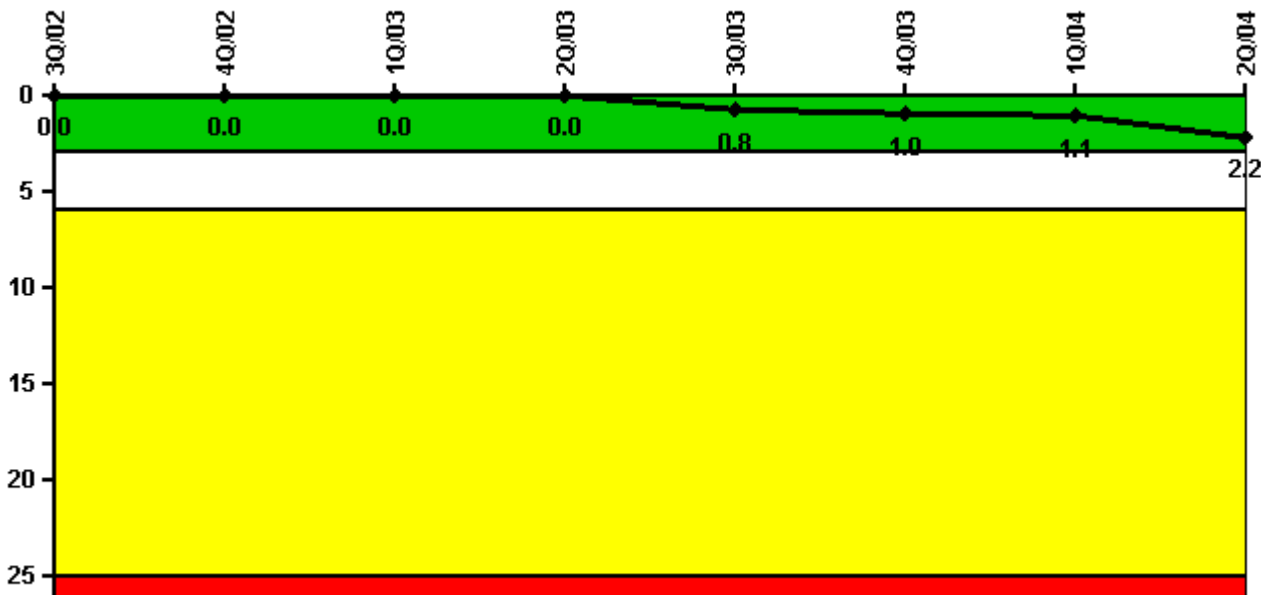


## Palo Verde 2

### 2Q/2004 Performance Indicators

Licensee's General Comments: none

#### Unplanned Scrams per 7000 Critical Hrs



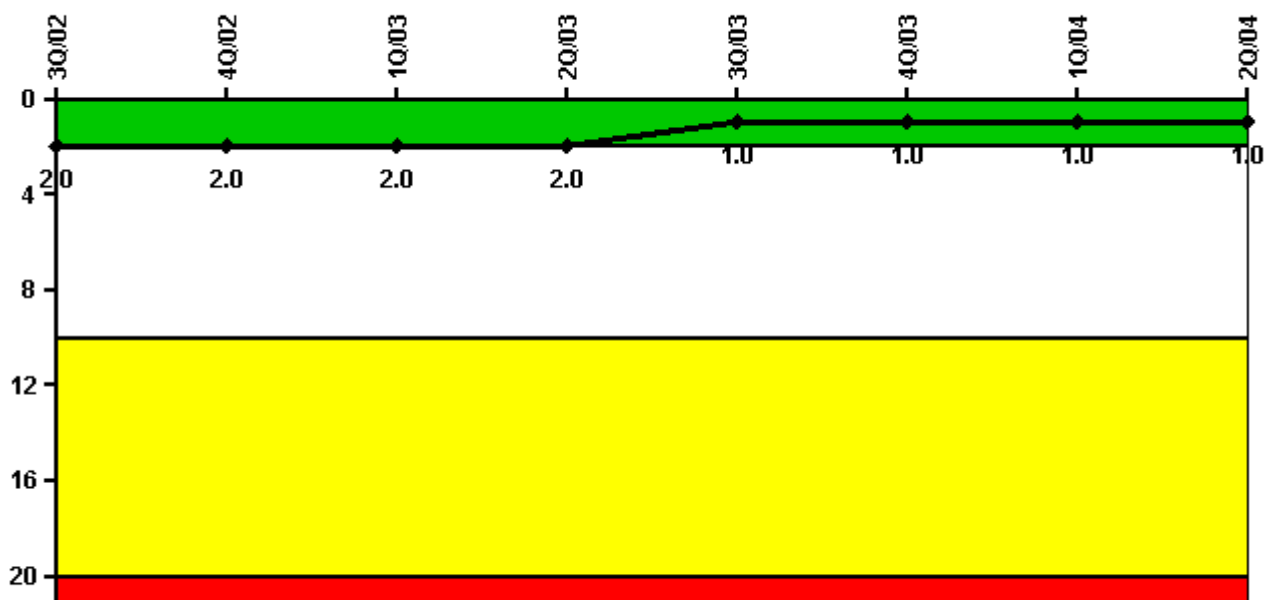
Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

#### Notes

Unplanned Scrams per 7000 Critical Hrs	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04
Unplanned scrams	0	0	0	0	1.0	0	0	1.0
Critical hours	2208.0	2208.0	2160.0	2184.0	2071.9	461.9	1751.5	2072.5
Indicator value	0	0	0	0	0.8	1.0	1.1	2.2

Licensee Comments: none

### Scrams with Loss of Normal Heat Removal



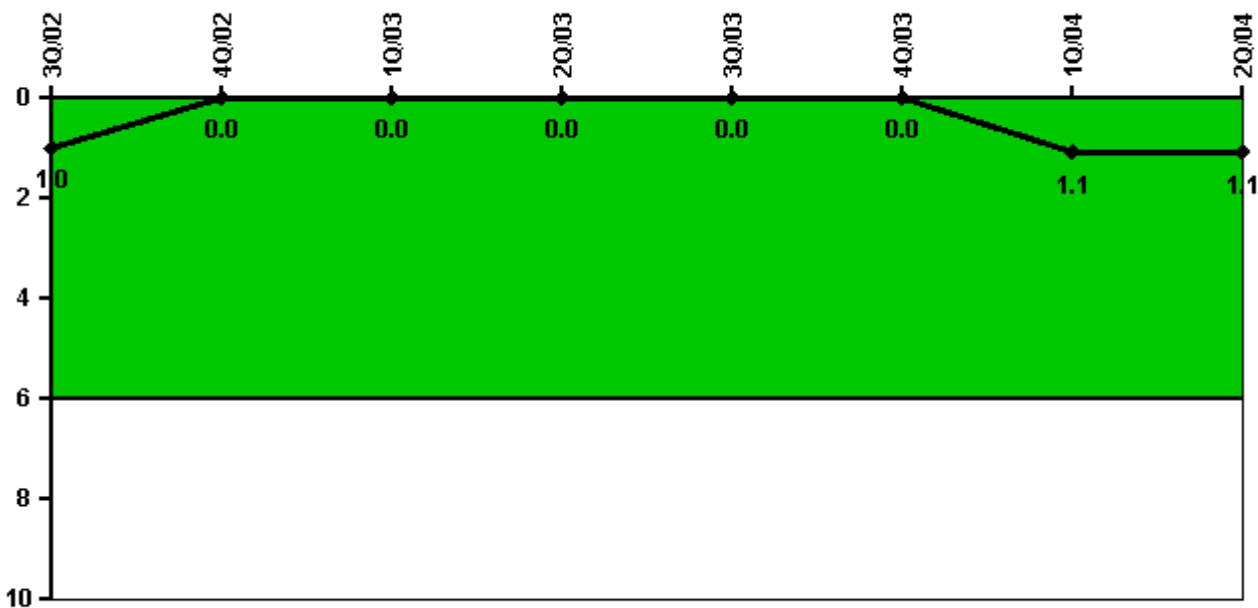
Thresholds: White > 2.0 Yellow > 10.0 Red > 20.0

#### Notes

Scrams with Loss of Normal Heat Removal	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04
Scrams	0	0	0	0	0	0	0	0
Indicator value	2.0	2.0	2.0	2.0	1.0	1.0	1.0	1.0

Licensee Comments: none

### Unplanned Power Changes per 7000 Critical Hrs



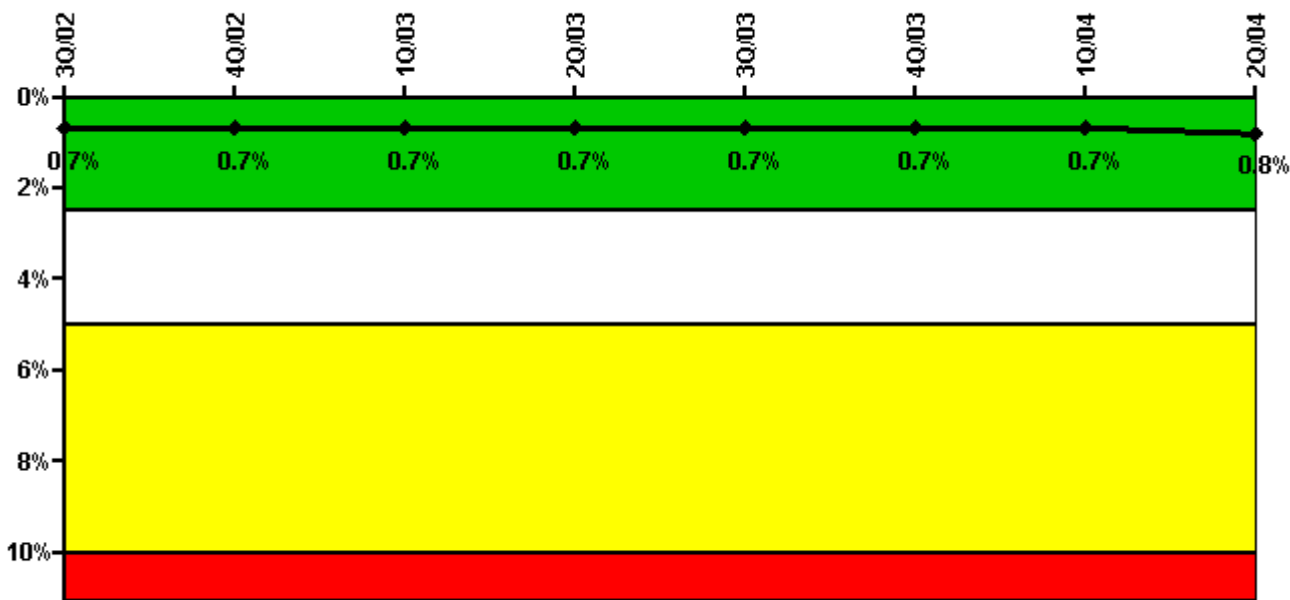
Thresholds: White > 6.0

#### Notes

Unplanned Power Changes per 7000 Critical Hrs	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04
Unplanned power changes	0	0	0	0	0	0	1.0	0
Critical hours	2208.0	2208.0	2160.0	2184.0	2071.9	461.9	1751.5	2072.5
Indicator value	1.0	0	0	0	0	0	1.1	1.1

Licensee Comments: none

### Safety System Unavailability, Emergency AC Power



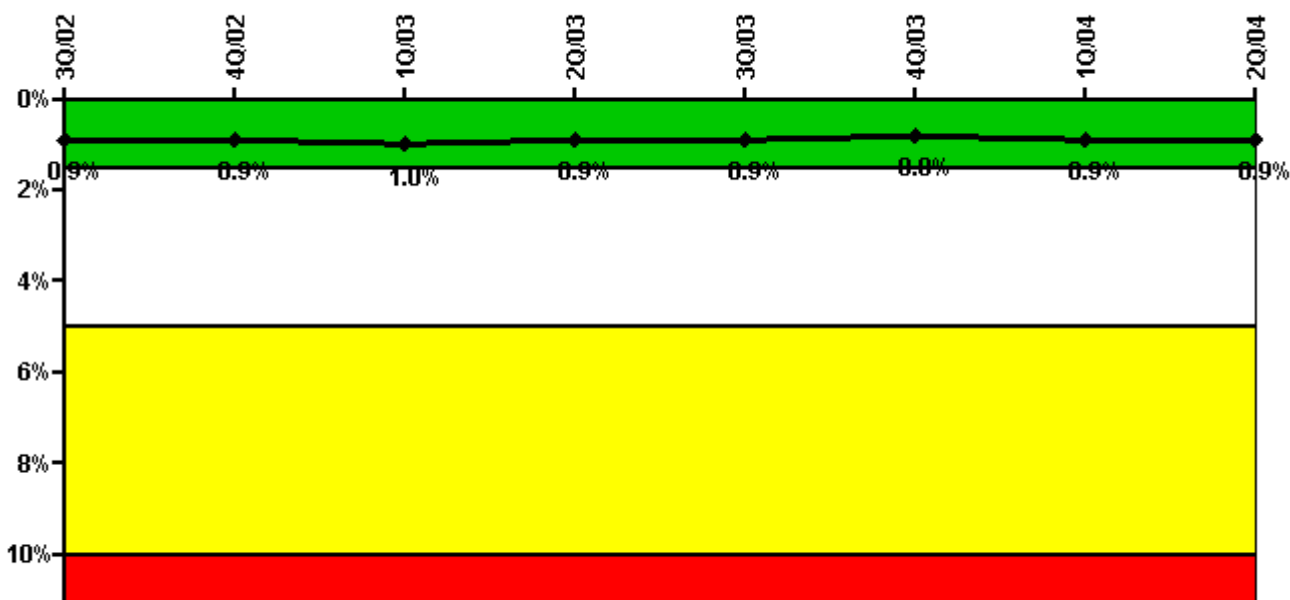
Thresholds: White > 2.5% Yellow > 5.0% Red > 10.0%

#### Notes

Safety System Unavailability, Emergency AC Power	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04
<b>Train 1</b>								
Planned unavailable hours	0.07	17.39	10.21	20.46	2.24	0.03	4.94	19.21
Unplanned unavailable hours	0	3.27	0.52	0	0	0	0	68.95
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2208.00	2208.00	2160.00	2184.00	2208.00	2208.00	2184.00	2184.00
<b>Train 2</b>								
Planned unavailable hours	20.92	0.06	26.76	0.06	25.27	0.02	18.54	0.06
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	2208.00	2208.00	2160.00	2184.00	2208.00	2208.00	2184.00	2184.00
<b>Indicator value</b>	<b>0.7%</b>	<b>0.7%</b>	<b>0.7%</b>	<b>0.7%</b>	<b>0.7%</b>	<b>0.7%</b>	<b>0.7%</b>	<b>0.8%</b>

Licensee Comments: none

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



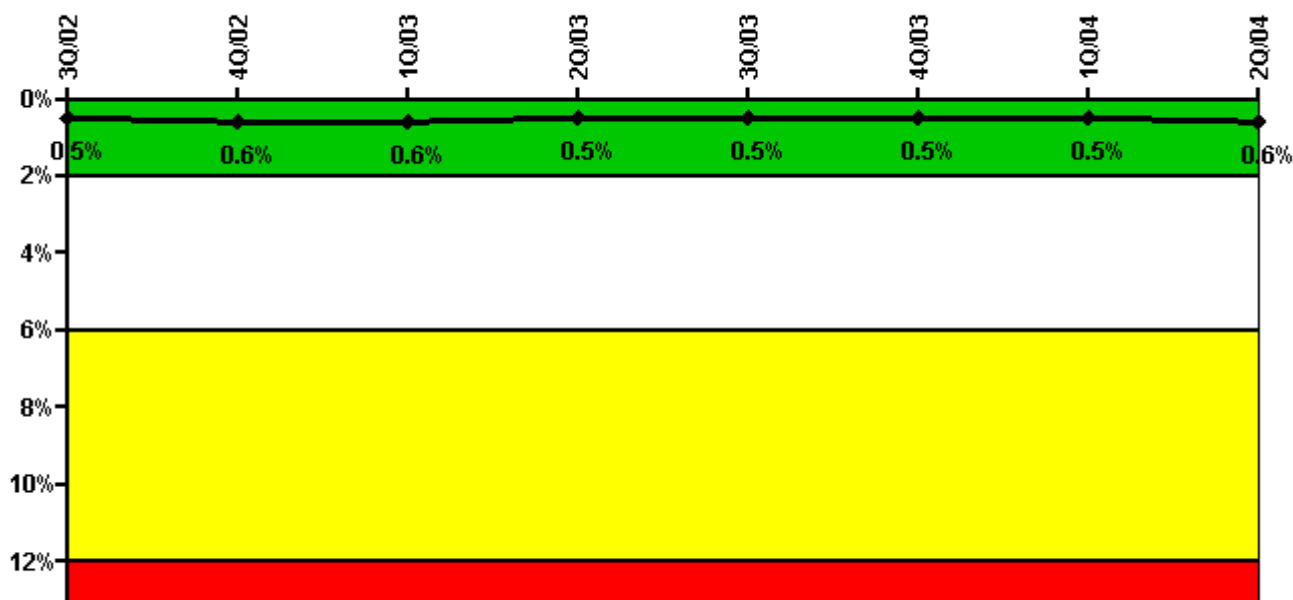
Thresholds: White > 1.5% Yellow > 5.0% Red > 10.0%

#### Notes

Safety System Unavailability, High Pressure Injection System (HPSI)	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04
<b>Train 1</b>								
Planned unavailable hours	9.00	11.40	18.55	4.49	6.86	5.67	21.39	24.01
Unplanned unavailable hours	0	0	14.45	0	0	0	0	6.90
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2208.00	2208.00	2160.00	2184.00	2071.89	461.87	1751.46	2072.52
<b>Train 2</b>								
Planned unavailable hours	18.08	8.52	23.42	20.77	26.67	12.30	26.28	1.25
Unplanned unavailable hours	0	4.23	0	0	0	0	2.38	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	2208.00	2208.00	2160.00	2184.00	2071.89	461.87	1751.46	2072.52
<b>Indicator value</b>	<b>0.9%</b>	<b>0.9%</b>	<b>1.0%</b>	<b>0.9%</b>	<b>0.9%</b>	<b>0.8%</b>	<b>0.9%</b>	<b>0.9%</b>

Licensee Comments: none

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



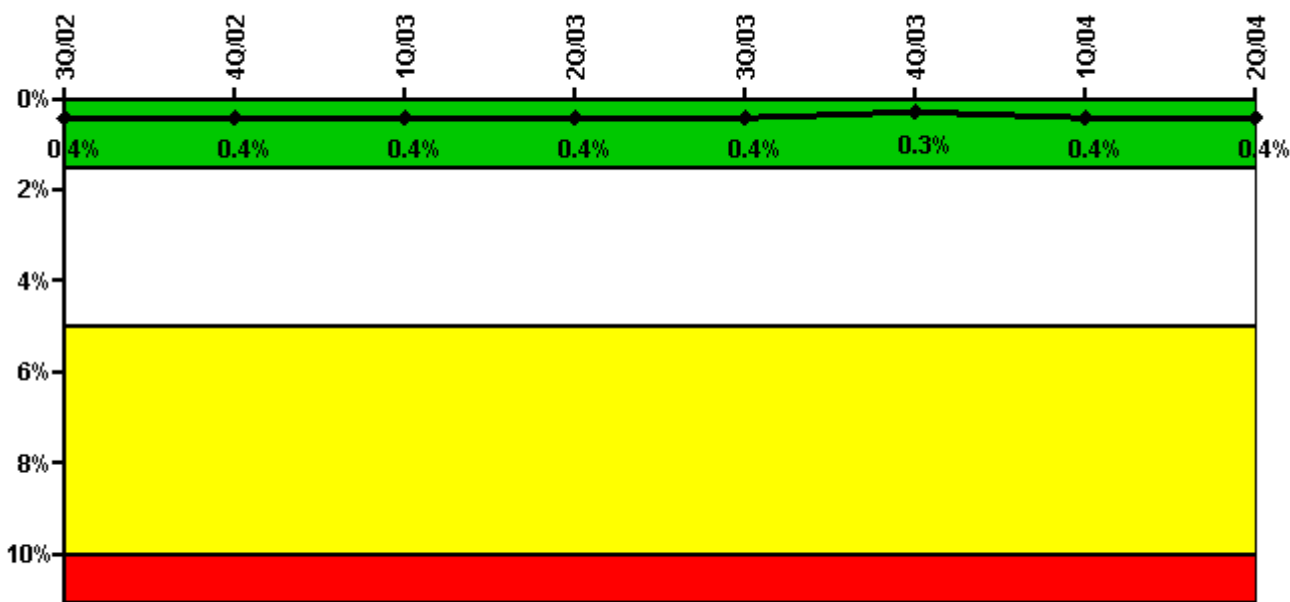
Thresholds: White > 2.0% Yellow > 6.0% Red > 12.0%

#### Notes

Safety System Unavailability, Heat Removal System (AFW)	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04
<b>Train 1</b>								
Planned unavailable hours	1.45	20.53	10.93	5.88	4.53	3.85	5.43	34.42
Unplanned unavailable hours	38.89	32.32	8.35	19.27	0	0	2.93	30.12
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2208.00	2208.00	2160.00	2184.00	2071.89	461.87	1751.46	2072.52
<b>Train 2</b>								
Planned unavailable hours	16.72	1.43	11.15	1.08	8.23	0	11.63	1.23
Unplanned unavailable hours	0	4.23	0	0	0	0	2.38	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	2208.00	2208.00	2160.00	2184.00	2071.89	461.87	1751.46	2072.52
<b>Train 3</b>								
Planned unavailable hours	0.87	0.63	0.90	0.45	0.33	0	0.93	0.55
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	2208.00	2208.00	2160.00	2184.00	2071.89	461.87	1751.46	2072.52
<b>Indicator value</b>	<b>0.5%</b>	<b>0.6%</b>	<b>0.6%</b>	<b>0.5%</b>	<b>0.5%</b>	<b>0.5%</b>	<b>0.5%</b>	<b>0.6%</b>

Licensee Comments: none

### Safety System Unavailability, Residual Heat Removal System

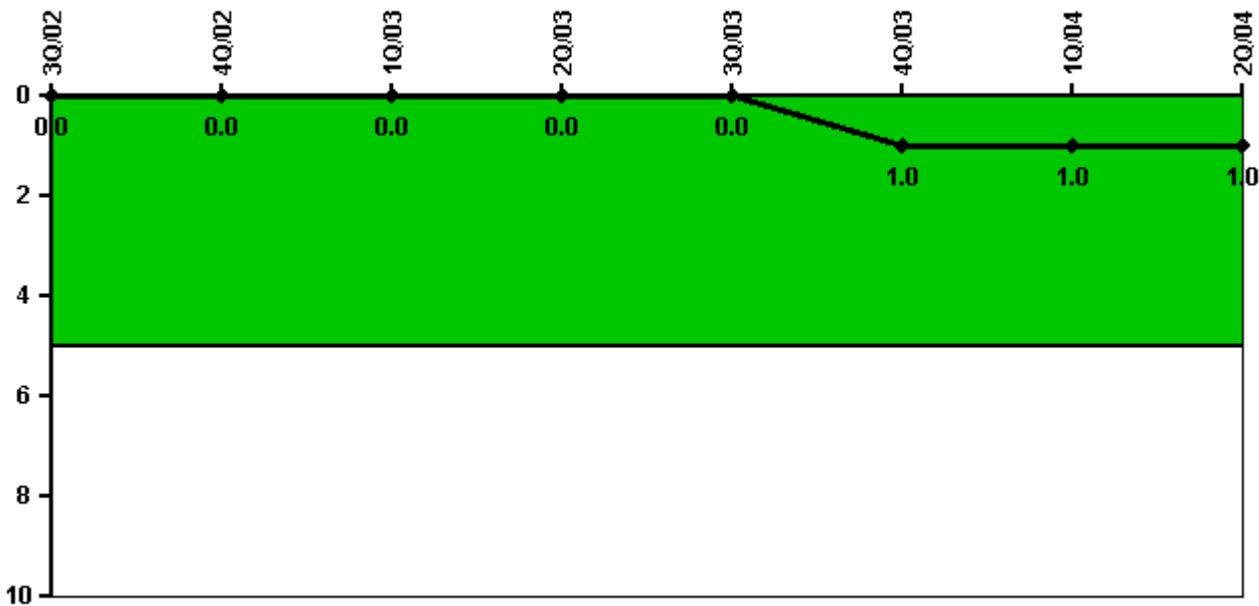


Thresholds: White > 1.5% Yellow > 5.0% Red > 10.0%

Notes

Safety System Unavailability, Residual Heat Removal System	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04
<b>Train 1</b>								
Planned unavailable hours	2.90	13.93	11.27	15.76	10.04	0.82	22.41	22.01
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	2208.00	2208.00	2160.00	2184.00	2126.88	547.78	1818.22	2184.00
<b>Train 2</b>								
Planned unavailable hours	26.66	3.70	21.64	3.41	15.38	2.08	23.36	2.17
Unplanned unavailable hours	0	4.23	0	0	0	0	2.38	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	2208.00	2208.00	2160.00	2184.00	2126.88	547.78	1818.22	2184.00
<b>Train 3</b>								
Planned unavailable hours	0	0	0	0	0	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	0	0	0	81.12	364.45	284.00	0
<b>Train 4</b>								
Planned unavailable hours	0	0	0	0	0	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	0	0	0	81.12	330.30	299.63	0
<b>Indicator value</b>	<b>0.4%</b>	<b>0.4%</b>	<b>0.4%</b>	<b>0.4%</b>	<b>0.4%</b>	<b>0.3%</b>	<b>0.4%</b>	<b>0.4%</b>

### Safety System Functional Failures (PWR)



Thresholds: White > 5.0

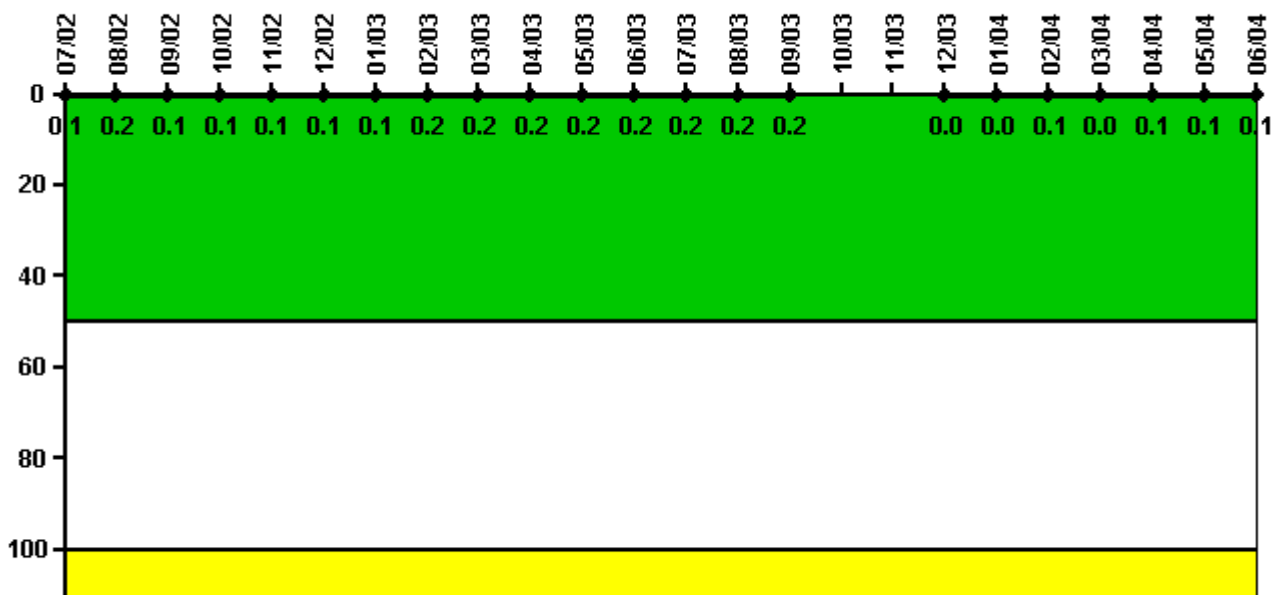
#### Notes

Safety System Functional Failures (PWR)	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04
Safety System Functional Failures	0	0	0	0	0	1	0	0
Indicator value	0	0	0	0	0	1	1	1

Licensee Comments: none



### Reactor Coolant System Activity



Thresholds: White > 50.0 Yellow > 100.0

#### Notes

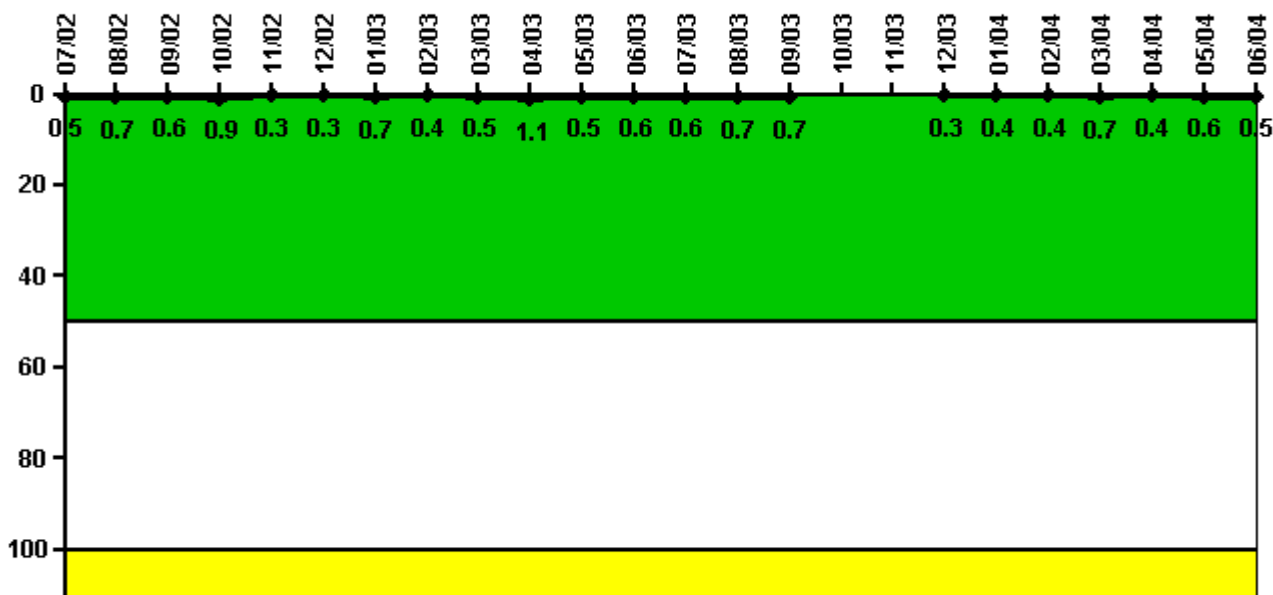
Reactor Coolant System Activity	7/02	8/02	9/02	10/02	11/02	12/02	1/03	2/03	3/03	4/03	5/03	6/03
Maximum activity	0.001000	0.002000	0.001000	0.001000	0.001000	0.001000	0.001000	0.002000	0.002000	0.002000	0.002000	0.002000
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2

Reactor Coolant System Activity	7/03	8/03	9/03	10/03	11/03	12/03	1/04	2/04	3/04	4/04	5/04	6/04
Maximum activity	0.002000	0.002000	0.002000	N/A	N/A	0.000490	0.000449	0.000513	0.000461	0.000511	0.000543	0.000551
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	0.2	0.2	0.2	N/A	N/A	0	0	0.1	0	0.1	0.1	0.1

Licensee Comments: none

### Reactor Coolant System Leakage



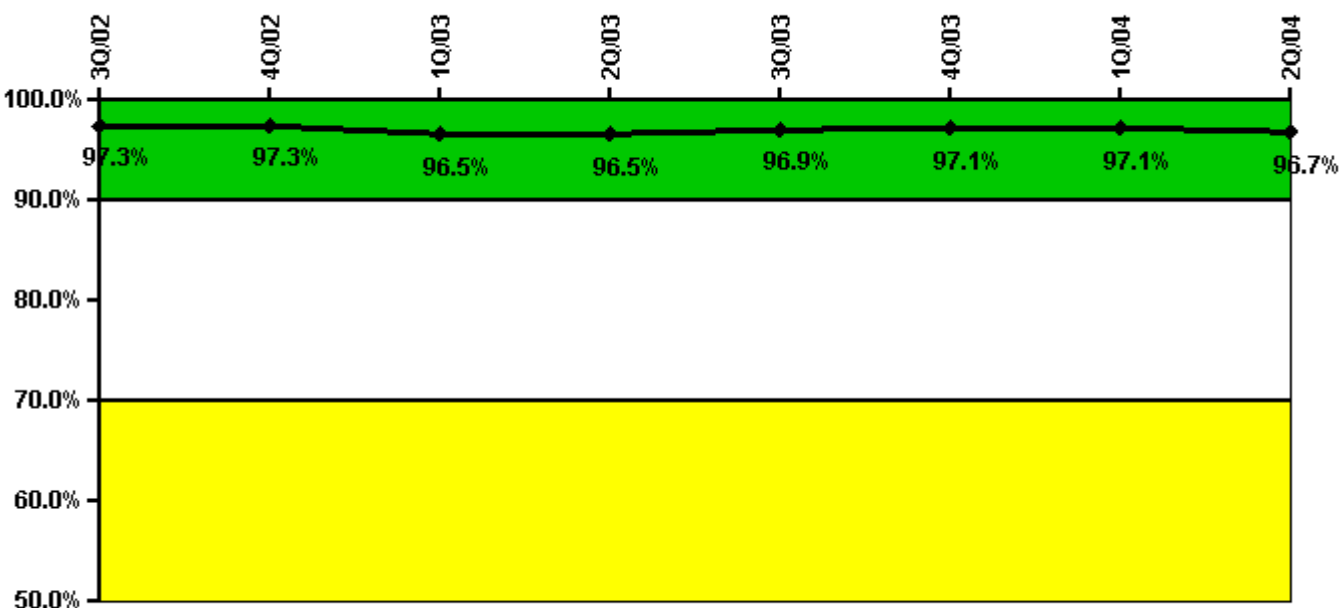
Thresholds: White > 50.0 Yellow > 100.0

#### Notes

Reactor Coolant System Leakage	7/02	8/02	9/02	10/02	11/02	12/02	1/03	2/03	3/03	4/03	5/03	6/03
Maximum leakage	0.046	0.071	0.056	0.085	0.032	0.034	0.071	0.037	0.045	0.108	0.049	0.055
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	0.5	0.7	0.6	0.9	0.3	0.3	0.7	0.4	0.5	1.1	0.5	0.6
Reactor Coolant System Leakage	7/03	8/03	9/03	10/03	11/03	12/03	1/04	2/04	3/04	4/04	5/04	6/04
Maximum leakage	0.064	0.066	0.069	N/A	N/A	0.028	0.039	0.043	0.069	0.042	0.056	0.054
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	0.6	0.7	0.7	N/A	N/A	0.3	0.4	0.4	0.7	0.4	0.6	0.5

Licensee Comments: none

### Drill/Exercise Performance



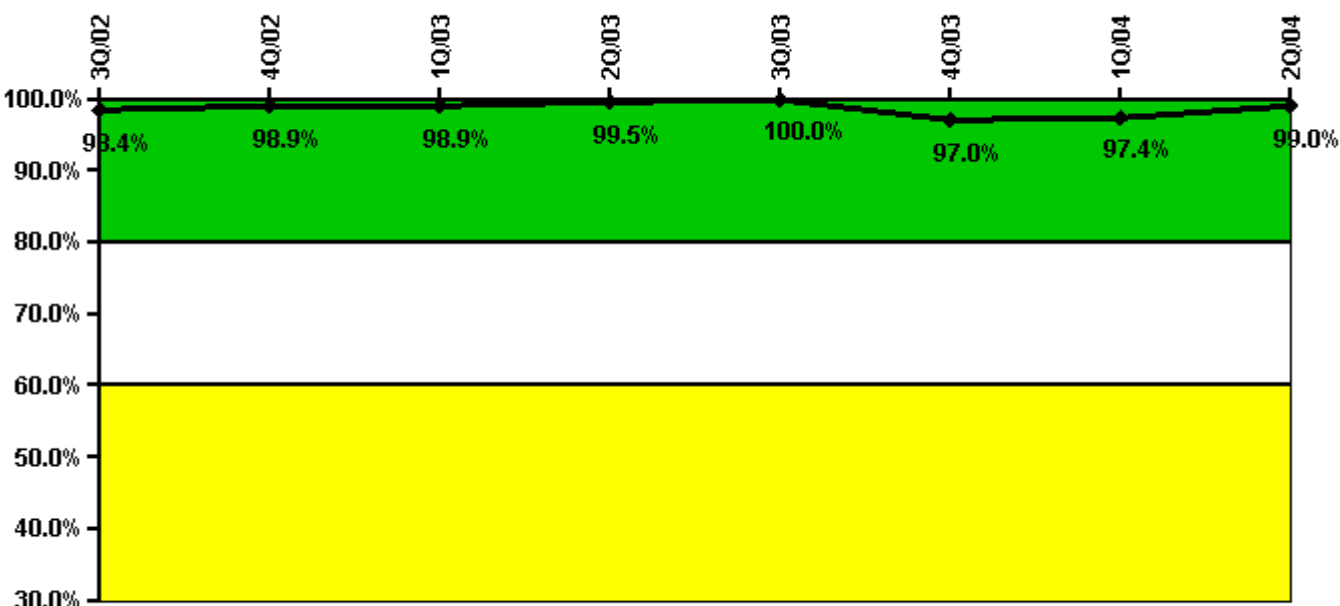
Thresholds: White < 90.0% Yellow < 70.0%

#### Notes

Drill/Exercise Performance	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04
Successful opportunities	108.0	137.0	14.0	8.0	280.0	38.0	19.0	14.0
Total opportunities	110.0	141.0	18.0	8.0	287.0	38.0	20.0	17.0
Indicator value	97.3%	97.3%	96.5%	96.5%	96.9%	97.1%	97.1%	96.7%

Licensee Comments: none

### ERO Drill Participation



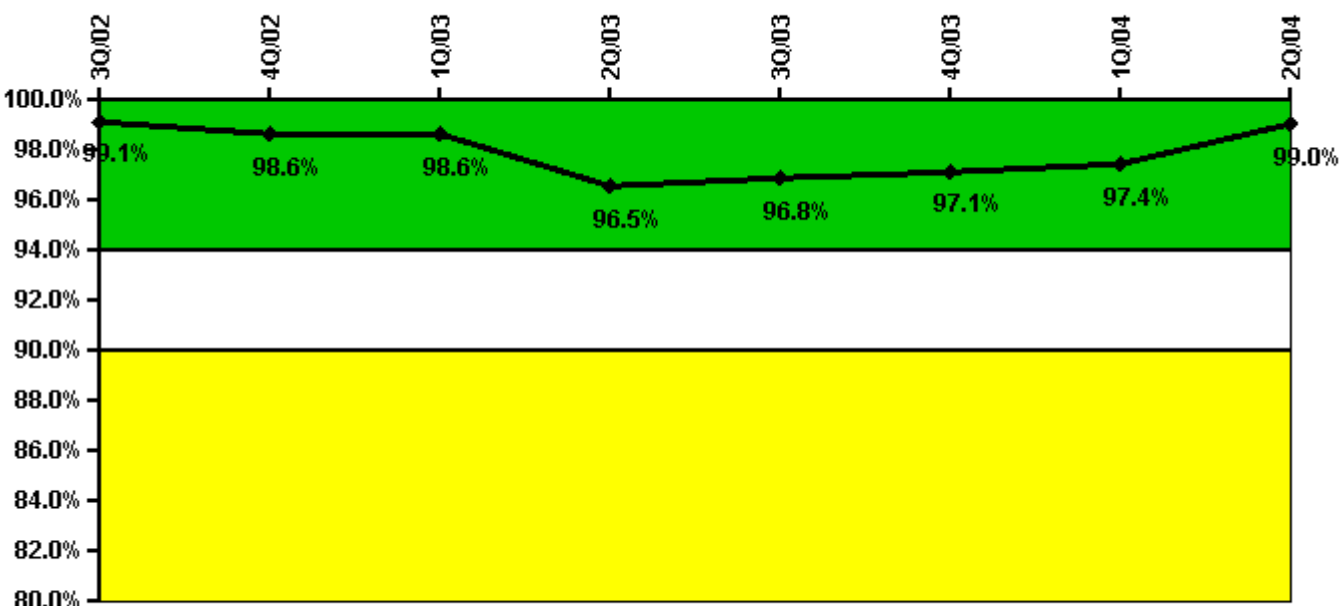
Thresholds: White < 80.0% Yellow < 60.0%

#### Notes

ERO Drill Participation	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04
Participating Key personnel	190.0	183.0	181.0	181.0	182.0	194.0	189.0	193.0
Total Key personnel	193.0	185.0	183.0	182.0	182.0	200.0	194.0	195.0
Indicator value	98.4%	98.9%	98.9%	99.5%	100.0%	97.0%	97.4%	99.0%

Licensee Comments: none

### Alert & Notification System



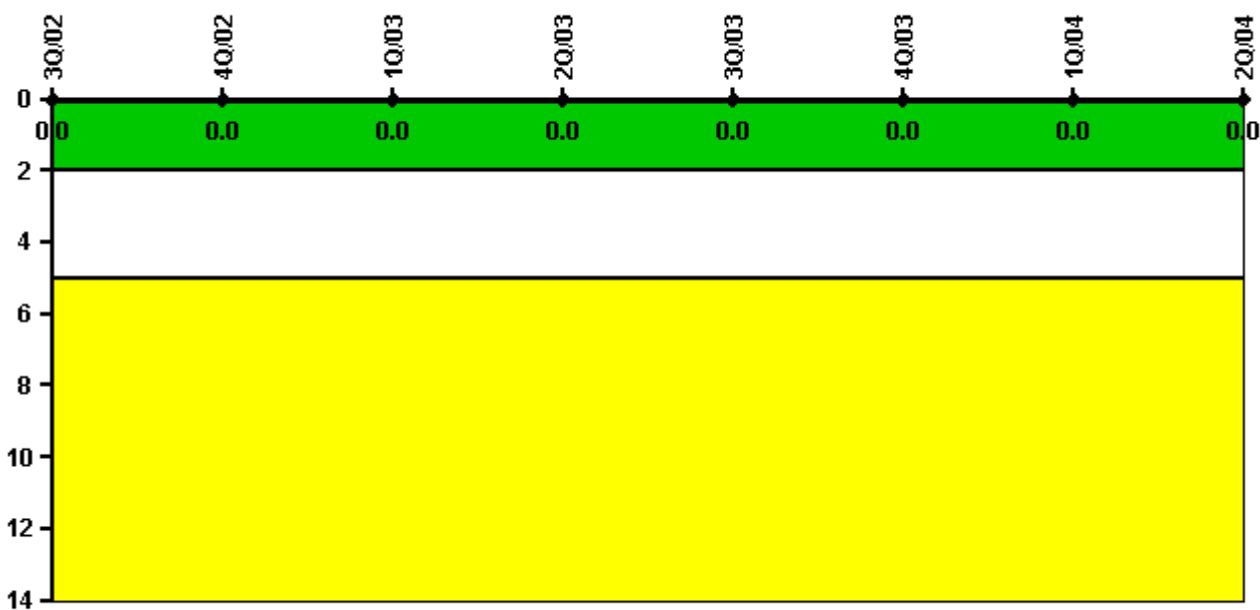
Thresholds: White < 94.0% Yellow < 90.0%

#### Notes

Alert & Notification System	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04
Successful siren-tests	351	459	349	503	700	867	712	798
Total sirens-tests	360	468	349	546	714	882	714	798
Indicator value	99.1%	98.6%	98.6%	96.5%	96.8%	97.1%	97.4%	99.0%

Licensee Comments: none

### Occupational Exposure Control Effectiveness



Thresholds: White > 2.0 Yellow > 5.0

#### Notes

Occupational Exposure Control Effectiveness	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04
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	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04
RETS/ODCM occurrences	0	0	0	0	0	0	0	0
Indicator value	0	0	0	0	0	0	0	0

Licensee Comments: none

[Physical Protection](#) information not publicly available.

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

Last Modified: September 8, 2004