

CBETA FFAG Magnets and girders
Meeting notes, 10/11/2017
Prepared by: R. Michnoff

Personnel Present: Diane Hatton, Steve Peggs, Stephen Brooks, Steve Trabocchi, George Mahler, Scott Berg, Joe Tuozzolo, Dejan Trbojevic, Thomas Roser, Karl Smolenski

Status of corrector magnet procurement

- Statement of work is complete, a minor change regarding request for first articles needs to be made
- Drawing checking is in process, expected to be complete by end of this week
- The previous date to place this order with a vendor was 10/31/2017. This will likely be late by a few weeks.

Status of girder plate drawings and procurement

- Vacuum chamber designs will be provided by Cornell. Karl indicated that this is expected to be complete by the end of November 2017. Straight sections will be done first.
- 27 girders total are required, with 17 unique plate designs
- The goal is to complete all of the girder plate designs by December 31, 2017.
- We discussed that it might be worthwhile to procure the girder plates in two batches, depending on when drawings become available.
- Girder plate procurement will likely need to be done through BNL central shops. Costs for this work need to be clearly understood before the work begins. Options for cost-effective fabrication should be explored.

Girder delivery

- Karl indicated that the order for delivery of girder plates to Cornell is not important. Cornell can complete the installation in the order that girders are received.
- Karl explained that CHESS equipment will be stored on the south side of the CBETA installation area until July 2018. This is expected to prevent being able to reconfigure the shielding wall until the equipment is moved. The impact of this delay on the CBETA installation schedule needs to be clearly understood. The original expectation was to move the shielding blocks immediately after completing the fractional arc test in April 2017 to allow the girder installation to begin.
- Cable trays will be installed at Cornell after the girder stands are delivered

Girder stands

- The girder stand drawings will be completed after the girder plate drawings are complete, since the girder plate designs will likely impact the stand designs.

- There is a concern that the preferred Rexroth assembly vendor has been late with previous work. We must therefore plan carefully to avoid delays. The stands need to be delivered to Cornell in advance of the girder plates.

Fractional arc test

- The delivery of the fractional arc test beam pipe is still expected to be shipped to BNL from Cornell by 11/15/2017
- BDH magnet design is complete and drawings have been delivered to BNL central shops for fabrication
- Fractional arc test girder design is complete and drawings have been delivered to BNL central shops for fabrication

FFAG girder interconnects

- Per meeting notes from last week: "Karl will work with Yulin to create a sketch of FFAG girder interconnects, specifically showing where bellows/sliding joints will be installed." This was discussed again and Karl agreed to do this. We should plan to review this at our meeting next week.

Magnet testing

- The disassembly/reassembly test has not been performed yet. This should be done as soon as possible.
- The preproduction magnets will be tuned and surveyed using the production procedure that is under development. The short survey arm provided by the C-A survey group will be used as part of this procedure. This work will help us more accurately determine the time required to perform the measure/tune/measure/survey procedure for each magnet.
- Peter Wanderer was not present at today's meeting but he sent an email stating:
"I told Dan Sullivan (who will put together the mechanics of the second test station) to complete the work he started a few months ago."

Septum Magnets (in splitter 4, quantity 4 required)

- A design sketch has been prepared by Nick Tsoupas, but engineering design details have not yet begun. This needs to start soon to allow the splitter beam pipe design to be completed and to ensure that the magnets will be available for final splitter installation in late 2018.