

**Minutes and Actions of
Site Qualification Task Force (SQTF)
Phone Conference – 11th of October 2005**

Site Qualification Task Force - SQTF

Present: J.C. Clemens, G. Darbo, F. Djama, K. Einsweiler, C. Gemme, D. Giugni, C. Glitza, J. Grosse-Knetter, V. Kostyukhin, G. Lenzen, E. Vigeolas.

Agenda

1. Speedup of Stave qualification tests (Claudia / Jean Claude);
2. Optimization of the loaded staves repair planning;
3. Stave storage issues;
4. Second visits to “Stave Sites”;
5. SE4445 glue new order;
6. Bare stave repair and their shipment to Genova;
7. Sector production status: an update.

1. Speedup of Stave qualification tests.

Claudia and Jean-Claude worked up a proposal of optimization of the stave qualification test aiming to reduce the total test time from 4 days to 3 or less days. The proposal illustrated in the email from Claudia (see: http://www.ge.infn.it/ATLAS/SQTF/Minutes/Minutes_05-10-11_aux/Claudia_email.txt) will not significantly reduce the quality of the test but will significantly reduce the total test time. The new optimization of the test will take 10 min/mod for LOAD and 30 min/mod for STAVE test. Both Claudia and Jean-Claude agree on the changes that were also discussed in the last Module Phone-conference. Claudia will update the TDAQ macros and she will check the timing on a stave under test. She will also verify that Module Analysis will correctly work on the new files. It was agreed that the BURN, LOAD, FLEX and STAVE sheets in the summary spreadsheet will be optional for qualification while the Ranking sheets will be continued. The plots currently in the FLEX and STAVE will be put in the Ranking sheet from the rank variables. Giovanni will take care of it. Jean-Claude also did analysis of ranked modules in FLEX and STAVE tests. The results are in: http://www.ge.infn.it/ATLAS/SQTF/Minutes/Minutes_05-10-11_aux/Stave_test_issues.ppt.

2. Optimization of the loaded staves repair planning.

Loaded staves need both MCC repair (most of them) and new pipe insertion. The total number of staves with modules having MCC encapsulated is 29 (see list http://www.ge.infn.it/ATLAS/SQTF/Minutes/Minutes_05-10-11_aux/MCC_encapsulation.xls). Out of them there are 13 staves from Genova with all MCC encapsulated in Genova, while the other have either all MCC encapsulated in Germany (Wuppertal staves) or a mix of Germany/Genova (CPPM staves). For the moment only German encapsulated MCC are under rework in Bonn. Walter claims that the Genova encapsulated MCC are more harder to rework being the glue more sticky and the risk of damage is rather high. He would prefer to rework only German modules being the Genova modules more difficult to rework and being them found more robust to thermal cycles. The rebond of MCC in any case is worse than the original bonding and it might be that the final result is worse than leaving the modules untouched. It has been decided to discuss again the rebonding at the next Module phone-conference.

Concerning the logistics of loaded staves it was decided to complete first the rebonding of the MCC for the German Modules: 5 staves are not in Bonn yet. All the staves must be moved to CERN for inspection, leak test, pipe cleaning with micro-sand blast, collar application. The tube insertion site is not decided if it will be CPPM or CERN yet. The electrical test and thermal measurements after the repair will be done at least partially in Bonn.

3. Staff storage issues.

Genova and CPPM are already equipped for storage of bare and loaded staves in dry air or nitrogen atmosphere. Wuppertal just bought a fridge container that will be modified to fill it with dry air and with the addition of a system to control the level of humidity. CERN is also setting up a dry air cabinet for storage. It is still open the problem of keeping low humidity in the place where half shell is loaded with bi-staves. The available space is quite limited in SR building and it will be also worse when a second set up for half shell integration will be added for speeding up. It is advisable to look into it some more.

4. Second visits to "Staff Sites".

A follow up of the visit, that Maurice and Giovanni did to the 4 loading/testing staff sites in May, was considered useful to verify the open issues from last time and to check if the needed changes will be implemented. The period proposed by Giovanni is connected with the time of December Pixel / ID week (the details of the trip are in: http://www.ge.infn.it/ATLAS/SQTF/Minutes/Minutes_05-10-11_aux/Visit2.rtf). It was decided to add CERN in the visit and Danilo and Kevin will join in the tour.

5. SE4445 glue new order.

Jean-Claude informed of the batch of SE4445 glues he is going to order. He proposes to order 30 kits (10 per each staff loading site) with delivery time beginning of November and expire date early next year and a second batch of 60 for January that should be enough to complete the production (if it will keep on the hoped schedule). The proposal was accepted. CPPM will be given credit to be balanced for the purchase.

6. Bare stave repair and their shipment to Genova

Giovanni and Vadim shortly reported on the stave repairs. The two test staves (4070 and 4072), that have been repaired with the final tools, have been surveyed and the first one has also passed the joule test (with water). The survey results of the two staves before:

http://www.ge.infn.it/ATLAS/SQTF/Minutes/Minutes_05-10-11_aux/stave4070.pdf

http://www.ge.infn.it/ATLAS/SQTF/Minutes/Minutes_05-10-11_aux/stave4072.pdf

and after repair:

http://www.ge.infn.it/ATLAS/SQTF/Minutes/Minutes_05-10-11_aux/stave4070repair.pdf

http://www.ge.infn.it/ATLAS/SQTF/Minutes/Minutes_05-10-11_aux/stave4072repair.pdf

show a substantial obtaining of previous quality of the stave. For 4072 one tile has the torsion angle outside specs. The torsion of the whole stave is increased by ~ 0.2 deg and a tile that was before near the limits, after reworking it exceeds them. Vadim considers that the stave could be accepted for loading being all 3 loading robot able to adjust for an uniform shift of the torsion. The Joule test for stave S4070

([http://www.ge.infn.it/ATLAS/SQTF/Minutes/Minutes_05-10-](http://www.ge.infn.it/ATLAS/SQTF/Minutes/Minutes_05-10-11_aux/Stave4070repair_joule.xls)

[11_aux/Stave4070repair_joule.xls](http://www.ge.infn.it/ATLAS/SQTF/Minutes/Minutes_05-10-11_aux/Stave4070repair_joule.xls)) gives good results, well in the specs. Giovanni told that Genova want to start the delamination of the staves (there are already 30 staves in Genova ready for rework). Genova plans to delaminate 4 staves/days. It is necessary to receive all the other staves as soon as possible. Most of them are at CERN. Danilo will ship them to Genova asap. Also the staves in the other labs must be collected. Vadim will send the list of all of them and he will ask that each lab chief will take responsibility to ship them.

Giovanni finally said that the Joule test is going to be modified for using C8F18 instead of water and to reduce the risk of test by mechanical stress. A new spreadsheet with the corrections and cuts for the new setup will be provided by Giovanni. It was also discussed the joule test of the new produced staves. Genova will transfer the knowledge to Wuppertal or to the lab that will take care of it.

7. Sector production status: an update.

Nobody was available for reporting.

Next SQTF phone conference will be held on Wednesday 26th of October.