


LHC RF Meeting

30th August 2007

Participants: Luca Arnaudon, Olivier Brunner, Edmond Ciapala, Pierre Maesen, Eric Montesinos, Frode Weierud.


1. P4 RF Planning

 **General P4 planning:** Cool-down of sector 4-5 is slowly ongoing and will continue till mid-September. The leak on the DFB near Q7 has not yet been repaired. The inner triplet will be installed in October then cool-down will resume in November, to 2 K. The possibilities for RF tests are not clear; we will certainly request filling of the cavities before the end of the year. For Sector 3-5 the planning remains the same, again with cool down towards the end of the year (?).


The recently identified problems with finger contacts on 'Plug-In-Modules (PIMs), i.e. connecting tubes between the magnet vacuum chambers, discovered in 7-8, is still under investigation. There is no news on the extent of the problem, but an estimate that 2-3 % of all PIMs are affected has been mentioned. Methods to locate damaged PIMs are being looked at.


2. UX45 work (Olivier):


 **False floors** have been completed in the ACS racks enclosure. The ADT area will be done next week.


 **RUX45 Roof barriers:** The barrier on top of the RUX45 tunnel roof on the cryo side will be installed next week. Note the work MUST be done ONLY when the cryo cool-down is at a stable temperature. The barrier on the RF side is already in place.

3. ACS Klystrons & HV (Olivier):


 **Klystrons on 3-4 side:** The klystrons on the 3-4 side should be back in place with modified boilers in two weeks.

 **Klystrons on 4-5 side:** The power converters for the 4-5 side klystrons have been switched on and taken to 50 kV. Cooling water is running.


 **HV tanks:** Some cable passages on covers on tanks containing HV equipment may require minor modification to allow installation of special O-rings, to keep the silicone oil from attacking the semi-conducting glue around the cables.


 **Measurements:** Measurements of the filament heating curve on switch-on will be done for all klystrons. Once the switch and protection modules are installed the klystron forward characteristics will be measured and the saturation levels set.

4. Control Software (Luca):


 **Applications:** High level remote control switch on applications for klystrons and HV using FESA are now being tested.


5. LLRF


 **Cavity Controllers in UX45:** Before starting the full installation, complete sets of the series production modules needed for cavity conditioning and tuning have been installed for two cavities and cabled completely to ensure that everything is correct. The other cavities will be installed as soon as modules and patch cables are available. Software is also in preparation.

 **Series production:** The series switch and protection modules have just been delivered.

6. SM18: (Pierre)

 **6 kW cryoplant status:** The 3-week maintenance has started. We expect to be able to run again in week 38

 **LHC21:** The 'spare' cavity is in place in the bunker. Conditioning with the leak-repaired coupler will start as soon as helium is available.

 **Module 4 (Europa):** Is on the platform, waiting for clean-room fitting of couplers.

7. Hall 112 (Eric)

Coupler conditioning: Conditioning of couplers MC131-134 will be resumed next week, once the checks on the klystron are completed.

Next Meeting: Thursday 13th September at 08:45 in the JBA room.

E. Ciapala, 3rd September 2007.