

Minutes of the meeting CLIC Civil Engineering and Services (CES)

No.6 – 8 October 2008

Present: H. Mainaud Durand (TS/SU), C.Martel (TS/CV), J.Inigo-Golfin (TS/CV), J.Osborne (TS/CE), C.Hauviller (TS/HDO), K.Kershaw (TS/HE), H.Braun (AB/ABP), C. Jach (TS/EL), F.Corsanego (SC/GS), S.Weisz (TS/ICC)

Via WEBEX: A.Enomoto (KEK), V.Kuchler (FNAL)

1. APPROVAL OF MINUTES OF PREVIOUS MEETING – 13 AUGUST 2008

The minutes of the previous meeting were approved without comment.

2. CLIC SURVEY AND ALIGNMENT

H. Mainaud Durand presented the status for the survey and alignment studies. The beam components need to be aligned to various tolerances from 10 microns to 300microns.

The CLIC project needs to have a new co-ordinate system developed which refers back to the CERN co-ordinate system (CCS). (*Action H.Mainaud Durand to make a proposal*)

Helene explained that the current design envisages a 10cm thick in-situ concrete 'screed' to be poured on top of the first stage tunnel invert to provide a 'level' footing for the machine.

It was noted that for the moment no one from ILC is dealing with survey and alignment matters.

3. SAFETY ISSUES FOR UNDERGROUND STRUCTURE

It is planned that a joint safety document for ILC and CLIC will be developed as part of the collaboration effort.

Fabio Corsanego advised how safety aspects could be handled with respect to the regulations in force, in particular those related to fire. The example of having over head ducts to provide fresh air and extraction (including smoke) was presented.

KEK are also working on safety issues for a single tunnel and have requested if a document could be provided on LHC fire safety issues. (*Action F.Corsangeo/S.Weisz*)

4. NEWS ON TUNNEL TRANSPORT STUDY

K.Kershaw presented the latest new on the tunnel transport study, assuming modules are installed as individual units.

The next steps are too :

- 1) Agree concept as basis for further work – feedback from other groups
- 2) Continuous review and refinement as more details of modules and supports and other items and services become available
- 3) Consider transport and installation of:
 - Overhead magnets
 - Turnarounds
 - Beam dumps
 - Services

5. AOB

5.1 -Tunnel Layout & Cross Section

J.Osborne presented the latest cross section that is being studied to include the updated CV and transport requirements. At this stage of the study it appears difficult to house all the equipment with the 4.5m diameter single tunnel. Further work is needed on CV parameters.

The heat dissipation levels received from the CLIC experts seem very high, if compared to similar machines. (*Action H. Braun to contact CLIC experts and TS/CV to better understand the heat loads*). *C.Martel will provide updated figures on the expected and actual heat loads measured in LHC. Especially where we have warm magnets in the transfer tunnels.*

5.2 -ILC staffing within TS

J.Osborne and C.Hauviller presented the staffing within TS that will work on the ILC project over the next three years under the FP7 framework agreement.

6. NEXT MEETINGS

The next meeting of the CES is scheduled on **Wednesday 12 November at 14:30** in conference room **112-4-C17**. The draft agenda is :

- Planning for ILC Chicago Workshop (V.Kuchler & J.Osborne)
- Joint Safety Document (F.Corsanego, S.Weisz)
- AOB
 - 2009 meetings

The last meeting in 2008 is planned for 10 December.