AIPINJ topics for discussion, July 18 2019

Gun region

1. Y-chamber (Phil/Marcy, ask Scott if can degas, then plan to NEG coat)
   1. leak checked yet?
   2. give to Scott to vacuum degas
2. 15 deg dipole (Reza - verified pipe is 3” not 2.5”…let’s work with this, ok?)
   1. Plan A is repurpose DS
   2. Plan B requires buy-in, and engineering design, fabrication, QA
3. BPM’s (No reply from Chris Norris. Not sure if striplines are Should or Like)
   1. Plan A : keep what we have, tally total # needed
   2. Plan B : assessing strip-lines (e.g. HallD/UITF ) for future capabilities
4. Wien filter E-field – Plan A (re-purpose CEBAF Wien filters) (Feedthroughs arrived, Danny/Gabriel working on connectors, will discuss this afternoon when we can pull out the UITF Wien filter to test HV)
   1. waiting on 40kV feedthroughs, new spring connector, test using UITF Wien
   2. Need to make spare coils
5. Wien filter HV controls (Meet this afternoon w/ Carlos/INC for ETC)
   1. PS and switches are in hand
   2. INC owes high level wiring schematic, finalize layout/connector, buy parts
6. Wien filter B-field – Plan A (re-purpose CEBAF Wien filters) (Joe did not talk w/ shop)
   1. Need to make 3 more pairs of coils
7. Wien filter PS controls (Hysteresis protocol for 20A supplies for spin)
   1. Install 20A supplies + cable drops
8. NEW Wien Quads (What would you think of building/using these, I think they were mapped)
   1. Added ~3” placeholders, need to assess optics solutions and define requirements
   2. Quad design, fabrication, QA…long lead time item
9. OLD Wien Quads
   1. Store on shelf, right?
10. Prebuncher (ATLIS task submitted for September)
    1. Does it have sufficient bunching gradient, do you need to test in Aug/Sep ???
11. DP CAN (Marcy got a quote $8500/NEG, need to decide Must, Should, Like #’s)
    1. New NEG’s?…order now
12. PCUP/Viewer assembly
    1. Repurpose as-is, right?
13. A1/A2 (Sept test define PSS/kicker and transmission; can we motorize existing apertures, do we need new strong backs; helps identify Must, Should, Like)
    1. I would like this remotely controlled, either IN/OUT or holes/OUT, for PQB
    2. Re-purpose the A1 cube, w/ steering coil? If YES, does it work for 200kV?
    3. Is A1-A2 distance a requirement, or a convenience?
    4. Will determine to decide if PSS kicker still kicks on to one of A1/A2
14. Viewers (Add fiducials to screens, not BNNT testing at UITF, tally YAG screens and get quotes when Marcy returns from vacation)
    1. Replace chromox
    2. New YAG or BN screens, where?
15. Solenoid SOW (Albert has heads up is ready, Joe M. working on SOW now)
    1. Per budget, scope is only 7 beamline + 2 chopper solenoids + 2 spare coils
    2. On Joe’s plate now, if no time I will write
    3. Contact Albert Christopher
16. Earth correcting coil
    1. Do we re-add
    2. Would be nice to have an extensible design easy to assemble/disassemble
17. Vacuum
    1. Bake-outs - Do we have enough panels, electrical power, heaters, controllers to bake whole region to 200C and activate NEG’s reliably? Work a plan.
    2. NEG coating – Assess scope, define strategy, demonstrate process. Long road…

Chopper region

1. Plan A (re-purpose as much as possible) …for now Plan A is Plan A
   1. Remove captured solenoids (Assess how to do during SAD w/ eyes on chopper?)
   2. Retrofit chopping chamber w/ new solenoids (Danny, generate chopper layout now vs. proposed?)
2. Plan B (includes new chopping chamber)
   1. Remove captured solenoids
   2. Design new chopping chamber, fabricate chamber, parts, procurements
   3. Use new solenoids in design
   4. Improvements between cavity and chamber?

Booster region

1. Status of simulation, i.e. can we keep moving things or need to wait?
2. Can we decrease Chopper-Buncher & Increase-Buncher to A4, more space?
   1. One more solenoid after buncher?
   2. Add BPM/Steering coil after A4? (done, in dwg)
3. DP can (see #11)
   1. Same question, new NEG’s? Buy them
4. Spectrometer line? (bending inward seems plausible, Jerry says dipole sensors are attached would need to re-attach, but seems to prefer same PSS configuration)
   1. Use a larger aperture chamber, agreed?
   2. Repurpose MBO on 1” pipe, so same controls for Jerry??? Or new BL???
   3. Bend inward, so easier to work on beamline/booster side???
5. Vacuum (Need it to activate NEG’s)
   1. Eliminate VBV0I07, why do we need it?
   2. IP’s old/replace?
6. MAD coils (Will write PR once design is done and we tally correctors, BPM types)
   1. Plan to purchase X haimson BH and/or HB as needed, okay?
7. Earth correcting coil
   1. Same question, modular design?