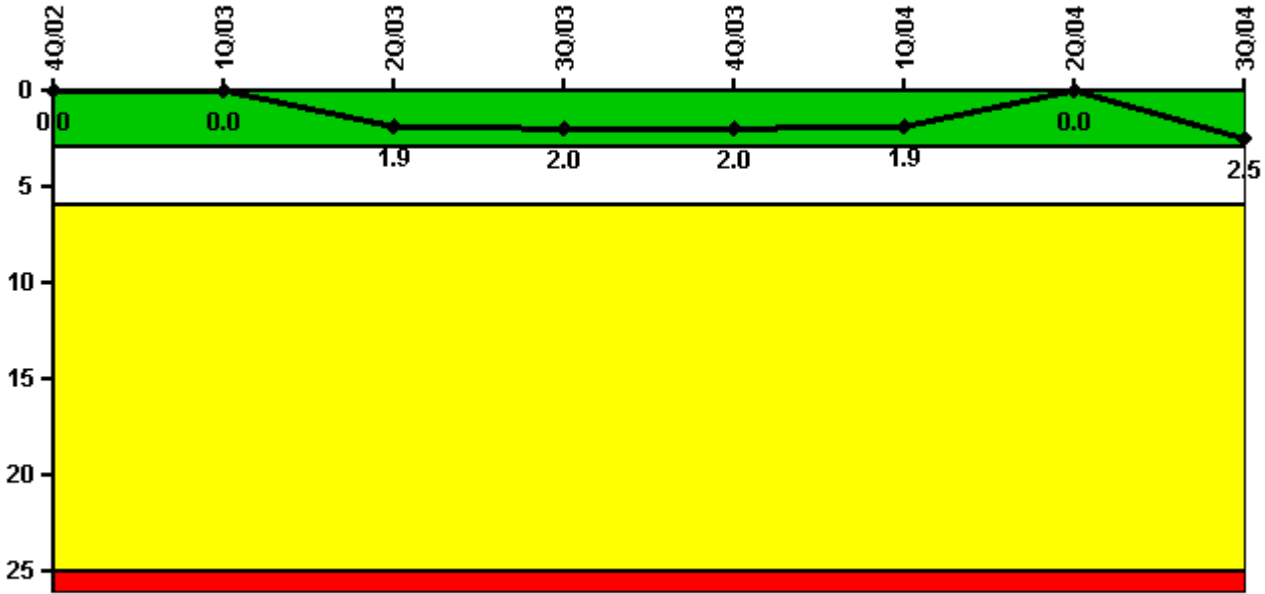


# Columbia Generating Station

## 3Q/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	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04	3Q/04
Unplanned scrams	0	0	2.0	0	0	0	0	3.0
Critical hours	2209.0	1849.5	929.1	2175.4	2209.0	2184.0	2183.0	1733.0
Indicator value	0	0	1.9	2.0	2.0	1.9	0	2.5

Licensee Comments: none

### Scrams with Loss of Normal Heat Removal



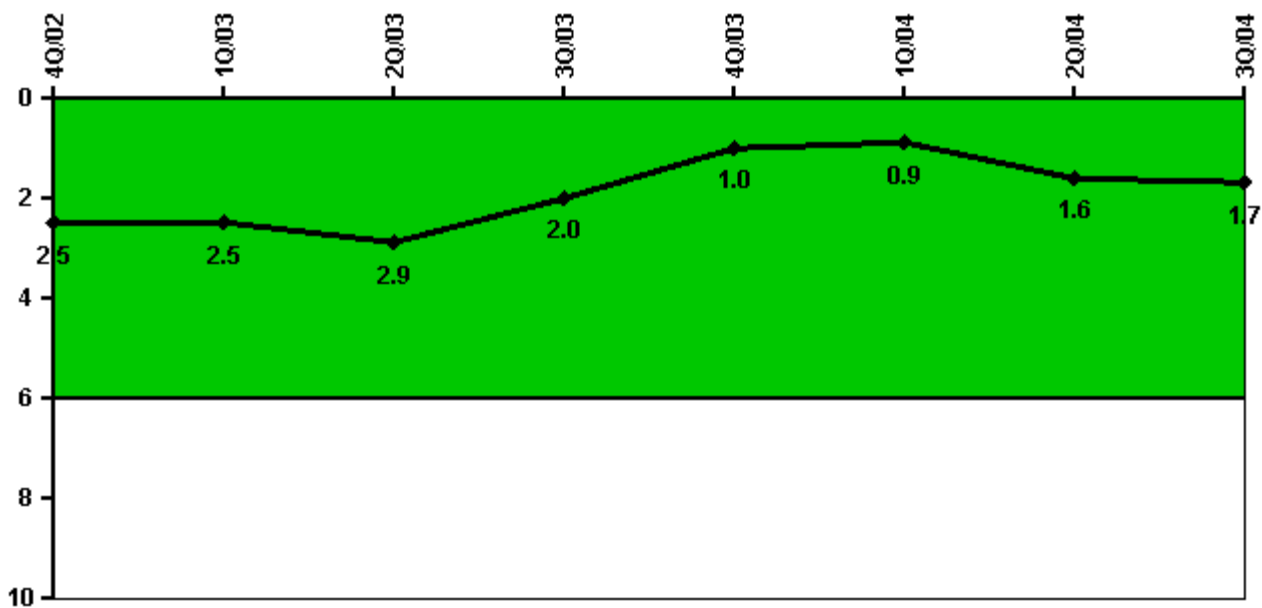
Thresholds: White > 2.0 Yellow > 10.0 Red > 20.0

#### Notes

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

Licensee Comments: none

### Unplanned Power Changes per 7000 Critical Hrs



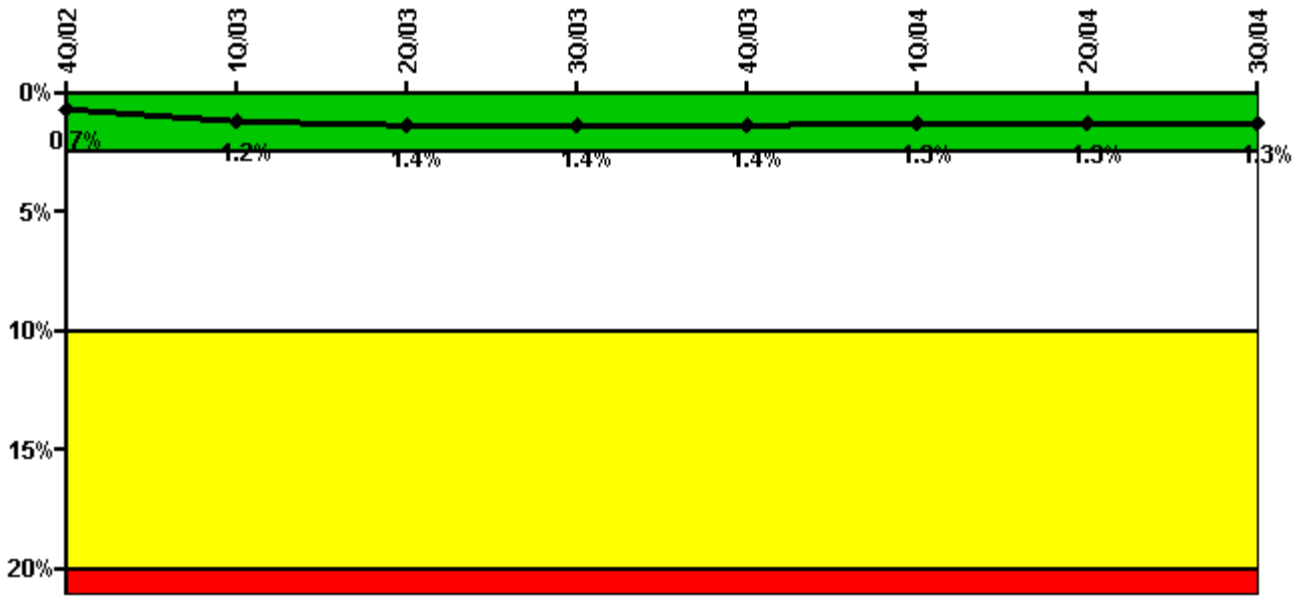
Thresholds: White > 6.0

#### Notes

Unplanned Power Changes per 7000 Critical Hrs	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04	3Q/04
Unplanned power changes	1.0	1.0	0	0	0	1.0	1.0	0
Critical hours	2209.0	1849.5	929.1	2175.4	2209.0	2184.0	2183.0	1733.0
Indicator value	2.5	2.5	2.9	2.0	1.0	0.9	1.6	1.7

Licensee Comments: none

### Safety System Unavailability, Emergency AC Power, >2EDG



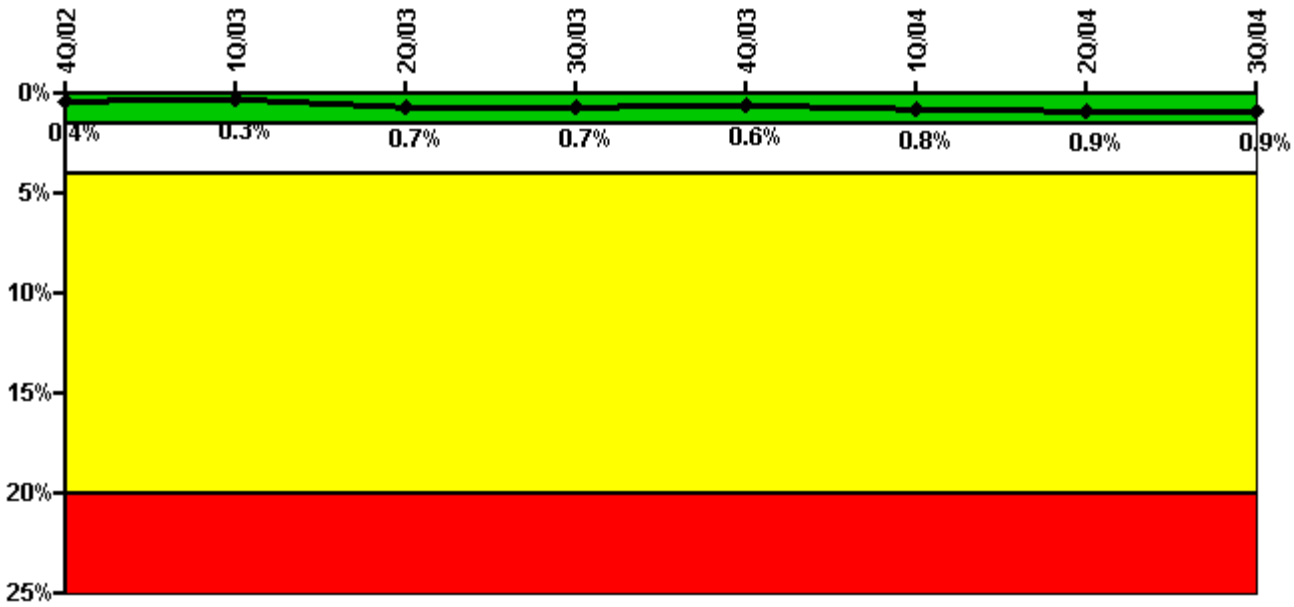
Thresholds: White > 2.5% Yellow > 10.0% Red > 20.0%

#### Notes

Safety System Unavailability, Emergency AC Power, >2EDG	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04	3Q/04
<b>Train 1</b>								
Planned unavailable hours	9.47	4.02	63.69	7.22	40.07	1.42	17.96	1.20
Unplanned unavailable hours	0	317.58	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	2160.00	2183.00	2208.00	2209.00	2184.00	2183.00	2208.00
<b>Train 2</b>								
Planned unavailable hours	2.31	77.49	6.64	41.16	6.22	2.66	7.62	1.47
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	2160.00	2183.00	2208.00	2209.00	2184.00	2183.00	2208.00
<b>Train 3</b>								
Planned unavailable hours	21.33	8.10	97.82	8.26	9.13	4.23	3.07	9.06
Unplanned unavailable hours	0	0	0	5.88	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	2160.00	2183.00	2208.00	2209.00	2184.00	2183.00	2208.00
<b>Indicator value</b>	<b>0.7%</b>	<b>1.2%</b>	<b>1.4%</b>	<b>1.4%</b>	<b>1.4%</b>	<b>1.3%</b>	<b>1.3%</b>	<b>1.3%</b>

Licensee Comments: none

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



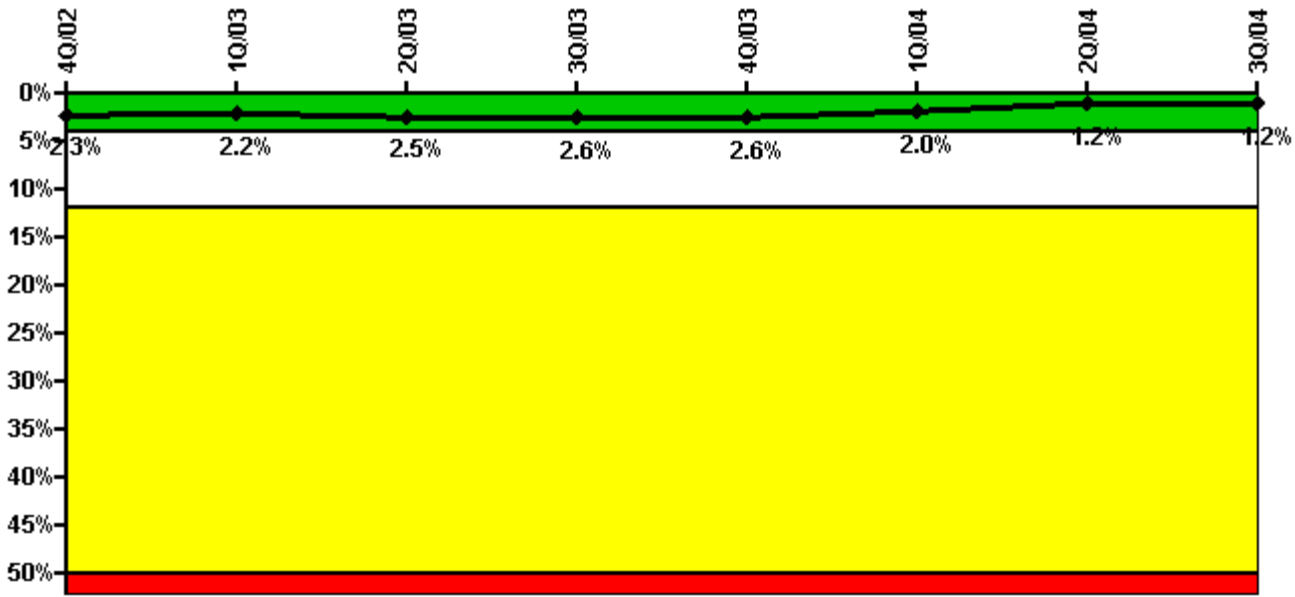
Thresholds: White > 1.5% Yellow > 4.0% Red > 20.0%

#### Notes

Safety System Unavailability, High Pressure Injection System (HPCS)	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04	3Q/04
<b>Train 1</b>								
Planned unavailable hours	17.46	0.45	78.68	7.42	12.89	49.24	5.62	0.52
Unplanned unavailable hours	0	0	0	0	0	0.10	16.88	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	1865.85	948.29	2180.17	2209.00	2184.00	2183.00	1876.06
<b>Indicator value</b>	<b>0.4%</b>	<b>0.3%</b>	<b>0.7%</b>	<b>0.7%</b>	<b>0.6%</b>	<b>0.8%</b>	<b>0.9%</b>	<b>0.9%</b>

Licensee Comments: none

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



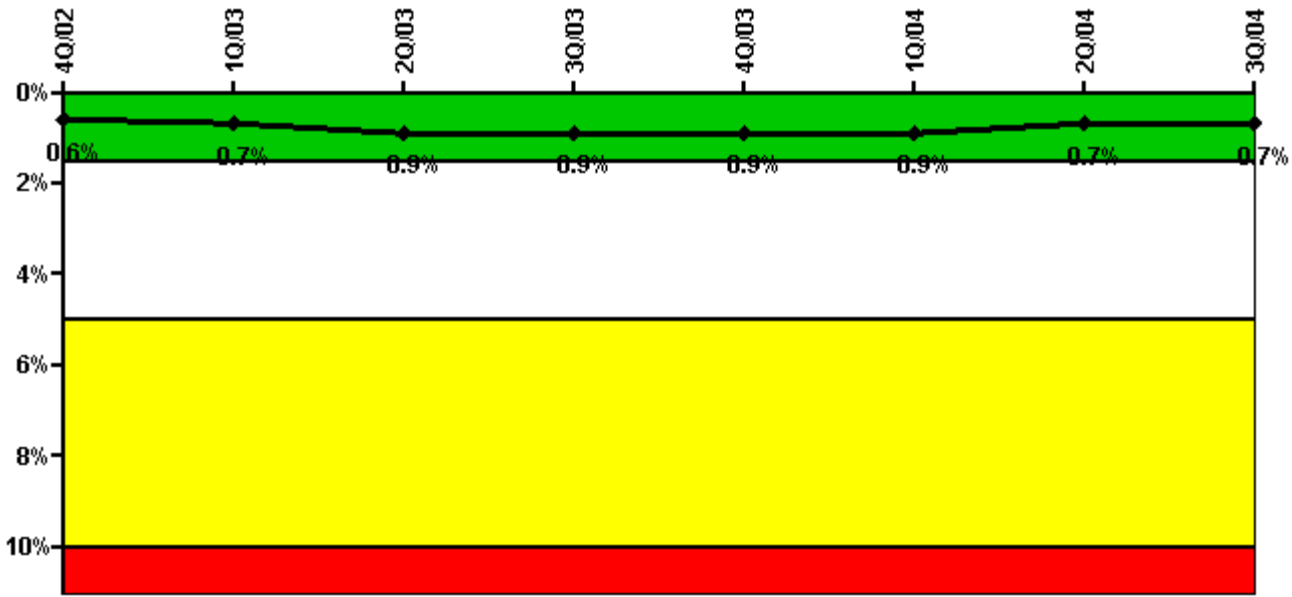
Thresholds: White > 4.0% Yellow > 12.0% Red > 50.0%

#### Notes

Safety System Unavailability, Heat Removal System (RCIC)	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04	3Q/04
<b>Train 1</b>								
Planned unavailable hours	6.48	11.30	101.52	30.62	13.39	16.81	3.72	20.34
Unplanned unavailable hours	0	1.15	0	0.87	0	12.80	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	1851.33	922.61	2166.90	2209.00	2184.00	2183.00	1750.51
<b>Indicator value</b>	<b>2.3%</b>	<b>2.2%</b>	<b>2.5%</b>	<b>2.6%</b>	<b>2.6%</b>	<b>2.0%</b>	<b>1.2%</b>	<b>1.2%</b>

Licensee Comments: none

### Safety System Unavailability, Residual Heat Removal System



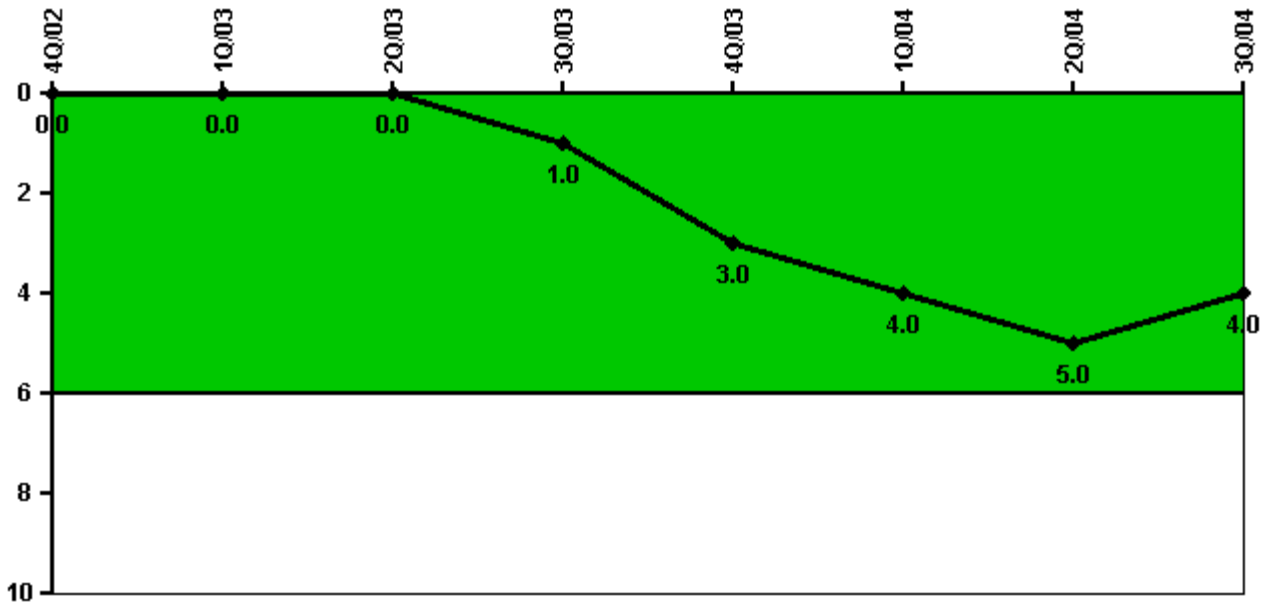
Thresholds: White > 1.5% Yellow > 5.0% Red > 10.0%

#### Notes

Safety System Unavailability, Residual Heat Removal System	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04	3Q/04
<b>Train 1</b>								
Planned unavailable hours	0.48	0.28	68.40	8.05	0.69	1.23	0.37	0.30
Unplanned unavailable hours	0	0	2.34	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	2160.00	2183.00	2208.00	2209.00	2184.00	2183.00	2208.00
<b>Train 2</b>								
Planned unavailable hours	0.45	47.45	15.69	11.31	0.28	1.95	0.23	6.78
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	2160.00	2183.00	2208.00	2209.00	2184.00	2183.00	2208.00
<b>Indicator value</b>	<b>0.6%</b>	<b>0.7%</b>	<b>0.9%</b>	<b>0.9%</b>	<b>0.9%</b>	<b>0.9%</b>	<b>0.7%</b>	<b>0.7%</b>

Licensee Comments: none

### Safety System Functional Failures (BWR)



Thresholds: White > 6.0

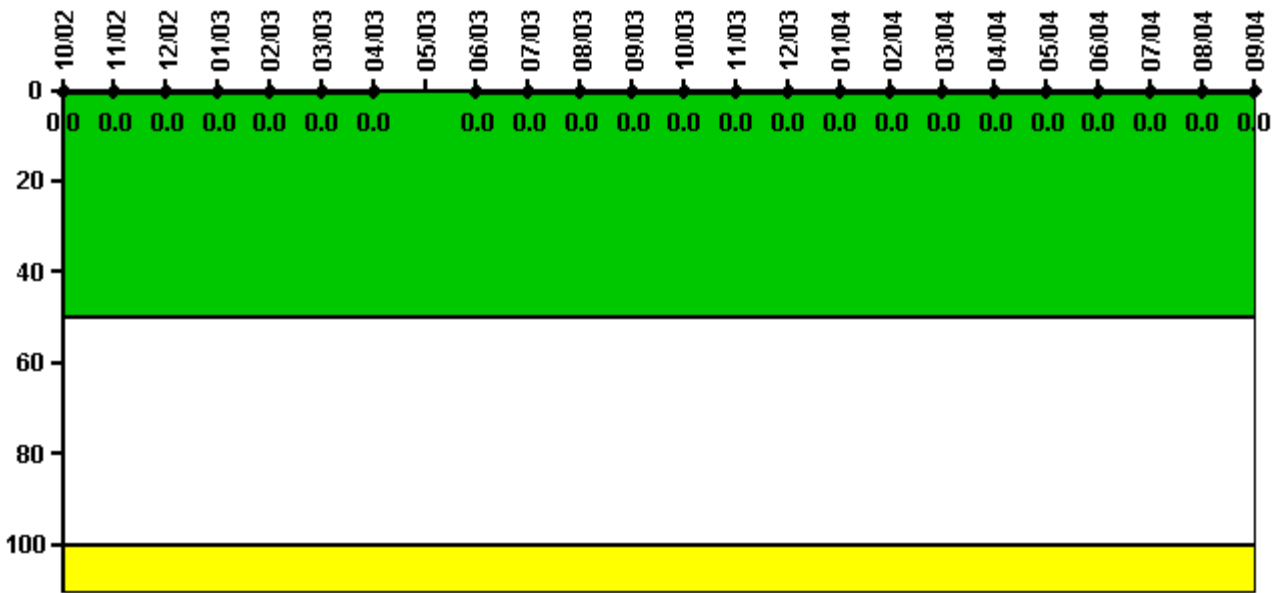
#### Notes

Safety System Functional Failures (BWR)	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04	3Q/04
Safety System Functional Failures	0	0	0	1	2	1	1	0
Indicator value	0	0	0	1	3	4	5	4

Licensee Comments: none



### Reactor Coolant System Activity



Thresholds: White > 50.0 Yellow > 100.0

**Notes**

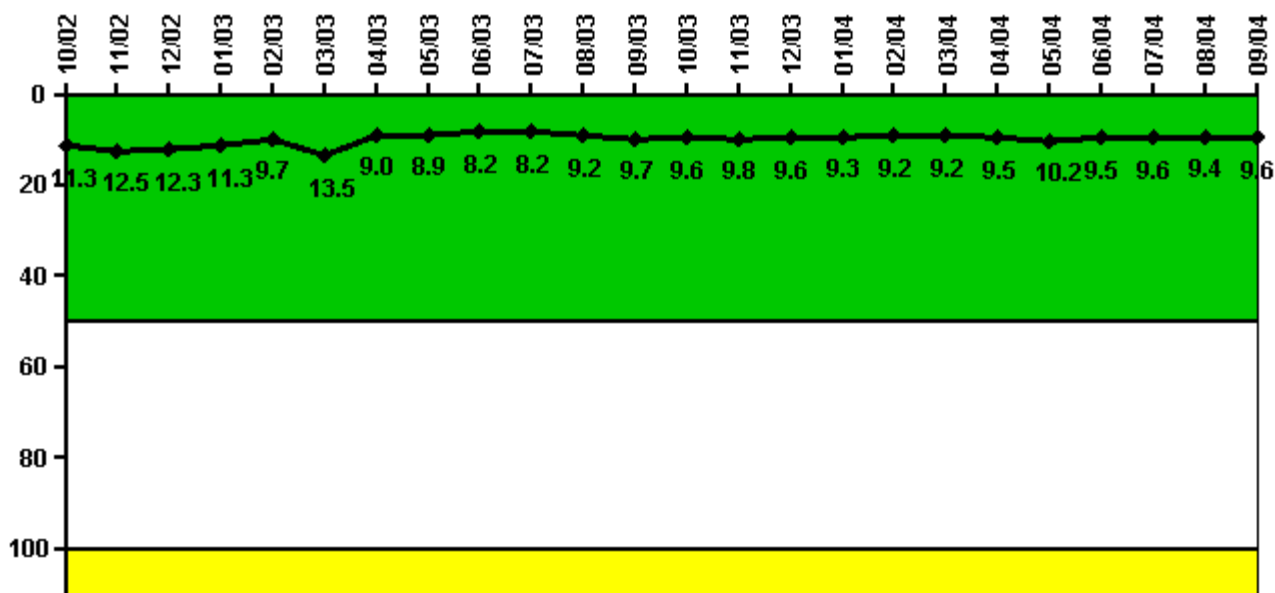
Reactor Coolant System Activity	10/02	11/02	12/02	1/03	2/03	3/03	4/03	5/03	6/03	7/03	8/03	9/03
Maximum activity	0.000013	0.000018	0.000014	0.000015	0.000010	0.000018	0.000013	N/A	0.000008	0.000018	0.000017	0.000009
Technical specification limit	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Indicator value	0	0	0	0	0	0	0	N/A	0	0	0	0

Reactor Coolant System Activity	10/03	11/03	12/03	1/04	2/04	3/04	4/04	5/04	6/04	7/04	8/04	9/04
Maximum activity	0.000006	0.000005	0.000008	0.000005	0.000005	0.000005	0.000005	0.000005	0.000006	0.000006	0.000004	0.000005
Technical specification limit	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
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

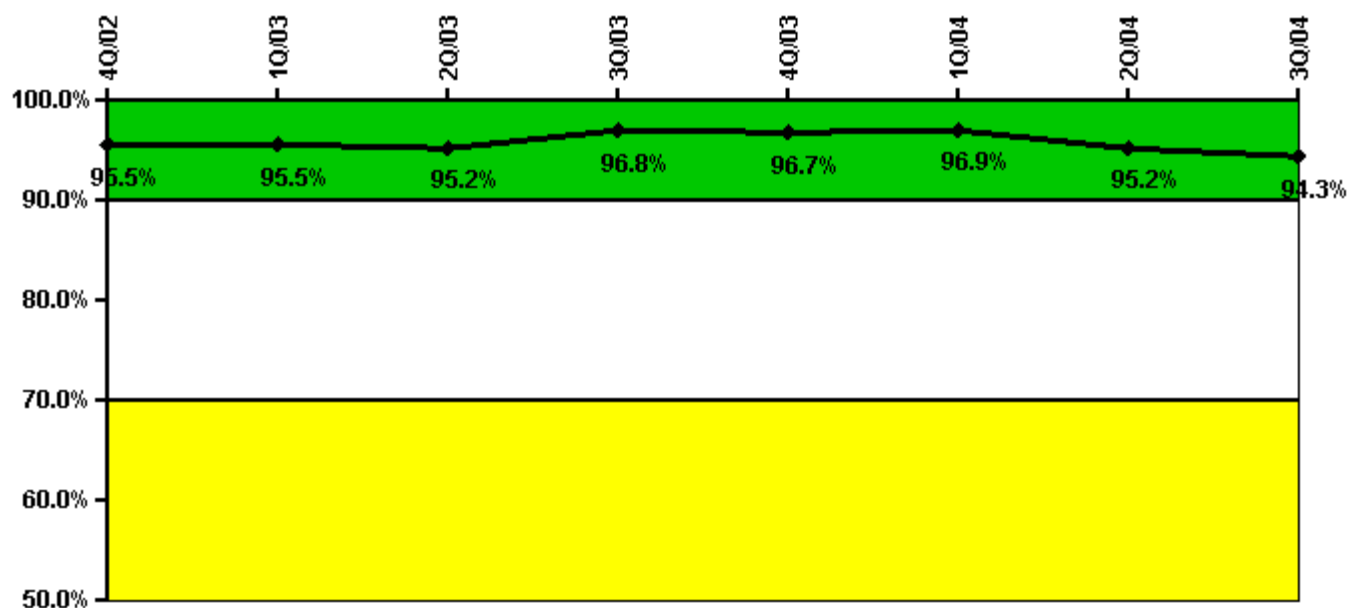
Reactor Coolant System Leakage	10/02	11/02	12/02	1/03	2/03	3/03	4/03	5/03	6/03	7/03	8/03	9/03
Maximum leakage	2.820	3.125	3.070	2.820	2.420	3.370	2.250	2.230	2.060	2.060	2.310	2.420
Technical specification limit	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
Indicator value	11.3	12.5	12.3	11.3	9.7	13.5	9.0	8.9	8.2	8.2	9.2	9.7

Reactor Coolant System Leakage	10/03	11/03	12/03	1/04	2/04	3/04	4/04	5/04	6/04	7/04	8/04	9/04
Maximum leakage	2.390	2.450	2.410	2.330	2.310	2.290	2.370	2.550	2.380	2.390	2.340	2.390
Technical specification limit	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
Indicator value	9.6	9.8	9.6	9.3	9.2	9.2	9.5	10.2	9.5	9.6	9.4	9.6

Licensee Comments: none

### Drill/Exercise Performance



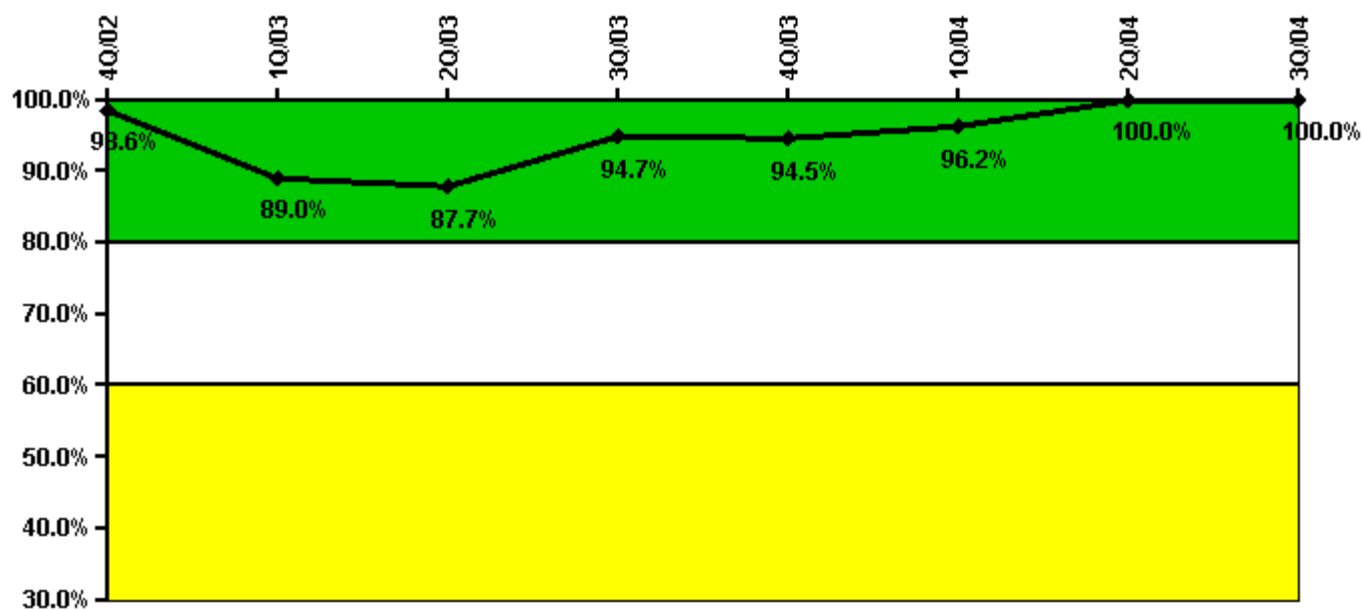
Thresholds: White < 90.0% Yellow < 70.0%

#### Notes

Drill/Exercise Performance	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04	3Q/04
Successful opportunities	10.0	13.0	19.0	26.0	33.0	17.0	39.0	26.0
Total opportunities	12.0	13.0	20.0	26.0	34.0	18.0	43.0	28.0
Indicator value	95.5%	95.5%	95.2%	96.8%	96.7%	96.9%	95.2%	94.3%

Licensee Comments: none

### ERO Drill Participation



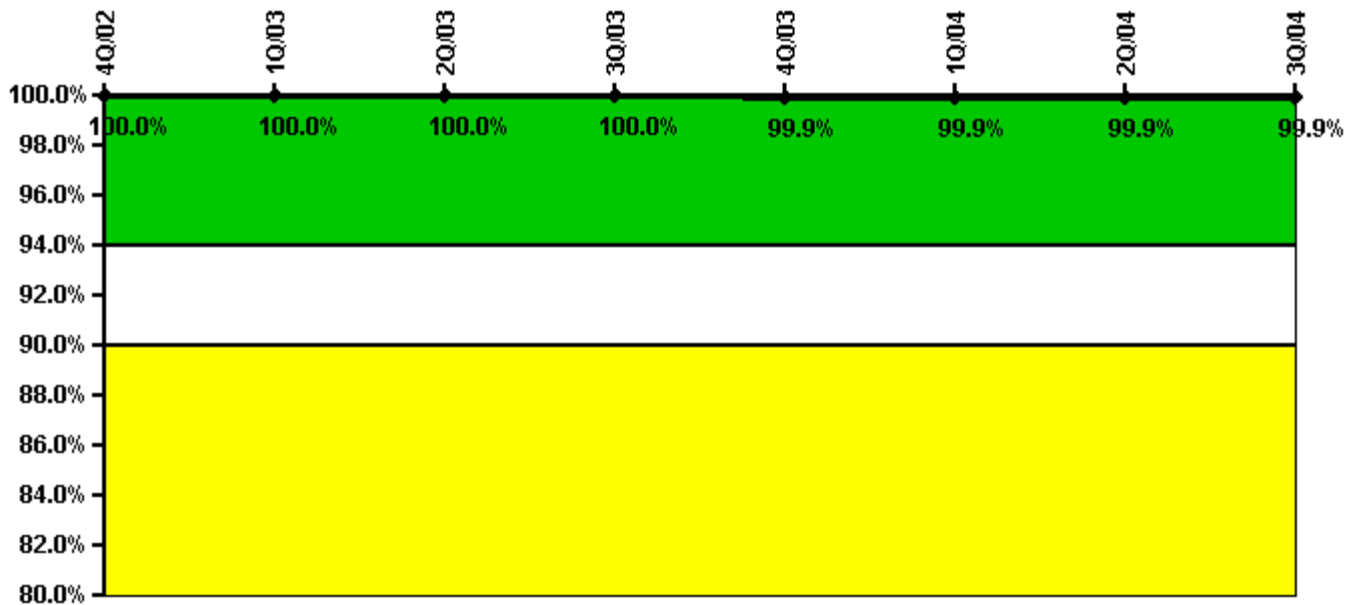
Thresholds: White < 80.0% Yellow < 60.0%

#### Notes

ERO Drill Participation	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04	3Q/04
Participating Key personnel	69.0	65.0	64.0	54.0	52.0	51.0	54.0	55.0
Total Key personnel	70.0	73.0	73.0	57.0	55.0	53.0	54.0	55.0
Indicator value	98.6%	89.0%	87.7%	94.7%	94.5%	96.2%	100.0%	100.0%

Licensee Comments: none

### Alert & Notification System



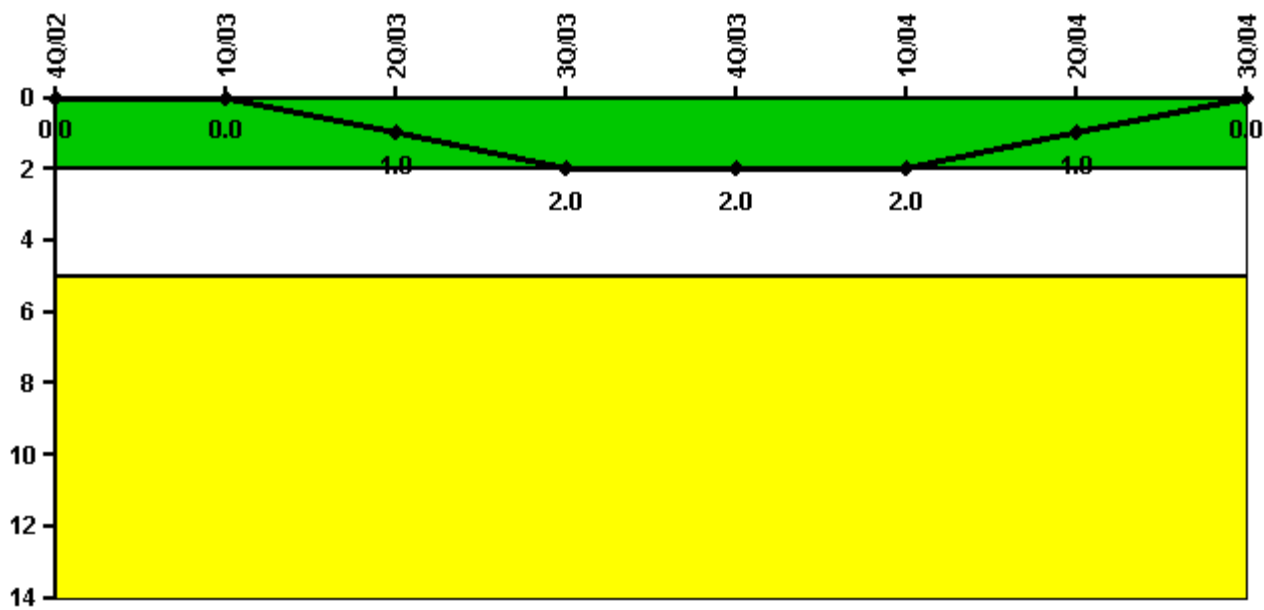
Thresholds: White < 94.0% Yellow < 90.0%

#### Notes

Alert & Notification System	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04	3Q/04
Successful siren-tests	319	286	286	286	340	286	286	286
Total sirens-tests	319	286	286	286	341	286	286	286
Indicator value	100.0%	100.0%	100.0%	100.0%	99.9%	99.9%	99.9%	99.9%

Licensee Comments: none

### Occupational Exposure Control Effectiveness



Thresholds: White > 2.0 Yellow > 5.0

#### Notes

Occupational Exposure Control Effectiveness	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04	3Q/04
High radiation area occurrences	0	0	1	1	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>1</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>1</b>	<b>0</b>

Licensee Comments: none

### RETS/ODCM Radiological Effluent



Thresholds: White > 1.0 Yellow > 3.0

#### Notes

RETS/ODCM Radiological Effluent	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04	3Q/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.