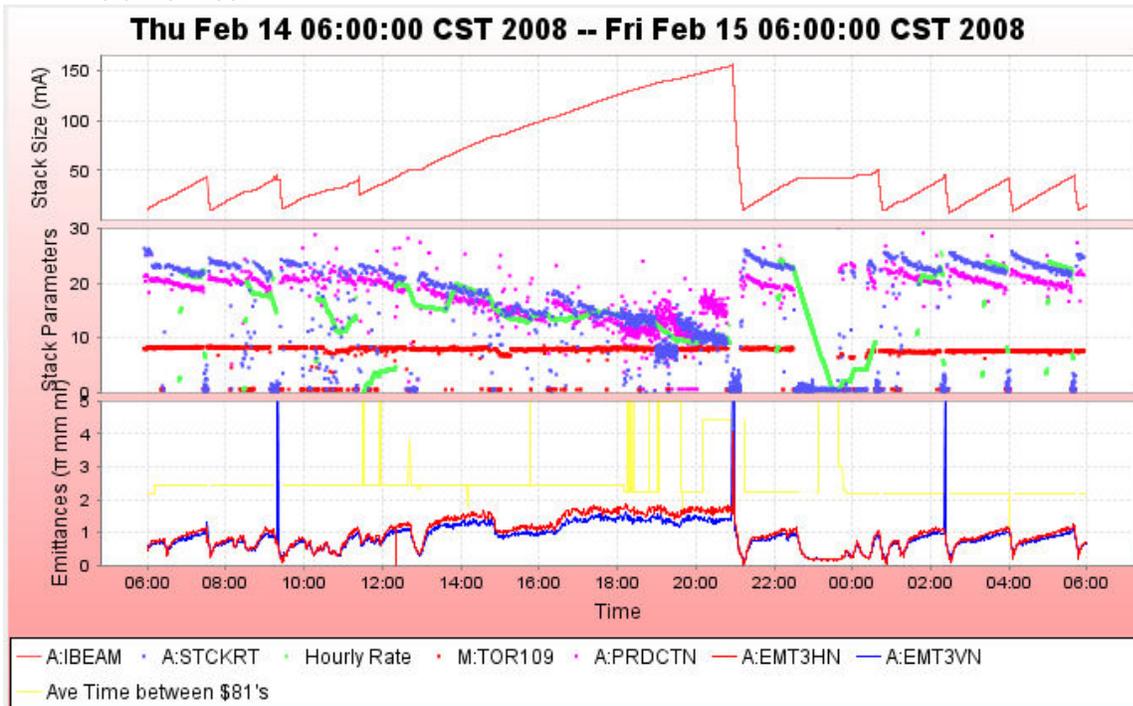


2008-02-15 Friday Pbar Morning Summary

Thursday, February 14, 2008
8:52 PM

Stacking

- Protons on target
 - Dropped from 7.6×10^{12} on the day shift to 7.4×10^{12} on the evening shift at 11 turns.
 - Ran only 7×10^{12} at 10 turns during the owl shift.
- Stacked 363mA over 24 hours. The peak stacking hour was 23.47 with an average production of 14.4×10^{-6} /proton
 - The numbers were down due to
 - Large stack on the day/evening shift
 - Reduced beam on target on the owl shift.
- Ran the flusher and stacked up to 154mA without incident.
- On Wally's alarm report, we worked down to zero devices making the "top alarm traffic" list.



Transfers

- Unstacked 327mA in 23 transfers over 7 sets.
 - Accumulator to MI efficiency was 95.5%
 - Accumulator to Recycler efficiency was 89.2%
- Efficiency lower due to:
 - Single "partial transfer" 7171 to top off the Recycler before the HEP shot
 - Transfer 7173 which had 8 transfers from 154mA Stack.

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Column 1 Number 0_Pbar	Column 4 Number_3_Transfer Time	Column 21 Number_2 O_A:IBEAM B sampled	Column 22 Number _21_A:IB	Unstacked (mA)	Column 23 Number _22_R:BE	Column 24 Number _23_R:BE	Stashed	Acc to RR Eff	Column 27 Number_26_MI	Column 28 Number_27_MI Before	Acc to MI Eff	Acc to MI2 Eff	Transfers	Sets	
	2/15/2008	7:00:00 AM		326.800			291.37	89.16%	312.200	311.720	95.53%	95.39%	23	7	
7177	Friday, February 15, 2008	5:41:05 AM	44.588	10.188	34.400	229.616	260.898	31.28	90.94%	33.137	33.420	96.33%	97.15%	3	1
7175	Friday, February 15, 2008	2:23:12 AM	42.188	7.988	34.200	169.272	201.326	32.05	93.73%	33.332	33.279	97.46%	97.31%	3	1
7174	Friday, February 15, 2008	12:41:03 AM	49.988	10.788	39.200	133.501	169.922	36.42	92.91%	37.866	37.152	96.60%	94.78%	3	1
7172	Thursday, February 14, 2008	8:57:25 PM	153.788	11.388	142.400	13.309	135.929	122.62	86.11%	133.632	133.764	93.84%	93.94%	8	1
7171	Thursday, February 14, 2008	11:25:15 AM	40.988	26.588	14.400	378.740	391.511	12.77	88.69%	13.828	13.231	96.03%	91.88%	1	1
7170	Thursday, February 14, 2008	9:22:51 AM	40.588	11.788	28.800	354.567	381.306	26.74	92.84%	28.420	28.421	98.68%	98.68%	2	1
7169	Thursday, February 14, 2008	7:31:52 AM	43.388	9.988	33.400	327.939	357.423	29.48	88.28%	31.985	32.453	95.76%	97.16%	3	1

Studies

- Crunching numbers from Debuncher gain ramping.

Requests

- Stacking during transfers
 - This would be another iteration of the study where we stack during transfers, using the new aggregate.
 - **The Run Coordinator would like to add the constraint that we cannot complete this study if we don't collect SDA data on the shot.**
 - Talked to DVM.
 - Collecting SDA data on this study is currently not possible with the current SDA code.
 - If changes were made to the SDA code to make this work, then transfers using the Operational transfers aggregate would no longer work.
 - Stacking during transfers is not yet operational, and will not be for a while.
 - If SDA data is required to do this study, Timofei would have to write SDA code to specifically work with this study, while maintaining the code to work with our normal operational mode of transfers. This would mean two separate SDA codes.
- AP2 Line orbit work.
 - Studier will be Tony Leveling.
 - Tony would turn off the AP2 portion of the Overthruster.
 - He would then make changes to the Lens current and record BPM orbits.
 - When done, he would turn back on the Overthruster.
 - Expected hit on stacking is less than 5%.
- Tony Leveling would like to move us to Target Disk O (Oh, not Zero)
- Reverse Proton tune-up during Recycler transfers
 - Jim Morgan would like to take an extra 10 minutes to tune-up the beamlines during transfers today.
 - This is to help untangle some of our D:V901, D:VT906, D:VS904, D:VS901 issues. The orbit correction program tends to like to push the two shunts VS901 and VS904 in opposite directions (one toward's the minimum of zero and the other towards the maximum of 30A). Jim would take time to improve this problem.

Other Notes

- Paul's Numbers
 - Most in an hour: 23.47 mA at Thu Feb 14 22:16:35 CST 2008

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 - Best: 25.19 mA on 30-Jan-08
 - Average Production 14.36 e-6/proton Best: 25.41 e-6/proton on 01/30/2008
 - Average Protons on Target 7.15 e12 Best: 8.77 e12 on 07/24/2007
 - Largest Stack 154.00 mA Best: 271.01 mA on 11/14/2007

- AI's Numbers
 - Stacking
 - Pbars stacked: 363.37 E10
 - Time stacking: 21.82 Hr
 - Average stacking rate: 16.65 E10/Hr

 - Uptime
 - Number of pulses while in stacking mode: 32771
 - Number of pulses with beam: 28839
 - Fraction of up pulses was: 88.00%

 - The uptime's effect on the stacking numbers
 - Corrected time stacking: 19.21 Hr
 - Possible average stacking rate: 18.92 E10/Hr
 - Could have stacked: 412.91 E10/Hr

 - Recycler Transfers
 - Pbars sent to the Recycler: 358.88 E10
 - Number of transfers : 27
 - Number of transfer sets: 9
 - Average Number of transfer per set: 3.00
 - Time taken to shoot: 01.60 Hr
 - Time per set of transfers: 10.64 min
 - Transfer efficiency: -47.48%

 - Other Info
 - Average POT : 7.27 E12
 - Average production: 17.32 pbars/E6 protons

- Lionel Prost makes the following request to me after the 9am meeting.
 - When reporting the Accumulator to Recycler efficiencies, I should sort out the ones where the Recycler has not been cooled enough longitudinally based on the DPSig90% number.
 - I would be happy to do this, but it will add significant time to my morning preparation, since this information would have to be manually extracted from the Recycler shot scrapbook on each shot. These is a screen capture that has this value in the Recylcer shot scrapbook. I could read it from there on every transfer and put in into my analysis spreadsheet by hand. Sounds like a lot of work. Solutions?
 - Why not have the Recycler Machine coordinator report on the Recycler elements of the Recycler transfers? Lionel says this will not likely happen.
 - I would need these numbers added to the Recycler SuperTable for this to be possible. If the numbers were in the Recycler SuperTable, I could extract them fairly easily from excel. I would then need to write some VB Script code to my existing Excel analysis sheet to filter out which transfers I make the calculations from. I fear by the time I get done with this, my term as Machine Coordinator will be over.

- Other Numbers
 - 4 8 15 16 23 42