

Minutes and Actions of Site Qualification Task Force (SQTF) Phone Conference – 12th of January 2006

Present: A. Andreazza, J.C. Clemens, S. Coeli, G. Darbo, K. Einsweiler, M. Gilchriese, D. Giugni, C. Glitza, M. Garcia-Sciveres (left early), N. Hartman, L. Rossi, E. Vigeolas.

Agenda

- 1) Restart loading in CPPM and Genova;
- 2) Bare stave availability for loading;
- 3) Actions from second Site Visit;
- 4) Update on MCC repairs;
- 5) A.o.B.

1. Restart loading in CPPM and Genova.

Genova and CPPM have restarted loading activities using repaired staves.

CPPM has completed a system test (S4026) and production (S4111) stave. The last one has been surveyed and passed preliminary electrical test. Stave S4111 went through a new procedure to reduce the curing time to ½ hour by slightly heating the glued module (~30°C). Survey results, with a maximum offset of 28 µ in X and 32 µm in Z, demonstrate that modules did not move from position when robot vacuum chuck releases them (see: http://www.ge.infn.it/ATLAS/SQTF/Minutes/Minutes_06-01-12_aux/JCC_email_ReducingLoadingTime.rtf). Module bow, instead, is still an issue having a 93 µm average with a maximum of 170 µm reached in a module.

The system test staves has used bad quality modules (ranking between 1668 and 13295, see: http://www.ge.infn.it/ATLAS/SQTF/Minutes/Minutes_06-01-12_aux/MODULE_system_stave.xls) and a reworked bare staves that developed an electrical short between omega and pipe.

Genova is currently loading stave S4108. This staves has 2 shingles with torsion angle exceeding limits: M0 = 0.42 deg and M2A = 0.41 deg where limit is at 0.32 deg. This stave has been surveyed a second time to check the possible error in the measurement: results gave again the same values for the two shingles. Currently 5 modules have been loaded. Vadim, who was not present at the meeting, used a curing time of 1.5 hours, he did not dare to go below that value because he considers already risky that time for the glue, being it still quite liquid. The temperature of the room where loading is done in Genova is 27°C, so not significantly different from the temperature used by CPPM to cure the glue, but it seems that the behaviour of the glue is quite different. Vadim has also concerns with the difference of stave bow between the one measured by the CMM (sagitta of -20 µm, at 21°C) and the one obtained on the robot (sagitta of +200µm). The older staves did not show so big discrepancy.

Both Genova and CPPM did not perform leak test before loading as required by the new “stave receiving procedure”: ATL-IP-ES-0119.

2. Bare Stave Availability for Loading.

Giovanni said that, after having discussed and agreed with Kevin, it was decided to use the available pipes to repair two new staves (S4063 and S4109). They will be available and qualified on Monday. In case they both pass qualification criteria, they would be respectively sent to CPPM and Wuppertal. Giovanni also reported that other 4 staves would be reassembled the next week. No distribution list was decided in the meeting. It will be done off-line when they would become available.

3. Actions from Second Site Visit.

The document with the actions proposed after the “Site Visit #2”, done the week before Christmas by Danilo, Giovanni, Kevin and Maurice, is waiting a revision by Sasha and Charlie respectively for the CPPM and Wuppertal parts of the actions. Giovanni asked that this revision happen latest the first day of next week, such that can be circulated in its final form and discussed at the next SQTF.

4. Update on MCC repairs.

No report available from Bonn: Markus, excused at the phone conference.

5. A.o.B.

For stave loading there are today big buffers of modules available in the 3 sites. What is the best selection of modules to be used for next staves? Attilio said that all the modules with ranking higher than 100 are for L2/L1 usage. Giovanni proposed, for the first one of two staves, where is higher the risk of loosing the final loaded stave, to use 11 “average quality modules” (ranking > 400) and 2 modules at each end side with “quality at the limit” (ranking ~900).

Eric circulated last week the drawing of the metal transport boxes for staves (see: http://www.ge.infn.it/ATLAS/SQTF/Minutes/Minutes_06-01-12_aux/Drawing1.pdf). It was decided that each of the 3 loading sites would use them to safely transport loaded staves. Eric asked to check the drawing compatibility with cradle designs. Genova accepted to buy 10, Wuppertal did not answer yet.

Danilo circulated the draft of the bare stave acceptance test to be done right before loading: <https://edms.cern.ch/document/694067>. Once it will be approved it will be added in the document set to be followed and filled for each stave. This set includes the “stave traveller”:

<http://www.ge.infn.it/ATLAS/SQTF/Templates/StaveProcLog.v1.0.pdf>

and the “stave summary table” :

<http://www.ge.infn.it/ATLAS/SQTF/Templates/StaveQualTemplate.v2.1.8.xls>

(a new version will be distributed the beginning of next week for comments before final acceptance)

Giovanni said that he is updating the “stave summary table” template (v2.2). The new table will have only two ranking tables (being the “STAVE” redundant) and will have plot from them of the main variables. The BURN and FLEX sheets will become optional as the STAVE and LOAD. These last two will be encouraged to be filled anyhow, being

useful for documentation. The front page will also add some checks that must be done to complete qualification.

Next SQTF phone conference will be also joined to Integration meeting and will be held on Thursday 19th of January 2006.