

## Downtime for Run 2001-3 (Ops Group End Of Run Analysis)

Fill #	Start	End	Length	Loss Reason	Delay Reason	DIN #	Fill #	Audit	Machine	Start	End	User Length	System Length	No Impact	Cause	Type	Description
1	08/01/01 08:00	08/02/01 08:43	24.72	Tornado Warning [OTH]						08/02/01 08:43	08/02/01 08:55	0.20	0.20		OTH	Inhibits Beam to User	Shutters closed during tornado warning [OTH]
4	08/02/01 08:56	08/03/01 17:52	32.93	S4A:Q3 trip [PS]	refill					08/03/01 17:52	08/03/01 18:15	0.38	0.38		PS	Store Lost	S4A:Q3 trip [PS]
7	08/03/01 18:15	08/04/01 07:44	13.48	IOCS1VP reboot [CTL]	refill					08/04/01 07:44	08/04/01 08:10	0.43	0.43		CTL	Store Lost	Intentionally dumped beam to reboot IOCS1VP due to ongoing problem with IOC [CTL]
8	08/04/01 08:10	08/04/01 19:41	11.52	MPS trip on flow [ME]	refill					08/04/01 19:41	08/04/01 20:24	0.72	0.72		ME	Store Lost	MPS tripped due to a bad EA3 Love controller [ ME]
										08/04/01 20:24	08/04/01 20:32	0.13	0.13		CTL	Inhibits Beam to User	Chain B Top Up indicating a permit when key switch disabled [CTL]
										08/04/01 20:32	08/04/01 20:40	0.13	0.13		ME	Inhibits Beam to User	Recovery [ME]
										08/04/01 20:40	08/04/01 20:44	0.07	0.07		PS	Inhibits Beam to User	B:IK tripped on water flow [PS]
										08/04/01 20:44	08/04/01 20:53	0.15	0.15		ME	Inhibits Beam to User	Recovery [ME]
9	08/04/01 20:53	08/05/01 07:39	10.77	P0 timing error [CTL]	refill					08/05/01 07:39	08/05/01 08:25	0.77	0.77		CTL	Store Lost	P0 timing error caused BPLD limit trip [CTL]
10	08/05/01 08:25	08/05/01 15:57	7.53	RF2 HVPS fault [RF]	refill					08/05/01 15:57	08/05/01 16:05	0.13	0.13		RF	Store Lost	RF2 HVPS fault [RF]
										08/05/01 15:57	08/05/01 19:36	1.94	3.65		CTL	Inhibits Beam to User	Lost communications with RF5 HVPS, could not control locally or remotely for inj [CTL]
										08/05/01 15:57	08/05/01 18:34	1.39	2.62		BL	Inhibits Beam to User	Access into Zone A to repair 3IDus gap
										08/05/01 18:34	08/05/01 18:44	0.09	0.17		PS	Inhibits Beam to User	PS controls causing incorrect readback on trims [PS]
										08/05/01 18:44	08/05/01 18:54	0.09	0.17		BL	Inhibits Beam to User	Continuation of recovery from Zone A access
										08/05/01 19:36	08/05/01 19:58	0.37	0.37		RF	Inhibits Beam to User	Recovery and injection [RF]
11	08/05/01 19:58	08/06/01 13:00	17.03	S15BQ1 trip on OI [PS]	refill					08/06/01 13:00	08/06/01 14:48	1.80	1.80		PS	Store Lost	S15B:Q1 swap-out and investigation of S19A:V3:PS problem
13	08/06/01 14:48	08/06/01 21:39	6.85	P0 timing error [CTL]	refill					08/06/01 21:39	08/06/01 22:00	0.35	0.35		CTL	Store Lost	P0 timing error caused BPLD limit trip [CTL]
15	08/06/01 22:00	08/06/01 23:05	1.08	P0 timing error [CTL]	refill					08/06/01 23:05	08/07/01 00:00	0.92	0.92		CTL	Store Lost	P0 timing error caused beam loss trip and injector problems [CTL]
16	08/07/01 00:00	08/07/01 07:59	7.98	Int Dump: End of Period											Scheduled	Int. Dump	End of User Period
			133.90														
17	08/07/01 16:03	08/07/01 20:52	4.82	RF2 HVPS trip [VAC]	refill					08/07/01 20:52	08/07/01 21:09	0.28	0.28		RF	Store Lost	RF2 tripped on HVPS crowbar.
19	08/07/01 21:09	08/08/01 04:40	7.52	S40 cavity vacuum [RF]	refill					08/08/01 04:40	08/08/01 05:01	0.35	0.35		VAC	Store Lost	RF4 LLRF trip, S40 cavity #1&2 ION gauge fault.
20	08/08/01 05:01	08/08/01 07:44	2.72	S32A:Q1 PS fault [PS]	refill					08/08/01 07:44	08/08/01 08:14	0.50	0.50		PS	Store Lost	S32A:Q1 PS tripping on Output Water OT [PS]
										08/08/01 08:13	08/08/01 09:57	1.73	1.73		RF	Inhibits Beam to User	SR RF 4 collector power, the S40 vacuum spiked [RF]
										08/08/01 09:57	08/08/01 10:42	0.75	0.75		BL	Inhibits Beam to User	6ID PSS trip [BL]
										08/08/01 10:42	08/08/01 11:11	0.48	0.48		RF	Inhibits Beam to User	Completing recovery from S40 cavity vacuum trip [RF]
										08/08/01 11:11	08/08/01 11:27	0.27	0.27		PS	Inhibits Beam to User	Beam delivered to users less than an hour [PS]
										08/08/01 11:27	08/08/01 12:58	1.52	1.52		PS	Store Lost	S32A:Q1 PS trip and swap-out [PS]
22	08/08/01 12:58	08/11/01 07:46	66.80	IOCSRMON reboot [CTL]	refill					08/11/01 07:46	08/11/01 08:05	0.32	0.32		CTL	Store Lost	IOCSRMON reboot [CTL]
28	08/11/01 08:05	08/11/01 17:30	9.42	S40, cavity vacuum. [VAC]	refill					08/11/01 17:30	08/11/01 18:00	0.50	0.50		VAC	Store Lost	RF4's Power Monitor tripped on S40 Cavities #1 & #2 Ion Gauge fault.[RF]
29	08/11/01 18:00	08/13/01 07:59	37.98	Int Dump: End of Period											Scheduled	Int. Dump	End of User Period
			129.25														
32	08/15/01 08:00	08/15/01 15:34	7.57	6ID EPS trip [ISI]	refill					08/15/01 15:34	08/15/01 16:46	1.20	1.20		ISI	Store Lost	6ID PSS/EPS trip dropped Zones A-E to Controlled Access [ISI]
33	08/15/01 16:46	08/16/01 18:43	25.95	S32B:Q5 setpt to 0 [PS]	refill					08/16/01 18:43	08/16/01 19:17	0.57	0.57		PS	Store Lost	S32B:Q5 DAC setpoint went to 0 [PS]
35	08/16/01 19:17	08/17/01 08:43	13.43	S32B:Q5 setpt to 0 [PS]	refill					08/17/01 08:43	08/17/01 09:06	0.38	0.38		PS	Store Lost	S32B:Q5 DAC setpoint went to 0 [PS]
37	08/17/01 09:06	08/17/01 19:44	10.63	SR PS interlock card swap out	refill					08/17/01 19:44	08/17/01 20:06	0.37	0.37		PS	Store Lost	Beam int. dumped to replace S33 the SR PS Interlock cards.
										08/17/01 20:06	08/17/01 20:11	0.08	0.08		RF	Inhibits Beam to User	Linac L1 Modulator tripped on Power Fault
										08/17/01 20:11	08/17/01 20:28	0.28	0.28		PS	Inhibits Beam to User	Recovery from SR PS Interlock card replacement.
38	08/17/01 20:28	08/19/01 14:56	42.47	S27BQ4 trip [PS]	refill					08/19/01 14:56	08/19/01 15:19	0.38	0.38		PS	Store Lost	S27B:Q4:PS tripped on IGBT   Diode OT, Overcurrent. reset and standardardize [PS]
										08/19/01 15:19	08/19/01 15:32	0.17	0.22		CTL	Inhibits Beam to User	Lost communications with IOCS35VP [CTL]
										08/19/01 15:29	08/19/01 15:36	0.12	0.12		PS	Inhibits Beam to User	Continued recovery from SR PS trip [PS]
42	08/19/01 15:36	08/19/01 18:07	2.52	S27BQ4 trip [PS]	refill					08/19/01 18:07	08/19/01 18:34	0.45	0.45		PS	Store Lost	S27B:Q4:PS tripped on IGBT   Diode OT, Overcurrent. reset and standardardize [PS]
43	08/19/01 18:34	08/19/01 19:06	0.53	S27BQ4 trip [PS]	refill					08/19/01 19:06	08/19/01 20:21	1.25	1.25		PS	Store Lost	S27B:Q4:PS tripped on IGBT   Diode OT, Overcurrent. Swap-out [PS]
44	08/19/01 20:21	08/20/01 00:21	4.00	S27BQ4 trip [PS]	refill					08/20/01 00:21	08/20/01 02:00	1.65	1.65		PS	Store Lost	S27B:Q4:PS tripped on IGBT   Diode OT, Overcurrent. Swap-out [PS]
45	08/20/01 02:00	08/21/01 07:59	29.98	Int. Dump End of Period											Scheduled	Int. Dump	End of User Period
			137.08														
48	08/21/01 16:00	08/21/01 19:01	3.02	RF4 HVPS trip [RF]	refill					08/21/01 19:01	08/21/01 19:30	0.48	0.48		RF	Store Lost	RF4 HVPS trip [RF]
49	08/21/01 19:30	08/21/01 23:08	3.63	S39BQ2 IGBT/Cap OT [PS]	refill					08/21/01 23:08	08/21/01 23:28	0.33	0.33		PS	Store Lost	S39BQ2 trip on IGBT/Cap OT [PS]
50	08/21/01 23:28	08/22/01 00:34	1.10	S39BQ2 IGBT/Cap OT [PS]	refill					08/22/01 00:34	08/22/01 00:53	0.32	0.32		PS	Store Lost	S39BQ2 trip on IGBT/Cap OT [PS]
51	08/22/01 00:53	08/22/01 04:09	3.27	S39BQ2 IGBT/Cap OT [PS]	refill					08/22/01 04:09	08/22/01 05:09	1.00	1.00		PS	Store Lost	S39BQ2 trip on IGBT/Cap OT and swap-out [PS]
52	08/22/01 05:09	08/22/01 05:54	0.75	S39BQ2 Mag OT trip [PS]	refill					08/22/01 05:54	08/22/01 07:07	1.22	1.22		PS	Store Lost	Two S39BQ2 trip on Mag OT trips with beam delivered < 0.5 between them; swap-out
54	08/22/01 07:07	08/22/01 11:08	4.02	S40 Cav. Vac trip [VAC]	refill					08/22/01 11:08	08/22/01 11:22	0.23	0.23		VAC	Store Lost	RF4, sector 40, SL3 cavity 1&2 Ion Gauge Fault [RF]
55	08/22/01 11:22	08/22/01 20:56	9.57	04-ID EPS trip [ISI]	refill					08/22/01 20:56	08/22/01 21:35	0.65	0.65		ISI	Store Lost	04-ID EPS trip [BL]
57	08/22/01 21:35	08/23/01 19:46	22.18	Rad Mon trip at Inj. [OPS]	refill					08/23/01 19:46	08/23/01 20:04	0.30	0.30		OPS	Store Lost	03-ID Rad Mon trip during Injection.
59	08/23/01 20:04	08/23/01 20:42	0.63	S40 Cav. Vac trip [VAC]	refill					08/23/01 20:42	08/23/01 21:06	0.40	0.40		VAC	Store Lost	RF4, sector 40, SL3 cavity 1&2 Ion Gauge Fault [RF]
60	08/23/01 21:06	08/24/01 07:45	10.65	iocsrmon reboot [CTL]	refill					08/24/01 07:45	08/24/01 08:05	0.33	0.33		CTL	Store Lost	Reboot of IOCSRMON causes beam dump [CTL]
61	08/24/01 08:05	08/24/01 12:32	4.45	22ID PSS trip [ISI]	refill					08/24/01 12:32	08/24/01 13:19	0.55	0.78		ISI	Store Lost	22ID PSS trip [ISI]

