Preparation of Cool-Down in Sector 78

AC cabling: -

DC cabling:
- H.Thiesen and B.Bellesia 120A cabling/polarity test LSS7R can take place at the same time of the 60A power converters SCT.
- The Access & Safety cable covering the full arc will start being installed today.

Vacuum:
- F.Millet informed that the arc is ready from the vacuum point of view. Purge and filling activities should start next Wednesday. This is critical to be able to start next week with flushing activities.

Cryogenics: -

DFB Commissioning:
- D.Bozzini informed that there might be a schedule conflict between purge & filling and EIQA-DOC (during flushing this should not be an issue). D.B. says that the two activities cannot be performed at the same time. A meeting will be held during the afternoon to clarify this point together with the possible windows to perform ELQA-TP4B.
- J.C.Guillaume informed that the Flohe work has very tight schedule and that it is not sure that they will be able to finish all the DFBs by Thursday 7th. Today they should start working on the DFBAO in the fine tuning of the position of the 6kA and 13kA cables.
- P.Chambouvet summarized the situation of the Current Lead heating systems:
  - DFBMs finished;
  - DFBAO: a cable non-conformity under repair; pumping of insulation vacuum is ongoing;
  - DFBAN: 1 cable non-conformity under repair.
- F.Millet will contact Antonio Perin in order to clarify when the collars used to fix the warm recovery line flexibles to the current leads will be re-positioned in order to avoid short-circuit risks. D.Bozzini confirms that this needs to be done before the cool-down.
Safety:

- F. Millet informed that LHCb ODH system is now conform with SC.

Preparation of Powering Procedure Test (previously called Dry Run):

- B. Bellesia informed that the 60A SCT are ongoing in C12.L8 to C22.L8 and that tomorrow they will take place between C22.L8 to C32.L8. During these tests the zones concerned will be signalized with flashing lights.

AOB:

- R. Denz informed later during the day that his activity will take less than two day for the whole arc and that he could perform it tomorrow (Tue 5th).

Open Issues

AC non-conformity

21.11.06  Non-conformity on instrumentation cables (temperature sensors on current leads) (A. Suraci: 3 cables are in repair-Wed.29th)

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, orbit corrector power converters & VAC.

DC cabling

04.12.06  Access & Safety Cable Installation (full sector) (J-C. Guillaume; end by Dec 7th)

30.11.06  Non conformity: 6 temperature sensor cables need repair (D. Bozzini, A. Suraci)

25.11.06  Functional test on the leads heaters: DFBAO, DFBMA, DFBMC, DFBXG

22.11.06  Pre-connection of 120A cables in LSSR7 (TS/EL)

20.11.06  Galvanic insulation installation on all DFBs (AT/MEL)

13.11.06  6 kA and 13 kA cables positioning at DFBAO, DFBMA, DFBMC, DFBAN (Flohe)

Assembly

- Vacuum

- Cryogenics

22.11.06  Cryo-valves remote control in CCC by AB/CO
22.11.06  Control of quench valve
17.11.06  Instrumentation cable HV tests in LSS8L (A.Suraci: 4 cables to be tested)

DFB Commissioning
04.12.06  Re-positioning collars used to fix the WRL to the CLs (all DFBs) (A.Perin-D.Bozzini-F.Millet)
29.11.06  Pumping of insulation vacuum for DFBX
13.11.06  ElQA-TP4-A for all DFBs between 7 and 8 (D.Bozzini: next(w48): DFBAO HC module, DFBMA, DFBMC, DFBX))

Safety
General remark: written communication in advance to announce operations!!!
25.11.06  ElQA-TP4B safety procedure (1900 volts tests!).
23.11.06  Wooden structure for UA access restriction (that will allow transport).
23.11.06  Preparation of a prototype insulating protection (derived from a plastic tube) of the monorail by J-C.Guillaume and approval by JEtheridge.
23.11.06  Water leak on the tunnel concrete wall to be fixed (C33L8).
16.11.06  Cool down safety procedure & access conditions

Preparation of powering test
30.11.06  El_QA performed on C16L8. ICC test showed reversed sequence of V-taps on circuit RCBV16.L8B1. To be discussed on next RAT.
22.11.06  Installation of flexible cables by CV (UA83)
16.11.06  Water circulating in UA83 for the Powering Procedure Test: filters need to be checked.

AOB
13.11.06  BPM connection in Q2, Q3, Q4, Q5, Q6, Q7-wk49 (J-C.Guillaume & R.Jones)
13.11.06  Quench protection continuity tests and cables assignment LLS7R (DFBMH, DFBAN) and LSS8L (DFBMC, DFBMA and DFBX)

Closed Issues

LHCb ODH System ready 04.12.06
Definition of owner of activity and pumping needs for current leads insulation vacuum (DFBX) (S.Feher, R.J.Rabehl) 04.12.06
DFB instrumentation cables to be connected (A.Suraci) 04.12.06
Functional test on the leads heaters DFBMA 04.12.06
Functional test on the leads heaters DFBMC 04.12.06
Non-conformity of the DC cabling of the orbit corrector power converters 04.12.06
Pretest of 60A converters in sector 78, location C16L8. 30.11.06
EIQA-TP4-A on DFBAN, DFBMH, DFBAO LC module

Pumping of insulation vacuum for all DFBs between 7 and 8 (except DFBX)

Functional test on the leads heaters DFBMH

Functional test on the leads heaters DFBAN

Pumping of current lead insulation vacuum DFBAN

120A and 600A positioning on DFBAN and DFBMH (INEO)

Missing labels on DFBAO instrumentation cables

Adjustment of cable length on DFBAO

Prototype of galvanic insulation to be tested at Point 6

Definition of Safety procedure for Powering Procedure Test (aka Dry Runs)

Leaks on DFBAO gas recovery line in repair/installation of helicoflex

21 leak detectors to be placed all along the arc 78

Connections (made by TS/MME) of 120 A cables to be verified (TS/EL)

600 A cable positioning on DFBAO

Pumping of current lead insulation vacuum DFBMH

Pressurized air supply to valve on WRL

Support on DFBAO WRL

Bellows in Q6-Q7 LSS8L which had been damaged, is now repaired

Valve on the WRL is operational

Leak in arc Q11-8L

Cryogenic valve manipulation on DFBX

Removal of some BLMs in conflict with the pumping groups

120 A Cables connection in DFBAO, DFBMC, DFBMA and DFBX LSS8L

DS7R and DS8L leak test finished

Leak in R7 repaired

Q6-Q7 bake-out completed

Current lead vacuum: man power and pumping groups availability

Hydraulic connection of the current leads

DFBX AT/MEL Transformers installation

WRL connection DFBMH LSS7R

ELQA-TP3 test of the sector 78

Polarity tests of the 600A and 120A cables for DFBAN and DFBMH (LSS7R)
QUI available 10.11.06
Pressure tests of QUI and DFBs safety valves finished 10.11.06
QRL valves available for all sector 09.11.06
QRL valve opening/cabling verification 13.11.06
Interconnections DFBAO, DFBMA and DFBMC. 13.11.06
WRL connection at DFBMC, DFBMA and DFBX 13.11.06
120A cables positioning at DFBAO, DFBMA and DFBMC 13.11.06
Q6-Q11L8 leak test envelope 13.11.06
Interconnections of DFBAN and DFBMH 13.11.06

Milestones: Test Schedule

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Next RAT meeting
Tuesday, December 5th 8:30 @ P8 2889-R-009

Mirco Coccoli