**WA104 Technical Working Group meeting**

<https://indico.fnal.gov/event/21513/>

At FNAL: L. Bagby, M. Betancourt, B. Behera, H. Budd, A. Chatterjee, C. Montanari, G. Savage, A. Soha, D. Torretta
Remote: T. Boone, A. Chatterjee, S. Centro, M. Diwan, A. Fava, F. Garcia, A. Guglielmi, C. Hilgenberg, R. Howell, C. James, GL. Petrillo, G.L. Raselli, Y.-T. Tsai, P. Wilson, C. Vignoli, Z. Williams, B. Wilson, A. Zhang

**1) C. Montanari \_ News and updates**

C. Montanari communicates the loss of our friend and collaborator Simone Marcocci, at starts the meeting with 1 minute of silence to honor his memory.

Power distribution for the top of the detector should be completed by the end of next week. Installation of cable trays had started and is being rearranged, with expectation to be completed by the end of the month. Also, cryogenics should be completed by the end of August.

Caroline is coming from CERN in 2 weeks to start the check of the cryogenics control system.

Warm vessel is being sealed and will be pumped with dry air at the beginning of next week.

Installation of racks has also advanced and will be continued at the beginning of September.

An understanding has been reached for proceeding with assembly of TTLink and wire bias cables, for which all material is now in house. The planning is to have at least part of these available at the beginning of September.

A Collaboration Meeting will happen on Sept 11-12. Agenda is being prepared.

An Operational Readiness Review meeting is being setup for next February.

D. Gibin arrived earlier this week and will spend 7 months at Fermilab to coordinate activities on software.

**2) L. Bagby \_ Results on the Short between Ground Search and recommendations**

<https://indico.fnal.gov/event/21513/contribution/2/material/slides/0.pdf>

L. Bagby starts by recalling the configuration of the setup for impedance monitoring.

A ground short search campaign started on June 27 to address one stable direct short and another intermittent sensitive to vibrations. It is thoroughly reported in the electronic logbook. Several issues were identified and solved.

Still, evidences on August 9 indicated that an intermittent short is still present. A recommendation is made that, since the system is in active alarm status, people be aware of the alarm and contact L. Bagby if unable to solve shorts as they appear while work being done.

- C. Montanari reinforces this message. Given the fact that the complexity of the detector is increasing, it is proposed that during any welding that would require building and detector grounds to be shorted, the remaining installation activities are suspended or at least limited.

A. Soha comments that this can be done by carefully scheduling welding out of normal working hours.

L. Bagby will also start an effort to label the ground configuration of different pieces of the detectors.

**3) G. Savage \_ Networking and slow controls status and planning**

Remote display of the impedance monitor, shown by L. Bagby, is actually an example of operation of slow controls. This is a nice example of common development with relevant contributions from SBND collaborators.

N. Moggi has just arrived to install and test slow control for all PMT systems.

- Upon C. Montanari request, G. Savage clarifies that the core work has been done, and the remaining part of the work is mainly integration wise.

The test stand is set up again in DZero, that allows continuation of development and tests.

Networking crew are at SBN-FD in these days, installing cable trays for fibers on top of the detector.

- A. Fava adds information on DAQ fibers, that will be shipped on Aug 20 (trunks) and Aug 26 (jumpers), expected to get onsite after 20 calendar days.

C. Montanari adds that several activities related to cabling are expected to happen in September and October, because material is still being procured or shipped. It is required that a large fraction of this work is done before cold commissioning could start, sometime in October, because strong limitations of activities in the building, due to safety requirements, will be in place at that time for 2 months.

This requires a good organization and minimization of delays.

- Upon S. Centro request, C. Montanari clarifies that there are no precise dates at this time for the start of the cooling, but the present understanding from the point of view of readiness of the cryogenic plant, is in the first half of October.

- Upon B. Wilson request, C. Montanari ensures that Collaboration will be a crucial part of the discussion that will lead to the start of the cooldown. P. Wilson also recalls that communication with CERN people is regularly proceeding in the meeting of the cryogenics working group.

- P. Wilson warns that careful planning is needed for September/October because of concurring installation of cryogenics components for SBND, and contribution from all collaborators would be highly beneficial.

- A. Fava reports on initiatives in memory of Simone, including the memorial that will be held on Friday between 4 and 8 pm at a Mortuary in Aurora, a collection of photos and written memories that Anne Schukraft is pulling together in a book to be given to his parents, and collection of donations to the Fermilab Friends for Science Education fund, with the ultimate goal of buying a leaf of the Tree of Knowledge.

 Upon C. Montanari observation that not all this information has been distributed to the Icarus Collaboration by email, A. Fava comments that she will get back to B. Wilson for making this happen.