

MICE Executive Board

31st October 2015

Phone details: <http://mice.iit.edu/phonebridge.html>

CR9: 15:00 GMT, Atlas, RAL

Verbatim

1. Introduction: KL

- No real introduction; principally need to develop plan to recover functionality of SSD and respond to the other review recommendations.

2. Minutes and actions: All

- Notes had been circulated only the day before the meeting. Therefore agreed that comments/corrections to be sent to CR (and KL). Comments/corrections will then be implemented.
- **ABr:** begin to make arrangements for CM44 at FNAL in February 2016.
 - o Agree to make the CM at RAL in the ISIS shutdown. Did not want to do "CM light". **KL:** will check availability.
- **SB/KL:** Discuss whether we need 24/7 shift cover; shifters should not simply be "door-entry operators". Perhaps shift cover should only restart when data-taking for physics starts.
- **Done.**

3. Debrief on CM43: All

- Publication of Step I papers, development of the magnet systems and reconstruction software were commended.
- Global reconstruction (ABI): noted that the development of global reconstruction needs a greater overview and must be more orientated to the physics needs.
- Understanding of excursion of emittance in region of large field excursions needs to be improved (ABI, DK). Feeling was that there was not a broad understanding within the collaboration and we have not communicated the issues to our reviewers. In this regard plots such as phase-space evolution are required rather than the final global average.
- We discussed the need to make sure we did not present the experiment as a prototype for a system that might one day be built (MP).

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- It was noted that the SSD recovery plan was not fleshed out and that items such as measurements of the magnetic field to qualify the magnet would be needed.

4. Upcoming reviews:

- SSD technical review(s):
 - Internal (MAP/MICE) review called by MP. Will take place at FNAL in late November or early December. Will principally involve US participants but with (strong) UK (and collaboration) participation. Items needed or to be addressed would include:
 1. “Optics indicator” for consideration of additional coil as input to review. Goal for an initial analysis is in the next two weeks.
 2. Electrical issues of the power system to be considered alongside the magnet review.
 3. Need to develop a management plan to execute repair; a fully resource-loaded plan is required after the direction of travel has been defined. It is clear that we are “between a rock and hard place” because the recovery is likely to cause a delay in the schedule because of the funding-profile instructions in the DOE.
 - A second review to follow the internal review will be a “stakeholders review”, it will be necessary that it demonstrates “management sign-off” and that there is external sign-off from the optics review panel and the collaboration.
- Optics review:
 - Given the needs of the technical review, need now to seek a date in early January for the Optics review. In addition, the terms of reference for the review need to be updated in line with the MPB recommendations.
 - We discussed the merit of FNAL representation on the review panel; Bross and Palmer will make some suggestions for possible additional reviewers.
 - One model would be for the optics review to be followed by the second technical (“stakeholder”) review. The advantage would be cross-fertilisation of the panels and reduction in travel costs.
 - Clear need to find dates for the optics (and technical) reviews asap.
 - **KL** to organise optics review revision
- Step IV magnet system review:

- Objective is to gather a good list of the tasks that need to be completed before combined magnet operation can take place. Example discussed was the controls-network configuration.
- **CW** to organize.

5. **Project Manager's report: CW**

- Agreed that the potential difficulties in considering the installation of additional trackers make it unrealistic to pursue additional instrumentation in Step IV at this point.
- Agreed that alignment tolerances for the cooling demo beam-line elements would be 1mm/1mrad until further notice. **CW** will define an appropriate engineering approach to ensure design/manufacture can meet these tolerances. **CW** will define an appropriate format for definition of the alignment tolerances. The error study will be pursued in the Analysis Group.
- Tracker position in global (Hall) coordinates needs to be addressed. ISIS use "SpatialAnalyser" to keep survey data together and to analyse the results. Agreed to contact the ISIS survey group leader to ask for support in addressing the tracker-position issue.

6. **Operations Coordinator's report: SB**

- Shift schedule needs to be devised to allow running with field off and LH2 on the assumption that the LH2 system will be commissioned close to schedule.
- Beam-line commissioning needs to continue to conclusion. The example we discussed was the soak of the decay solenoid at high current so that the over-temperature trip issues can be addressed. We agreed that the MIPO needs to gather a complete list of the outstanding commissioning issues for the full Step IV experiment (**CW**).
- We discussed the next steps in the FC commissioning and agreed not to go beyond the specification in the FC design. Therefore the next steps are to carry out a soak test at 114A in solenoid mode and then to commission to full current in flip mode.

7. **Paper status and Physics Coordinator's report: CR**

- Need to understand and address staffing issues as the analysis group must cope with the optics review, the demands of the solenoid review, the cooling demo paper and the analysis of the data taken so far. Need to be careful to prioritise.

8. **Speakers Bureau: VP**

- Yearly update on our abstracts. IPAC abstracts due 09Dec15. **VP** will circulate abstracts to EB. **KL** will

make a proposal for a pair of “standard abstracts” for 2016.

9. **Next collaboration meetings:**

- 2016:
 - CM44 15th to 19th February 2016
 - 1. See above
 - CM45 20th to 24th June 2016
 - 1. Must avoid clashes with examiners meetings
 - CM46 03rd to 07th October 2016
- 2017:
 - CM47 13th to 15th February 2017
 - CM48 26th to 28th June 2017—check dates with examiners meetings
 - CM49 2nd to 4th October 2017

10. **DONMs:**

- To be defined

11. **AoB**

- We agreed that Tang would be invited as an Asian representative (**KL**).

Summary of actions:

- **KL:** Check availability for CM44 at RAL in ISIS shutdown and propose dates;
- **ABr, MP:** Propose possible additional members of the MICE optics review panel who are respected FNAL staff.
- **CW:** Organise an appropriate magnet-system operational readiness review exercise.
- **KL:** Organise revision to optics review taking account of magnet timeline.
- **CW:** Implement appropriate activities to ensure 1mm/1mrad tolerances of the cooling-demo beam-line elements can be achieved.
- **CW:** Define format for definition of alignment tolerances from analysis group.
- **CW:** With the MIPO, gather list of outstanding commissioning tasks for the Step IV experiment.
- **VP:** Circulate present “standard abstracts” to EB.
- **KL:** Propose update to “standard abstracts” for 2016.
- **KL:** Invite J. Tang to become an Asian representative on the EB.