certain testing and air roll evolutions. The addition of these unavailable hours did not result in the indicator crossing the GREEN/WHITE threshold.

3Q/99: Based on an evaluation conducted during the 2nd quarter 2001, the Planned Unavailable Hours for the 2nd, 3rd, and 4th quarters of 1999, the 3rd and 4th quarters of 2000, and the 1st quarter of 2001 were revised to account for the Diesel Generator not being available during certain testing and air roll evolutions. The addition of these unavailable hours did not result in the indicator crossing the GREEN/WHITE threshold.

2Q/99: Based on an evaluation conducted during the 2nd quarter 2001, the Planned Unavailable Hours for the 2nd, 3rd, and 4th quarters of 1999, the 3rd and 4th quarters of 2000, and the 1st quarter of 2001 were revised to account for the Diesel Generator not being available during certain testing and air roll evolutions. The addition of these unavailable hours did not result in the indicator crossing the GREEN/WHITE threshold.

### 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
<b>Train 1</b>						
Planned unavailable hours	6.81	11.32	7.01	3.74	3.62	0.06
Unplanned unavailable hours	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0
Required hours	2209.00	1913.50	1648.40	2208.00	2209.00	2160.00
<b>Train 2</b>						
Planned unavailable hours	10.33	14.29	4.46	5.33	1.75	1.11

Unplanned unavailable hours	0	0	0	0	0	0
Fault exposure hours	0	0	0	654.20	0	0
Effective Reset hours	0	0	0	0	0	0
Required hours	2209.00	1913.50	1648.40	2208.00	2209.00	2160.00
<b>Indicator value</b>	<b>0.4%</b>	<b>0.4%</b>	<b>0.4%</b>	<b>3.1%</b>	<b>2.7%</b>	<b>2.3%</b>

## Licensee Comments:

1Q/01: Minor corrections were made to system unavailable hours due to misinterpretation of the guide lines associated with taking credit for operator actions during valve stroking. This change does not result in crossing the GREEN/WHITE threshold.

4Q/00: Minor corrections were made to system unavailable hours due to misinterpretation of the guide lines associated with taking credit for operator actions during valve stroking. This change does not result in crossing the GREEN/WHITE threshold.

3Q/00: In accordance with the guidance in NEI 99-02 Fault Exposure Hours for the months of July and August 2000 were removed. Additionally, minor corrections were made to system unavailable hours due to misinterpretation of the guide lines associated with taking credit for operator actions during valve stroking. The removal of the Fault Exposure Hours returned the indicator to the GREEN performance band.

3Q/00: In accordance with the requirements of NEI 99-02 revision 2, the fault exposure hours were added back in to accommodate the fault exposure hour resetting process.

2Q/00: Minor corrections were made to system unavailable hours due to misinterpretation of the guide lines associated with taking credit for operator actions during valve stroking. Additionally, the hours the system is required were revised to be the actual hours the system is required by Tech Specs vs. the default hours (critical hours). These changes do not result in crossing the GREEN/WHITE threshold.

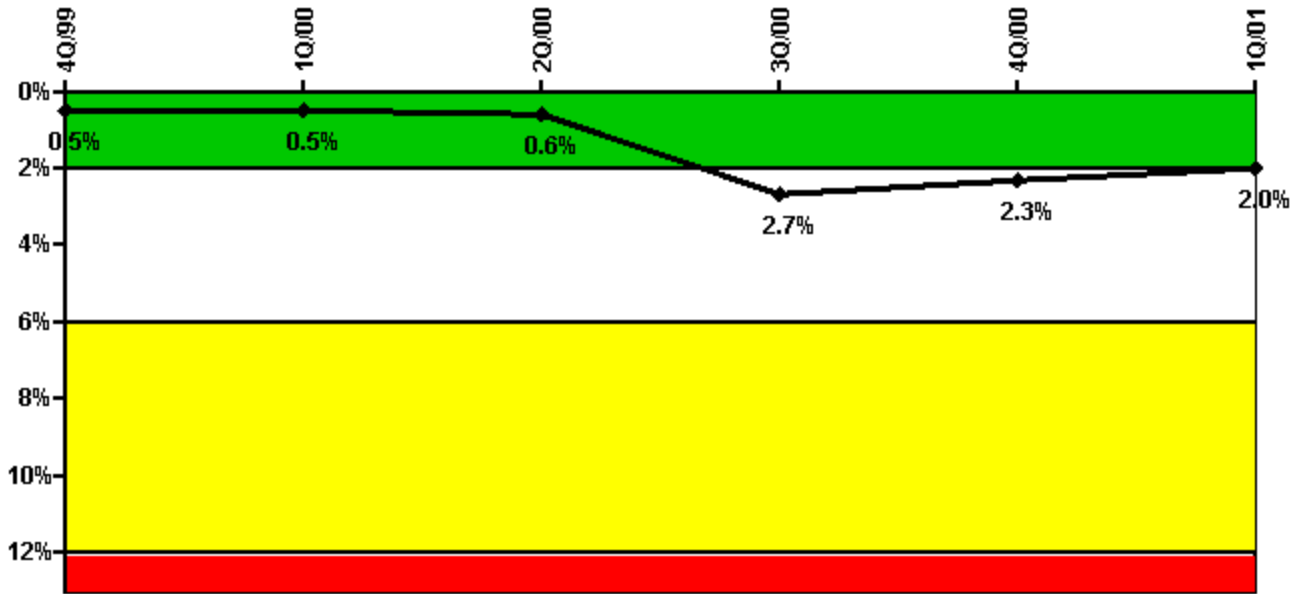
1Q/00: Minor corrections were made to system unavailable hours due to misinterpretation of the guide lines associated with taking credit for operator actions during valve stroking. Additionally, the hours the system is required were revised to be the actual hours the system is required by Tech Specs vs. the default hours (critical hours). These changes do not result in crossing the GREEN/WHITE threshold.

4Q/99: Minor corrections were made to system unavailable hours due to misinterpretation of the guide lines associated with taking credit for operator actions during valve stroking. This change does not result in crossing the GREEN/WHITE threshold.

3Q/99: Minor corrections were made to system unavailable hours due to misinterpretation of the guide lines associated with taking credit for operator actions during valve stroking. This change does not result in crossing the GREEN/WHITE threshold.

2Q/99: Minor corrections were made to system unavailable hours due to misinterpretation of the guide lines associated with taking credit for operator actions during valve stroking. Additionally, the hours the system is required were revised to be the actual hours the system is required by Tech Specs vs. the default hours (critical hours). These changes do not result in crossing the GREEN/WHITE threshold.

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



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

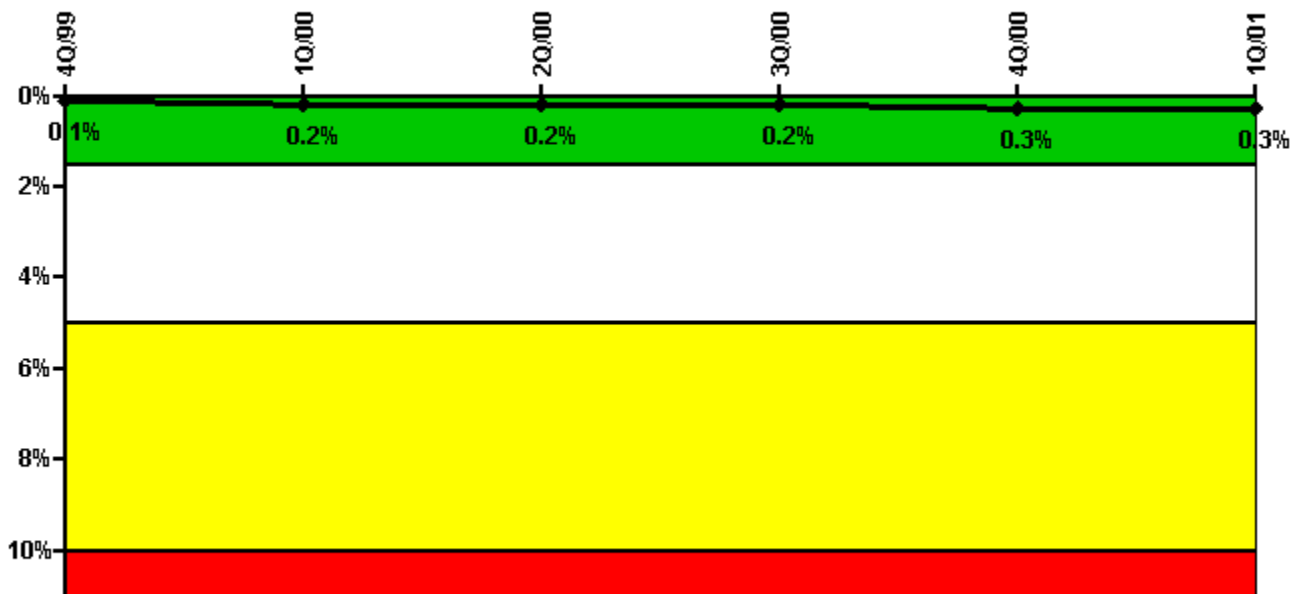
#### Notes

Safety System Unavailability, Heat Removal System (AFW)	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01
<b>Train 1</b>						
Planned unavailable hours	5.50	11.50	6.50	8.60	1.80	0.30
Unplanned unavailable hours	0	1.00	0	0	0	0
Fault exposure hours	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0
Required hours	2209.00	1772.00	1264.30	2208.00	2209.00	2160.00
<b>Train 2</b>						
Planned unavailable hours	8.20	2.00	3.50	12.60	2.80	0.60
Unplanned unavailable hours	0	0	0	0	1.80	0
Fault exposure hours	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0
Required hours	2209.00	1772.00	1264.30	2208.00	2209.00	2160.00
<b>Train 3</b>						
Planned unavailable hours	5.55	3.75	30.10	4.80	27.30	9.30
Unplanned unavailable hours	0	5.80	0	30.75	0	0
Fault exposure hours	0	0	0	672.50	0	0
Effective Reset hours	0	0	0	0	0	0
Required hours	2209.00	1772.00	1264.30	2208.00	2209.00	2160.00
<b>Indicator value</b>	<b>0.5%</b>	<b>0.5%</b>	<b>0.6%</b>	<b>2.7%</b>	<b>2.3%</b>	<b>2.0%</b>

#### Licensee Comments:

3Q/00: The Turbine Driven Auxiliary Feedwater (TDAFW) pump failed it's 9/2000 monthly surveillance test. During initial investigation, exact time of failure was unknown. The T/2 rule was used to determine 335.0 fault exposure hours reported in 3rd quarter 2000 submittal. Subsequent analysis completed 5/2001, utilizing analytical tools not previously available, determined failure occurred at conclusion of 8/2000 surveillance. Fault exposure hours revised to include actual hours between failure and discovery, resulting in crossing of GREEN/WHITE threshold (9/2000); mid-quarter correction filed 5/2001. Performance returned to GREEN band 4/2001. All actions in accordance with NEI 99-02 rev. 0.

### 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
<b>Train 1</b>						
Planned unavailable hours	3.84	29.35	23.18	8.01	4.38	5.31
Unplanned unavailable hours	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0
Required hours	2209.00	1913.50	1333.00	2208.00	2209.00	2160.00
<b>Train 2</b>						
Planned unavailable hours	17.62	21.29	3.92	6.33	7.61	5.06
Unplanned unavailable hours	0	11.06	0	0	0	0
Fault exposure hours	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0
Required hours	2209.00	1913.50	1333.00	2208.00	2209.00	2160.00
<b>Train 3</b>						
Planned unavailable hours	3.84	0	0	0	0	0
Unplanned unavailable hours	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0
Required hours	2209.00	269.00	826.00	0	0	0
<b>Train 4</b>						
Planned unavailable hours	17.62	0	0	0	0	0
Unplanned unavailable hours	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0



Required hours	2209.00	269.00	826.00	0	0	0
Indicator value	0.1%	0.2%	0.2%	0.2%	0.3%	0.3%

Licensee Comments:

1Q/01: Minor corrections were made to system unavailable hours due to misinterpretation of the guide lines associated with taking credit for operator actions during valve stroking. This change does not result in crossing the GREEN/WHITE threshold.

4Q/00: Minor corrections were made to system unavailable hours due to misinterpretation of the guide lines associated with taking credit for operator actions during valve stroking. This change does not result in crossing the GREEN/WHITE threshold.

3Q/00: Minor corrections were made to system unavailable hours due to misinterpretation of the guide lines associated with taking credit for operator actions during valve stroking. This change does not result in crossing the GREEN/WHITE threshold.

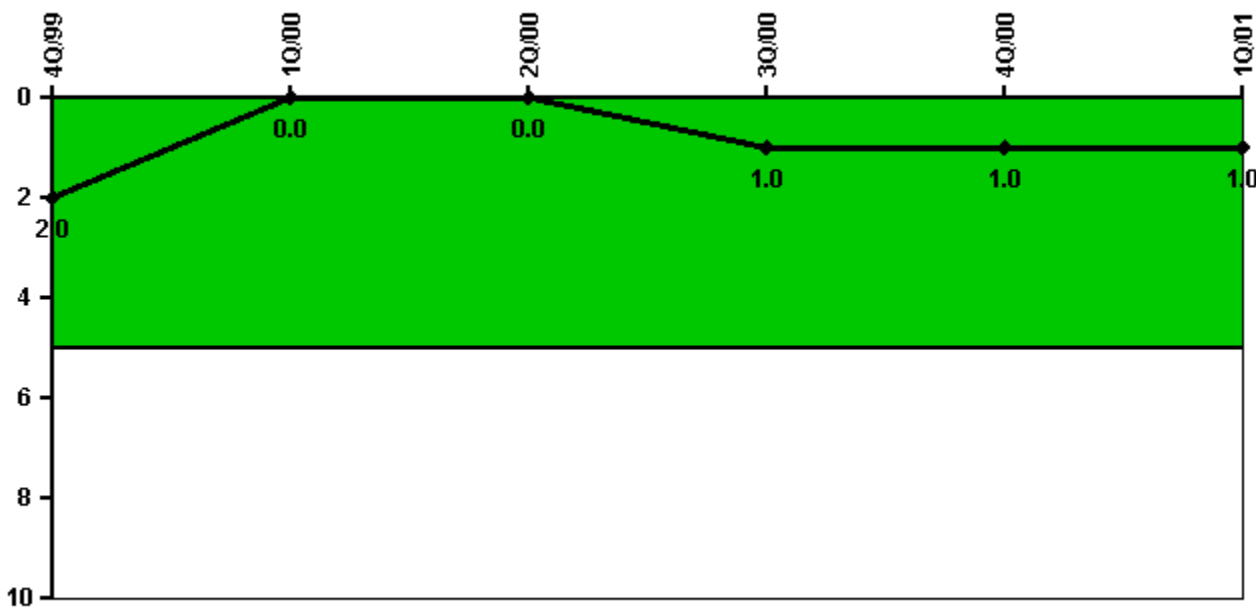
2Q/00: Corrections were made to system unavailable hours due to misinterpretation of the guide lines associated with the hours the system is required. The required hours were revised to be the actual hours the system is required by Tech Specs vs. the default hours (critical hours). Minor corrections were made to system unavailable hours due to misinterpretation of the guide lines associated with taking credit for operator actions during valve stroking. This change does not result in crossing the GREEN/WHITE threshold.

1Q/00: Corrections were made to system unavailable hours due to misinterpretation of the guide lines associated with the hours the system is required. The required hours were revised to be the actual hours the system is required by Tech Specs vs. the default hours (critical hours). Minor corrections were made to system unavailable hours due to misinterpretation of the guide lines associated with taking credit for operator actions during valve stroking. This change does not result in crossing the GREEN/WHITE threshold.

3Q/99: Minor corrections were made to system unavailable hours due to misinterpretation of the guide lines associated with taking credit for operator actions during valve stroking. This change does not result in crossing the GREEN/WHITE threshold.

2Q/99: Minor corrections were made to system unavailable hours due to misinterpretation of the guide lines associated with taking credit for operator actions during valve stroking. This change does not result in crossing the GREEN/WHITE threshold.

### 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
Safety System Functional Failures	0	0	0	1	0	0
Indicator value	2	0	0	1	1	1

Licensee Comments:

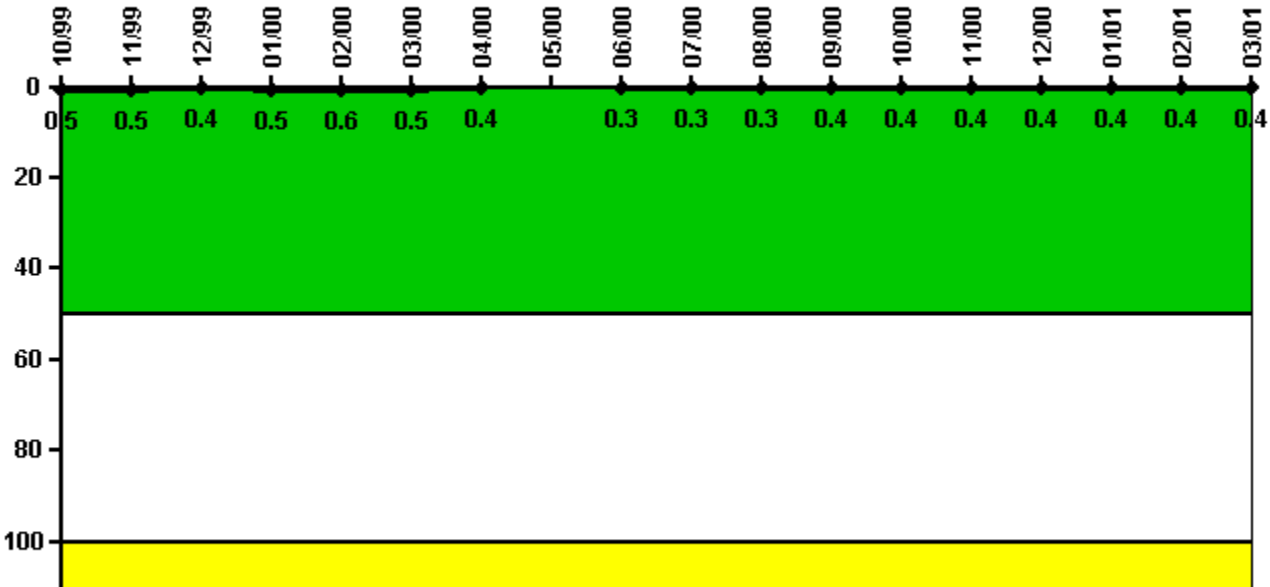
1Q/01: A correction to the data for April 2000 was made to reflect a re-evaluation of the original reportability assessment performed for LER 2000-012. Supplemental LER 2000-012-01 was issued on February 20, 2001 to recharacterize the original event as a loss of safety function. The event occurred on April 19, 2000 when both chilled water pumps associated with the redundant vital DC switchgear cooling systems became air bound. Adjusting the data did not result in any threshold being crossed.

3Q/00: The data point for April 2000 was moved to August 2000. This change conforms with the NEI guideline which requires events to be counted in the month that they were reported. Event was previously counted in the month it occurred. This change does not result in crossing the GREEN/WHITE threshold.

2Q/00: The data point for April 2000 was moved to August 2000. This change conforms with the NEI guideline which requires events to be counted in the month that they were reported. Event was previously counted in the month it occurred. This change does not result in crossing the GREEN/WHITE threshold.

2Q/00: A correction to the data for April 2000 was made to reflect a re-evaluation of the original reportability assessment performed for LER 2000-012. Supplemental LER 2000-012-01 was issued on February 20, 2001 to recharacterize the original event as a loss of safety function. The event occurred on April 19, 2000 when both chilled water pumps associated with the redundant vital DC switchgear cooling systems became air bound. Adjusting the data did not result in any threshold being crossed.

**Reactor Coolant System Activity**



Thresholds: White > 50.0 Yellow > 100.0

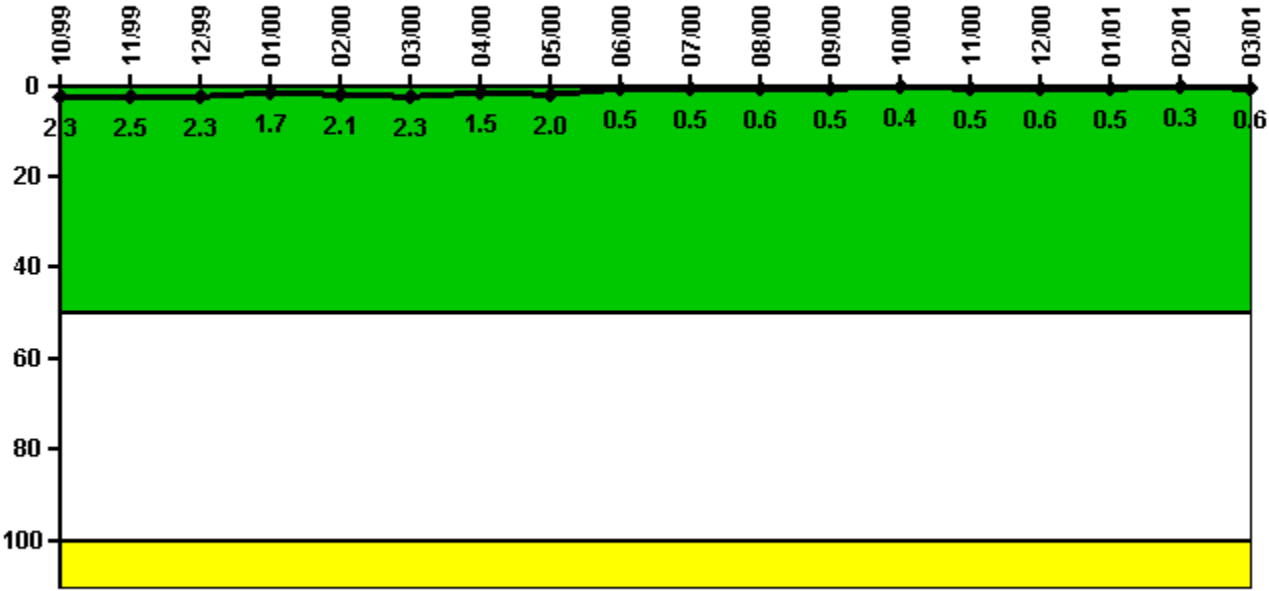
**Notes**

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	0.004580	0.004580	0.004460	0.005470	0.005510	0.005260	0.003990	N/A	0.002960	0.003260	0.003190	0.003530
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	0.5	0.5	0.4	0.5	0.6	0.5	0.4	N/A	0.3	0.3	0.3	0.4

Reactor Coolant System Activity	10/00	11/00	12/00	1/01	2/01	3/01
Maximum activity	0.003800	0.003700	0.004310	0.003910	0.004290	0.004000
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	0.4	0.4	0.4	0.4	0.4	0.4

Licensee Comments: none

### Reactor Coolant System Leakage



Thresholds: White > 50.0 Yellow > 100.0

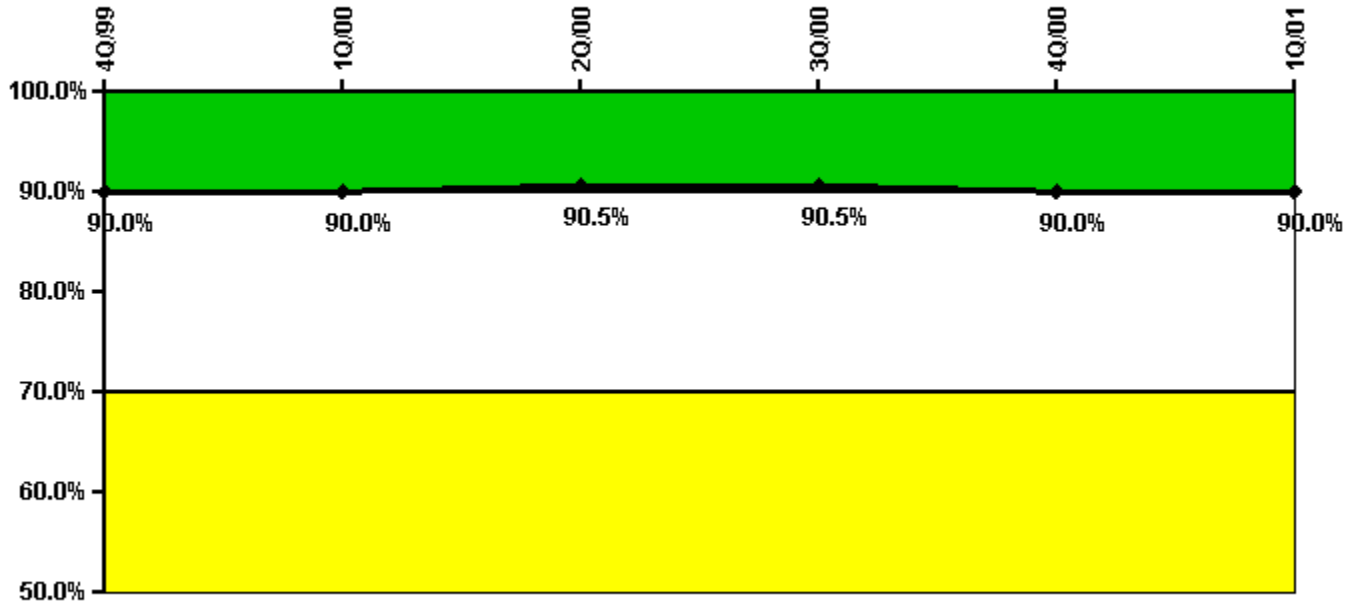
### Notes

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	0.230	0.250	0.230	0.170	0.210	0.230	0.150	0.198	0.051	0.050	0.059	0.047
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	2.3	2.5	2.3	1.7	2.1	2.3	1.5	2.0	0.5	0.5	0.6	0.5

Reactor Coolant System Leakage	10/00	11/00	12/00	1/01	2/01	3/01
Maximum leakage	0.040	0.053	0.055	0.048	0.025	0.062
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	0.4	0.5	0.6	0.5	0.3	0.6

Licensee Comments: none

### Drill/Exercise Performance



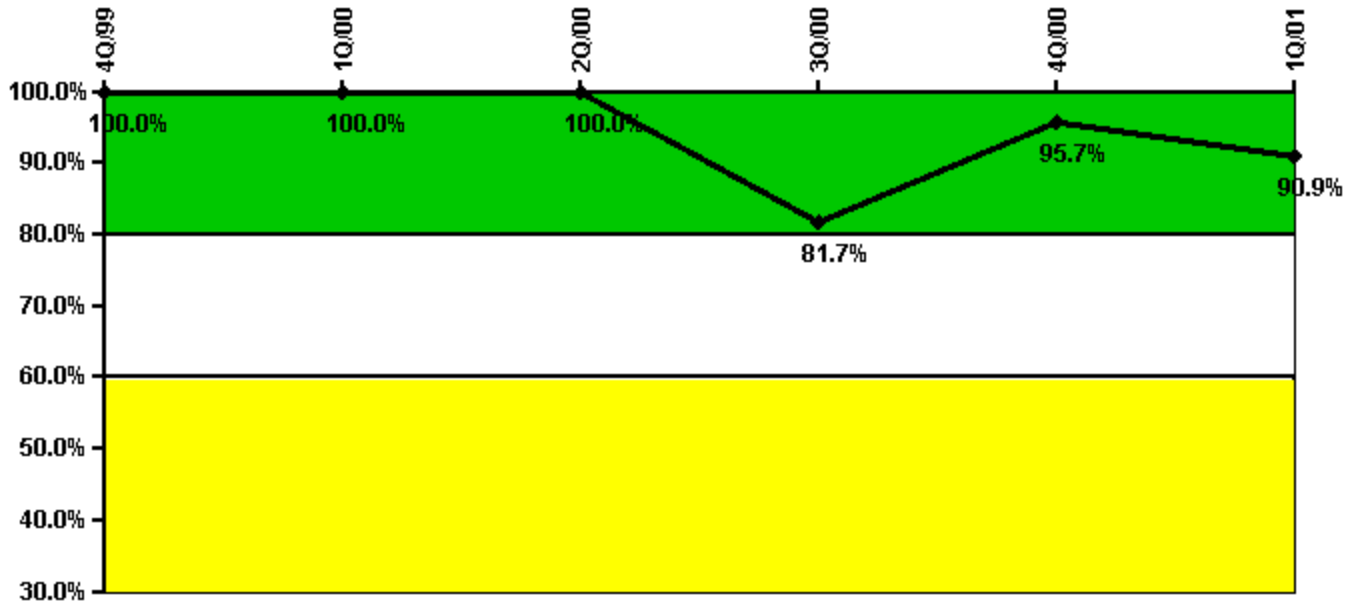
Thresholds: White < 90.0% Yellow < 70.0%

### Notes

Drill/Exercise Performance	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01
Successful opportunities	12.0	27.0	14.0	0	11.0	0
Total opportunities	14.0	28.0	14.0	0	12.0	0
<b>Indicator value</b>	<b>90.0%</b>	<b>90.0%</b>	<b>90.5%</b>	<b>90.5%</b>	<b>90.0%</b>	<b>90.0%</b>

Licensee Comments: none

### ERO Drill Participation



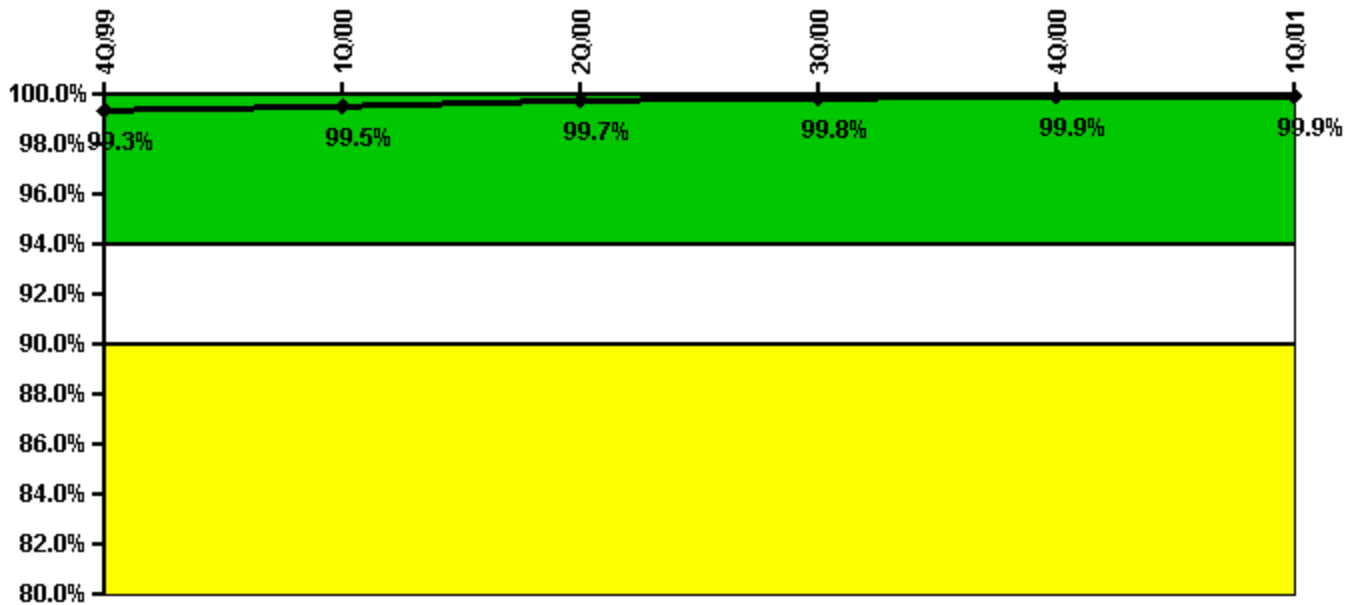
Thresholds: White < 80.0% Yellow < 60.0%

#### Notes

ERO Drill Participation	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01
Participating Key personnel	74.0	76.0	55.0	58.0	66.0	60.0
Total Key personnel	74.0	76.0	55.0	71.0	69.0	66.0
Indicator value	100.0%	100.0%	100.0%	81.7%	95.7%	90.9%

Licensee Comments: none

### 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
Successful siren-tests	335	304	308	308	474	314
Total sirens-tests	336	306	308	308	474	316
Indicator value	99.3%	99.5%	99.7%	99.8%	99.9%	99.9%

#### Licensee Comments:

1Q/01: The reporting data was found to be inconsistent with industry norms and not reflective of all tests conducted. Previously reported siren encoder tests were removed, as were 11 sirens located outside of the plume exposure zone. The quarterly growl tests conducted in the 4th quarter, not previously reported, were added in. Adjusting the data had minimal effects on the indicator values and did not result in any threshold being crossed. Consistent with the guidance provided in NEI 99-02 the data has only been corrected back to the 1st quarter 2000.

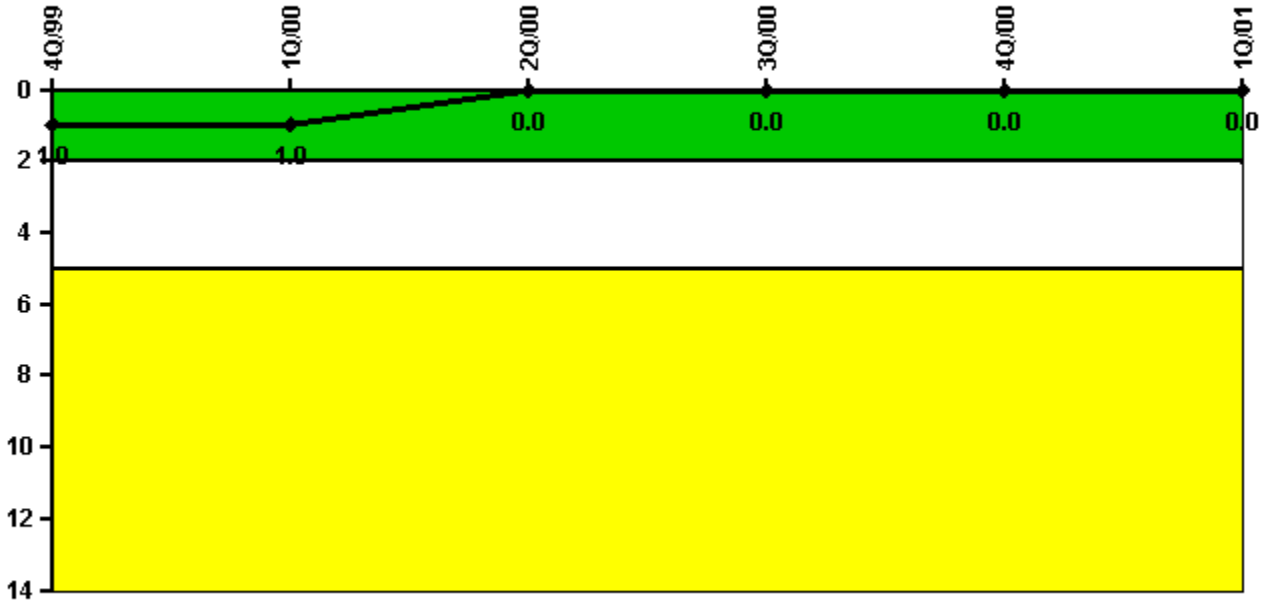
4Q/00: The reporting data was found to be inconsistent with industry norms and not reflective of all tests conducted. Previously reported siren encoder tests were removed, as were 11 sirens located outside of the plume exposure zone. The quarterly growl tests conducted in the 4th quarter, not previously reported, were added in. Adjusting the data had minimal effects on the indicator values and did not result in any threshold being crossed. Consistent with the guidance provided in NEI 99-02 the data has only been corrected back to the 1st quarter 2000.

3Q/00: The reporting data was found to be inconsistent with industry norms and not reflective of all tests conducted. Previously reported siren encoder tests were removed, as were 11 sirens located outside of the plume exposure zone. The quarterly growl tests conducted in the 4th quarter, not previously reported, were added in. Adjusting the data had minimal effects on the indicator values and did not result in any threshold being crossed. Consistent with the guidance provided in NEI 99-02 the data has only been corrected back to the 1st quarter 2000.

2Q/00: The reporting data was found to be inconsistent with industry norms and not reflective of all tests conducted. Previously reported siren encoder tests were removed, as were 11 sirens located outside of the plume exposure zone. The quarterly growl tests conducted in the 4th quarter, not previously reported, were added in. Adjusting the data had minimal effects on the indicator values and did not result in any threshold being crossed. Consistent with the guidance provided in NEI 99-02 the data has only been corrected back to the 1st quarter 2000.

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### Occupational Exposure Control Effectiveness



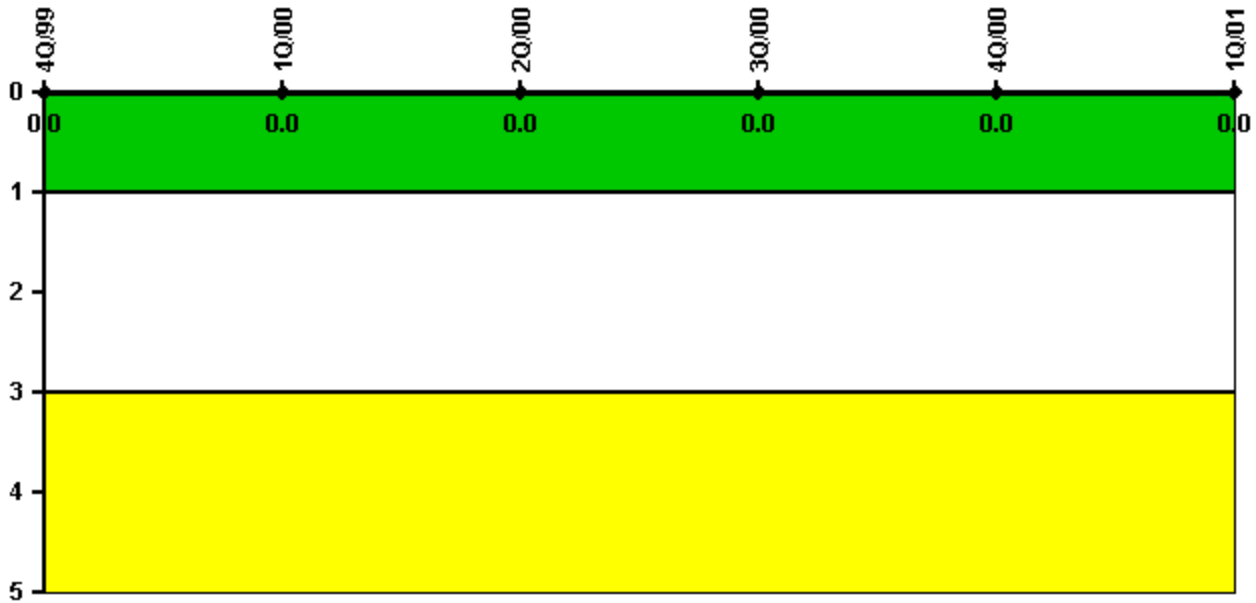
Thresholds: White > 2.0 Yellow > 5.0

#### Notes

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

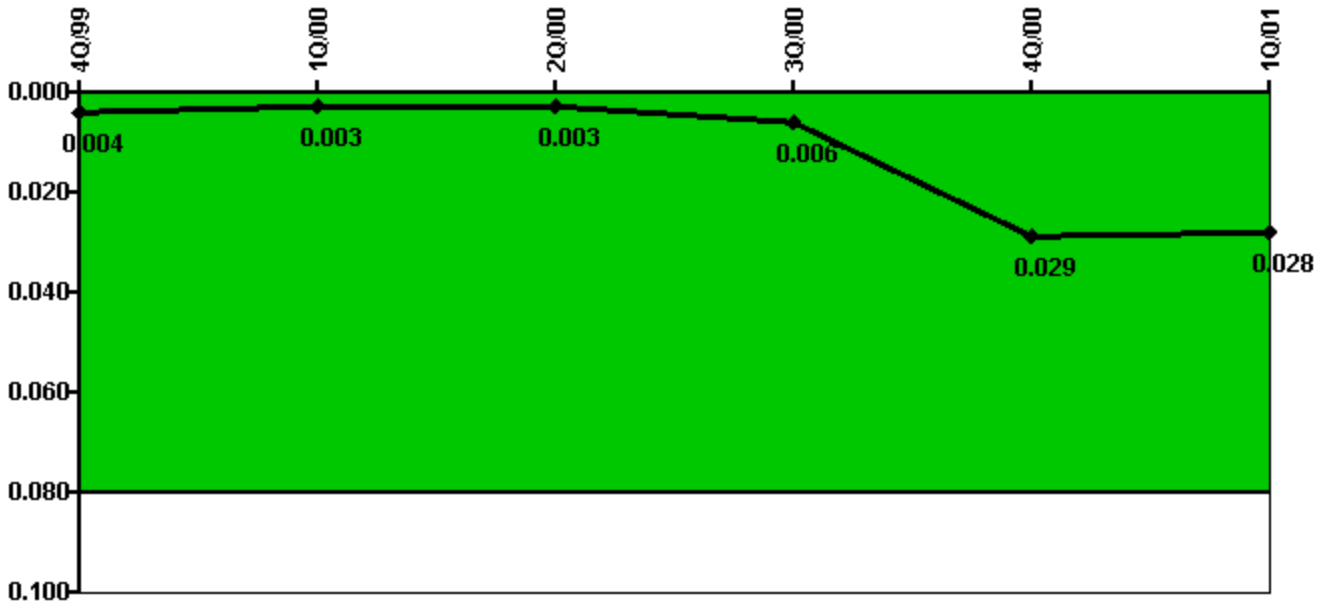
#### Notes

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

Licensee Comments: none



### 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
IDS compensatory hours	17.70	29.10	15.10	134.00	1037.00	0
CCTV compensatory hours	0.5	0	29.1	12.9	0	10.5
IDS normalization factor	2.55	2.55	2.50	2.50	2.50	2.50
CCTV normalization factor	2.1	2.1	2.1	2.1	2.1	2.1
<b>Index Value</b>	<b>0.004</b>	<b>0.003</b>	<b>0.003</b>	<b>0.006</b>	<b>0.029</b>	<b>0.028</b>

Licensee Comments: none

### 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
Program failures	0	0	0	0	0	0
Indicator value	0	0	0	0	0	0

Licensee Comments: none

### 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
Program Failures	0	0	0	0	0	0
Indicator value	0	0	0	0	0	0

Licensee Comments: none

▲ [PI Summary](#) | [Inspection Findings Summary](#) | [Action Matrix Summary](#) | [Reactor Oversight Process](#)

Last Modified: March 28, 2002