



Feedback from MQXFA

E. Todesco, A. Devred, S. Izquierdo Bermudez, D. Perini, A. Milanese,
D. Duarte Ramos, on behalf of WP3 and of the AUP collaboration



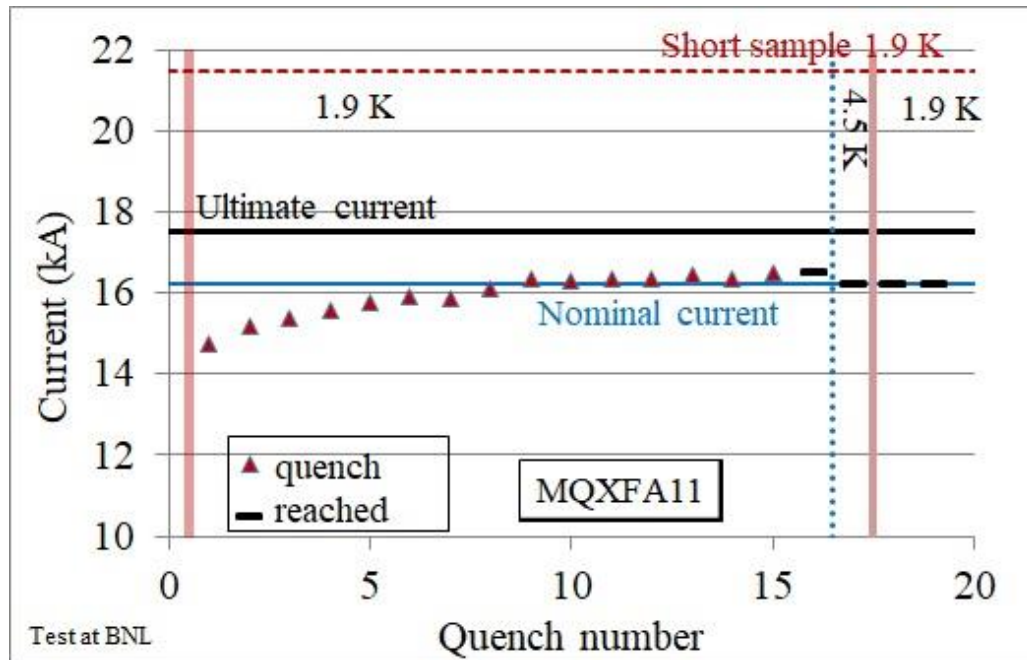
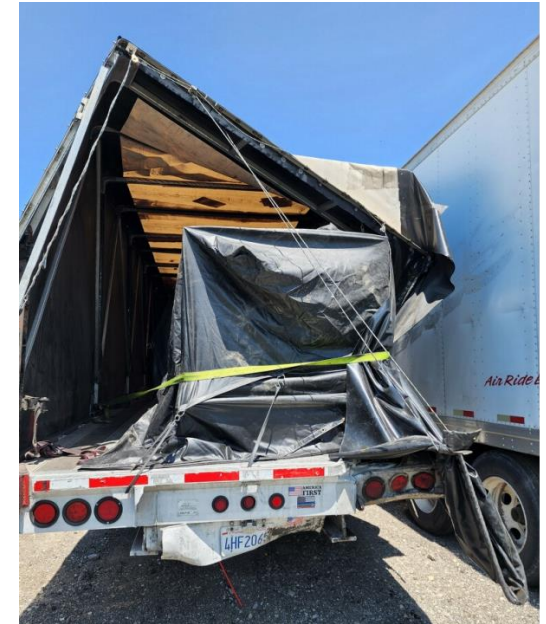
14 December 2022

SUMMARY

- Next steps as presented in September meeting
 - Foreseen for September: V test of MQXFA11 (with the caveat of incident) – **successfully done in September-October**
 - Foreseed for November: V test of MQXFA08b (validation of coil replacement) – **slipped to end of December** (issues in cryogenics and commissioning of second insert)
 - Foreseen for November-December: Horizontal test of first cold mass – **slipped to January**

MQXFA11, MQXFA08b

- MQXFA11 had an accident during transport between East and West coast, not far from Chicago
 - Nobody got injured
 - Inspection: no visible damage (on the magnet)
 - Large acceleration well beyond spec (5 to 10 g)
 - Magnet reached performance (test ended October 20)



Power test of MQXFA11 (B. Ahia, et al)

COIL, COLD MASS, TEST

- Coil manufacturing is approaching to completion (86 fully done out of 105, 11 in the pipeline)
 - FNAL: 149 completed, 5 coil under manufacturing, 5 to do from scratch
 - BNL: 237 completed, 6 coil under manufacturing, 8 to do from scratch
- MQXFA8b to be tested in December-January
 - After this test, clearance to assemble also MQXFA7b
 - In the meanwhile, assembly of MQXFA13 and possibly MQXFA14
- Issues found in the assembly of MQXFA12 - disassembly
 - MQXFA13 being assembled
- First cold mass not yet in the test station
 - Should be moved in the test station before the end of the year
 - Horizontal test in January-February
- DOE review to approve the extra cost and revised schedule is ongoing this week

COMING SOON

- December 2022: Test of MQXFA8b
 - Assessing capability of coil replacement to cure issues in magnet performance due to one coil
- January 2023: connection of first cold mass to test station and first quenches
 - Assessing cold mass performance
- February 2023: V test of next magnet (MQXFA13)