

LARP CM18 magnetic measurement working group meeting plan
Version 4, May 8, 2012

Goals:

1. Review the existing HQ magnetic measurements and results.
2. Plans for the coming tests and analysis.
3. Discuss the protection studies for HQ/HQM and next steps.

Location:

Fish Tank, Wilson Hall 13

Time:

May 8, 2012, 16:00 – 18:00

Items to discuss:

1. Issues in existing measurements and work plans.
 - a. Measurement system validation. LARP HQ probe resolution and possible improvement.
 - b. Interpretation of the existing data (4.4 K and 1.9 K). Source of multipoles at the collision and injection field (order = 2 – 6).
 - c. Field spikes: possible source and investigation plan.
 - i. Relationship with flux jump, power supply current and temperature.
 - ii. Not observed in TQ and LQ magnets.
 - d. Multipole decay (relevance to the low contact resistance, CERN AC loss data analysis).
2. Plans for coming measurements.
 - a. Measurement standardization:
 - i. Measurement sequence.
 - ii. Parameters: precycle, peak current, ramp rate and etc.
 - b. Hardware and measurement preparation: spike characterization, probe resolution improvement, and etc.
 - c. Proposal to establish field quality database on LARP magnets to facilitate collaborated analysis and investigation.
 - i. If agreed, working plan.
 - d. Proposal to establish regular, e.g., bi-weekly, working group meeting on LARP magnet field quality measurement, issues, analysis, and collaboration.
 - i. If agreed, schedule and list of topics for the next meeting.
3. Quench protection studies: HQ/HQM results and next steps.

Output:

Summary and recommendations, follow-up schedule.