HL-LHC Collimators:
Design, Engineering and Prototyping #19
Minutes

Wednesday, 28th March 2018

112-2-032

Attendees: F. Carra (FC), L. Gentini (LG), C. Bahamonde Castro (CBC), E. Berthome (EB), I. Lamas Garcia (ILG), A. Mereghetti (AM), C. Adorisio (CA), G. Cattenoz (GC), S. Pelletier (SP), M. Pasquali (MP).

AGENDA:

- Approval of minutes from previous meeting and review of action list;
- Update on design of passive absorbers for IR7 magnets
- Open discussion on passive absorbers for IR7 magnets
- AOB.

1) *Approval of minutes from previous meeting and review of action list*

Minutes checked and approved.

2) *Update on design of passive absorbers for IR7 magnets*

LG shows the new design for the passive absorbers: it features five longitudinal blocks each one consisting into a lower, a middle and an upper part. All lower, middle and upper parts can be pre-assembled to form 3 sections weighing less than 1000 kg each for 2.5 m of total length. A 3.5 mm gap has been left between the heating jackets and the absorber's walls, while a gap of 14 mm is present between the external beam pipe and the absorber. Hooks have been designed to ease and guide the assembly of each section of the absorber into the others. In particular, a section of the beam pipe passing through the absorber is designed to be put in place after the insertion of the second section of the absorber, and to be successively linked to the rest of the beam pipe via independent supports. Finally shims placed beneath the absorber's support have been foreseen to modify position and tilt of the absorber.

3) *Open discussion on passive absorbers for IR7 magnets*

ILG asks LG to replace the shims with an adjustment system with screws to modify the absorber's position and tilt (**action L. Gentini**). SP adds that the weight of the sections, being below 1000 kg, should be ok: nonetheless, the possibility to manoeuvre 2.5 m – long parts (increasing to 3.5 m for the beam pipe section) must be verified (**action S. Pelletier**).

AOB:

- Nothing to report.

ACTIONS

- Substitute the shims with a screws-based adjustment system to modify the absorber's position and tilt (**action L. Gentini**);
- Verify whether it is possible to manoeuvre the absorbers sections (which could be transported divided in parts and assembled in place in case of need) and the 3.5 m-long beam section (**action S. Pelletier**).