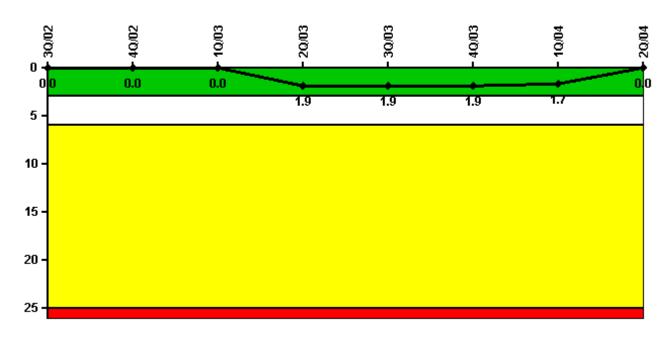
## North Anna 1

### **2Q/2004 Performance Indicators**

Licensee's General Comments: none

# Unplanned Scrams per 7000 Critical Hrs

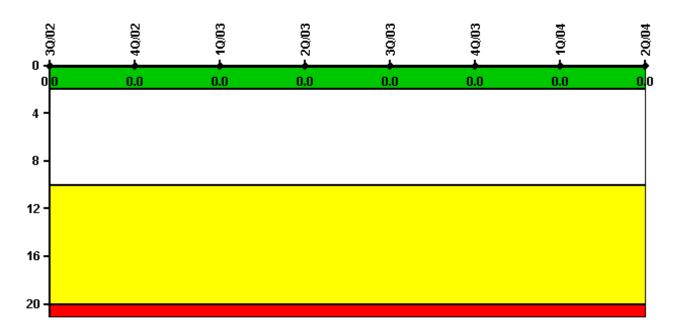


Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

### 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	2.0	0	0	0	0
Critical hours	2208.0	2209.0	1273.7	1549.9	2208.0	2209.0	2051.8	2183.0
Indicator value	0	0	0	1.9	1.9	1.9	1.7	О

## Scrams with Loss of Normal Heat Removal

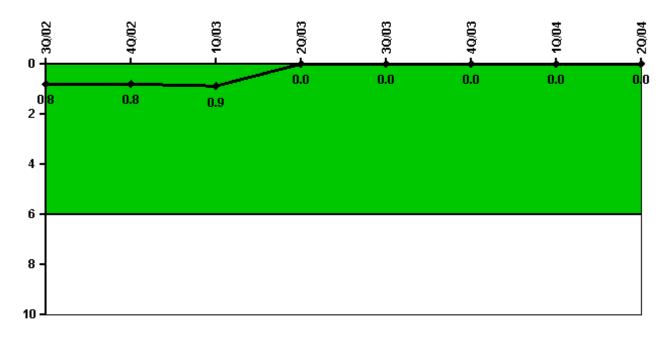


Thresholds: White > 2.0 Yellow > 10.0 Red > 20.0

#### Votes

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	0	0	0	0	0	0	0	0

# Unplanned Power Changes per 7000 Critical Hrs

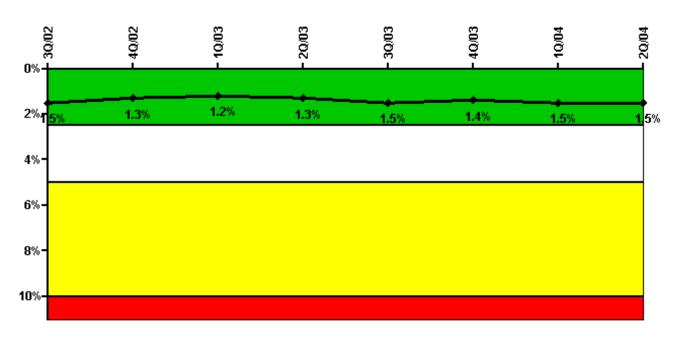


Thresholds: White > 6.0

#### Notes

Unplanned Power Changes per 7000 Critical Hrs	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	0	0
Critical hours	2208.0	2209.0	1273.7	1549.9	2208.0	2209.0	2051.8	2183.0
Indicator value	0.8	0.8	0.9	О	О	0	О	0

# Safety System Unavailability, Emergency AC Power



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

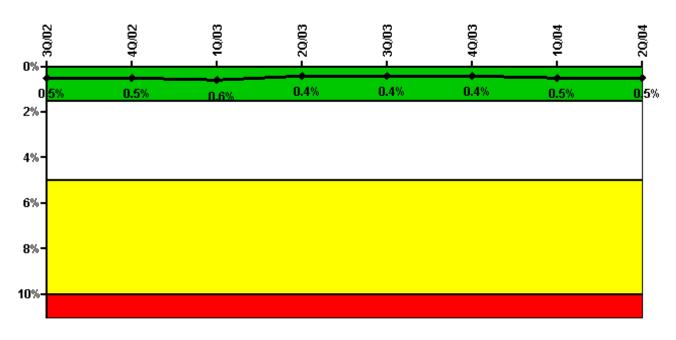
### Notes

Safety System Unavailability, Emergency AC Power	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	20/04
Train 1								
Planned unavailable hours	25.48	7.36	4.61	2.67	50.35	9.10	6.20	37.97
Unplanned unavailable hours	0	9.67	77.40	23.50	23.00	0	104.52	2.50
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	2209.00	1723.64	1677.40	2208.00	2209.00	2184.00	2183.00
Train 2								
Planned unavailable hours	29.59	10.60	7.69	7.48	54.00	14.39	8.02	27.52
Unplanned unavailable hours	0	11.80	0	3.88	0	18.21	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	2209.00	1723.64	1806.70	2208.00	2209.00	2184.00	2183.00
Indicator value	1.5%	1.3%	1.2%	1.3%	1.5%	1.4%	1.5%	1.5%

Licensee Comments:

2Q/01: Revised to incorporate 0.25 planned, unavailable hrs. accrued during SSPS testing. (FAQ # 290) This change had no affect on 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)	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04
Train 1								
Planned unavailable hours	2.49	7.14	1.15	5.65	5.51	2.38	5.95	4.08
Unplanned unavailable hours	0	0.65	3.08	0.12	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	2209.00	1285.22	1836.99	2208.00	2209.00	2184.00	2183.00
Train 2								
Planned unavailable hours	6.37	3.90	19.77	5.02	5.79	5.04	3.12	5.05
Unplanned unavailable hours	0	0	6.45	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	2209.00	1285.22	1836.99	2208.00	2209.00	2184.00	2183.00
Indicator value	0.5%	0.5%	0.6%	0.4%	0.4%	0.4%	0.5%	0.5%

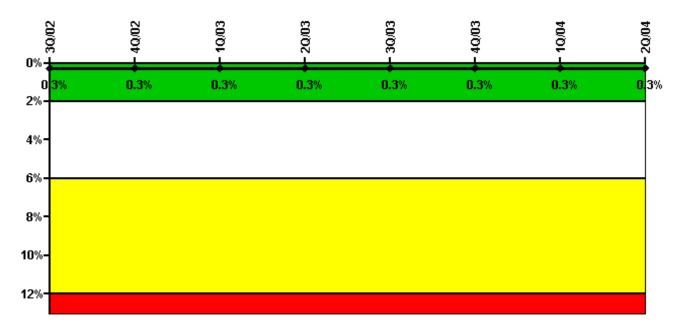
#### Licensee Comments:

- 1Q/04: Revised to incorporate 3.49 planned, unavailable hrs. accrued during SSPS testing. (FAQ # 290) This change had no affect on the color of the indicator.
- 4Q/03: Revised to incorporate 4.04 planned, unavailable hrs. accrued during SSPS testing. (FAQ # 290) This change had no affect on the color of the indicator.
- 3Q/03: Revised to incorporate 5.80 planned, unavailable hrs. accrued during SSPS testing. (FAQ # 290) This change had no affect on the color of the indicator.
- 2Q/03: Revised to incorporate 7.67 planned, unavailable hrs. accrued during SSPS testing. (FAQ # 290) This change had no affect on the color of the indicator.
- 1Q/03: Revised to incorporate 2.52 planned, unavailable hrs. accrued during SSPS testing. (FAQ # 290) This change had no affect on the color of the indicator.
- 4Q/02: Revised to incorporate 4.60 planned, unavailable hrs. accrued during SSPS testing. (FAQ # 290) This change had no affect on

the color of the indicator.

- 3Q/02: Revised to incorporate 4.77 planned, unavailable hrs. accrued during SSPS testing. (FAQ # 290) This change had no affect on the color of the indicator.
- 2Q/02: Revised to incorporate 7.78 planned, unavailable hrs. accrued during SSPS testing. (FAQ # 290) This change had no affect on the color of the indicator.
- 1Q/02: Revised to incorporate 5.69 planned, unavailable hrs. accrued during SSPS testing. (FAQ # 290) This change had no affect on the color of the indicator.
- 4Q/01: Revised to incorporate 8.96 planned, unavailable hrs. accrued during SSPS testing. (FAQ # 290) This change had no affect on the color of the indicator.
- 3Q/01: Revised to incorporate 1.42 planned, unavailable hrs. accrued during SSPS Testing. (FAQ # 290) This change had no affect on the color of the indicator.
- 2Q/01: Revised to incorporate 5.87 planned, unavailable hrs. accrued during SSPS testing. (FAQ # 290) This change had no affect on the color of the indicator.

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



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

#### Notes

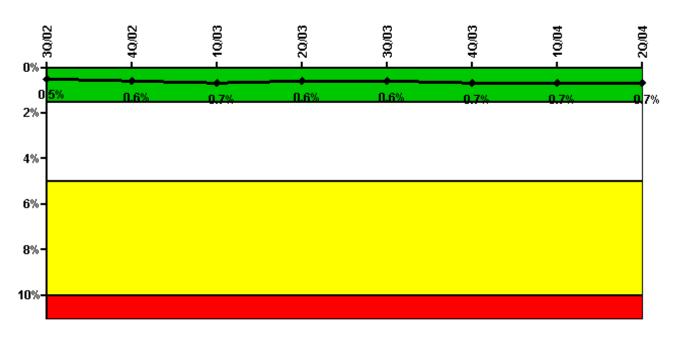
Safety System Unavailability, Heat Removal System (AFW)	3Q/02	4Q/02	10/03	2Q/03	3Q/03	4Q/03	10/04	2Q/04
Train 1								
Planned unavailable hours	4.82	10.42	1.50	7.78	4.48	13.62	8.62	4.17
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2208.00	2209.00	1285.22	1836.99	2208.00	2209.00	2184.00	2183.00
Train 2								
Planned unavailable hours	9.20	4.03	13.52	4.09	6.23	14.22	2.52	6.25
Unplanned unavailable hours	0	0	0	0	0	0	0	0

Indicator value	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%
Required hours	2208.00	2209.00	1283.17	1829.18	2208.00	2209.00	2184.00	2183.00
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	0	0	3.27	0	0	0	0
Planned unavailable hours	4.28	4.80	0.33	9.81	10.45	6.48	5.32	9.92
Train 3								
Required hours	2208.00	2209.00	1285.22	1836.99	2208.00	2209.00	2184.00	2183.00
Effective Reset hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0

#### Licensee Comments:

- 1Q/04: Revised to incorporate 3.49 planned, unavailable hrs. accrued during SSPS testing. (FAQ # 290) This change had no affect on the color of the indicator.
- 4Q/03: Revised to incorporate 4.04 planned, unavailable hrs. accrued during SSPS testing. (FAQ # 290) This change had no affect on the color of the indicator.
- 3Q/03: Revised to incorporate 5.80 planned, unavailable hrs. accrued during SSPS testing. (FAQ # 290) This change had no affect on the color of the indicator.
- 2Q/03: Revised to incorporate 7.37 planned, unavailable hrs. accrued during SSPS testing. (FAQ # 290) This change had no affect on the color of the indicator.
- 1Q/03: Revised to incorporate 2.49 planned, unavailable hrs. accrued during SSPS testing. (FAQ # 290) This change had no affect on the color of the indicator.
- 4Q/02: Revised to incorporate 4.60 planned, unavailable hrs. accrued during SSPS testing. (FAQ # 290) This change had no affect on the color of the indicator.
- 3Q/02: Revised to incorporate 4.77 planned, unavailable hrs. accrued during SSPS testing. (FAQ # 290) This change had no affect on the color of the indicator.
- 2Q/02: Revised to incorporate 6.60 planned, unavailable hrs. accrued during SSPS testing. (FAQ # 290) This change had no affect on the color of the indicator.
- 1Q/02: Revised to incorporate 4.49 planned, unavailable hrs. accrued during SSPS testing. (FAQ # 290) This change had no affect on the color of the indicator.
- 4Q/01: Revised to incorporate 4.09 planned, unavailable hrs. accrued during SSPS testing. (FAQ # 290) This change had no affect on the color of the indicator.
- 3Q/01: Revised to incorporate 1.42 planned, unavailable hrs. accrued during SSPS testing. (FAQ # 290) This change had no affect on the color of the indicator.
- 2Q/01: Revised to incorporate 4.65 planned, unavailable hrs. accrued during SSPS testing. (FAQ # 290) This change had no affect on the color of the indicator.

# Safety System Unavailability, Residual Heat Removal System



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

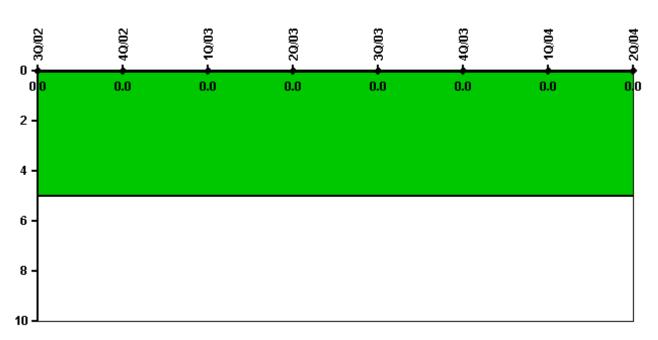
## Notes

Safety System Unavailability, Residual Heat Removal System	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04
Train 1								
Planned unavailable hours	21.01	5.60	1.15	7.93	19.58	28.98	6.47	5.95
Unplanned unavailable hours	0	52.33	2.50	1.82	1.65	0	2.53	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	2209.00	1287.27	1844.79	2208.00	2209.00	2184.00	2183.00
Train 2								
Planned unavailable hours	14.00	11.78	11.30	5.82	10.31	26.45	31.47	15.52
Unplanned unavailable hours	0	57.50	67.18	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	2209.00	1287.27	1844.79	2208.00	2209.00	2184.00	2183.00
Train 3								
Planned unavailable hours	0	37.17	3.20	0	10.15	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	2208.00	2209.00	1414.64	2106.56	2208.00	2209.00	2184.00	2183.00
Train 4								
Planned unavailable hours	0	0	2.98	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	2208.00	2209.00	1414.64	2106.56	2208.00	2209.00	2184.00	2183.00
Indicator value	0.5%	0.6%	0.7%	0.6%	0.6%	0.7%	0.7%	0.7%

Licensee Comments:

- 1Q/04: Revised to incorporate 3.48 planned, unavailable hrs. accrued during SSPS testing. (FAQ # 290) This change had no affect on the color of the indicator.
- 4Q/03: Revised to incorporate 4.03 planned, unavailable hrs. accrued during SSPS testing. (FAQ # 290) This change had no affect on the color of the indicator.
- 3Q/03: Revised to incorporate 5.73 planned, unavailable hrs. accrued during SSPS testing. (FAQ # 290) This change had no affect on the indicator.
- 2Q/03: Revised to incorporate 7.37 planned, unavailable hrs. accrued during SSPS testing. (FAQ # 290) This change had no affect on the color of the indicator.
- 1Q/03: Revised to incorporate 2.48 planned, unavailable hrs. accrued during SSPS testing. (FAQ # 290) This change had no affect on the color of the indicator.
- 4Q/02: Revised to incorporate 4.60 planned, unavailable hrs. accrued during SSPS testing. (FAQ # 290) This change had no affect on the color of the indicator
- 3Q/02: Revised to incorporate 4.76 planned, unavailable hrs. accrued during SSPS testing. (FAQ # 290) This change had no affect on the color of the indicator.
- 2Q/02: Revised to incorporate 6.59 planned, unavailable hrs. accrued during SSPS testing. (FAQ # 290) This change had no affect on the color of the indicator.
- 1Q/02: Revised to incorporate 5.76 planned, unavailable hrs. accrued during SSPS testing. (FAQ # 290) This change had no affect on the color of the indicator.
- 4Q/01: Revised to incorporate 8.96 planned, unavailable hrs. accrued during SSPS testing. (FAQ # 290) This change had no affect on the color of the indicator.
- 3Q/01: Revised to incorporate 1.91 planned, unavailable hrs. accrued during SSPS testing. (FAQ # 290) This change had no affect on the color of the indicator.
- 2Q/01: Revised to incorporate 4.65 planned, unavailable hrs. accrued during SSPS testing. (FAQ # 290) This change had no affect on the color of the indicator.

## Safety System Functional Failures (PWR)



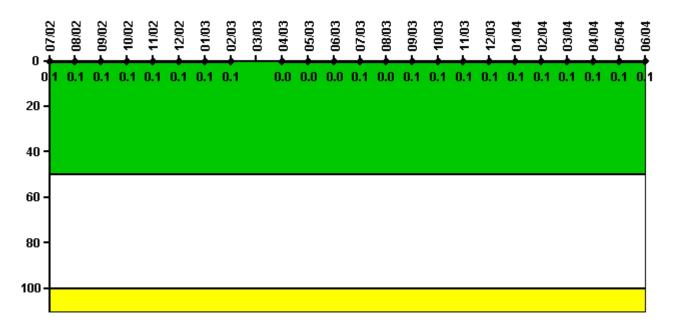
Thresholds: White > 5.0

#### Notes

Safety System Functional Failures (PWR)	30/02	40/02	10/03	20/03	30/03	40/03	10/04	20/04
Safety System Functional Failures	0	0	0	0	0	0	0	0
Indicator value	О	О	О	О	О	О	О	О

Licensee Comments: none

# **Reactor Coolant System Activity**

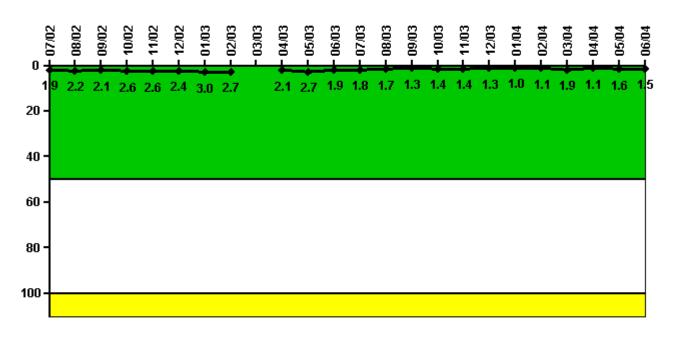


Thresholds: White > 50.0 Yellow > 100.0

#### 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	0.000684	0.000769	0.000872	0.000815	0.000797	0.000852	0.000809	0.000947	N/A	0.000412	0.000495	0.0004	10
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	0.1	0.1	0.1	0.1	0.1	0.1	0.1	N/A	0	0		0
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
		$\overline{}$											
Maximum activity	0.000513	0.000458	0.000705	0.000527	0.000559	0.000534	0.000546	0.000561	0.0005	0.0005	95 0.000	500 0.0	000633
Technical specification limit	0.000513		0.000705	0.000527	0.000559	0.000534	0.000546	0.000561				1.0	000633 1.0
·													

# **Reactor Coolant System Leakage**

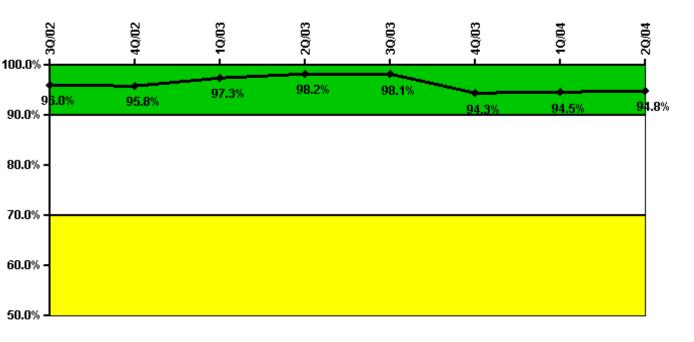


Thresholds: White > 50.0 Yellow > 100.0

### 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	0.192	0.215	0.207	0.263	0.257	0.235	0.299	0.267	N/A	0.212	0.272	0.192
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	1.9	2.2	2.1	2.6	2.6	2.4	3.0	2.7	N/A	2.1	2.7	1.9
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	0.179	0.173	0.135	0.140	0.136	0.132	0.097	0.113	0.188	0.113	0.155	0.150
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	1.8	1.7	1.3	1.4	1.4	1.3	1.0	1.1	1.9	1.1	1.6	1.5

## **Drill/Exercise Performance**

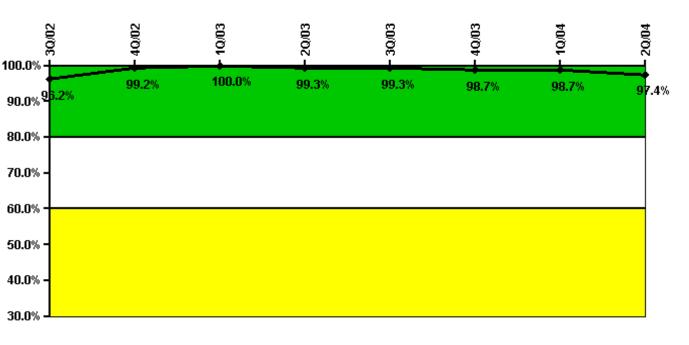


Thresholds: White < 90.0% Yellow < 70.0%

## Notes

Drill/Exercise Performance	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04
Successful opportunities	21.0	10.0	30.0	108.0	3.0	25.0	31.0	11.0
Total opportunities	21.0	10.0	32.0	108.0	3.0	35.0	32.0	11.0
Indicator value	96.0%	95.8%	97.3%	98.2%	98.1%	94.3%	94.5%	94.8%

# **ERO Drill Participation**

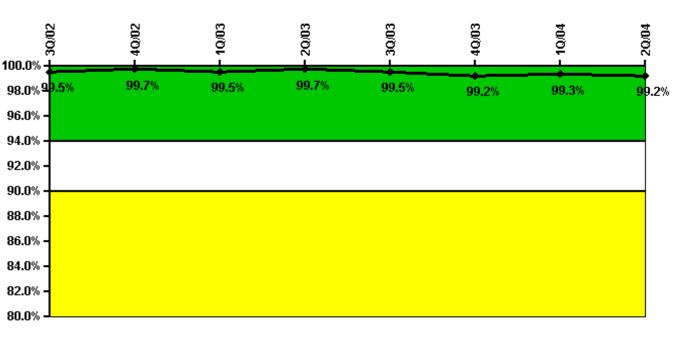


Thresholds: White < 80.0% Yellow < 60.0%

## Notes

ERO Drill Participation	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04
Participating Key personnel	127.0	127.0	124.0	151.0	152.0	150.0	150.0	147.0
Total Key personnel	132.0	128.0	124.0	152.0	153.0	152.0	152.0	151.0
Indicator value	96.2%	99.2%	100.0%	99.3%	99.3%	98.7%	98.7%	97.4%

# **Alert & Notification System**

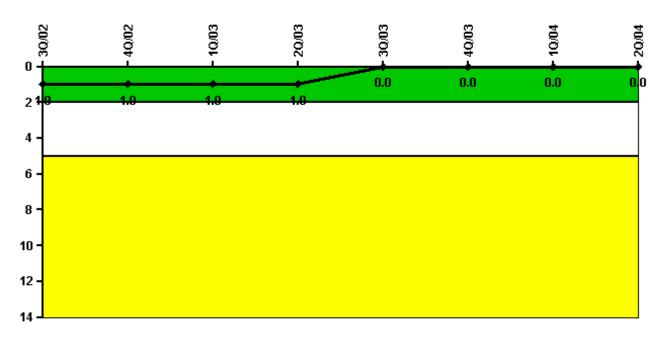


Thresholds: White < 94.0% Yellow < 90.0%

## Notes

Alert & Notification System	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04
Successful siren-tests	431	434	431	436	436	435	440	441
Total sirens-tests	434	434	434	436	441	441	441	443
Indicator value	99.5%	99.7%	99.5%	99.7%	99.5%	99.2%	99.3%	99.2%

# **Occupational Exposure Control Effectiveness**

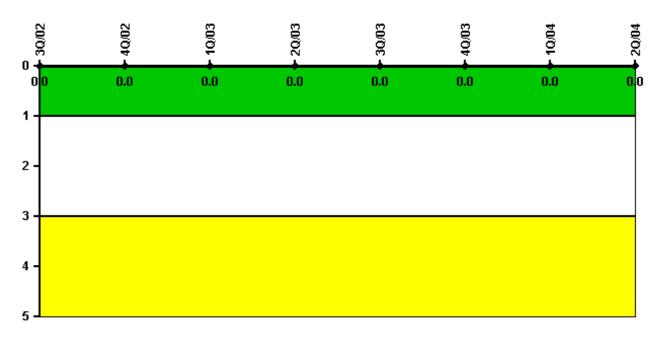


Thresholds: White > 2.0 Yellow > 5.0

#### Votes

Occupational Exposure Control Effectiveness	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	10/04	2Q/04
High radiation area occurrences	1	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	1	1	1	1	О	О	О	О

# **RETS/ODCM Radiological Effluent**



Thresholds: White > 1.0 Yellow > 3.0

#### Votes

RETS/ODCM Radiological Effluent	3Q/02	4Q/02	10/03	2Q/03	3Q/03	4Q/03	10/04	2Q/04
RETS/ODCM occurrences	0	0	0	0	0	0	0	0
Indicator value	0	0	0	0	0	0	0	О

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