# LHC RF Meeting 29<sup>th</sup> April 2005

**Present:** Luca Arnaudon, Thomas Bohl, Philippe Baudrenghien, Olivier Brunner, Andy Butterworth, Edmond Ciapala, Wolfgang Höfle, Eric Montesinos, Daniel Valuch, Frode Weierud.

## 1. Corrections to minutes of Meeting 15<sup>th</sup> April

**4 ADT Feedthroughs:** Out of 50 three were used for destructive tests and two assigned to a vacuum test setup. Five leaked after bake-out and were sent back. There are 40 remaining; a number of these have been baked twice. We are therefore confident that after all tests we will have the 32 needed for the 16 tanks plus some spares. An order for feedthroughs for the reserve kickers will be made at a later stage when the exact numbers needed will be known.

**Controls** – Interlocks. Material for ADT interlocks is being sent out (ACS still in preparation)

## 2. ACS Modules (Ed)

**4** Module 2: Coupler bakeout and leak tests have been completed. The module is now in the bunker, coupler accessories and waveguides have been mounted and all connections practically done. Low power tests can only start in week 19 as cryo system changes will be done in the 3 working days of week 18. (Change of default positions for outlet and warm recovery valves)

**Module 5:** Has been taken out of the bunker and had covers on cavity B removed, ready for tuner checks.

**Tuning compensation:** Olivier has received a batch of disc springs, the design of the compensating spring assembly and its fixing system are in progress.

## 3. ACS Couplers and SA2 conditioning (Eric).

**SA2 Conditioning:** Conditioning of couplers MC120 and 121 continues; they are now at 200 kW cw.

**Coupler production:** Mechanical parts ( $\lambda/4$  line and body assembly) for two couplers may be ready from the central workshops in three weeks, two weeks sooner than expected. Parts for two more pairs of couplers will follow soon after.

## 4. ADT (Wolfgang)

**Anode Supplies:** Factory acceptance tests are planned for 10-11 May. The unit will arrive on the 17<sup>th</sup>. Tests will have to be done as quickly as possible afterwards in B867, firstly on controls and interlocks at low power in order to give the go-ahead for series production. Electricity should therefore be available in B867 by this date. A resistive load has to be taken from BA2 to B867.

**Amplifier from Dubna:** Dubna intends to maintain the shipment date of 16<sup>th</sup> May for the first amplifier and set of electrodes but there may be customs delays. The resistors for the first amplifier will be put in here to avoid delays. For the amplifier series we have a batch of material ready to be sent, however we are still lacking Lemo HV connectors and the tetrode sockets. For the latter we are waiting on an offer from the supplier.

### 5. Coaxial Cables (Wolfgang)

The supplier has confirmed that the uncompensated cable will be shipped on 9<sup>th</sup> May from UK and the compensated cables a week after from the US. We need to find storage space urgently. There are a total of 90 drums. The P4 site would be the best place. The drums can be stored outdoors.

(Action: Volker)

### 6. Electrical layouts

UX45: The layouts for 400 V and UPS distribution in UX45, drawings LHCEB\_\_\_4041 and LHCEB\_\_\_4042 respectively, are in the CDD approval process. These should be checked by all concerned (Print to OCE865 or else see Volker for copies) (*There are already a number of comments from the approval list*) (Action: All)

Note: that 12 16A connections for the damper should be added the first diagram (Wolgfang)

#### 7. Racks and Cabling:

**Diagnostics racks on UX45 cryo side:** Racks will be installed for acquisition of APW signals; this location gives the shortest possible cable lengths. The RF cable lists should be updated accordingly, as should Drawing LHCLJ4GA0008 (equipment layout in UX45). Electricity and Ethernet have been included in the cable lists.

**HOM cables:** The final positioning of the cable rolls serving as loads and the location of loads/attenuators for HOM signals have to be decided URGENTLY. Cable rolls or attenuators will not be put on the HV bunkers. The cable trays will also need to be re-organized accordingly. Daniel will put the information on the diagram of the <u>ACS RF signal distribution scheme</u>.

#### ! Updated cable lists will be given to TS-EL next week.

#### 8. UX45 Installation

**Bunkers and Faraday Cages:** It has been decided to shift the HV bunkers 10 cm closer to the walls to allow space for the Faraday cage doors. This is now fixed and the construction of the bunkers will begin soon.

**Vacuum Layout:** Now that the layout is complete in the database (S. Chemli) the vacuum group should be able to complete the vacuum layout in RUX 45. Electron stoppers and their positioning are their responsibility.

#### **9.** AoB

**EVM and Budget Estimates:** Were presented to AB Dept. management and Finance, based on our EVM and resulting expected cash flow. There were no special problems. Some extra expenditure on couplers was accepted as justifiable but ultimately it may have to be absorbed elsewhere....

**Faraday Cages:** The tender opening will be in two weeks

Next Meeting: Friday 13th May at 08:45 in the JBA Room 864-2-B14.

E. Ciapala, 4<sup>th</sup> May 2005.