

Minutes MICE Engineering Meeting

Date: November 14th, 2012

Venue: BNL

Participants: Mike Anerella (MA)
Steve Plate (SP)
Holger Witte (HW)

Summary

- HW gave a presentation with updates on the MICE shield (partial return yoke). This included the following:
 - Latest simulation results, which confirm the effectiveness of the shield. The results suggest that it may be advisable to increase the thickness of the shield slightly (order of percent) to avoid saturation. It might also be necessary to connect the shield to the Virostek plates as suggested by Alain Blondel, which increases the good field region longitudinally.
 - The possibility of using existing soft iron at Fermilab was discussed (Nevis cyclotron). It was felt that this should not be pursued, as getting the blocks of iron cut to the right shape will be costly.
 - An update was given on the MICE Collaboration Meeting in October 2012
 - Simulation results suggest that small gaps in the shield (1-2 mm) might be acceptable and will not jeopardize the performance of the shield.
 - Photos of the MICE hall were shown
 - HW pointed out two potential obstacles with the implementation of the shield, which are the mezzanine and the tracker readout/cryostat next to the spectrometer solenoid.
- The possibility of Jason Tarrant visiting BNL for consulting was discussed. It was agreed to follow up on this at the next meeting, after a first assessment of the problem and evaluation when a potential visit might be most useful.
- MA/SP pointed out that more details on the false floor in the MICE hall might be necessary, to avoid clashes with the metal framework / pipes visible on some of the pictures. HW to consult Jason Tarrant.
- MA/SP will need a more accurate estimate of the spatial distribution of the magnetic force on the shield; HW to provide this data.
- Date of next meeting: week from 26th to 30th of November (TBD).