

WA104 Technical Working Group meeting

<https://indico.fnal.gov/event/21274/>

At FNAL: L. Bagby, M. Betancourt, H. Budd, C. Garces, C. Montanari, G. Savage, A. Scaramelli, M. Spanu, D. Torretta, Z. Williams

Remote: A. Braggiotti, A. Chatterjee, S. Centro, M. Diwan, A. Fava, A. Guglielmi, GL. Petritto, G.L. Raselli, Y.-T. Tsai, B. Wilson, P. Wilson, M. Worchester, A. Zhang

1) C. Montanari _ News and updates

Installation of cable trays is ongoing: supports are all in position and a few cable trays have been placed. The two technicians from Bologna are leaving at the end of this week, and the work should be completed by then.

There is potentially an issue with the procurement of cables for wire bias and TTLink.

- L. Bagby reports that red jacketed RG58 seems to have very limited availability even at the Lab, and it was therefore agreed to switch to black cables with red heat shrink. A second problem is that one vendor from which the offers were requested reports they are missing the crimping tool for LEMO, that has a 15-16 weeks delivery time. Since there is plenty of such crimpers onsite, L. Bagby will get back to the vendor to discuss the option to borrow them the crimper. This vendor advertises a quick turnaround, but the delivery time was not mentioned in the reply. A different vendor replied that the quantity is too small for them.

The liquid Nitrogen storage tank has been commissioned and filled. The LAr tank will be commissioned and filled next week.

A structure with 3 supervisors has been setup, as announced by email. It is reminded that people that are planning activities in the building communicate this to all supervisors at least the day before, so that these activities can be reported to the toolbox meeting at 8 am. This applies to all activities anywhere in the building, not just the one on the detector top.

- L. Bagby adds that she found a flat copper strip with holes, that can be screwed along the sides of the cable trays to provide solid ground connection. 50ft were ordered to try it out.

2) A. Guglielmi _ Plans of upcoming activities on the TPC readout electronics

<https://indico.fnal.gov/event/21274/contribution/2/material/slides/0.pptx>

A group of people from Padova plans on arriving at Fermilab on July 23 and work for 10 days to install cables, refurbish some defective modules, carry out a noise measurement campaign and setup a working station to test anomalous boards.

- Because the delivery of cables is on the critical path, C. Montanari asks to move in parallel with a quick procurement or an assembly of cables on site. L. Bagby reports on a last-second update that an offer will be formalized by the end of today and updates will follow from there.

- Upon C. Montanari request, A. Fava clarifies that no data in “clean” condition is available, i.e. with the VST powered out of detector and without the short between detector and building ground.

- Upon A. Guglielmi request, D. Torretta clarifies that the beam has now been shot-down until September. However A. Fava comments that a “fake” beam signal can be generated with a pulse generator at MI-12 and sent through the WR network. Also, because an Italian summer student is

arriving on July 29 and will work on the trigger system for 2 months, A. Fava strongly recommends that thorough tests are carried out during that week.

- Upon Y-T. Tsai request of the names of people that will be involved in the data taking for setting up a tutorial, C. Montanari asks A. Guglielmi to send out this list by email.
- Upon S. Centro question on the status of AC distribution on top of the detector, C. Montanari and A. Fava comments that detector power at this time is available for one VST only at a time. P. Wilson adds that there have been huge bureaucratic issues with the contract for the electrical work that has pushed back this job for a long time.

3) C. Montanari _ Status and planning of Ground Short Search

The issue of the short between detector and building ground is being on for a while.

The possibility that the problem is not solved needs now to be taken into account.

- S. Centro suggests to run a noise test in the short configuration switching off all the other equipments.
- C. Montanari suggests to have at least one VST operative in August when the cryo group plan on exercising the control system, such that incremental measurements can be taken. S. Centro comments that people from Padova will not be on site, but qualified people at Fermilab can take care of this.
- P. Wilson comments that possible interference with the short search will rise once the electricians will be back. It is likely that the interference is minimal in the first few days, when they will give priority to ODH wiring.