

Collimator Design Meetings

Minutes of the meeting 53 (10/12/2004)

Present: Aberle, Bertarelli, Hänni, Kadi, Mayer, Perret

Minutes # 52: No remarks on previous minutes

NEWS FROM FINANCE DEPARTMENT / ORDERING OF COMPONENTS

1. Oliver reported that all relevant buyers have been informed of the Collimator special ordering procedure. Main steps are:
 - a. Collect all supporting documents (offers, etc.) and prepare a written justification for the relevant cases (e.g. C/C and Glidcop)
 - b. Issue a DAI for the total quantity and send it to the concerned buyer
 - c. The buyer will send out the order without any additional procedure
2. For the orders of raw material, it is advised to check with Ch. St-Jal if it is possible to create a new SCEM and order it via the store as store material

TORQUE MEASUREMENTS ON SPS TEST MOTORS

1. Oliver informed that the mechanical measurement device will be installed next week. Measure forecast: 1st week of January.
2. The electronic measurement device is now available but requires some adaptation pieces to be designed and then machined to install the equipment. Measure forecast: end of January

ELECTRONIC COMPONENTS

1. Position switches: Oliver informed that according to the manufacturer the switches can withstand up to 100 MGy. These components are then considered definitive.
2. Electric plug-in: Roberto contacted Roger to discuss about a multicontact plug-in that seems to be convenient. Roger was given the catalogue information and is already including it in the layout. To make it radiation-hard, the plastic components should be replaced by PEEK or ceramics.
3. Temperature sensors: Roger presented a proposal for a several possible arrangements for the PT100 probes. A decision should be made on the preferred arrangement and size. Feedback required (**action** Roberto / Oliver)
4. Motor: Roberto is working with Stebon on a LEP-derived motor ...
5. Potentiometers: no news
6. Acoustic sensors: no news
7. Roger reminded that as long as all necessary information on electronic components he is not able to finalize the series drawings.

PLUG-IN AND ALIGNMENT SYSTEM

1. Roger reported on the outcome of the meeting he and Oliver had with J-P Quesnel on December 3rd. The conclusions were positive and the plug-in system as proposed by Roger was accepted and finally **approved!!** The only update concerns a request from TS/SU of specific position detection system (moving trolley) which requires a new plate to be added.
2. It was observed that specific work benches for collimator assembly and pre-alignment are necessary. New drawings necessary; design deadlines to be defined.
3. Oliver will prepare a planning giving details (who/what/when) on the operations to be performed on Cern premises upon collimator reception (controls, assembly, electronics installation etc) (**action** Oliver deadline January 2005)

RF CONTACT TEST BENCH

1. All the pieces of the bench should be ready by end of week 50. Sergio will collect them and start assembly on week 51. First tests should start by 1st week of January 2005.

WATER PLUG-IN

1. No important update could be made since Rosario was absent

2. Manfred informed that he has ordered standard water connections

AOB

1. As an outcome of the recent MAC discussion on collimation system, it was recommended not to use any grease for the roller screws.
2. Roger announced that manufacturing tests on the new tank plates have been completed. The stability of 20mm-thick raw plate was good, while a residual deformation of 15mm was measured on one of the machined plates (from 25mm raw plate), because the lamination direction was parallel to the axis of the plate. It was decided that for the series production 18mm-thick raw plates with lamination direction normal to the final plate axis shall be ordered (i.e. the lamination width shall be at least 1250 mm).
3. Raymond required a specific drawing dossier for the TCDI. In order to do so, a specific equipment code and approval list is necessary. Yacine will check and do the necessary actions to obtain it (**action** Yacine).
4. Raymond will check if the material for the TCDI bloc shall be Glidcop or stainless steel, as a function of price, leadtimes etc. In any case the Glidcop quantity to be ordered will not be affected.

ACTION LIST to be followed up:

Divisional request for motors MS	#31	Oliver, Fabrice, Stefano
Contact fingers – model for tests top and side	#34	Sergio, Roger
Play between motor spindle and jaw	#34	Roger
Non-symmetric heating of vacuum flanges	#34	Vasilis, Oliver, Miguel, Rathjen
Radiation issues – heat evacuation, air duct, space, shielding		Ralph
Detailed information on electrical plug-in and sensors (URGENT)	#45	Roberto
Detailed information on water plug-in (URGENT)	#45	Manfred
New Fluka simulation for 7TeV accident case	#47	Vasilis
Updated calculation on beam optics during transient	#49	Ralph
Acceptable RF design by RF people	#50	Ralph
Radiation dose on electrical components (URGENT)	#50	Vasilis, Roberto
Availability of flange blanks	#51	Raymond