

# Minutes and Actions of Site Qualification Task Force (SQTF)

Phone Conference – 19<sup>th</sup> of January 2006

(Continued on 23<sup>rd</sup> of January)

*Present (19/01/2006):* A. Andreazza, S. Coeli, M. Cristinziani, G. Darbo, K. Einsweiler, G. Gagliardi, M. Gilchriese, D. Giugni, C. Glitza, M. Garcia-Sciveres, N. Hartman, V. Kostyukhin, G. Lenzen, W. Ockenfels, A. Rozanov, E. Vigeolas, (+ somebody joining later, – somebody leaving earlier)

*Present (23/01/2006):* J.C. Clemens, M. Cristinziani, G. Darbo, K. Einsweiler, M. Garcia-Sciveres, D. Giugni, V. Kostyukhin, G. Lenzen, W. Ockenfels, (+ somebody joining later)

## ***Agenda***

1. Results from CPPM loaded stave after long shutdown;
2. Results from Genova loaded stave after long shutdown;
3. Availability of staves for loading;
4. Bare Stave acceptance document for loading (ATL-IP-ES-0119);
5. Updated version of the "Data Summary Tables" template;
6. Actions from Site Visit no.2;
7. MCC repair on loaded stave.

### ***1. Results from CPPM loaded stave after long shutdown.***

CPPM has completed the loading of stave S4111. The stave is under electrical test. After thermal cycles the stave developed an electrical short (~3 k $\Omega$ ) between pipe and TMT (23/1/2006). Module bow is still an issue. Jean Claude presented the measurement of bow for the modules loaded on the stave before and after cutting from frame and after loading on stave. Each operation increases the bow of the modules. In average the bow after cutting from frame increases of 10 $\mu$ m; while after loading it adds up other 17 $\mu$ m. More details in the email of Jean Claude:

[http://www.ge.infn.it/ATLAS/SQTF/Minutes/Minutes\\_06-01-19\\_aux/JCC\\_bow\\_of\\_modules.rtf](http://www.ge.infn.it/ATLAS/SQTF/Minutes/Minutes_06-01-19_aux/JCC_bow_of_modules.rtf). Jean Claude also updated on the thermal measurement made on stave S4045 that had a D-shaped tube inserted. This stave was equipped with 13 silicon heaters and thermal performance was measured before pipe insertion, after pipe insertion and after 30 thermal cycles between  $\pm 30^{\circ}\text{C}$ . The pipe insertion degraded the dT/W by 8.5% in average, and no worsening was observed after cycling. More explanation in the email of Jean Claude:

[http://www.ge.infn.it/ATLAS/SQTF/Minutes/Minutes\\_06-01-19\\_aux/JCC\\_dTW\\_S4045.rtf](http://www.ge.infn.it/ATLAS/SQTF/Minutes/Minutes_06-01-19_aux/JCC_dTW_S4045.rtf)

and in the associated tables and plots:

[http://www.ge.infn.it/ATLAS/SQTF/Minutes/Minutes\\_06-01-19\\_aux/S4045\\_kaptonHeaters.xls](http://www.ge.infn.it/ATLAS/SQTF/Minutes/Minutes_06-01-19_aux/S4045_kaptonHeaters.xls)

## **2. Results from Genova loaded stave after long shutdown**

Vadim reported on the stave S4108 loaded with modules last week. It is not surveyed and tested yet. Vadim said that he tested the SE4445 glue polymerization after 1 hour at 27°C and he found that it is still very liquid. For last 5÷6 modules he prepared the glue ½ hour before using, and he found that this technique works and can reduce the loading time per module from 2 to 1 ½ hours. Genova for the moment thinks to increase the loading hours/days to fulfil the production rate.

## **3. Availability of staves for loading.**

Giovanni and Vadim reported in the Integration phone-conference that all the staves repaired have shown electrical short between pipe and TMT. In some case the shorts appeared and disappeared afterwards. All the staves that did not show electrical short initially, when cycled at low temperature shown shorts (in some case they disappear when temperature rises again). Sasha questioned if electrical isolation of a few kΩ would be enough and we could accept in this situation of the project. We agreed to do a test with the insertion of a fishing wire of 75µm every 5 cm transversal to the stave. These wire segments should keep the pipe separated from the TMT avoiding electrical shorts. A report on the obtained results will be given in a special phone conference on Monday 30<sup>th</sup> of January. If this works, stave repair will start at full speed. For the time being no staves will be loaded.

## **4. Bare Stave acceptance document for loading**

Giovanni informed that a new procedure have been set up for accepting bare stave before loading. The new procedure: ATL-IP-ES-0119, is on EDMS (<https://edms.cern.ch/document/694067>). The file to be printed and filled for each stave has been put on the "Templates" page of the SQTF WEB page: <http://www.ge.infn.it/ATLAS/SQTF/>

## **5. Updated version of the "Data Summary Tables" template**

Giovanni said that he has updated the "Data Summary Table" template. The new version (v.2.2) has been put on the SQTF template page.

## **6. Actions from Site Visit No.2.**

Maurice went through the action list from the second Site Visit. Only Genova and CPPM were available to comment on the status. The updated lists of actions with their completion status are available:

- CPPM: [http://../QA\\_Reports/CPPM2-actions-rev3.doc](http://../QA_Reports/CPPM2-actions-rev3.doc) (update 23/1)
- Genova: [http://../QA\\_Reports/Genova2-actions-rev4.doc](http://../QA_Reports/Genova2-actions-rev4.doc) (update 23/1)
- Wupperta; [http://../QA\\_Reports/Wuppertal2-actions-rev2.doc](http://../QA_Reports/Wuppertal2-actions-rev2.doc) (no-update)

It was decided to update the action status at every SQTF phone-conference. The documents from the Site Visit are available in the "Documents" page of the SQTF: [http://www.ge.infn.it/ATLAS/SQTF/home\\_frames/home\\_Documents.html](http://www.ge.infn.it/ATLAS/SQTF/home_frames/home_Documents.html).

## **7. MCC repair on loaded stave.**

Markus reported on the status of MCC repair on loaded staves. A total of 23 staves are in Bonn or were in there for MCC repair. 19 staves have been repaired. For more details see:

[http://www.ge.infn.it/ATLAS/SQTF/Minutes/Minutes\\_06-01-19\\_aux/StaveRepairBonn.xls](http://www.ge.infn.it/ATLAS/SQTF/Minutes/Minutes_06-01-19_aux/StaveRepairBonn.xls).

According to the initial list of MCC that need repair (see:

[http://www.ge.infn.it/ATLAS/SQTF/Minutes/Minutes\\_05-10-11\\_aux/MCC\\_encapsulation.xls](http://www.ge.infn.it/ATLAS/SQTF/Minutes/Minutes_05-10-11_aux/MCC_encapsulation.xls)), there are still 8 staves that must be shipped to Bonn:

- CPPM: S4031
- Genova: S4004, S4007, S4021, S4075, S4078
- Wuppertal: S4027, S4055.

Transport of the above staves to Bonn must be organized during the February ID week.

*Next SQTF phone conference will be held on Thursday 2<sup>nd</sup> of February 2006.*