Readiness Review for SS Shell Welding on MQXFS1d

Goal & Charge

The helium vessel of LMQXFA cold masses is going to be assembled around the MQXFA magnets. The straight section of the helium vessel is made of two half shells which will be welded together (through two longitudinal welds) and connected to the yoke of the magnets.

The welding of the two half shells is going to be performed on a short model (MQXFS1d) in order to test procedures and the possible impact on magnet training/performance during cold test.

The goal of the review is to assess readiness to perform the welding of the two half shells on MQXFS1d.

The committee is requested to answer the following questions:

- Are the requirements for the interference between SS-shell and magnet structure well defined and achievable?
- Are the welding equipment and fixtures to perform the weld adequate to assure high probability of success?
- Is the measurement plan adequate for a good assessment after welding, and for providing feedback when the welding will be performed during LMQXFA fabrication?
- Do you have any other comment or recommendation to assure successful welding of SS shells and cold test of MQXFS1d?

Committee

D. Cheng, A. Nobrega, T. Page (chair).

Date and Time

December 15, 2017 starting at 8:30/10:30/11:30am (LBNL/FNAL/BNL)

Location/Connection

The review is by video-mtg. FNAL people may use IB3 mezzanine mtg room. Video-link is by Zoom, info by email.

Link to talks

https://indico.fnal.gov/event/15934/