

Minutes of the May 8, 2003 meetings on HV-LV power supply systems of TGC and MDT - CERN

Because of the planned discussions on system costs, it was decided to meet separately the two companies developing HV or LV systems for us.

The agendas were the following:

Meeting with Wiener, May 8 from 9:00 to 13:00, Blg 40, 40-R-A10:

- 1 - near future development of PL500F8, in particular concerning the availability of 12 independent channels in a 3U crate, M. Plein
- 2 - tests to be performed with MDT chambers in H8 and availability of related hardware and software, discussion
- 3 - overall costs of the MDT LV system, and detailed cost analysis, M. Plein

Meeting with Caen, May 8 from 14:00 to 18:00, Blg 40, 40-R-A10:

- 1 - presentation on the next generation of SASY 2000, G. Grieco
- 2 - status of production of the MDT/TGC SASY 2000, F. Vivaldi
- 3 - final dimensions of crates and modules for MDT/TGC HV-LV, G. Passuello
- 4 - possible solutions for cooling, A. Lanza (M. Beretta)
- 5 - overall costs of the MDT/TGC HV-LV systems, and detailed cost analysis, F. Vivaldi

Moreover, a short meeting was planned at the end of the day for MDT/TGC people, with the following agenda:

MDT/TGC meeting on May 8, from 18:00 to 19:00, Blg 40, 40-R-A10:

- 1 - sharing of costs of HV cables, connectors and their assembly of MDT between Italy and Germany, and logistics and schedule of the orders
- 2 - schedule for procurement of HV/LV cables, connectors and their assembly of TGC
- 3 - discussion about recommendations issued by the PDR committee.

Participants to the Wiener meeting: B. Allongue (CERN), M. Beretta (INFN Frascati), A. Lanza (INFN Pavia), L. Periale (CERN – INFN Torino), M. Plein (Wiener), R. Richter (MPI Munich), W. Vandelli (INFN Pavia), U. Vogt (Elcotron – Wiener).

Manfred Plein gave a nice talk on the Wiener PL500 F8-12 system, describing its electrical and mechanical performance.

Radiation tests were done at Cern and in Louvain-la-Neuve (by Ivan Hruska) and the results confirmed that this system can fulfill our requirements, apart the controller and microprocessor, which failed the tests. In order to solve the problem, Wiener is proposing either to replace the present controller with a new one redundant and rad-tol (Atlas ELMB) (if the development work is paid by somebody) or to put the controller off-the-crate, in a safe place (like USA15), and connecting it with its crate through cables.

B field tests are in progress, but first raw measurements have shown a good performance at 1150 Gauss. Detailed report on these measurements will be done on next meeting by Paul, who is doing them.

An estimated cost of the complete system, including the primary 250VDC power supply, was shown.

Next meeting with Wiener is planned on June 17 or 18 (to be confirmed by Wiener). Agenda will cover B field tests and further discussion on cost breakdown structure.

Participants to the Caen meeting: M. Beretta (INFN Frascati), G. Grieco (Caen), A. Lanza (INFN Pavia), P. Maley (CERN), G. Mikenberg (CERN – Weizman Institute), L. Periale (CERN – INFN Torino), C. Raffo (Caen), R. Richter (MPI Munich), S. Petrucci (Caen), W. Vandelli (INFN Pavia), F. Vivaldi (Caen).

G. Grieco showed the new Caen system, called EASY. It offers choice between two different frames, both standard 19", but one with 330 mm depth and the second with 660 mm depth. For the first frame, which is the one able to satisfy the MDT and TGC requirements, several modules will be available, among which the HV and LV modules required by TGC and MDT.

There is no cooling offered for these frames able to work in B field. For the Barrel, where we will use the Atlas standard racks, the cooling parts will be available in Store since beginning of 2004. For the Wheels, we are in contact with the designer of the rack cooling, in order to design a custom system fitting our dimensions.

All the modules shown in the Grieco's presentation will be available on catalog. Special modules, not included in the list, can be developed, but with an increased cost.

Caen will officially communicate costs for frames and modules within end of May.

Concerning the SASY 2000 prototype, its delivery to Cern is foreseen now for May 12. As discussed in the previous meeting, it will be composed of 2 frames, 2 HV modules and 4 LV modules.