

Magnetic shielding meeting: 2012-08-29: 15:00 BST

Conference Room 1, R1 (phone conference details circulated)

Present: CMacW, PS, KL, ABI, MC, LF, HW, TH, AN

1. Actions:

- **PS:** Update geometry and add quads;
 - Quads are in the model but not meshing, leave action.
- **MC:** Make prioritised list of items to be added to the magnetic model;
 - Stands.
- **AN, KL:** How to add effort (perhaps B. Sheppard);
 - J. Clarke will visit on the 10Sep12 to assess problem and see if they can provide modelling support;
- **PS, MC:** Send transverse forces to mailing list;
 - No reliable answer yet, action stands. Add PS to MC;
- **MC:** Draft person specification for "new team member";
 - Superseded. Delete action.
- **JT:** evaluate cost and complexity of shielding compressors at south wall
 - Stands. Awaits quote from magnetic shielding.
- **IM:** Evaluate cost and complexity of shielding compressors at west wall
 - In progress.
- **MC:** evaluate effect of racks on field in RF area
 - Some progress. Need to discuss with PS when he arrives tomorrow. Stands.
- **RP/AG:** evaluate the installation of the RF amplifier
 - Stands.
- **TH, JT, IM, MC, AG, RP:** Write paper for presentation to the TB for positioning of the racks behind north wall;
 - **Agreed:**
 - Finalise the report by 05Sep12;
 - Review at our meeting on 05Sep12;
 - Send AN for TB on 07Aug12.
- **IM:** Check content and limit on operation of the substation;
 - Stands.

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

LF/MOM

- Sub-system owners will be contacted before the end of the week. LF proposes deadline of the next collaboration for feedback.

3. Status of magnetic model of MICE Hall

PS

- See slides.
- **Agreed:**
 - Use version management scheme for COMI files;
- **Action:**
 - **PS, MC:** Consult C. Rogers on version management scheme;

4. Discussion of options:

All

- **Racks:**
 - Behind north magnetic shield wall;
 - TH: status of paper:
 - Almost done except that the definitive magnetic modelling needs to be added. Can be finished next week.
 - On the mezzanine level to the north east;
 - Back-up scenario at the moment;
- **Compressors:**
 - Along west wall;
 - TH: status of paper:
 - Need decision on compressor hose runs. Options are overhead or along the floor. Need to define scheme between TH and JT. TH and JT will prepare a preferred option for next week's meeting.
 - Present scheme, i.e. inside south magnetic shield wall;
 - Not considered a viable option at the moment.
- **ISIS plant room:**
 - KL reported that intention is to go to D.Findlay with the paper on the north and west wall options and ask whether it would be possible to evaluate using the plant room.
 - MC: comments that need to study plant-room solution for Step VI
- **Local shielding of magnetic field (return yokes):**
 - HW**
 - Field requirements in the vertical direction
 - Equipment on roof;
 - H2 system;
 - Crane;
 - Cryocoolers
 - MC questioned saturation at Step VI. Dispute over reality at Step VI. Questions viability at Step VI;
 - LF: would need to have removable sections for installation and maintenance;
 - Schedule and cost;
 - CMacW: asks if HW can look at Step VI. HW agrees to try.
- **Igloo:**
 - Closure of ends of shield wall.
 - On hold for the moment.

5. **Exposure of equipment to magnetic field**

CMacW, RP

- CMacW is investigating test places.
- LF suggests contacting ITER to see if they have a test facility.

6. List of specific items to check

PS

- **LH2 delivery systems**
- **Q9 power supply**
- **HV rack**
- **Control rack for compressors, vacuum etc.**
- **Vacuum pumps**
- **Substation**
- **Equipment on the roof**

6. AoB

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- **PS, MC:** Send transverse forces to mailing list;
- **JT:** evaluate cost and complexity of shielding compressors at south wall
- **IM:** Evaluate cost and complexity of shielding compressors at west wall
- **MC:** evaluate effect of racks on field in RF area
- **RP/AG:** evaluate the installation of the RF amplifier
- **TH, JT, IM, MC, AG, RP:** Write paper for presentation to the TB for positioning of the racks behind north wall;
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