

BigBite Design/Work List

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Nov. 3, 2006

- A list of minimum BigBite design items in order to run the transversity experiments.
- A list of minimum BigBite work/tests in the Test Lab before moving the detectors into Hall A.

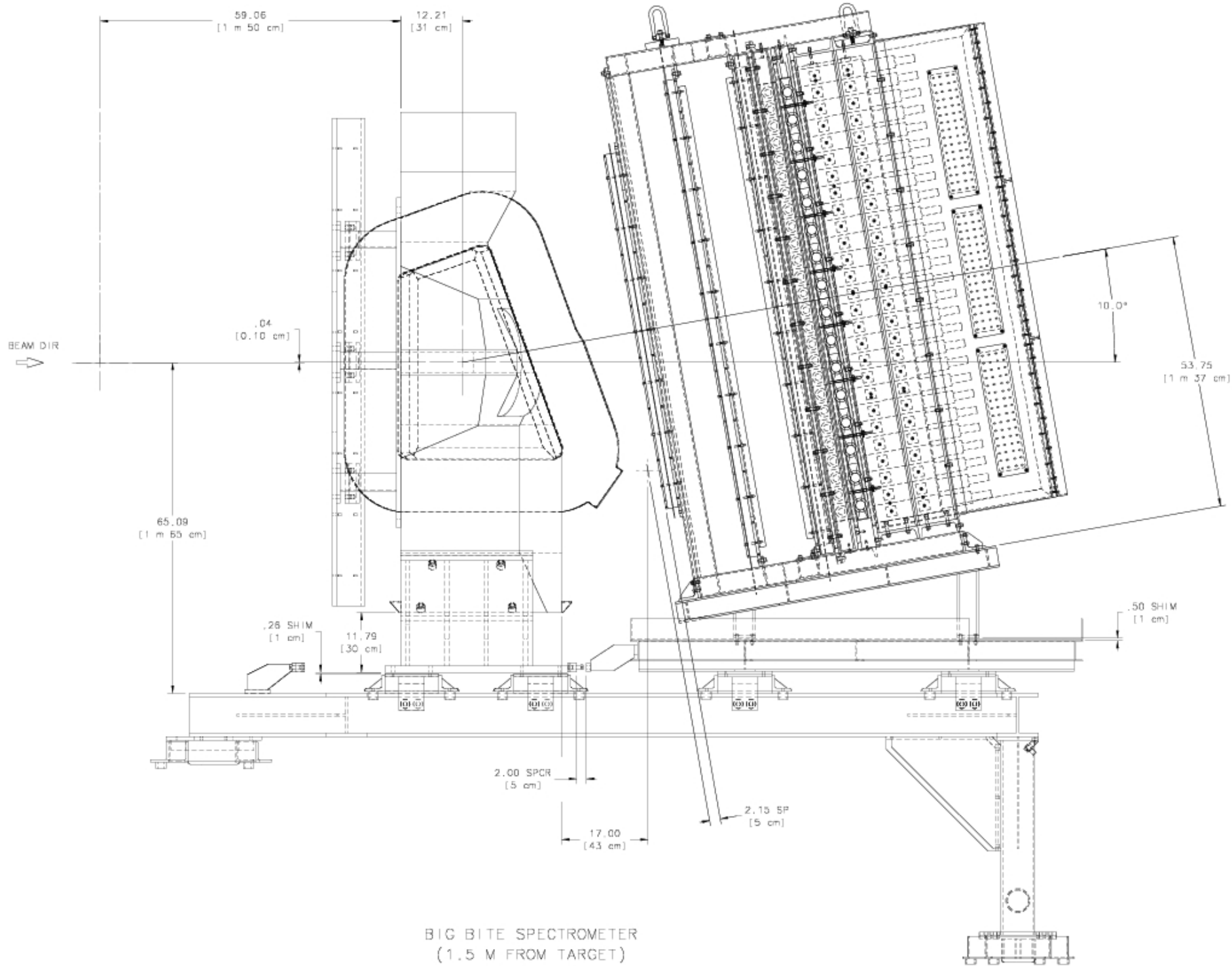
Goal :

A full scale cosmic ray test of the BigBite package in the Test Lab before moving BigBite detectors to Hall A.

Have the BigBite spectrometer ready for the transversity experiments before the start of ANY polarized He3 experiments.

BigBite Design Items

- Front twin wire chamber mount frame.
- Gas Cherenkov detector and its mount points on the detector frame.
- Changes on the detector frame and the mount points on BigBite stand.
- BigBite magnet support right foot.
- Collimation pieces inside the BigBite magnet.
- BigBite front collimator.
- BigBite front collimator-optics slit.
- Support of BigBite front collimator and optics slit.



BIG BITE SPECTROMETER
 (1.5 M FROM TARGET)
 16 JUN 05

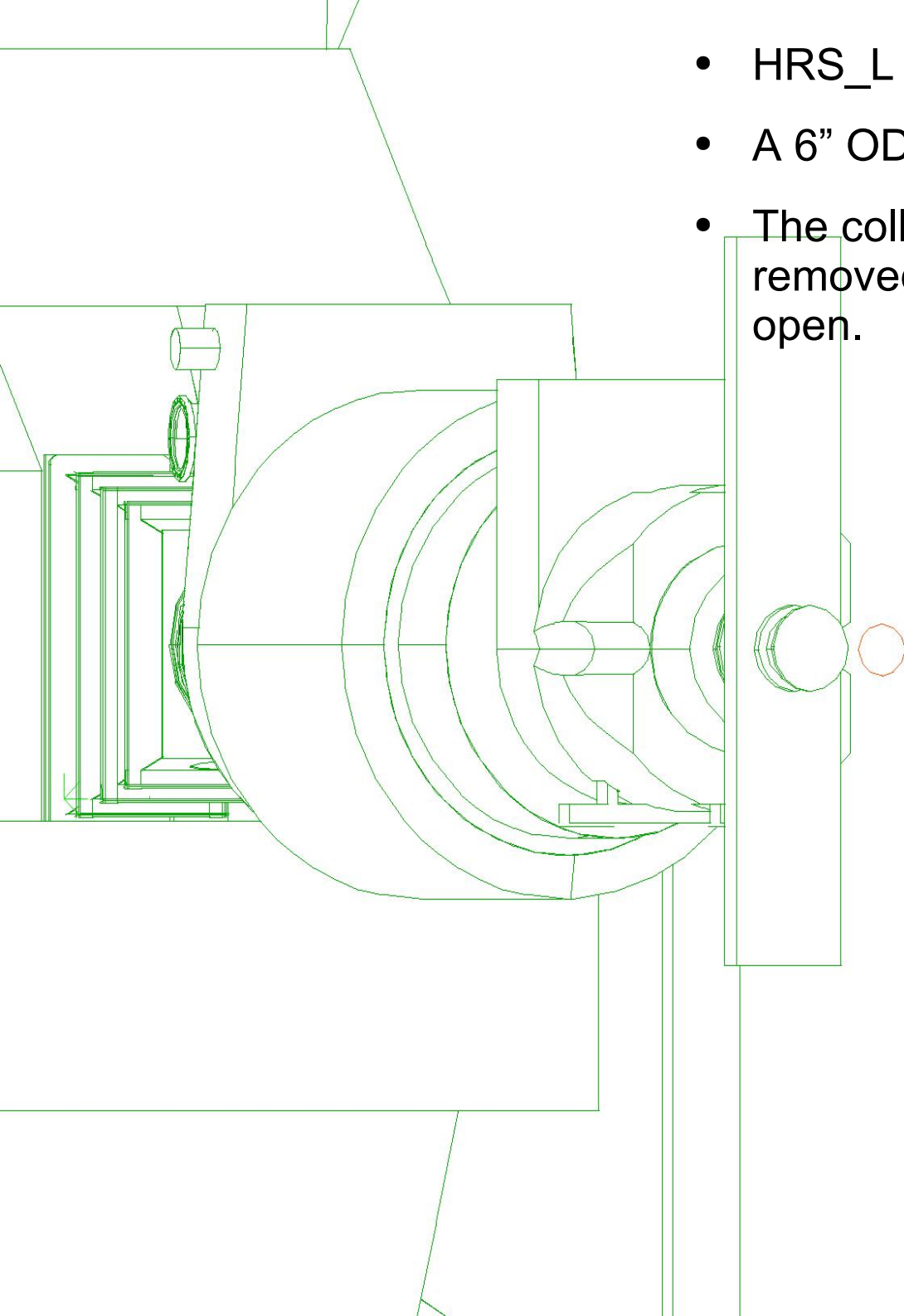
- Changes on BigBite magnet clamp.
- BigBite detector shielding "a light-weight hut".
- Transversity experiments, downstream beam pipe 6" section.
- Upstream beam section/entrance to the scattering chamber.

The Downstream Pipe in Gen



- Background almost killed Gen.
- The narrowest point is only 3.25" ID.
- For Transversity, we will put in a 6" pipe.

- HRS_L at 16 degree.
- A 6" OD downstream pipe.
- The collimator box of HRS_L might need to be removed. Transversity will run with collimator-open.



A Short-term work list of BigBite detectors in the Test Lab

0. Re-arrange work space in the Test Lab. (Nov. 7th, 2006)
 1. Set up gas flow to the wire chambers.
 2. Wire chamber HV test. (Nov. 14th, 2006)
 3. Set up for a full read out test on Chamber-1.
Low voltage and threshold control.
Cosmic ray test triggered by two large scintillators. (Dec 1st, 2006)
Lay robin cables for three chambers.
 4. Test new pre-Amp cards with the cosmic ray set up.
 5. Install new pre-Amp card on chamber-2 and chamber-3.
Low-voltage and threshold control.
 6. Three chamber cosmic ray test. (Jan. 1st 2007)
 7. Remove chamber-2, ship it to UVa. (Feb. 1st, 2007 ?)

Longer term...

8. Take down the shower and pre-shower+scintillator package.
(end of Feb. 2007)
9. Re-work on 5 shower blocks. (order PMTs in Nov. 2006).
10. Re-work of pre-shower blocks (?), mount new PMTs (?). (6 weeks)

11. Re-Assemble the shower and pre-shower+scintillator package.
12. Set up trigger, as in Gen (May, 2007).

13. Mount chamber-2 back into the detector package.
14. Three chamber + shower/pre-shower cosmic ray test.
(Extra 46 pre-Amp card made and tested).

15. New twin chamber-frame ready (?). Test mount.
16. Gas Cherenkov ready (?). Test mount, cosmic ray check. (July 2007).
17. Test mount twin-chamber to the e,e'd frame,
test connections and read-out.

Absolute minimum:

Finish a complete package cosmic ray test before Sept. 2007.