AIPINJ Phase I Jobs for 2021 (and beyond…)

**Wien Jobs**

* U-Wien “dummy for alignment”
  + Top/bottom cores defines magnet plate, field clamps define magnetic axis
  + Pick V-Wien orientation (since first one)
  + Use longer washers and Teflon blocks, align electrodes as parallel as possible
  + Check alignment process
* V-Wien
  + Add new spacers, final align
  + Bake, re-test HV?
  + Ready for girder…
* H-Wien
  + Fabricate new nickel plates, clean, anneal, provide to MMF
  + Assemble into H-Wien, map axis, compare profile to V-Wien
  + Pick one set of plates, call it done
  + Start H-Wien rebuild => clean, assemble/align, bake, HV test, girder
* 3d electrodes
  + (2) resurface electrodes returned, (4) more to come?

**Magnet Jobs**

* MFX – (3) tested, mounted, dressed, measured, ready, (3) available for Phase 2
* MFY – (2) available for chopping chamber
* MHD – (8) tested/ready on A1/A2, (4) on dummy to dress/fix gap, need bake clamps
  + Lakshmi is asking for dummy cube measurements….see Riad/Mike/Joe
* MDR – (2) dipole QC ok, (1) mapped and Jay checking if OK, then map second
* MQW – (16) coils rec’d + (16) more coming => (4) ready for pick-up for fit test
  + Was the QC done on those ready for pick-up?

**Kicker Jobs**

* Complete coil PO => Awarded to Technicoil (12/17/20), great!
* Design/fab supports
  + Lakshmi is waiting on drawings per 11/2 model, will evaluate terminal block

**Other Pre-Assembly Jobs**

* Viewers
* (4) Quad crosses: (2) coils + (1) viewer + (1) IP + (1) window + (1) 6-way weld flanges

**Can we assemble Wien girder?**

* (3) bpm => Done
* (2) Wien filters => V-Wien (~75%), H-Wien (~25%)
* (4) Quads crosses => 0%
* Prebuncher => Done (but Mark will test until late January)

**Can we assemble A1/A2 girder?**

* (2) valves => on hand
  + (1) DP can => on hand
  + (2) bpm => on hand
  + (1) viewer + PCup combo => rebuild viewer
  + (1) yag / (1) harp => rebuild viewer
  + A1 cube => Marcy fixed shorting issue, so gronk/align/calibrate
  + A2 cube => Finish calibration

**Load-Lock Gun to Y Jobs**

* Safe the photocathodes
  + Vent suitcase, remove pucks, check manipulator stroke
  + Move suitcase to tunnel, attach to tee, bake tee/suitcase w/ suitcase valve open
  + Vacuum good? Open prep valve, move photocathodes to suitcase, close valves
* Bake prep
* Bake HV/NEG and Y

**Remaining ME Jobs**

* Drawings
  + Songsheet from Chase
  + MHD coil tabs req’d rework to fit tightly
  + Viewer assembly?
  + Gun 5mm closer to valve…maybe update with 2B?
  + Longer washers for Wien spring hangers
* Remaining Jobs
  + MHD, MQW protective clamps
* “New” Jobs
  + Help Shukui design/fab new small outrigger box, can use table
  + Hep us show girder tray, LCW, etc on 3d model to decide/choose
* Installation
  + Do we have all final assembly drawings?
  + Does Chris have all final “points?”

**Installation Steps**

* Girders
  + A1/A2 + FC#1 + choppers
  + Wien girder
* Steps
  + Pre-assemble on girder in TL
  + Move to tunnel
  + 2A align
  + Vacuum hookup, pump down, leak check
  + 2B align
  + Bake
  + Leak check

**What comes after Phase 1?**

* Chopping chamber rebuild is approved for next SAD
* Complete design of Phase 2 beamline
* Fabricate new Phase 2 beam line components