Listing of Statistics for Run2-2004 (Created Fri Aug 27 09:49:38 CDT 2004)

Total Amount of User Time in this interval 1911.95 Hours

User periods in this interval

05/25/2004 08:00 To 05/31/2004 08:00 144.00 Hours, Delivered Beam: 139.73 Hours, 7 Fault(s), 19.96 MTBF, 97.04% of Sched. Time
06/01/2004 08:00 To 06/07/2004 08:01 144.02 Hours, Delivered Beam: 139.80 Hours, 4 Fault(s), 34.95 MTBF, 97.07% of Sched. Time
06/09/2004 08:00 To 06/15/2004 08:00 143.55 Hours, Delivered Beam: 143.07 Hours, 1 Fault(s), 143.07 MTBF, 99.66% of Sched. Time
06/15/2004 16:00 To 06/21/2004 08:01 136.02 Hours, Delivered Beam: 135.47 Hours, 1 Fault(s), 135.47 MTBF, 99.60% of Sched. Time
06/23/2004 08:00 To 06/28/2004 16:00 128.00 Hours, Delivered Beam: 123.47 Hours, 2 Fault(s), 61.74 MTBF, 96.46% of Sched. Time
06/29/2004 08:01 To 07/04/2004 08:00 119.98 Hours, Delivered Beam: 119.74 Hours, 1 Fault(s), 119.74 MTBF, 99.80% of Sched. Time
07/05/2004 08:00 To 07/13/2004 08:00 192.00 Hours, Delivered Beam: 191.05 Hours, 3 Fault(s), 63.68 MTBF, 99.50% of Sched. Time
07/13/2004 16:00 To 07/19/2004 08:00 136.00 Hours, Delivered Beam: 134.37 Hours, 3 Fault(s), 44.79 MTBF, 98.80% of Sched. Time
07/21/2004 08:00 To 07/26/2004 16:00 128.00 Hours, Delivered Beam: 123.44 Hours, 3 Fault(s), 41.15 MTBF, 96.44% of Sched. Time
07/27/2004 08:00 To 08/02/2004 08:00 144.00 Hours, Delivered Beam: 141.44 Hours, 2 Fault(s), 70.72 MTBF, 98.22% of Sched. Time
08/04/2004 08:01 To 08/10/2004 08:00 143.98 Hours, Delivered Beam: 143.98 Hours, 0 Fault(s), 143.98 MTBF, 100.00% of Sched. Time
08/10/2004 16:00 To 08/17/2004 16:01 168.02 Hours, Delivered Beam: 166.86 Hours, 1 Fault(s), 166.86 MTBF, 99.31% of Sched. Time
08/18/2004 08:00 To 08/25/2004 24:00 184.00 Hours, Delivered Beam: 177.71 Hours, 4 Fault(s), 44.43 MTBF, 96.58% of Sched. Time

Delivered Beam	1880.13 Hours
Percentage of Scheduled Time	98.36 %
Downtime During Period	31.37 Hours
Percentage of scheduled time SR current > 10 ma	98.86 %

Average Delivered Current During This Period 99.29 mA
Total integrated Current During This Period 186.73 A-hr

Mean Fill Duration in Period 60.67 Hours
Mean Fill Duration from Poisson Fit 75.11 Hours
Mean Time Between Faults (MTBF) 58.75 Hours
Faults per Day of Delivered Beam 0.41
Total Number of Faults 32
Scheduled Topup Time 1391.55 Hours

Valid fills Beginning in this Time Interval			Reason for		Length of	Downtime is associated with the end of a fill. The first fill of a period will have any
Fill#	Start	End	Duration (min: 1.0)	Fill Termination		Downtime	downtime before the fill on the line above.
						0.00	
# 1	05/25 08:00	To 05/25 20:59	13.00	SR Dipole ACIS	[PS]	0.05	Shutter permit removed to fill due to SR dipole.
# 2	05/25 21:02	To 05/25 23:26	2.40	SR-RF4 HVPS Trip	[RF]	0.38	RF trip reset, refill.
# 3	05/25 23:49	To 05/26 07:44	7.93	SR Dipole ACIS	[PS]	0.04	Dipole readback inhibits fill w/shutters open.
# 4	05/26 07:47	To 05/27 03:34	19.78	SR-RF4 arc det.Trip	[RF]	0.34	Trip was reset, SR refilled.
# 5	05/27 03:54	To 05/29 18:07	61.71	S12A:H2 failure	[PS]	1.13	Refill, correct beam orbit
* Interruption of delivered beam between 05/27 14:25 To 05/27 14:55							Shutter permit taken away during PEM testing.
# 6	05/29 18:45	To 05/30 15:28	20.72	2BM MPS Fault	[SI]	2.31	2BM failed PSS Love Controller, replaced, refill.
# 7	05/30 17:47	To 05/31 07:59	14.21	Int Dump: End of Period		0.00	
						0.00	
# 8	06/01 08:00	To 06/01 09:05	1.10	RTFB trip(vector)	[OTHER]	2.74	1 hr.?, 58min. UES/HP, 13min. PHY, 38min. RF
# 11	06/01 11:50	To 06/01 23:07	11.28	SR-RF3 Trip	[RF]	0.85	Cathode O.I. trip, reset, refill, resume top-up.

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# 13  06/01 23:58  To  06/03 21:10   45.19  | Gate Valve Closure [CTL] |  0.33 Valve re-opened, fill
performed, resume top-up.
# 14  06/03 21:29  To  06/06 15:43   66.24  | Ukn RF3 power loss  [RF] |  0.27 MPS trip on SR-RF3 LLRF
Detector, refill, top-up
# 15  06/06 16:00  To  06/07 07:59   15.99  | Int Dump: End of Period  |  0.02
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                                            |                          |  0.00
# 17  06/09 08:00  To  06/10 20:16   36.28  | Tornado Warning          |  0.45 Fill not lost, re-enable
shutter permit
# 18  06/10 20:43  To  06/12 01:10   28.45  | S4DPBLD DS Trip  [ComEd] |  0.48 Power sag to 91% at loss,
refill, resume top-up.
# 19  06/12 01:39  To  06/15 07:59   78.35  | Int Dump: End of Period  |  0.00
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                                            |                          |  0.00
# 20  06/15 16:00  To  06/18 15:59   71.98  | 9ID rad.Mon.trip   [UES] |  0.52 Refill
# 21  06/18 16:30  To  06/21 07:59   63.49  | Int Dump: End of Period  |  0.02
-------------------------------------------------------------------------------------------------
-------------------------
                                            |                          |  0.00
# 22  06/23 08:00  To  06/23 13:19    5.33  | Power bump       [ComEd] |  0.93 CA problem, bunch purity
tuning, refill
# 23  06/23 14:15  To  06/26 05:16   63.02  | Valve ctl failure  [CTL] |  3.60 Valve ctl PS replaced 2.2,
S2 absorber flow 1.4 ME
# 25  06/26 08:52  To  06/28 15:59   55.12  | Int Dump: End of Period  |  0.00
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                                            |                          |  0.00
# 26  06/29 08:01  To  06/29 23:41   15.68  | SR-RF4 Trip         [RF] |  0.24 SR-RF4 S40 Vacuum Trip,
refill, resume top-up.
# 27  06/29 23:56  To  07/04 07:59  104.06  | Int Dump: End of Period  |  0.00
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                                            |                          |  0.01
# 28  07/05 08:00  To  07/07 19:44   59.74  | Intentional Dump   [OPS] |  0.36 Corrupted 0  fill pattern,
dumped, refill.
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# 29  07/07 20:06  To  07/11 10:25   86.24  | Power Sag        [ComEd] |  0.59 Power sag to 84%, restored
systems, refilled SR.
 * Interruption of delivered beam between 07/09 17:29  To  07/09 17:34 Users shutters closed due to an ACIS
inhibit.
# 30  07/11 10:55  To  07/13 07:59   45.07  | Int Dump: End of Period  |  0.00
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                                           |                          |  0.00
# 31  07/13 16:00  To  07/14 12:37   20.62  | DP-IOC DSP Event   [CTL] |  0.75 Beam lost due to Data Pool
IOC problem, refill.
# 32  07/14 13:22  To  07/16 10:56   45.56  | EPS trip            [SI] |  0.50 Human error, trip reset,
refill, resume top-up.
# 33  07/16 11:25  To  07/16 15:39    4.22  | 2-ID Rad Trip      [UES] |  0.39 Spurious Radiation Monitor
Trip, refill, top-up.
# 34  07/16 16:02  To  07/19 07:59   63.96  | Int Dump: End of Period  |  0.00
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                                           |                          |  0.00
# 38  07/21 08:00  To  07/21 18:28   10.48  | 20ID BPLD Trip     [DIA] |  0.53 RTFB DSP Glitch, refill,
resume top-up.
# 39  07/21 19:00  To  07/24 04:48   57.79  | 34ID Rad.mon. trip [UES] |  1.19 3ID gap, lost again, refill
# 40  07/24 05:59  To  07/25 20:01   38.03  | 7-BM EPS Trip       [SI] |  2.83 7BM Love Controller failed,
refill, resume top-up.
# 41  07/25 22:51  To  07/26 15:59   17.14  | Int Dump: End of Period  |  0.00
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                                           |                          |  0.00
# 42  07/27 08:00  To  07/27 16:41    8.68  | 12-ID EPS Trip      [SI] |  0.88 EPS reset-.30 min.[SI], 4-ID
Gap-23 min [CTL].
# 43  07/27 17:34  To  07/27 22:52    5.30  | 12-ID EPS Trip      [SI] |  1.68 Love controller failed,
refill, resume top-up.
# 44  07/28 00:32  To  08/02 07:59  127.45  | Int Dump: End of Period  |  0.00
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                                           |                          |  0.00
# 46  08/04 08:01  To  08/10 07:59  143.98  | Int Dump: End of Period  |  0.00
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                                          |                            |  0.00
# 47  08/10 16:00  To  08/13 22:56   78.93  | S10B:V2:PS Trip     [PS] |  1.14 Supply swapped, refill,
resume top-up.
# 48  08/14 00:04  To  08/17 16:00   87.93  | Int Dump: End of Period  |  0.02
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                                          |                            |  0.02
# 49  08/18 08:01  To  08/19 04:07   20.10  | Power Sag        [ComEd] |  3.87 87% power sag .50, UPS
failure 3.37 AOD-IT
# 50  08/19 07:59  To  08/19 13:44    5.75  | S4 MPS Trip         [ME] |  0.78 H20 pump SRVC-04A component
failure, switched pump.
# 51  08/19 14:31  To  08/23 18:27   99.94  | Zone F rad mon trip [UES |  0.51 Reset, refill
# 52  08/23 18:58  To  08/23 22:40    3.70  | Zone F Rad mon trip [UES |  1.11 Install rad monitor puppet,
refill
# 53  08/23 23:46  To  08/25 23:59   48.22  | Int Dump: End of Period  |  0.00

Top-Up Mode Statistics
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Target Current Range  2.0, Minimum Injector Downtime = 8.0 minutes

Total
  Current in Range during Scheduled Topup Time   97.36 %
  Current in Range during Delivered Beam Time    98.77 %
  Injector Availability                          98.68 %

Period Beginning 06/01/2004 08:00
Current in Range                                 92.23 %
Injector Availability                            91.89 %
  Out of Range at:     06/02/2004 20:15:40 to 06/02/2004 20:18:00 :   2.33 minutes
    Injector downtime: 06/02/2004 20:07:40 to 06/02/2004 20:15:40 :   8.00 minutes (est)
  Out of Range at:     06/03/2004 20:45:00 to 06/03/2004 21:00:00 :  15.00 minutes
    Injector downtime: 06/03/2004 20:37:00 to 06/03/2004 20:45:00 :   8.00 minutes (est)
  Out of Range at:     06/03/2004 23:43:40 to 06/03/2004 23:59:50 :  16.17 minutes
    Injector downtime: 06/03/2004 23:38:45 to 06/03/2004 23:59:45 :  21.00 minutes
  Out of Range at:     06/04/2004 00:04:50 to 06/04/2004 00:27:00 :  22.17 minutes
    Injector downtime: 06/04/2004 00:07:00 to 06/04/2004 00:26:00 :  19.00 minutes
  Out of Range at:     06/04/2004 00:31:00 to 06/04/2004 01:41:10 :  70.17 minutes
    Injector downtime: 06/04/2004 00:27:00 to 06/04/2004 01:39:40 :  72.67 minutes
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  Out of Range at:     06/04/2004 12:50:40 to 06/04/2004 12:50:40 :   0.00 minutes
    Injector downtime: 06/04/2004 12:42:40 to 06/04/2004 12:50:40 :   8.00 minutes (est)
  Out of Range at:     06/04/2004 12:54:10 to 06/04/2004 14:00:40 :  66.50 minutes
    Injector downtime: 06/04/2004 12:54:15 to 06/04/2004 13:58:20 :  64.08 minutes
  Out of Range at:     06/04/2004 14:04:30 to 06/04/2004 16:14:40 : 130.17 minutes
    Injector downtime: 06/04/2004 14:13:00 to 06/04/2004 16:12:30 : 119.50 minutes
  Out of Range at:     06/04/2004 18:32:30 to 06/04/2004 20:44:40 : 132.17 minutes
    Injector downtime: 06/04/2004 18:27:35 to 06/04/2004 20:42:20 : 134.75 minutes
  Out of Range at:     06/05/2004 20:27:00 to 06/05/2004 23:16:00 : 169.00 minutes
    Injector downtime: 06/05/2004 20:22:05 to 06/05/2004 23:13:50 : 171.75 minutes
  Out of Range at:     06/06/2004 00:39:10 to 06/06/2004 00:39:20 :   0.17 minutes
    Injector downtime: 06/06/2004 00:31:10 to 06/06/2004 00:39:10 :   8.00 minutes (est)
  Out of Range at:     06/06/2004 14:18:20 to 06/06/2004 14:18:20 :   0.00 minutes
    Injector downtime: 06/06/2004 14:10:20 to 06/06/2004 14:18:20 :   8.00 minutes (est)
  Out of Range at:     06/06/2004 14:22:00 to 06/06/2004 14:22:20 :   0.33 minutes
  Out of Range at:     06/06/2004 23:26:50 to 06/06/2004 23:27:10 :   0.33 minutes
    Injector downtime: 06/06/2004 23:18:50 to 06/06/2004 23:26:50 :   8.00 minutes (est)
  Out of Range at:     06/06/2004 23:35:10 to 06/06/2004 23:35:10 :   0.00 minutes
    Injector downtime: 06/06/2004 23:27:10 to 06/06/2004 23:35:10 :   8.00 minutes (est)
  Out of Range at:     06/07/2004 00:11:50 to 06/07/2004 00:23:10 :  11.33 minutes
    Injector downtime: 06/07/2004 00:06:55 to 06/07/2004 00:20:50 :  13.92 minutes
  Out of Range at:     06/07/2004 03:02:00 to 06/07/2004 03:07:10 :   5.17 minutes
    Injector downtime: 06/07/2004 02:54:00 to 06/07/2004 03:02:00 :   8.00 minutes (est)
  Out of Range at:     06/07/2004 03:10:50 to 06/07/2004 03:21:10 :  10.33 minutes

Period Beginning 06/09/2004 08:00
Current in Range                                99.41 %
Injector Availability                           99.38 %
  Out of Range at:     06/10/2004 20:43:40 to 06/10/2004 21:34:40 :  51.00 minutes
    Injector downtime: 06/10/2004 20:38:45 to 06/10/2004 21:32:20 :  53.58 minutes

Period Beginning 06/15/2004 16:00
Current in Range                                99.87 %
Injector Availability                           99.90 %
  Out of Range at:     06/18/2004 08:03:40 to 06/18/2004 08:13:50 :  10.17 minutes
    Injector downtime: 06/18/2004 07:55:40 to 06/18/2004 08:03:40 :   8.00 minutes (est)

Period Beginning 06/23/2004 08:00
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```
Current in Range                                100.00 %
Injector Availability                            99.89 %
  Out of Range at:     06/27/2004 00:53:51 to 06/27/2004 00:53:51 :   0.00 minutes
    Injector downtime: 06/27/2004 00:45:51 to 06/27/2004 00:53:51 :   8.00 minutes (est)

Period Beginning 06/29/2004 08:01
Current in Range                                 99.58 %
Injector Availability                            99.49 %
  Out of Range at:     06/29/2004 08:58:01 to 06/29/2004 09:23:51 :  25.83 minutes
    Injector downtime: 06/29/2004 08:53:06 to 06/29/2004 09:21:31 :  28.42 minutes
  Out of Range at:     06/30/2004 09:01:41 to 06/30/2004 09:05:51 :   4.17 minutes
    Injector downtime: 06/30/2004 08:53:41 to 06/30/2004 09:01:41 :   8.00 minutes (est)

Period Beginning 07/13/2004 16:00
Current in Range                                 98.95 %
Injector Availability                            98.71 %
  Out of Range at:     07/14/2004 12:37:23 to 07/14/2004 12:37:23 :   0.00 minutes
    Injector downtime: 07/14/2004 12:29:23 to 07/14/2004 12:37:23 :   8.00 minutes (est)
  Out of Range at:     07/14/2004 13:34:53 to 07/14/2004 14:32:13 :  57.33 minutes
    Injector downtime: 07/14/2004 13:29:58 to 07/14/2004 14:31:33 :  61.58 minutes
  Out of Range at:     07/15/2004 09:09:13 to 07/15/2004 09:34:33 :  25.33 minutes
    Injector downtime: 07/15/2004 09:04:18 to 07/15/2004 09:30:23 :  26.08 minutes
  Out of Range at:     07/15/2004 09:50:13 to 07/15/2004 09:52:33 :   2.33 minutes
    Injector downtime: 07/15/2004 09:42:13 to 07/15/2004 09:50:13 :   8.00 minutes (est)

Period Beginning 07/21/2004 08:00
Current in Range                                 97.95 %
Injector Availability                            97.83 %
  Out of Range at:     07/23/2004 19:02:41 to 07/23/2004 20:30:41 :  88.00 minutes
    Injector downtime: 07/23/2004 18:57:46 to 07/23/2004 20:29:51 :  92.08 minutes
  Out of Range at:     07/25/2004 02:56:51 to 07/25/2004 04:00:51 :  64.00 minutes
    Injector downtime: 07/25/2004 02:51:56 to 07/25/2004 04:00:31 :  68.58 minutes

Period Beginning 07/27/2004 08:00
Current in Range                                100.00 %
Injector Availability                           100.00 %

Period Beginning 08/04/2004 08:01
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Current in Range                                100.00 %
Injector Availability                           100.00 %

Period Beginning 08/10/2004 16:00
Current in Range                                 99.67 %
Injector Availability                            99.63 %
  Out of Range at:     08/16/2004 04:00:11 to 08/16/2004 04:33:21 :  33.17 minutes
    Injector downtime: 08/16/2004 03:55:16 to 08/16/2004 04:32:16 :  37.00 minutes
```