Preparation of Cool-Down in Sector 78 RAT Réunion Avancement Travaux

HARDWARE COMMISSIONING COORDINATION - WEEK 50
12 December 2006 8:30 2889-R-009


Preparation of the Cool-Down in Sector 78

Safety:
• The gaine monorail is not consigné today; Wed 13th and Thu 14th the consignation will take place at LSS7R from 8am to 5pm, if access is allowed.

Hardware Commissioning Coordination:
• R.Saban asks to restore the situation foreseen for last Friday 8th December, regarding:
  o Pressure in the DFBs and arc magnets
    ▪ F.Millet informed that this work should be coordinated, i.e. he needs to know asap when will be possible to restore the pressure in the DFBs and in the arc (the arc magnets are hold at 1 bar and it would take half an hour to go up to 6 bars);
    ▪ F.Millet reported also about all pressure gauge not working in the DFBs (AB/CO); this will give more troubles to restore the pressure to 2 bars, as such pressure cannot be read at the moment;
  o DC cabling
    ▪ J.C.Guillaume informed that to finish the DC cabling setup in all DFBs in LSS7R and LSS8L it will take one full day at least;
    ▪ The water leakage from the 13kA jumbo leads experienced yesterday has been stopped; TS/CV will repair the cooling water circuit and will give green light to J.C.Guillaume to send the Flohe team to reposition the cables;

EIQA:
• D.Bozzini informed that:
  o The short to ground found during last Friday 8th Nov EIQA-TP4B has been localized yesterday, thanks to ad-hoc tests;
  o The shorts are in the MBA circuit and the lowest resistances to ground measured where 62.5ohm and 261ohm in the 2 DC lines;
  o A 5mA current was injected locally and the fault was localized;
A 5mA current was injected directly on the fault and the fault disappeared (new resistances to ground = 600ohm and 700ohm in the two lines); reasons are under investigation and K.H.Mess commented that he agrees with further investigation.

60 A Orbit Correctors:
- B.Bellesia informed that the 60A power converters short circuit tests are ongoing with the polarity test of all the 7R arc cells (EIQA-DOC blocked postponed after the resolution of the resolution of the short to ground).

AC cabling:
- J-C.Guillaume informed that the 2 cryo-instrumentation cables that didn’t pass the 1.9kV test had the connectors changed and an ad-hoc test is going to be performed today.

Open Issues

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
- 30.11.06 Non conformity temperature sensor cables need repair LSS7R (D.Bozzini, A.Suraci)
- 25.11.06 Functional test on the leads heaters: DFBAO, DFBXG (P.Chambouvet)
- 22.11.06 Pre-connection of 120A cables in LSSR7 (TS/EL) - PC Non conformities (H.Thiesen)

Vacuum
- 12.12.06 One Pressure Gauge in DFBs cannot be read (F.Millet)

Cryogenics
- 22.11.06 Cryo-valves remote control in CCC by AB/CO (F.Millet)
- 22.11.06 Control of quench valve (F.Millet)

DFB Commissioning
- 08.12.06 DFBXG 100V test on current leads (S.Feher)
- 29.11.06 Pumping of Current Leads insulation vacuum for DFBX (S.Feher)

Safety
- General remark: written communication in advance to announce operations!!!
- 23.11.06 Water leak on the tunnel concrete wall to be fixed (C33L8).
Preparation of powering test

30.11.06 El_QA performed on C16L8. ICC test showed reversed sequence of V-taps on circuit RCBV16.L8B1 (D.Bozzini)

AOB

13.11.06 BPM connection in Q2, Q3, Q4, Q5, Q6, Q7-wk50 (J-C.Guillaume & R.Jones)

Closed Issues

Wooden structure for UA access restriction (that will allow transport) 12.12.06
Non-conformity in DFBMH, DFBAN and DFBXG current lead heaters (P.Chambouvet-J-C.Guillaume) 12.12.06
Galvanic insulation installation on all DFBs (AT/MEL) 08.12.06
Re-positioning collars used to fix the WRL to the CLs (all DFBs) (A.Perin-D.Bozzini-F.Millet) 08.12.06
6 kA and 13 kA cables positioning at DFBAO, DFBMA, DFBMC (Flohe) 08.12.06
Functional test on the leads heaters: DFBMA, DFBMC 08.12.06
ElQA-TP4B safety procedure (1900 volts tests!). 07.12.06
Cool down safety procedure & access conditions 07.12.06
Instrumentation cable HV tests in LSS8L (A.Suraci: 4 cables to be tested) 06.12.06
Non-conformity on instrumentation cables (temperature sensors on current leads) (A.Suraci: 3 cables are in repair-Wed.29th) 06.12.06
Quench protection continuity tests and cables assignment LLS7R (DFBMH, DFBAN) and LSS8L (DFBMC, DFBMA and DFBX) 06.12.06
DFBAN cable positioning (J.C.Guillaume) 06.12.06
Access & Safety Cable Installation (full sector) (J.C.Guillaume) 06.12.06
ElQA-TP4-A for all DFBs sector78 04.12.06
Water circulating in UA83 for the Powering Procedure Test: filters checked, installation of flexible cables by CV. 04.12.06
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
ElQA-TP4-A on DFBAN, DFBMH, DFBAO LC module 29.11.06
Pumping of insulation vacuum for all DFBs between 7 and 8 (except DFBX) 29.11.06
Functional test on the leads heaters DFBMH 29.11.06
Functional test on the leads heaters DFBAN 28.11.06
Pumping of current lead insulation vacuum DFBAN 25.11.06
120A and 600A positioning on DFBAN and DFBMH (INEO) 25.11.06
Missing labels on DFBAO instrumentation cables 24.11.06
Adjustment of cable length on DFBAO 24.11.06
Prototype of galvanic insulation to be tested at Point 6 23.11.06
Definition of Safety procedure for Powering Procedure Test (aka Dry Runs) 23.11.06
Leaks on DFBAO gas recovery line in repair/installation of helicoflex 22.11.06
21 leak detectors to be placed all along the arc 78 22.11.06
Connections (made by TS/MME) of 120 A cables to be verified (TS/EL) 22.11.06
600 A cable positioning on DFBAO 22.11.06
Pumping of current lead insulation vacuum DFBMH 21.11.06
Pressurized air supply to valve on WRL 21.11.06
Support on DFBAO WRL 21.11.06
Bellows in Q6-Q7 LSS8L which had been damaged, is now repaired 20.11.06
Valve on the WRL is operational 20.11.06
Leak in arc Q11-8L 20.11.06
Cryogenic valve manipulation on DFBX 20.11.06
Removal of some BLMs in conflict with the pumping groups 17.11.06
120 A Cables connection in DFBAO, DFBMC, DFBMA and DFBX LSS8L 17.11.06
DS7R and DS8L leak test finished 17.11.06
Leak in R7 repaired 17.11.06
Q6-Q7 bake-out completed 17.11.06
Current lead vacuum: man power and pumping groups availability 15.11.06
Hydraulic connection of the current leads 15.11.06
DFBX AT/MEL Transformers installation 14.11.06
WRL connection DFBMH LSS7R 14.11.06
ELQA-TP3 test of the sector 78 14.11.06
Polarity tests of the 600A and 120A cables for DFBAN and DFBMH (LSS7R) 14.11.06
QUI available
Pressure tests of QUI and DFBs safety valves finished
QRL valves available for all sector
QRL valve opening/cabling verification
Interconnections DFBAO, DFBMA and DFBMC.
WRL connection at DFBMC, DFBMA and DFBX
120A cables positioning at DFBAO, DFBMA and DFBMC
Q6-Q11L8 leak test envelope
Interconnections of DFBAN and DFBMH

*Milestones: Test Schedule*

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Next RAT meeting
*Wednesday, December 13th 8:30 @ P8 2889-R-009*

Mirco Coccoli