

2008-09-02 Tuesday Morning Pbar Summary

Tuesday, September 02, 2008
7:42 AM

Stacking

○ Friday:

▪ Days:

- delt with PMAG #10 failure and replacement.
- PMAG #11 installed during the day shift.

▪ Eve

- Established stacking

Yield is 137.8%, production is 20+, stackrate is 26.

Pasted from <<http://www-bd.fnal.gov/cgi-mach/machlog.pl?nb=pbar08&action=view&page=385&frame=2&anchor=&hilite=&load=>>>

○ Sunday

□ Owl

- As guided by Tony we moved the target vertical position D:TGTY to 3.658.

Pasted from <<http://www-bd.fnal.gov/cgi-mcr/elog.pl?nb=2008&action=view&page=661&frame=2&anchor=&hilite=>>>

- D:PNWM3

- ◆ Alarming high. Normally 3 to 6, now 12GPM.
- ◆ Tony is aware.
- ◆ We have a Pbar alarm for PMag Col Wtr Return Flow D:PMWM3. This happened just a short time after changing the Y position for the target.
 - ◇ After talking with Tony we decided that this is probably just a result of the failing flow meter combined with the slight temperature change in the water due to more beam. Tony is not concerned.
 - ◇ Pasted from <<http://www-bd.fnal.gov/cgi-mcr/elog.pl?nb=2008&action=view&page=661&frame=2&anchor=&hilite=>>>

□ Days

- Lithium lens tripped with an external interlock indication, return flow. OPs reset and beam operations continues.

Pasted from <<http://www-bd.fnal.gov/cgi-mcr/elog.pl?nb=2008&action=view&page=662&frame=2&anchor=&hilite=>>>

- Lens trip on transformer water temp high. Pasted from <<http://www-bd.fnal.gov/cgi-mcr/elog.pl?nb=2008&action=view&page=662&frame=2&anchor=&hilite=>>>
 - ◆ Tony is bypassing the lens interlock for this device (D:LNTC11) until a fix can be made. Checked the trip level for D:LNTC11; it is set at 34.75 C. From the 1 min datalogger, the max temperature since the vertical target adjustment earlier today was 32.2 C. So there should not be any problem with this interlock. However, I caught on a fast time plot a number of noise spikes which would cause an interlock trip; the highest spike caught at 720 Hz was about 38 C. None of these spikes I saw on FTP caused an interlock trip. This looks like a new problem.
 - ◆ I tweaked the alarm set point to 36 C (2.8 volts on the alarm card). If we continue to have trouble, we can bypass the interlock until we get a chance to look for the noise problem. I've also put D:LNTC11 on a 1 Hz logger list to get a better sample rate.
 - ◆ -- Sun Aug 31 13:30:57 comment by...Leveling -- After seeing additional noise spikes, I think it is just a matter of time before the lens PS trips off. I've bypassed the interlock for D:LNTC11 and set the ACNET alarm for the device to 35 C. Other interlock

parameters on the collection lens skid will provide protection for the lens/transformer assembly until we can resolve the noise issue.

Pasted from <<http://www-bd.fnal.gov/MCRlog/notebooks/temp1220361764.html#125233>>

- Mostly 11 turns, though did run 12 turns
- D:P4TW06

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PB 553 DIGITAL STATUS
553 DIGITAL STATUS
parm *SA* X-A/D X=TIME Y=I:VP321 I:VP521 *RESET
*save BL-- Eng-U I= 0 I=-4 -4 -10 -10 *ON
s_MI AUTO F= 1 F= 6 6 10 10 *OFF
.global .linac..booster...mi...tev...sy...p-bar..misc...collider

D:P4TW06 Debuncher Momentum TWT -See Alarm Log-

P.S. Fault Summary Fault 0 System I.D. D-2 (MSB) 0 *On
P.S. Collector Fault OK 1 System I.D. D-1 2 1 *Off < *
P.S. Helix Fault OK 1 System I.D. D-0 (LSB) 0 *Reset< T
P.S. Interlock Fault OK 1 Internal Power Supply OK 1 .....
P.S. Remote Fault Fault 0 Heart Beat Fault OK 1 .....
P.S. Thermal Fault OK 1 bit-26 ..... 0 Local
P.S. Cable Interconnect OK 1 bit-25 ..... 1 Alarm is
P.S. Reset Inactiv 1 bit-24 ..... 1 ALARMING
P.S. Remote On/Off Remote 1 Chill Plate 1 Disable Enable 0 Speech is
P.S. Timing MODE Timing 1 Chill Plate 1 Fault OK 1 BEAM-INHIB
P.S. AC On/Off On 1 Chill Plate 0 Disable Enable 0 Edit
P.S. Standby 0 Chill Plate 0 Fault OK 1
P.S. RF On/Off Off 0 Kicker 1 Disable Disable 1
P.S. RF Control Off 0 Kicker 1 Fault OK 1
P.S. AC Control Off 0 Kicker 0 Disable Enable 0
P.S. Reset Control Inactiv 0 Kicker 0 Fault OK 1

Messages
  
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- The sum fault on the power supply is what is tripping. The power supply interlocks clear in local. The power supply does not come on. The micro p interlock on the TWT protection chassis is showing a bad indication (or lit). This appears to be the problem.

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- Replaced Debuncher band #4 Momentum #6 TWT power supply and the PI card in the protection monitor.

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- 8-31-08:
 - 8am, Target moved
- Monday day shift
 - P2 Permit

Other

- Paul's Numbers

- Most in an hour: 23.91 mA at Mon Sep 01 23:24:47 CDT 2008
- Best: 27.01 mA on 03-Jun-08
- Average Production 16.78 e-6/proton Best: 25.41 e-6/proton on 01/30/2008
- Average Protons on Target 7.48 e12 Best: 8.77 e12 on 07/24/2007
- Largest Stack .00 mA Best: 313.58 mA on 02/18/2008