



MICE RF System Design Review



To: MICE RF System Review Committee

Subject: MICE RF System Design Review

September 2, 2015

In November 2014, the MICE Project was re-baselined with the goal of providing a demonstration of muon ionization cooling with RF re-acceleration in the 2017-2018 timeframe. The revised project plan requires an aggressive schedule for integrating the RF system into the MICE Cooling Channel and its subsequent commissioning. Thus you are being requested to evaluate:

- Plans for deploying and commissioning two MICE RF modules, based on the MICE Single Cavity Test System prototype, which was successfully commissioned and operated in the MuCool Test Area (MTA) at Fermilab, along with their associated hardware.
- The overall design of the RF system including:
 - The RF Module;
 - The RF Station design;
 - The Low Level RF System design;
 - The plan for RF System integration with and interface to the rest of the MICE experiment, control system and data acquisition system;
 - The plan for RF Module integration with the MICE cooling channel.
- The schedule and resources required for integration of this hardware into the MICE cooling channel and for carrying out both the standalone and in-place commissioning of the RF hardware.

This review will provide critical input to the RF team on their plans to implement these systems as well as to the MICE collaboration in preparation for their MICE Project Board and Resource-Loaded Schedule Review (MPB/RLSR) in late October.

We are requesting the committee's oral comments and advice on these issues as part of the closeout. The committee is also requested to summarize these issues in a written report to be delivered no later than October 2nd for evaluation by the MICE Project and for inclusion as input to the MPB/RLSR committee.



MICE RF System Design Review



Committee Members:

Jean-Pierre Delahaye, SLAC/CERN
Mark Keelan, RAL
Peter McIntosh, DL
Mark Palmer, FNAL (chair)
Ralph Pasquinelli, FNAL
Robert Rimmer, JLAB
Yagmur Torun, IIT (remotely joining)

Review Time and Location:

Wednesday, September 9, 9AM – 5PM
Thursday, September 10, 9AM – 3PM
Cosener's House, Seminar Room 1

Preliminary Agenda:

<https://indico.fnal.gov/conferenceDisplay.py?confId=10350>

Supporting materials will be posted on the Indico site.