### Limerick 1

#### 2Q/2000 Performance Indicators

Licensee's General Comments: none





Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

#### Notes

Unplanned Scrams per 7000 Critical Hrs	2Q/99	3Q/99	4Q/99	1Q/00	2Q/00
Unplanned scrams	2.0	0	0	0	1.0
Critical hours	2065.0	2208.0	2209.0	2127.8	1589.0
Indicator value	1.7	1.7	1.6	1.6	0.9

### 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	2Q/99	3Q/99	4Q/99	1Q/00	2Q/00
Scrams	1.0	0	0	0	0
Indicator value			1.0	1.0	1.0

# **Unplanned Power Changes per 7000 Critical Hrs**



#### Thresholds: White > 6.0

#### Notes

Unplanned Power Changes per 7000 Critical Hrs	2Q/99	3Q/99	4Q/99	1Q/00	2Q/00
Unplanned power changes	1.0	0	2.0	0	1.0
Critical hours	2065.0	2208.0	2209.0	2127.8	1589.0
Indicator value	4.2	3.3	3.2	2.4	2.6

## 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	2Q/99	3Q/99	4Q/99	1Q/00	2Q/00
Train 1					
Planned unavailable hours	76.45	357.29	0	2.42	0
Unplanned unavailable hours	5.73	0	0	0	0
Fault exposure hours	0	0	0	0	0
Effective Reset hours	0	0	0	0	0
Required hours	2160.98	2208.00	2208.00	2184.00	1906.26
Train 2					
Planned unavailable hours	0	187.14	0	0	0
Unplanned unavailable hours	0	0	0	14.65	0
Fault exposure hours	0	0	0	0	0
Effective Reset hours	0	0	0	0	0
Required hours	2160.98	2208.00	2208.00	2184.00	1906.26
Train 3					
Planned unavailable hours	13.26	2.38	0	10.61	0
Unplanned unavailable hours	0	0	0	9.79	0
Fault exposure hours	0	0	0	0	0
Effective Reset hours	0	0	0	0	0
Required hours	2160.98	2208.00	2208.00	2184.00	1906.26
Train 4					
Planned unavailable hours	11.78	1.22	0	17.23	0
Unplanned unavailable hours	0	0	0	0	0
Fault exposure hours	0	0	0	0	0
Effective Reset hours	0	0	0	0	0
Required hours	2160.98	2208.00	2208.00	2184.00	1906.26
Indicator value			1.7%	1.6%	1.6%

Licensee Comments:

2Q/00: May 2000, train 3: 103 planned unavailable hours not counted due to planned overhaul maintenance.

1Q/00: Removed 168.08 hours of planned unavailability on Train 4 in January 2000 since these hours qualify as on-line planned overhaul maintenance. Overhauls are exempted from planned unavailability per NEI 99-02, Rev. 0, Page 4, lines 23-27 and Page 27, lines 2-8. (Entry made 10-3-2000)

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



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

#### Notes

Safety System Unavailability, High Pressure Injection System (HPCI)	2Q/99	3Q/99	4Q/99	1Q/00	2Q/00
Train 1					
Planned unavailable hours	26.12	0	0	30.20	0
Unplanned unavailable hours	32.00	0	0	0	1.30
Fault exposure hours	652.50	0	0	0	0
Effective Reset hours	0	0	0	0	652.50
Required hours	2065.00	2208.00	2209.00	2127.80	1589.00
Indicator value			4.3%	4.3%	1.7%

Licensee Comments:

2Q/00: 184.6 hours fault exposure unavailability from May, 1999 and 467.9 hours fault exposure unavailability from June, 1999 have been removed from this PI. These fault exposure hours were the result of a HPCI failure to start that occurred in June, 1999 due to EG-R corrosion. These fault exposure hours are being removed from the PI because 4 quarters have elapsed from the time of discovery and the following criteria of NEI 99-02, Revision 0, section 2.2 have been met: 1) The fault exposure hours associated with this item are greater than 336 hours. 2) Corrective actions to prevent recurrence of EG-R binding have been implemented. 3) NRC Inspection Report 05000352/2000-1; 05000353/2000-1 concluded that "...corrective actions for the June 1999 Unit 1 HPCI system failure were appropriate and had been implemented in a timely manner. No additional supplemental inspection is required for this issue."

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#### Effective Reset Comments:

2Q/00: 184.6 hours fault exposure unavailability from May, 1999 and 467.9 hours fault exposure unavailability from June, 1999 have been removed from this PI. These fault exposure hours were the result of a HPCI failure to start that occurred in June, 1999 due to EG-R corrosion. These fault exposure hours are being removed from the PI because 4 quarters have elapsed from the time of discovery and the following criteria of NEI 99-02, Revision 0, section 2.2 have been met: 1) The fault exposure hours associated with this item are greater than 336 hours. 2) Corrective actions to prevent recurrence of EG-R binding have been implemented. 3) NRC Inspection Report 05000352/2000-1; 05000353/2000-1 concluded that "...corrective actions for the June 1999 Unit 1 HPCI system failure were appropriate and had been implemented in a timely manner. No additional supplemental inspection is required for this issue."



### 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)	2Q/99	3Q/99	4Q/99	1Q/00	2Q/00

Train 1					
Planned unavailable hours	18.72	74.42	3.40	8.80	1.90
Unplanned unavailable hours	0	62.72	0	4.40	0
Fault exposure hours	0	0	0	0	0
Effective Reset hours	0	0	0	0	0
Required hours	2065.00	2208.00	2209.00	2127.80	1589.00
Indicator value			1.9%	1.9%	1.9%

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	2Q/99	3Q/99	4Q/99	1Q/00	2Q/00
Train 1					
Planned unavailable hours	0	0	0	19.82	0
Unplanned unavailable hours	0	0	0	0	0
Fault exposure hours	0	0	0	0	0
Effective Reset hours	0	0	0	0	0
Required hours	2183.00	2208.00	2209.00	2184.00	2183.00
Train 2					
Planned unavailable hours	0	0	42.80	21.85	0
Unplanned unavailable hours	0	0	1.00	21.00	0
Fault exposure hours	0	0	0	0	0
Effective Reset hours	0	0	0	0	0

Required hours	2183.00	2208.00	2209.00	2184.00	2183.00
Indicator value			1.0%	1.1%	0.9%

Licensee Comments: none

# Safety System Functional Failures (BWR)



#### Thresholds: White > 6.0

### Notes

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



Thresholds: White > 50.0 Yellow > 100.0

#### Notes

Reactor Coolant System Activity	7/99	8/99	9/99	10/99	11/99	12/99	1/00	2/00	3/00	4/00	5/00	6/00
Maximum activity	0.000531	0.000609	0.000519	0.000503	0.000493	0.000475	0.000508	0.000914	0.000605	N/A	0.000125	0.000101
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	0.3	0.3	0.3	0.3	0.2	0.2	0.3	0.5	0.3	N/A	0.1	0.1



Thresholds: White > 50.0 Yellow > 100.0

#### Notes

Reactor Coolant System Leakage	7/99	8/99	9/99	10/99	11/99	12/99	1/00	2/00	3/00	4/00	5/00	6/00
Maximum leakage	4.000	4.000	4.000	4.900	4.500	4.850	5.600	5.200	5.200	4.960	5.260	4.760
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	16.0	16.0	16.0	19.6	18.0	19.4	22.4	20.8	20.8	19.8	21.0	19.0

### **Drill/Exercise Performance**



Thresholds: White < 90.0% Yellow < 70.0%

#### Notes

Drill/Exercise Performance	2Q/99	3Q/99	4Q/99	1Q/00	2Q/00
Successful opportunities	0	37.0	11.0	67.0	9.0
Total opportunities	0	38.0	11.0	67.0	10.0
Indicator value			98.6%	99.2%	98.6%

Licensee Comments:

2Q/00: A total of 6 opportunities were removed from the database for drills covering the period of 06/14/2000 to 2/15/2001 because they were determined to be invalid notification opportunities.

# **ERO Drill Participation**



Thresholds: White < 80.0% Yellow < 60.0%

#### Notes

ERO Drill Participation	2Q/99	3Q/99	4Q/99	1Q/00	2Q/00
Participating Key personnel			44.0	48.0	49.0
Total Key personnel			51.0	53.0	51.0
Indicator value			86.3%	90.6%	96.1%

### Alert & Notification System



Thresholds: White < 94.0% Yellow < 90.0%

#### Notes

Alert & Notification System	2Q/99	3Q/99	4Q/99	1Q/00	2Q/00
Successful siren-tests	479	475	467	459	954
Total sirens-tests	495	495	495	495	990
Indicator value	96.8%	97.0%	96.2%	94.9%	95.2%

Licensee Comments:

2Q/00: Limerick siren performance percentages have changed due to inadequate maintenance practices, which resulted in degraded siren performance. The percentage change did not cause a change in the overall PI color. All sirens have been inspected and appropriate corrective actions have been taken to correct identified deficiencies. Accelerated testing frequencies continue and good overall siren performance has been restored.

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1Q/00: Limerick siren performance percentages have changed due to inadequate maintenance practices, which resulted in degraded siren performance. The percentage change did not cause a change in the overall PI color. All sirens have been inspected and appropriate corrective actions have been taken to correct identified deficiencies. Accelerated testing frequencies continue and good overll siren performance has been restored.

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4Q/99: Limerick siren performance percentages have changed due to inadequate maintenance practices, which resulted in degraded siren performance. The percentage change did not cause a change in the overall PI color. All sirens have been inspected and appropriate corrective actions have been taken to correct identified deficiencies. Accelerated testing frequencies continue and good overall siren performance has been restored.





Thresholds: White > 2.0 Yellow > 5.0

#### Notes

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

# **RETS/ODCM Radiological Effluent**



Thresholds: White > 1.0 Yellow > 3.0

#### Notes

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

## **Protected Area Security Performance Index**



#### Thresholds: White > 0.080

#### Notes

Protected Area Security Performance Index	2Q/99	3Q/99	4Q/99	1Q/00	2Q/00
IDS compensatory hours	23.75	63.25	357.70	143.40	63.20
CCTV compensatory hours	37.5	2.8	0	17.6	36.4
IDS normalization factor	2.35	2.35	2.35	2.35	2.35
CCTV normalization factor	1.2	1.2	1.2	1.2	1.2
Index Value	0.013	0.007	0.014	0.017	0.018

## **Personnel Screening Program**



Thresholds: White > 2.0 Yellow > 5.0

#### Notes

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

### **FFD/Personnel Reliability**



Thresholds: White > 2.0 Yellow > 5.0

#### Notes

FFD/Personnel Reliability	2Q/99	3Q/99	4Q/99	1Q/00	2Q/00
Program Failures	0	0	0	0	0
Indicator value	1	1	0	0	0

Licensee Comments: none

A <u>PI Summary</u> | <u>Inspection Findings Summary</u> | <u>Reactor Oversight Process</u>

Last Modified: April 1, 2002