LHC RF Meeting

28th October 2005

Present: Thomas Bohl, Olivier Brunner, Wolfgang Hofle, Trevor Linnecar, Pierre Maesen, Joachim Tückmantel

1. UX45. Olivier reported that the main platform has not been built as designed and its stability and strength is in doubt. TS/CE have, nonetheless, accepted the platform as conforming to specification. Work, waveguide support mounting, has been stopped in this area until the situation is clarified.
2. The last Klystron has been accepted. Measurements of saturation curves are ongoing.
3. Pierre reported that the temperature and frequency of Module 5 have been stable for the last week (spring/tuners). Module 4 is completely closed and being pumped. All cryogenic pots have gone for welding. The problem on the cavity of module 2 (discordance between power and field measurement) has still to be sorted out. For the moment the cryogenic schedule in SM18 foresees the shutdown starting on 12th December. A decision will be made soon (when?) as to whether work will continue over Christmas. Next week the firm Mecatest will be consulted about the tuner bellows.
4. Joachim raised the issue of archiving of plans, documentation and know-how of all the LHC RF equipment. He has contacted Roberto Losito and Oliver Aberle amongst others with a view to getting everything in one accessible place. He will continue following and coordinating this essential process.
5. Wolfgang announced the arrival of a truck-load of material from JINR. 15 kicker tanks, leak tested at Dubna, 18 electrode assemblies and 2 amplifiers have come. This is a very important milestone in the ADT project. Supports are being manufactured in JINR and will come soon. The next stage is vacuum testing at CERN, followed by assembly and bake-out ready for installation. The problem of the high power resistors for the amplifiers is still not solved but two, with reduced performance, are available for amplifier tests.
6. Jean-Claude has succeeded in repairing the crushed 7/8 cable in the tunnel. It will be kept as a spare.
7. Thomas reported that the prototype APW and test set up is in place. Preliminary measurements show that the gap is too small and the ferrite properties have changed. The vacuum performance is also not good enough (10^-1 Torr) yet for the high power testing to be meaningful. These issues will be rectified over the next week.
8. The grounding inside the racks will be defined by each user. Olivier's team will see to the connection to the main earthing system.

T. Linnecar 31st Oct 2005

Annex. Post meeting news from Eric:

ACS couplers: The net effective conditioning time is not significantly longer that usual, unfortunately strong de-gassing causes RF trips, prolonging the overall time needed. However power is increasing steadily and we have gone from 25 kW to 50 kW this past week, still with 15us/12ms pulsing.

ADT power: The cooling system is being finalized, with the guidance of J. Inigo-Golfin and a layout has been received. For RB44, it has already been accepted by Y. Muttoni. For RB46, some details still have to be verified (e.g. QRL, electricity units already in place...)

ADT Amplifiers: The series production of the amplifiers is being discussed with JINR collaborators and will be finalized next week. Since we now have some useable resistors, the second amplifier will be completed and then tested.

Anode Supplies: Four anode supplies have been delivered and will be tested when time permits.

APW construction: The first series PU is in final assembly. Measurements by Thomas (see above) will allow correction of any final minor errors. M. Jimenez will soon organize the bake-out. The support design is being finalized; construction will then start.