Listing of Statistics for Run1-2005 (Created Wed May 18 12:24:36 CDT 2005)

Total Amount of User Time in this interval 1639.27 Hours

User periods in this interval
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01/31/2005 08:00 To 02/07/2005 16:00 176.00 Hours, Delivered Beam: 172.03 Hours, 1 Fault(s), 172.03 MTBF, 97.74% of Sched. Time
02/08/2005 08:00 To 02/14/2005 08:00 144.00 Hours, Delivered Beam: 141.78 Hours, 5 Fault(s), 28.36 MTBF, 98.46% of Sched. Time
02/16/2005 08:01 To 02/21/2005 24:00 135.98 Hours, Delivered Beam: 135.98 Hours, 0 Fault(s), 135.98 MTBF, 100.00% of Sched. Time
02/22/2005 08:00 To 02/28/2005 08:00 144.00 Hours, Delivered Beam: 137.30 Hours, 1 Fault(s), 137.30 MTBF, 95.35% of Sched. Time
03/02/2005 08:00 To 03/07/2005 16:10 128.17 Hours, Delivered Beam: 127.65 Hours, 1 Fault(s), 127.65 MTBF, 99.60% of Sched. Time
03/08/2005 08:00 To 03/14/2005 08:00 144.00 Hours, Delivered Beam: 143.99 Hours, 0 Fault(s), 143.99 MTBF, 100.00% of Sched. Time
03/16/2005 08:00 To 03/21/2005 16:00 128.00 Hours, Delivered Beam: 126.56 Hours, 0 Fault(s), 126.56 MTBF, 98.88% of Sched. Time
03/22/2005 08:00 To 03/28/2005 24:00 160.00 Hours, Delivered Beam: 157.84 Hours, 3 Fault(s), 52.61 MTBF, 98.65% of Sched. Time
03/29/2005 08:00 To 04/04/2005 08:00 143.00 Hours, Delivered Beam: 139.53 Hours, 2 Fault(s), 69.76 MTBF, 97.57% of Sched. Time
04/06/2005 08:00 To 04/11/2005 16:00 128.00 Hours, Delivered Beam: 126.60 Hours, 1 Fault(s), 126.60 MTBF, 98.91% of Sched. Time
04/12/2005 08:00 To 04/21/2005 00:10 208.17 Hours, Delivered Beam: 207.65 Hours, 1 Fault(s), 207.65 MTBF, 99.75% of Sched. Time

| | |
|---|---|
| Delivered Beam | 1616.91 Hours |
| Percentage of Scheduled Time | 98.64 % |
| Downtime During Period | 22.36 Hours |
| Percentage of scheduled time SR current > 10 ma | 99.01 % |
| Average Delivered Current During This Period | 99.55 mA |
| Total integrated Current During This Period | 160.96 A-hr |

| | |
|---|---|
| Mean Fill Duration in Period | 101.06 Hours |
| Mean Fill Duration from Poisson Fit | 114.77 Hours |
| Mean Time Between Faults (MTBF) | 107.79 Hours |
| Faults per Day of Delivered Beam | 0.22 |
| Total Number of Faults | 15 |
| Scheduled Topup Time | 1207.17 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 downtime before the fill on the line above. |
|---|---|---|---|---|---|
| Fill# | Start | End | Duration (min: 1.0) | Fill Termination | Downtime | |

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                                                |                          |  0.00
#  1  01/31 08:00  To  02/01 03:59   20.00  | S24-ID Slow Valve  [XFD] |  3.97 2hrs,40min=XFD. 1hr,17min=PSG S24 canted
dipole.
#  2  02/01 07:58  To  02/07 15:59  152.03  | Int Dump: End of Period  |  0.00
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                                                |                          |  0.13 Poor bunch purity [DIAG]
#  3  02/08 08:08  To  02/09 00:52   16.75  | 3-ID Rad Mon Trip  [UES] |  0.59 Spurious 3-ID Rad. Mon. trip, resume top-up.
#  4  02/09 01:28  To  02/09 07:57    6.49  | RF-4 Trip           [RF] |  0.33 RF-4 ACIS trip due to RF test stand, refill.
#  5  02/09 08:17  To  02/10 08:56   24.66  | MPS trip           [CTL] |  0.52 Loose cable caused MPS trip. reset, refill.
#  6  02/10 09:28  To  02/13 00:43   63.26  | Beam motion    [Unknown] |  0.36 Unable to determine cause for beam loss.
#  7  02/13 01:05  To  02/13 23:24   22.31  | DPBLD Trip         [OAG] |  0.29 Steering procedure error, refill, resume top-
up.
#  8  02/13 23:41  To  02/14 07:59    8.30  | Int Dump: End of Period  |  0.00
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                                                |                          |  0.00
# 10  02/16 08:01  To  02/21 23:59  135.98  | Int Dump: End of Period  |  0.00
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                                                |                          |  0.00
# 11  02/22 08:00  To  02/28 01:18  137.30  | Power Sag        [ComEd] |  6.69 Power sag to 58%, all systems affected.
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                                                |                          |  0.01
# 12  03/02 08:00  To  03/07 11:32  123.53  | Human Error         [PS] |  0.51 S2/3 raw supply trip due to human error,
refill.
# 13  03/07 12:02  To  03/07 16:09    4.12  | Int Dump: End of Period  |  0.00
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                                                |                          |  0.00
# 14  03/08 08:00  To  03/14 07:59  143.99  | Int Dump: End of Period  |  0.00
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                                                |                          |  1.44
# 16  03/16 09:26  To  03/21 15:59  126.56  | Int Dump: End of Period  |  0.00
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                                                |                          |  0.00
# 17  03/22 08:00  To  03/24 12:47   52.79  | S36A:V3             [PS] |  1.38 Converter failed, replaced, refill.
# 18  03/24 14:10  To  03/26 04:18   38.13  | 5-ID Rad Trip      [UES] |  0.28 Spurious 5-ID Radiation Monitor Trip, Refill.
# 19  03/26 04:35  To  03/28 23:30   66.92  | SR-RF4 Mod Anode    [RF] |  0.49 SR-RF4 mod anode regulation problem, end of
ops.
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                                                |                          |  1.24 20min due to RF4, 54min due to CPU
compensation
# 21  03/29 09:14  To  03/30 19:45   34.51  | Bunch Purity       [OAG] |  0.76 Intentional dump due to poor bunch purity,
refill.
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# 22  03/30 20:30  To  03/31 01:22    4.88  | S24/24 Gespac       [PS] |  1.48 GESPAC power supply failed, replaced, refill.
# 23  03/31 02:51  To  04/04 07:59  100.14  | Int Dump: End of Period  |  0.00
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                                            |                          |  0.01
# 24  04/06 08:00  To  04/11 10:45  122.75  | S6BQ:1 Trip         [PS] |  1.39 Quad trip, swapped supply, refill.
# 25  04/11 12:08  To  04/11 15:59    3.85  | Int Dump: End of Period  |  0.00
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                                            |                          |  0.00
# 26  04/12 08:00  To  04/14 12:36   52.60  | 7-BM EPS Trip       [ME] |  0.51 Low flow fault on BPM1, reset, refill.
# 27  04/14 13:07  To  04/21 00:09  155.04  | 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   97.48 %
  Current in Range during Delivered Beam Time    98.83 %
  Injector Availability                          98.76 %

Period Beginning 02/08/2005 08:00
Current in Range                                100.00 %
Injector Availability                           100.00 %

Period Beginning 02/16/2005 08:01
Current in Range                                 98.54 %
Injector Availability                            98.46 %
  Out of Range at:     02/17/2005 14:10:52 to 02/17/2005 14:58:12 :  47.33 minutes
    Injector downtime: 02/17/2005 14:05:57 to 02/17/2005 14:49:52 :  43.92 minutes
  Out of Range at:     02/17/2005 20:45:22 to 02/17/2005 21:34:12 :  48.83 minutes
    Injector downtime: 02/17/2005 20:40:27 to 02/17/2005 21:30:02 :  49.58 minutes
  Out of Range at:     02/20/2005 05:06:02 to 02/20/2005 05:10:12 :   4.17 minutes
    Injector downtime: 02/20/2005 04:58:02 to 02/20/2005 05:06:02 :   8.00 minutes (est)
  Out of Range at:     02/20/2005 23:52:22 to 02/20/2005 23:59:52 :   7.50 minutes
    Injector downtime: 02/20/2005 23:44:22 to 02/20/2005 23:52:22 :   8.00 minutes (est)
  Out of Range at:     02/21/2005 00:04:52 to 02/21/2005 00:16:22 :  11.50 minutes
    Injector downtime: 02/20/2005 23:59:57 to 02/21/2005 00:16:17 :  16.33 minutes

Period Beginning 02/22/2005 08:00
Current in Range                                 98.32 %
Injector Availability                            98.28 %
  Out of Range at:     02/23/2005 15:22:42 to 02/23/2005 17:40:42 : 138.00 minutes
    Injector downtime: 02/23/2005 15:17:47 to 02/23/2005 17:39:52 : 142.08 minutes

Period Beginning 03/08/2005 08:00
Current in Range                                 99.02 %
Injector Availability                            98.88 %
  Out of Range at:     03/09/2005 02:30:52 to 03/09/2005 02:41:02 :  10.17 minutes
    Injector downtime: 03/09/2005 02:25:57 to 03/09/2005 02:40:57 :  15.00 minutes
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  Out of Range at:     03/09/2005 08:47:32 to 03/09/2005 08:57:02 :   9.50 minutes
    Injector downtime: 03/09/2005 08:42:37 to 03/09/2005 08:56:57 :  14.33 minutes
  Out of Range at:     03/11/2005 00:53:52 to 03/11/2005 01:58:42 :  64.83 minutes
    Injector downtime: 03/11/2005 00:48:57 to 03/11/2005 01:56:22 :  67.42 minutes

Period Beginning 03/16/2005 08:00
Current in Range                                 97.26 %
Injector Availability                            97.18 %
  Out of Range at:     03/16/2005 16:36:24 to 03/16/2005 16:55:04 :  18.67 minutes
    Injector downtime: 03/16/2005 16:31:29 to 03/16/2005 16:54:59 :  23.50 minutes
  Out of Range at:     03/16/2005 18:46:24 to 03/16/2005 18:53:04 :   6.67 minutes
    Injector downtime: 03/16/2005 18:38:24 to 03/16/2005 18:46:24 :   8.00 minutes (est)
  Out of Range at:     03/17/2005 10:08:24 to 03/17/2005 11:35:04 :  86.67 minutes
    Injector downtime: 03/17/2005 10:03:29 to 03/17/2005 11:22:44 :  79.25 minutes
  Out of Range at:     03/17/2005 13:38:34 to 03/17/2005 15:00:14 :  81.67 minutes
    Injector downtime: 03/17/2005 13:33:39 to 03/17/2005 14:58:04 :  84.42 minutes
  Out of Range at:     03/19/2005 09:53:14 to 03/19/2005 10:07:24 :  14.17 minutes
    Injector downtime: 03/19/2005 09:48:19 to 03/19/2005 10:07:19 :  19.00 minutes

Period Beginning 03/22/2005 08:00
Current in Range                                100.00 %
Injector Availability                           100.00 %

Period Beginning 03/29/2005 08:00
Current in Range                                 97.98 %
Injector Availability                            97.84 %
  Out of Range at:     03/30/2005 17:32:24 to 03/30/2005 19:44:54 : 132.50 minutes
    Injector downtime: 03/30/2005 17:27:29 to 03/30/2005 19:44:49 : 137.33 minutes
  Out of Range at:     03/31/2005 18:20:34 to 03/31/2005 18:25:34 :   5.00 minutes
    Injector downtime: 03/31/2005 18:12:34 to 03/31/2005 18:20:34 :   8.00 minutes (est)
  Out of Range at:     04/01/2005 10:22:44 to 04/01/2005 10:39:34 :  16.83 minutes
    Injector downtime: 04/01/2005 10:17:49 to 04/01/2005 10:39:29 :  21.67 minutes
  Out of Range at:     04/01/2005 19:43:24 to 04/01/2005 19:58:14 :  14.83 minutes
    Injector downtime: 04/01/2005 19:38:29 to 04/01/2005 19:52:04 :  13.58 minutes

Period Beginning 04/12/2005 08:00
Current in Range                                 99.07 %
Injector Availability                            98.98 %
  Out of Range at:     04/17/2005 15:05:49 to 04/17/2005 17:01:19 : 115.50 minutes
    Injector downtime: 04/17/2005 15:00:54 to 04/17/2005 17:00:09 : 119.25 minutes
  Out of Range at:     04/17/2005 22:21:39 to 04/17/2005 22:21:59 :   0.33 minutes
    Injector downtime: 04/17/2005 22:13:39 to 04/17/2005 22:21:39 :   8.00 minutes (est)
```