CLAS12 Meeting

11/11/11

1. Why are some of the JT files coming in as grey? ***Action item: C. Wiggins***
2. JT’s as short cuts won’t load into Teamcenter Vis Pro? ***Action item: C. Wiggins***
3. Racks on sub-way level interfere with cable trays. ***DC Group & E. Pasyuk***
4. JT of Tagger is missing? ***Complete***
5. Electron dump is missing. Add to model and make JT. ***Action item: M. Zarecky***
6. LCW information to be added to walls or just a keep-out zone around wall perimeter. ***Action item: A. Ellis***
7. Cryo warm gas lines to be added to model plus make JT. ***Action item: M. Zarecky***
8. Torus helium feed can change must be finalized. ***Action item: D. Kashy, , L. Quettier & M. Zarecky***
9. Changes need to be made to Torus and Solenoid ICD’s. ***Action item: D. Kashy, M. Zarecky***
10. Add Buffer Dewar to model. Must find a good location for it. Possibly level 2? make Jt's of BD on both L1 and L2 so both can be analyzed. ***Action item: M. Zarecky***
11. FTOF – Remove unused files from directory. ***Complete***
12. Remove IC and support from directory. ***Complete***
13. Need Forward Tagger information (possible this week 11/14) ***Action item: C. Wiggins***
14. Working on new mock-up of LTCC. Window concerns? Mac has some ideas on window installation. ***Action item: M. Ungaro & M. Mestayer***
15. MVT interference with HTCC. We need to get final location for Micromegas. ***Action item: C. Wiggins***
16. Look at brackets that hold PCAL from Forward Carriage. ***Action item: J. Guerra***
17. Need to match up the ends of the TORUS cable trays to where the cables leave the space frame. Minimize the X and Y cable runs to minimize cable length wasted. The Z axis is the beam line. Then see what length cables are needed for which tray. The 10:00 tray must stay low for crane access, but the 2:00 tray can be angled to where the cables exit the space frame. ***Action item: E. Pasyuk & A. Ellis***
18. DC cable routing from L1 space frame to TORUS trays. Can we move the L1 ADB and fast-bus racks to the subway? Need 3 racks on each side. This minimizes the cable length required as well as greatly simplifying the 8:00 and 4:00 cable tray ***Action item: E. Pasyuk & A. Ellis***
19. Cable tray work needed from Drift Chambers. ***Action item: E. Pasyuk & A. Ellis***
20. Check Forward Tagger with DC R1 maintenance position. ***Action item: A. Ellis***
21. Check all existing and proposed rack location. Label all racks. ***Action item: E. Pasyuk & A. Ellis***
22. JT’s of Power Supplies are missing. Label all Power Supplies. ***Action item: M. Zarecky***
23. Finalize design of stairs to Sub-way Level and Sub-way level to Level 1. ***Action item: D. Kashy***
24. Maintenance issues must be looked at . ***Please submit your concerns.***
25. Look at all mounting arms to Forward Carriage. ***Action item: J. Guerra***
26. Removal and storage of DCGAS components
   - Bubblers, manifolds, lines, gas lines and fittings from the CLAS6 chambers
   - Buffer tanks and controllers on L2 space frame - can these can stay there ***Action item: G.Jacobs***
27. Removal and storage of CERGAS (LTCC) components
   - Pressure Protection bubblers, gas lines and fittings
   - Buffer tank on side of fwd carriage
   - manifolds on L2 fwd carriage
   - Controllers in rack on L1 fwd carriage ***Action item: G.Jacobs***
28. LTCC CERGAS component locations, routing of the lines, and replacement of the valves and lines used to switch from normal ops to gas recovery mode. ***Action item: G.Jacobs***
29. Does the DC cable tray capacity still match the numbers of cables with the latest DCHV segmentation? ***Action item: A. Ellis***
30. LTCC Gas System Improvements for 12 GEV (12GEV CERGAS)

Internal Detector Box Improvements;

a.) Detector Fill Status Measurement or Monitoring the Fill Status of a Detector
--> Concept
A DPT, differential pressure transducer, would be used to "weigh" the height of C4F10 in a detector box. A DPT with high sensitivity, ~2" wc (water column), range would be installed between the detector gravity high and low internal points to measure the weight of the column of gas inside. There would be three different installations. S1 and S4 would have the same internal attachment points. S3 and S6 would be the same, and S2 and S5 would be the same.

b.) Detector Box Internal Piping and fitting Replacement
--> Replace the 3/8" rubber hose inside the S2, S3, S5, and S6 with 1" SS or nylon tubing
--> Run the new tubing as far into the "nose" of the box as practical
--> Replace the 1/2' gas fittings with a larger 1" size

External Improvements;

c.) Pressure Control Improvements
--> The point at which pressure is monitored at the individual detectors should be at the exhaust to eliminate the weight of the gas.
- uniform pressure measurement points
--> The point of attachment of the bubblers should be at the exhaust;
- reduces set-point differences between sectors by eliminating the weight of the gas
- increase the under pressure and overpressure bubbler efficiency while reducing GAS losses in the case bubblers become activated

d.) FWD Carriage Piping Optimization and Cleanup - reduce the number of gas lines and fittings used
--> Relocate "flow direction" valves to an accessible manifold between the current supply and exhaust manifolds.
--> Use 1" lines for both the supply and exhaust so only 2 lines per sector are required.
--> Replace the four flow direction valves used for each sector with a single 4 way valve, Swagelok B-45YF8-LL, between the supply and exhaust manifolds after the safety solenoids. Cost is ~$2400 for 6 valves. This will save many man hours of work.

e.) Re-locate the Hall Pressure control Buffer tank to L4 FWD Carriage so the contents of the higher mounted detectors do not back flow or siphon to S5 and S6. The tank should be horizontal with the detector outlets attached at the bottom of the buffer volume and the control valve mounted at the top. This will also better separate the air from the C4F8O gas and reduce the volume of C4F8O that requires recovery. ***Action item: G.Jacobs***