

Friday, Jan. 9, 2015

Niowave

- Tom N. (FNAL) reports that the weld certification was completed at the vendor. Results look very good.
- For the RFD fabrication, NW will add 6.4 mm materials to the qualification list. Will send samples to CERN next week and prepare the associated drawings.
- Certify leak check tech - > will have training by mid February

The test tube is being leak checked at the brazer today. NW plans to start to machine the flange next week, run dimensional checks, and leak check the assembly. This should ship to CERN for inspection before the end of the month.

The braze samples for qualifications are at the brazer now and will be sent to Tom's testing house upon completion. Niowave will inform Tom when the samples are ready to send, and he will place a new purchase requisition for the testing.

NW also doing prototyping RFD forming. A couple of dies are under preparation. We expect initial forming results on copper by next week.

Uploaded full set preliminary drawings for RFD in EDMS. Ready for comments by the collaboration. Not in ISO format, but reflect the fabrication plan.

NW will show the planned manufacturing processes for both cavities by the next meeting.

From CERN

Material testing person not at the meeting. Expect all testing done by ~mid January (in 1-2 weeks).

All specification drawings are ready for both cavities. Two different groups are completing the QA – what's in EDMS for the two cavities should correspond to the final version, but the approvals will take until next week.

The link in EDMS for the spec drawing in RFD will be updated today. The 3D model also needs to be updated in EDMS after the recent changes. Both should be in the EDMS by the end of today.

CERN would like to go to 180mm diameter for the NbTi ring around the beam tube flanges. NW points out that this can be done in future, but the prototype test assembly is already done. This is perfectly ok for the test tube.

DQW HOM Design

Binping made a slight modification and requirements for HOM dampers. At the review, consensus was that the tolerance of +/- 0.2mm was tight. Proposed a new

design with a reduced tolerance. Working on other issues – Almost ready for the next review.

In addition, Silvia is working on preparations for the Vertical test for the DQW prototype, to improve setup from last testing.

#### RFD HOM Design

Sent preliminary information to CERN/UK. No change since the review. Continued sensitivity analysis to errors. All still looks good. Vertical HOM damper → need some more support from UK and help on thermal analysis, someone needs to look at this issue, since it has not yet been studied.

Scheduling the engineering review of HOM dampers.

We still need the engineering specification drawing for both RFD and DQW from the UK. The team from the UK will be at CERN next week to discuss the status and planning for this work.

We plan to discuss and possibly schedule the review at next week's meeting.