

Minutes of the LIU-PSB Ad-Hoc Meeting 2 on 3rd June 2019



Agenda (https://indico.cern.ch/event/825400/)

1. Status BI/BT Lines Drawings/Marking/Drilling

Present: M. Atanasov (MA), W. Bartmann (WB), T. Birtwistle (TB), C. Bracco (CB), J.P. Corso (JPC), J. Coupard (JC), G.P. Di Giovanni (GPDG), M. Hourican (MH), B. Mikulec (BM), D. Missiaen (DM), Y. Muttoni (YM), B. Riffaud (BR), W. Weterings (WW).

Excused: I. Efthymiopoulos

1. Status BI/BT Lines: Drawings/Marking/Drilling

BI Line

Several mis-matches were found between equipment positions defined in the MADX optics model and the 3D drawings. In his investigation, **JML** checked the elements after the wall, i.e. after BI.BPM20 and reported about several inconsistencies. **CB** said that she also checked the MADX files against GEODE files from 2016 and, instead, found no un-expected difference between the MADX optics model, layout DB and GEODE. Indeed, there are a few differences but these were agreed before, e.g. for BI.DVT40. **JML** mentioned that he used GEODE files from 2015. **JML and DM agreed to check together the GEODE files used by JML and check where the difference come from. BM** suggested to also check the position of elements before the wall, such as BI.QNO10 and BI.QNO20 to try to understand better where the difference is coming from.

Action 1: **JML** and **DM** to verify the GEODE files used by **JML** in the construction of the 3D drawings.

BR reported that the pieces for the equipment have been based on the original positioning of the 3D drawings and already been fabricated. After the verification done Action 1, **JML** agreed to work on updating the drawings to reflect the MADX optics model. The drawing will be passed to **BR**'s team, who will check for conflicts and, if needed, another meeting will be called to resolve them.

Action 2: **JML** and **BR** to check for conflict between the already fabricated equipment and the arrangement proposed in the optics.

As a result of today discussion, the marking and drilling of the BI line have to be put on standby. JC will check how to integrate this change of planning in the master schedule. There is some margin to reshuffle tasks around, and allow some time to go over these validations properly. The general consensus is that performing the proper checks is more important than rushing the validation. Most of the installation of the BI line could be post-poned to November. On the other hand, by the middle of July it would be important to get the marking done and the maximum number of supports installed.

Action 3: **JC** to re-adjust the planning following today discussion.



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BT Line:

MA presented slides concerning the current status of the PSB BI and BT lines tracing for the new LIU installations, see here.

The part of the BI line was skipped as there are several verifications to be done before going over these details.

Concerning the BT line, the understanding is that the MADX optics files, layout DB and the 3D drawings are fine, but for the integration of the new two beam stoppers. The files, including the new beam stoppers, have been updated by **I. Efthymiopoulos** and inserted in GEODE by **DM**. So these are the last elements to be validated.

MA reported about a few open questions concerning the tracing. **WW** commented that most of them, should be directly addressed to the equipment owners.

JC mentioned that there is some flexibility in the schedule for the installation of the elements in the PSB extraction line, so if some more time is needed to perform deeper checks, it could be used. Also, for instance some of the issues presented by **MA** concerning conflict with cables, pipes were not originally integrated in the planning. And now could be taken into account.

A discussion followed on the importance to add the magnetic information in the mechanical drawings and how to make sure that MME can properly retrieve this information. **YM** and **JC** confirmed that EN-ACE is working on defining a workflow with clear steps and responsibility to streamline the whole procedure from optics to installation for future equipment. And this procedure should include adding the magnetic information into the mechanical drawings.

Action 4 (long term): **JC** and **YM** to prepare a workflow to be followed when a new equipment has to be installed.

Minutes by G.P. Di Giovanni