

WA104 Technical Working Group meeting

<https://indico.fnal.gov/event/21202/>

At FNAL: L. Bagby, H. Budd, C. Montanari, GL. Petrillo, G. Savage, D. Torretta, Y.-T. Tsai, Z. Williams

Remote: B. Behera, A. Braggiotti, S. Centro, M. Convery, M. Diwan, A. Guglielmi, U. Kose, G.L. Raselli, A. Soha, C. Vignoli, B. Wilson, P. Wilson, M. Worchester

1) C. Montanari _ News and updates

The vacuum in both cryostats is in the 10^{-5} mbar range (8 and 2 respectively). At the moment no explanation has been found for the difference, and one hypothesis is the calibration of the gauges. A measurement of the residual gas will be done in the next weeks to verify that the dominant component is water.

- L. Bagby asks for details of the RGA for the power distribution.

Yesterday a minor accident happened, i.e. a cup of coffee was spilled in one of the cryostats for the purifiers. This triggered a discussion about a protocol to be established to minimize such risks, resulting in a rule to prohibit food and drinks in the working area and the appointment of a supervisor that will have to attend the 8 am toolbox meeting, be informed on all activities of the Collaboration and monitor that people working on the detector are behaving properly (take breaks, clean up at the end of the working day, respect discipline, etc). For the time being the supervisors will be H. Budd, A. Fava and C. Montanari. This will be formalized on a document that will be circulated to the Collaboration.

- A. Soha asks that the name of the supervisor each day is written on the whiteboard at the entrance of FD building.

A problem recently arose with ID issuing to one of the Bologna technicians that arrived earlier this week. It is recalled that Connie Hillgard (connieh@fnal.gov) needs to be informed before the arrival of any Collaborator in advance. Practice for Collaborators arriving outside office hours of regular workdays will be investigated.

- Upon B. Wilson request, A. Soha clarifies that the coffee spill was solved, although the repair work was complicated by the fact that the accident was reported too late, after the stain had already dried.

2) L. Bagby _ Status of search for leaks

On July 8th it was verified that altering the SE vacuum port position changed the voltage drop measurement from 0.8 to 4.8 mVACrms, with the input of the stimulus current moved to a central position. Yesterday that flange was isolated, and the current has been slowly increasing since then, suggesting that it was heating something up and causing something to heat. Therefore, it was decided to wait in this configuration and the goal would be to reach 2VACrms.

In addition, K. Hardin reported that the compressed bellow on NE corner was welded in position, based on feedback from DeMaCo, while C. Montanari clarifies that the design is for that bellow to be movable during the cool-down. This inconsistency will be clarified but it is likely not to be related to the short.

- A. Fava asks that the configuration of the impedance monitor is reported on the whiteboard, on top of the logging that is already done on the elog. A. Soha suggests an automated way for this

notification, without having to rely on the discipline of people, but this option is not feasible for the time being.

- Upon Y.-T. Tsai request, A. Fava suggests that people remote that need to work on the VST contact the daily supervisor to get informed on the configuration of the impedance monitor.

3) Various speakers _ Status of cable procurement/installation

- C. Montanari reports that technicians from Bologna arrived yesterday and are starting today the installation of the cable trays. A small fraction of the material is still in transit, but it will arrive in time not to delay the installation.

- G.L. Raselli reports on the PMT cables, that have been manufactured but have not been shipped to CERN yet.

- A. Fava reports on status of DAQ fibers procurement. The cheapest quote was obtained from a company in Slovakia, that S. Ventura knows from previous collaboration for CMS. This requires the order to be processed directly from Europe, and the timeline for this process needs to be determined to understand if it is compatible with the requirement of demonstrating the capability of taking cosmic rays data for measuring the purity as soon as the filling procedure is completed. Therefore C. Montanari asks that a decision on this subject is made by tomorrow and proposes a backup solution to procure spare fibers from FNAL for a temporary setup if the lead time is too far in the future.

- Z. Williams reports on the status of the cathode HV. The electrical safety review of the HV rack has been submitted and once that is approved everything can be powered up, the remote control can be exercised, and then the setup will be moved to the building. Here it can be powered up, though, only when the 208V AC distribution will be in place. A. Fava recalls that this task was given the highest priority to the electrical work.

Heizinger is delaying to September the delivery of the cable to connect the splitter with the main Power Supply, however this timeline is still compatible with the expected beginning of cool-down operation because no verification of the functionality of the HV system is possible before then.

- P. Wilson reports no news on the status of power distribution on top of the detector and on the mezzanines. The main concern is the impossibility to get a schedule for this work, and this issue is being elevated within the Lab. C. Montanari asks that a deadline for the completion of the job is set by end of August in order to allow for commissioning.

- L. Bagby comments that a setup and a group of people for preparing the labels for the cables is being put in place.

C. Montanari recalls that all the upcoming activities need either a formal workplan to be submitted to A. Soha or in any case a presentation to be shared with the Collaboration. He asks A. Guglielmi to prepare one such presentation about the activities on the TPC, and G.L. Raselli about the PMT activities.

C. Montanari reports on the request made by G. Savage to get some help on slow controls: this request will be brought to the attention of the IB.