

Minutes of WP-meeting 280

Attendance:

DESY: Ralf Diener, Leif Jönsson, Volker Prahl, Oliver Schäfer

Vidyo: Yumi Aoki, Serhat Atay, Paul Colas, Keisuke Fujii, Jochen Kaminski, Tomohisa Ogawa, Ron Settles, Aiko Shoji, Akira Sugiyama, Jan Timmermans

General News:

Jan said he is starting to prepare the presentation on TPC: "Technological status and ongoing studies" at Ichinoseki. He asked everyone to supply him with 1-2 transparencies (.ppt) containing the intentions for the next ~1 year. He will take the current status from the last LCTPC-CM. In case there are open questions, we will have another short meeting on Thursday 15th, where we can discuss those.

Paul reported from the Integration Task Force kick-off meeting on February 2nd at Orsay. There are three documents due at the end of the year. The Document on ILD Conventions and rules and the Interface Control Document (ICD) are obligatory, while the Technical Design Document (TDD) of the subdetectors is optional, nevertheless a very useful exercise to go through. LCTPC has to prepare the ICS and the TDD. Several subdetectors have not yet submitted a draft of the ICD, but we are in reasonably good shape. Paul also showed some clarifications of the terminology. On one slide the acronyms and the units to be used were listed, then also some constraints were discussed. There is a maximum weight limit of 25 t per single piece because of the road limits. In exceptional cases up to 80 t can be transported, but the paper work for this takes several months. As mentioned before the location of the different external services like electronic racks, power supplies and gas mixing units have to be decided upon. Paul showed how the space on the platform could look like. It resembles a scaffolding with 5 to 6 levels. Here LV power supplies could be placed for example. A magnetic field of at least 100 G is expected. In case of a thinner iron return yoke the stray field will be even significantly higher. The service gallery could hold the readout electronics. Long cables are foreseen that (un)roll during push/pull operations and which do not have to be disconnected. Some services like gas mixing or cryogenics can also be placed at the surface and then guided into the cavern with long pipes. There are several items to be clarified. They have been merged into one table, which has to be filled out by each subdetector. The table focuses on the space, gas, laser and power requirements of the subdetectors and where it will be located (platform gallery, cavern, surface).

Also the mounting of the TPC was discussed. ILD requires that all subsystems can withstand an acceleration of 0.5 g during an earthquake. The TPC suspension has to withstand an additional longitudinal force of 0.5 g times the weight of the TPC and bend by less than 1mm. Since the TPC is planned to be suspended by 4 bars on each side, each bar it estimated to be 25 mm thick.

News from the groups:

Jochen reported they the Bonn group is preparing for a test beam at the ELSA accelerator at Bonn. The 96 chip module will be used to measure the difference in primary electrons with and without a gating GEM.

Paul mentioned that the Saclay group is preparing the new modules with an encapsulated resistive layer for the test beam in November. Some mechanical modifications are still missing to mount the electronics and do first tests.

AOB:

The analysis meetings will restart soon, possibly at the beginning of March. The first meeting will be on dE/dx.

The next workpackage meeting will take place on March 8th.