

RAT in P4 - *Status of Sector 45* - Preparation of Cool-Down

HARDWARE COMMISSIONING COORDINATION - WEEK 10

09th March POINT 4 (2485 2-001 SX4)

Present: E.Barbero Soto, A.Bouillot, C.Dehavay, C.Fernandez, J-J.Gras, S.Grillot, J-C.Guillaume, F.Moro, B.Perea Solano, M.Solfaroli.

Sector 45 (M.Solfaroli, B.Perea Solano)

ATTENTION!

De-consignation de la gaine monorail in Sector 45 will take place Wednesday 14th of March at 14h30 and will remain under tension until Monday 16th March.

AUG tests will take place Friday 16th March from 12h to 22h - no access to the tunnel!

Installation (E.Barbero/S.Grillot)

- Installation works on both High and Low Current Modules of the DFBAH (LSS4R) will be finished by the end of this week. Electrical tests will be carried out next week.
- NEG activation in the A7R4 (DFBAH) will start on week 12 and will take two weeks; during this slot nobody will be allowed to work there.
- On wk12-13 a campaign of fiber installation for the experiments will be carried out in 5L tunnel side.
- A meeting will be done in order to organize the contemporary works have to be executed on and around the DFBLD (LSS5L). A meeting "in the field" is necessary with the aim to clarify how this cooperation is possible.

Cooling & Ventilation (F.Moro)

- F.Moro informed that the work to be carried out by Renco on the water-cooled power cable joints has finished both in UA43 and UA47.
- The yearly maintenance of cooling & ventilation equipment (filters, pumps, etc.) is being done now in Point 4. This means that there is no water circulation at the moment, since the primary circuit is not operational. Next week main collectors will be flushed and by the end of the week water circulation may be back. F.Moro will keep us informed about it.
- This maintenance campaign prevents performing the bake-out of some vacuum sub-sectors since circulation of water is used by some Beam Instrumentation equipment to avoid heating.
- J-C. Guillaume is positioning the cables in LSS4L without water in the cables. Final adjustment of the presentation of the cables should be done after they are filled with water.

- F.Moro informed that the filter cleaning is being done Friday 9th march for the Power Converters in UJ33.
- Jean-Jacques Gras pointed out that there were water leaks at the level of the BCTs. F.Moro pointed out that this is due to *actes de sabotage* in the tunnel.

Cryogenics (A.Bouillot)

- A.Bouillot informed that the connection of the QUI (surface to QRL) is going to be carried out during week 11 and 12.
- Regarding the leak and pressure tests, the first campaign was carried out last week for the DFBMG. Today, Friday 9th March the DFBML and DFBMK will be leak and pressure tested and the DFBAH will be only leak tested. These tests are carried from 18h and are properly announced in the P4 site lifts.
- The tests foreseen for wk 11 may suffer from the AUG tests announced by G.Cumer.

Beam Instrumentation (J-J.Gras)

- Everything should be ready to start the commissioning of the Wire Scanners in LSS4R by the end of next week.
- Regarding the BSRT, the telescope to be placed within the shielding should be installed as late as possible. They request a slot for the transport (they block the passage - the telescope is 3 m long) and they would need 2 days for the installation. Then they would test the fast camera during 2 days, in july or august.
- Some connectors need to be placed on some cables. Jean-Claude Guillaume was thinking to do this during wk13, after a cabling campaign that should take place wk11 and wk12. This would mean that J-J. Gras might be blocked for the BCTs and or BPMs commissioning. Sebastien Pelletier is taking care of this but is on holiday. The details of the campaign should be clarified when he is back, and should take into account all the bake-out (as pointed out by S.Grillot).
- The BGIs will be installed during wk 13. The warm magnets associated to them could be commissioned. A slot for that will be discussed with the responsables.
- The installation of the BLMs in the arc follows the interconnections rhythm. Half of the arc is installed and all the material is in the tunnel.
- The installation of the BPMs follow the BLMs. A non-conformity has been opened for BPM.22R4 since it has been damaged. Discussions are ongoing to decide if the horizontal measurement of the beam is needed here and therefore it needs to be repaired or this can wait.
- J-J.Gras informed that R.Jones will work at the level of the UA47 and in the RA during week 19 for the BPM Schottky electronics installation.

60A Orbit Correctors (M.Solfaroli)

- 60A orbit corrector tests are going fast. The first part of the arc has been completed from today. Connections of the ground cable have to be replaced in whole the arc, but this operation will not interfere with the

execution of the tests. This activity will be performed by Jerome Pierrelot.

- The ground cable should be connected also to the PC. This activity will be followed by H.Thiesen.
- There were some short DC cables clamped on the wrong place, but they have been fixed.
- Polarity tests will start this week in the arc 45 (4R part).
- Two circuits have been found have a resistance too high. They were crossed and they have been fixed.

WorldFip (C.Dehavay)

- C.Dehavay informed that he does not have news from Simon Brown regarding the power outlet in the arc. He requested if Simon could inform him when this is done in order to avoid unnecessary trips to the tunnel. This should not be an issue for the 60 A Power Converter Tests, though.

Open Issues

Current Leads

- 15.01.07 Current Lead heater functional tests LSS5L (P.Chambouvet)
- 15.01.07 CL Insulation Vacuum DFBAI, DFBL, DFBXE in LSS5L (P.Chambouvet)

QPS

- 31.01.07 LSS5L DFBAI, DFBL, DFBXE continuity/assignment cables and HVT - non-conformities to be repaired by J.Mourao and TS/EL(R.Denz)
- 31.01.07 LSS4R DFBAH, DFBMK/L/G continuity/assignment cables and HVT - non-conformities to be repaired by J.Mourao and TS/EL(R.Denz)

Cryo-Instrumentation

- 09.03.07 Radio Frequency: heater connections and 8 capillaries for pressures sensors
- 16.02.07 Manipulation of cryo valves (A.Suraci)
- 16.02.07 Connection of the temperature sensors and control cables (A.Suraci)

Other issues

- 22.02.07 Non-conformity (EDMS 816458) at the level of the cable trays installed above the DFBXE (D.Bozzini)
- 15.02.07 Check of PC in UA47 because of water leakage
- 23.01.07 Current lead cable non-conformities : 1515511 1515512 1515513 1515514 1515516 (L.Poyet + J.C.Guillaume)

Open Issues (followed by TS/IC)

- 29.01.07 Installation of UPS PIC boxes (E.Barbero)

- 22.01.07 Interconnections around DFBAI, Q5-DSL, Q4-DSL
- 16.02.07 Installation and activities on the DFBL - meeting in the field

AC non-conformity

- 13.11.06 Non-conformity of the crates of cryo instrumentation (inrush current) (A.Suraci: ready next year)
- 13.11.06 Non-conformity of the AC cabling of the crates under the magnets. This concerns ACR, MEL & VAC.

DC cabling

- 05.02.07 Correction of two water-cooled cables on the DFBAI - Flohe (LSS5L)

Cryo-Instrumentation

- 06.02.07 Cryo instrumentation racks installation in Arc 45 (A.Suraci)
- 16.02.07 Pulling profibus cables in UA47 and USC55

Warm Vacuum - NEG Activation

- 05.02.07 NEG Activation in A6L5 in LSS5L (to be finished week 16th)

Other issues

- 09.02.07 Non-conformity for damaged BPM.22R4 Sector 45 (J-J.Gras)
- 06.02.07 WorldFip in UA47 and in Arc 45 (C.Dehavay)
- 12.02.07 Activity on the water pressure valves for the ACNs

Closed Issues

P.Denis check of the 6kA and 13kA cable presentation in LSS4R	12.02.07
Pre-mounting 600-120A in DFBAI LSS5L (TS/EL)	09.02.07
Pre-mounting 120A in DFBMk/L/G LSS4R (TS/EL)	06.02.07
Polarity Tests of the 120 A in DFBAH, DFBMK, DFBML and DFBMG in LSS4R (TS/EL)	29.01.07
Pre-mounting 600-120A in DFBAH (TS/EL)	26.01.07
120A mechanical connection DFBAH, DFBMK/L/G (P.Chambouvet/P.Denis)	09.03.07
CL Insulation Vacuum DFBAH, DFBML/K/G in LSS4R (P.Chambouvet)	09.03.07
Current Lead heater functional tests LSS4R (P.Chambouvet)	09.03.07

Closed Issues (followed by TS/IC)

Interconnection and WRL connection DFBMK/L/G (LSS4R)	16.02.07
Interconnections around Q6-DSL (LSS5L)	26.01.07
Cabling 600A and 120A in DFBAI, 120A in DFBL in LSS5L(INEO)	09.02.07

13-6kA cabling at the DFBML in LSS4R (Flohe)	06.02.07
Cabling 13-6kA in DFBAI and DFBX in LSS5L(Flohe)	19.01.07
Cabling Q6, Q7, Q8, Q9 and Q10 in LSS5L (INEO)	26.01.07
Cabling of the 600-120A in DFBAH, 120A in DFBMK, DFBML and DFBMG, Q6, Q7, Q8, Q9 and Q10 in LSS4R (INEO)	26.01.07
Installation of two power outlet (required by worldfip) in the arc 45	09.03.07
Interconnection and WRL connection DFBAH (LSS4R)	09.03.07
WorldFip Tests in Arc 45 (week 08) (J.Thomsen)	09.03.07
Cabling 13-6kA in DFBAH, DFBMK\G in LSS4R(Flohe)	09.03.07
NEG activation in E5R4 and D5R4 in LSS4R	09.03.07

Milestones: Test Schedule

FORESEEN DATE (provided by TS/IC)	TASK
Wk 10-11	AB/PO short Circuit tests
Wk 11	Interconnections
Wk 12-13	ELQA-TP4A
Wk 13	Interconnection Inner Triplet
Wk 15	Interconnection DFBL
Wk 15	Pressure Test
Wk 21	Cool Down Sector 45
Wk 28	Powering Tests

Matteo Solfaroli