

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

No.3 - 09 July 2008

Present: K.Kershaw (TS/HE), H. Mainaud Durand (TS/SU), C.Martel (TS/CV),
J.Osborne (TS/CE)

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

1. APPROVAL OF MINUTES OF PREVIOUS MEETING – 11 JUNE 2008

The minutes of the previous meeting were approved without comment.

2. GENERAL INFORMATION

It is still to be defined if Karsten Kahle can continue to be the electrical specialist for CLIC.
(*Action H.Braun to seek clarification with the responsible persons within AB*)

- New CLIC management structure
 - http://clic-study.web.cern.ch/CLIC-Study/Mtgs_Wkg_Grp.htm
- CLIC Workshop announced
 - <http://project-clic08-workshop.web.cern.ch/project-clic08-workshop/>
- PBS now approved, templates to be completed by individual project engineers.
- Detailed CLIC layout, return loop, beam dumps, sector lengths on hold

3. TUNNEL VENTILATION

C.Martel presented the ventilation principle for the CLIC machine.

The heat dissipation levels received from the CLIC experts seem very high, if compared to similar machines. (*Action J.Osborne/C.Hauviller to contact CLIC experts to better understand the heat loads*).

4. NEWS FROM TBM VISIT AND PROPOSALS FOR NEW CLIC LAYOUT

J.Osborne presented some conclusions from the recent visit to Herrenknecht TBM manufacturer and some new possible layouts for the machine that are currently being reviewed. A further meeting with the CE consultants (Amberg) and expert geologist is fixed for 17 July.

5. AOB

5.1.1 *tunnel transport*

K.Kershaw presented a list of fundamental transport questions that need to be resolved in order to proceed his studies :

A) MODULE CONDITIONING FOR TRANSPORT

1. What is the unit of transport? (Is it a module consisting of drive beam + main beam interconnected on two inter-restrained support beams, with survey etc ancillary equipment already installed?).
2. Will support beams be linked with removable restraints?
3. Dimensions in transport configuration?
4. Weights in transport configurations?
5. Potential lifting points (eg for transfer) and restrictions?
6. Potential support points (eg for transport) and restrictions?

B) TRANSFER TRAJECTORY RESTRICTIONS

1. What supports etc will already be installed on the floor?
2. How much clearance space between adjacent modules during transfer/installation?

C) POSSIBLE SIMULTANEOUS TRANSPORT/INSTALLATION OF SEVERAL INTERCONNECTED MODULES

1. What are the possibilities/implications if several modules are interconnected on the surface and transported/ installed at same time?

D) VIBRATIONS

Is it reasonable at this stage to assume that the levels of precaution taken for cryodipole tunnel transport will be sufficient?

The best way forward to answer these questions will be discussed at an ad-hoc meeting between J.Osborne / K.Kershaw & C.Hauviller ASAP.

6. NEXT MEETINGS

The next meeting of the CES is scheduled on **Wednesday 13 august at 14:30** in conference room **54-2-033**. The draft agenda is :

- ILC Tunnel Ventilation
- News on detailed CLIC layout : sector lengths, beam dump positions etc
- Transport Questions
- AOB
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The regular meetings of the CES WG in 2008 are foreseen on 10/09, 08/10, 12/11 and 10/12.