

RAT in Point 8 Réunion Avancement Travaux

HARDWARE COMMISSIONING COORDINATION - WEEK 4

25th January 08:30 2889-R-009

Present: AB/CO: Ruediger Schmidt, Robin Lauckner
AT/MEL: Pascal Chambouvet
AT/VAC: Wim Maan
TS/HDO: Hervé Buret, Mirco Coccoli, John Etheridge, Blanca Perea, Roberto Saban, Matteo Solfaroli, Antonio Vergara
TS/IC: André Coin
AB/OP: Florence Pirotte

Preparation of the Cool-Down in Sector 78, 81 and 45

Sector 78

- Tonight (25/01) around midnight there was a general power-cut caused by a failure in the 400kV network following a compressed air fault.
- Wim informs that the cryoplants were ok after the power-cut but the vacuum interlocks prevented to restart the cool-down due to problems with some gauge interlock controller. They have been repaired except one, in point 7, which will be left over. An intervention will be needed for repairing it, in the meanwhile the signal will be masked. The same intervention time shall be used to carry out the repair of one fuse of Pascal.
- The power-cut caused the stop of the fixed pumping groups, which are not fed by the UPS. They had to be restarted manually around 6:00 am.
- Roberto asks Wim to analyse the events that followed the power-cut in order to investigate the reason of the damaged components and the reaction of those elements which are hanging from the UPS. The power-cut should have been transparent to them at least for the first 20 minutes.

Mobile Camera (Ruediger, André)

- A run along the full sector of the mobile camera is planned for today. If everything is ok, André will carry out the first part of it from 16:00 and his colleagues will take it over from 17:30. André informs that it takes one hour to bring the device from one point to the other.

Powering Procedure Tests PPT (Robin):

- As planned, the PPT will start next Tuesday (30/01). Some preparation actions will be done from Monday (29/01) afternoon. Converters, QPS and PIC are ready for the tests. The details of these tests will be discussed today in SACEC.
- These tests might be affected by the small intervention needed by Simon Brown next week on the WorldFip. The exact day and its impact on the PPT will be discussed tomorrow (26/01).

Vacuum Alarms

- Roberto asks about the feasibility of enabling the vacuum alarm system to send its alarms not only to the operators in the control room but also to the system responsables. Robin confirms that LASER is already doing that for some other systems.

Safety (John, Hervé) :

- John reminds that any intervention in the tunnel must be communicated in advance to the safety coordination and a VIC be carried out. Yesterday there were some works being done by TS/CV in UA83 in parallel with the cleaning of the filters. These works were the object of the AOC 2376810, which had been recently approved. A previous VIC was not done for such works since the contractor started to work before expected. TS-CV will send an explanation to the safety coordination to clarify the misunderstanding.
- It is confirmed by Hervé that the fire detection alarm generated last Friday (19/01) in UA83 while the main converters were being manipulated did not reach the *gerent du site* nor the fire brigade. Hervé will ask for a new check of all the fire detection system in the area and the proper communication of the alarms to the required teams.
- John points out that the last electrical safety visit report of UA83 was done in June 2005, many interventions have been done from that moment and an update of that report should be prepared.

Sector 81

Warm Magnets in Point 8:

- Interlock and identification tests for the warm magnets are completed.
- AC cabling in the power converter building should be completed this morning. Tests of the power converters will continue 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

- 19.01.07 Warm Magnet cable positioning to be changed to avoid "antenna" effects (M.Condemine, J.C.Guillaume)
- 22.11.06 Pre-connection of 120A cables in LSSR7 (TS/EL) - PC Non conformities (H.Thiesen)

Instrumentation Cabling

- 12.01.07 Cryo-instrumentation cables: 2 LSS8L connectors (A.Suraci-J-C.Guillaume)
- 10.01.07 Continuity error with cable 1813004A and a wrong housing of 1702440 which should be replaced (D.Bozzini)

Cryogenics

- 16.01.07 Vac-Cryo Interlock tests - window of 1 day needed (P.Cruikshank-F.Millet)
- 22.11.06 Instrumentation and remote control not fully stable (P.Gayet - F.Millet)

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

AOB

- 08.01.07 Re-installation of 3 BLMs interfering with pumping groups (B.Dehning)
- 13.11.06 BPM connection in Q2 (R.Jones) - waiting for Inner Triplet to be repaired

Closed Issues

Mobile camera installed, tested, fully operational (K.Kershaw)	16.01.07
DFBXG Temperature sensors repaired (R.Rabehl)	16.01.07

Warm magnet transport stuck in the arc 78.	15.01.07
Connection of the NC Magnets in LSS8R (J-C.Guillaume)	15.01.07
DFBX Pumping of Current Leads insulation vacuum (S.Feher, P.Chambouvet)	15.01.07
QPS - 2 cables need repair (R.Denz-D.Tommasini)	12.01.07
DFBXG non-conformity on the current lead heater cables 1821322 and 1821323 (P.Chambouvet-J-C.Guillaume)	12.01.07
Cryo-instrumentation cables: 2 LSS8L + 1 LSS7R to be pulled (A.Suraci-J-C.Guillaume)	15.01.07
Bad positioning of the 13 kA power cable cosses corrected (J-C.Guillaume-P.Denis)	11.01.07
Cryo-instrumentation cables at DFBX inversion sorted out (A.Suraci)	10.01.07
Calibration of the Arc Detectors on the 13 kA EE System (K.Dahlerup-Petersen)	19.12.06
Short-to-ground in QBBI.A21R7 (Lyra side) (D.Bozzini, F.Seyvet)	19.12.06
BPM connection in Q3, Q4, Q5, Q6, Q7 (R.Jones)	15.12.06
DFBAO Functional test on the leads heaters	15.12.06
DFBXG 100V test on current leads (S.Feher)	15.12.06
Repositioning of 1 DC cable on DFBAO and of 2 DV cables on DFBAN (all 13kA) (J.C.Guillaume)	14.12.06
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
EIQA-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

EIQA-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
EIQA-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, DF BMC, DF BMA and DF BX 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 DF BMH LSS7R	14.11.06
ELQA-TP3 test of the sector 78	14.11.06
Polarity tests of the 600A and 120A cables for DF BAN and DF BMH (LSS7R)	14.11.06
QUI available	10.11.06
Pressure tests of QUI and DF Bs 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, DF BMA and DF BMC.	13.11.06
WRL connection at DF BMC, DF BMA and DF BX	13.11.06
120A cables positioning at DFBAO, DF BMA and DF BMC	13.11.06
Q6-Q11L8 leak test envelope	13.11.06
Interconnections of DF BAN and DF BMH	13.11.06

Milestones: Test Schedule

Week 45	Interconnections
End week 46 [18.11.06]	Leak Test
End week 47 [24.11.06]	Pressure Test
Week 47-48	EE sensor tests in RR77
Week 48 & 49	Purge and filling
Week 49	Dry Run
Week 49	Short Circuit tests of 60 A
Week 49 [07.12.06]	Diesel Tests
Week 49	ELQA-TP4B (Phase I)
Week 50	Flushing
Week 50 [15.12.06]	ELQA-TP4B (Phase II)
Week 02 [15.01.07]	ELQA-TP4B (Phase III)

Week 03

Cool Down Sector 78

Week 08

Decision on DFBs clamps disconnection from Sector 78 (to use them in Sect45 and Sect81)



Next RAT meeting

Friday, January 26th 8:30 @ P8 2889-R-009

Antonio Vergara