

# Magnetic shielding meeting: 2012-10-24: 15:00 GMT

## Conference Room 1, R1 (phone conference details circulated)

**Present:** SG, JW, KL, AG, JT, AG, PH, MC, JT, AG, HW, LF, CMacW

### 1. Actions:

- ABr: Pursue development of test of non-standard lengths of Cryomech hoses  
Stands.
- PS: Prepare model of magnetic field in the Plant Room  
Superseded.
- PH: Simulate Wang situation and compare to the measurements made by LBNL colleagues.  
Simulation prepared no results yet. Action stands.
- LF: Send 3D models to KL and the list;  
Done.
- 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.  
Done.
- CMacW: Provide AN with space requirements for tracker test space in R9  
Stands.
- AN: discuss with RP the option of the tracker test area in R9.  
Done.

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

- Updated spread-sheet submitted to the WWW. LH2 and test facilities updated.

### 3. Status of magnetic model of MICE Hall: PS

- See slides from PS: [here](#)
- See slides from CMacW and MC: [here](#)
  - We note that PS needs to provide information for the sub-models in a particular format;
- Discussion of implementation of boundary conditions. Needs further study, but seek to use a boundary surface at a surface where the perturbation is small;
- Order of tasks with the Hall model:
  - **We agreed:**
    - Hall model:
      1. Rack room #2, Room of Requirement;
    - Sub-models:
      1. Definition of boundary conditions;
      2. Compressors on the West Wall;
      3. Tracker cryostats and readout
  - In parallel, CMacW will review fields in the present rack room.

#### 4. Status reports:

##### *Racks behind north wall: TH, IM*

- No specific report this week. Some information in the MC/CMacW report above.

##### *Compressors along west wall: JT*

- See slides: [here](#)
- Excellent progress in detailing the west-wall move. Now need to move on to civil engineering design.

##### *ISIS plant room: JT*

- See slides: [here](#)
- We have been offered the locker room. Biggest issue appears to be the surface routing. Will also look to see if some or all of the compressors can go in there.

#### 5. Discussion of options:

##### *On the mezzanine level to the north east;*

**Back-up scenario at the moment;**

##### *Partial return yokes: HW*

- See slides: [here](#)
- OPERA/COMSOL comparison; COMSOL reproduces the OPERA results.
- HW et al. will have the first meeting on the engineering of the yokes at BNL. HW agreed to circulate notes on the meeting to the Mag-Shield list.

##### *Igloo:*

Closure of ends of shield wall.

**On hold for the moment.**

#### 6. Consideration of shielding for tracker: PS, MC

- After Sumitomo visited, asked for break-down of ferrous material in the cold head. Have details now so can simulate.

#### 7. DONM:

21Nov12; 15:00 GMT

#### 8. AoB

- None;

#### Summary of actions:

- **ABr:** Pursue development of test of non-standard lengths of Cryomech hoses
- **PH:** Simulate Wang situation and compare to the measurements made by LBNL colleagues.
- **CMaCW:** Provide AN with space requirements for tracker test space in R9
- **AG:** Obtain break of ferrous material in waveguides and circulate.