

2011-03-28 Monday Morning Notes

Monday, March 28, 2011
5:00 AM

On-call

- Sunday: Tony
- Monday/Tuesday: DVM
- Wed/Thurs: Vladimir

AntiHydrogen Studies

- A) Arrive at AP50 between 0800-0810
- B) Stop Antihydrogen DAQ
- C) Turn off PMT HV
- D) Retract Foil
- E) Call you
- F) Goto AP10
- G) (With you?) Take out cheater box and re-establish normal control connections
- H) Call MCR/run-co and ask for access prep
- I) Return to AP50
- J) Await beam dump
- K) Turn on PMT; take rate measurements without beam
- L) Return to BWT
- M) Attend 0900 meeting
- N) Get dosimetry and Budlong (or another body)
- O) Access to investigate light leak
- P) Redo rate measurements (see improvement!)
- Q) Turn Off PMT HV
- R) Return Access Keys
- S) Work on analyzing data sets.

Brian

- There is a Manifold Card installed in that location, which must have a permit from the Pirani Card. Ion pump Cards or Pirani Cards can be used as an interlock for Sector Valve Cards. An Ion gauge is not recommended for that purpose. Changing over from one to the other is a major revision to the crate wiring.
- There should be a Pirani gauge on both sides of a valve. I'm unaware of any system in any beamline that does not use a Pirani gauge on both sides of any type of valve., Could one be installed at a roughing port?
- By the way, I'm in today but possibly not for the full day.

Target Station

- Software development in progress for our new chilled water isolation valve control
- Will did a low pressure gas test on circuit #1 today and found that it was leaking.
 - Going to examine the compression fittings under the concrete blocks in the upper vault.
 - Found a Cu compression fitting leaking. Changed with a stainless steel fitting (changed 1 of 4 fittings).
 - Circuit #1 now pressure tests ok
 - Will leave blocks off
 - Today we are going to replace the other three compression fittings, pressure test and then fill the system.
 - If no leak, close up Monday morning...ready for beam as early as 11am.
- Plan
 - I think we must replace the remaining three brass fittings at the top of the dump module

- with stainless steel ones (or do the sweat fitting repair). I think it is now obvious that the leaks we have observed in both circuits over the past 2 months are at least partly due to the fittings. Contamination survey results at the top of the module, especially in the blue copper corrosion directly above fittings in both loops would not be possible without a significant water leak there.
- Recall that circuit #2 was leaking earlier this month. As a pre-treatment, we cold-cycled the dump to make the leak grow and we succeeded at that. We managed to get the reservoir tank to lose 11" of water overnight without the pump skid running. I think subsequently, we patched the leaking circuit which probably temporarily patched the leaking brass fittings. I believe that thermal cycling with reopen those leaks and we will be right back where we started in a few days time. So I think it's clear that the fittings must be replaced now.
 - I would us like to do the following today:
 - Check gas pressure leak test set up over the weekend.
 - Blow out circuit #2.
 - Replace three remaining fittings
 - Gas pressure test both circuits
 - This afternoon following leak tests, refill both circuits and resume water flow
 - As discussed previously, we should plan to start at 0700 tomorrow to replace shield blocks and get ready for stacking.

Access

- Will access the Pbar Rings first thing Monday Morning
- Will be prepared to resume stacking when needed next week.