

Magnetic shielding meeting: 2012-10-24: 15:00 BST
Conference Room 4, R1 (phone conference details circulated)

Present: JT, KL, RG, HG, LF, PS, JC, JW, IM, MC, CMacW, AG, AN, PH

1. Actions:

- **ABr:** Pursue development of test of non-standard lengths of Cryomech hoses Stands.
- **IM:** Send drawing of Plant Room to JT;
Done.
- **JT:** Prepare drawing of Plant Room for modelling in the magnetic model and for rack layout; Drawing passed to LF and PS.
- **PS:** Prepare model of magnetic field in the Plant Room;
Not yet started. Leave on actions.
- **KL:** ask whether A. Stevens wants regular invite to this meeting.
Done. He would like to be briefed at appropriate moments.
- **PH:** Simulate Wang situation and compare to the measurements made by LBNL colleagues.
Stands.

RG reports that he measured the field in the Hall but found no residual fields of significance.

2. Status of review of items in Hall and contacts with system owners: LF/MOM

- LF reports that he has some feedback from system owners.
- Some people have volunteered Helmholtz coils for testing. He will add an extra sheet to his spread sheet. For example, M. Bonesini may have a 60G set-up in Milan. Perhaps also coils at DL and Oxford.
- LF will follow up on the options.

3. Status of magnetic model of MICE Hall: PS

- Not too much progress since last week. PS is now adding:
 - Steel plates over the trench. Now working on the meshing of the model;
 - Representative steel for the crane;
- Major update that is still required is the quad bases. Then wants to review status with MC to see what should be done before model is usable to make calculations of field in air.
- New computer has arrived but has not been used so far.
- IM: have seven racks been added behind the north wall? No, not yet.
- MC: is all of EMR in model. No, this needs to be updated.
- Preparation of sub-models: MC:
 - Has started on preparation of sub-model. Though steps in documentation have been followed, as yet he has not successfully extracted a sub-set of the large model.
 - In parallel to sub-model preparation, MC has looked at the racks behind the north wall and approaches to screen the racks. Some issues in extracting information from the model. Screen would consist of a shielding cage around the racks.

4. Status reports:

Racks behind north wall: TH, IM

- Two racks complete, costing for two more racks. Waiting for AN to OK the build. AN will send a note to confirm. Will test the racks with the power-supply rack at DL then will be moved down and installed. Installation is believed to be a few weeks.

Compressors along west wall: JT

- See slides circulated by JT. Discussion of cooling and location.

ISIS plant room: KL

- Principle of working in consultation with ISIS to find a possible Plant-Room solution has been agreed. So, JT has agreed to take the lead on developing the plan for implementation in the plant room.
- Initial discussion of layout in the Plant Room:
 - JW presented his layouts. Somewhere around 50% of the plant room is used in his scheme. Note that it is the racks that are placed in the control room, the compressors will be on the west wall;
- **Actions:**
 - **LF:** Send 3D models to KL and the list;
 - **KL:** Send information to A. Stevens (CC D. Findlay) to explain the status and to suggest that the next step is for JT (lead on this) should discuss with A. Stevens.

5. Discussion of options:

On the mezzanine level to the north east;

Back-up scenario at the moment;

Partial return yokes: HW

- HW reports that he has approval of engineering effort from BNL from 01Nov12. JT is able to support HW and BNL people in the evaluation of the partial return yokes.
- MC reports that he has made a first check of HW's calculation. He sees positive results but does not exactly reproduce HW's result.

Igloo:

Closure of ends of shield wall.

On hold for the moment.

6. Consideration of shielding for tracker: PS, MC

- CMacW requests a tracker test area.
- CMacW is making a Gantt chart for the tracker tests.
- **Action:**
 - **CMaCW:** Provide AN with space requirements for tracker test space in R9
 - **AN:** discuss with RP the option of the tracker test area in R9.

7. AoB

- LF: raises question of whether the ferrous objects in R9 should be checked. Agreed that LF will ask VB to check this in her model.
 - **Action, LF**

8. DONM:

- 31Oct12; 15:00 GMT – R. Preece will be asked to chair.

Summary of actions:

- **ABr:** Pursue development of test of non-standard lengths of Cryomech hoses
- **PS:** Prepare model of magnetic field in the Plant Room
- **PH:** Simulate Wang situation and compare to the measurements made by LBNL colleagues.
- **LF:** Send 3D models to KL and the list;
- **KL:** Send information to A. Stevens (CC D. Findlay) to explain the status and to suggest that the next step is for JT (lead on this) should discuss with A. Stevens.
- **CMaCW:** Provide AN with space requirements for tracker test space in R9
- **AN:** discuss with RP the option of the tracker test area in R9.