

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

HARDWARE COMMISSIONING COORDINATION - WEEK 47

20 Novembre 2006 8 :30 2889-R-009

Present: B. Bellesia, D.Bozzini, P.Chambouvet, A. Grimaud, J.C. Guillaume, S.Junker, , F.Millet, B.Perea Solano, L. Prever-Loiri, R.Saban, A.Suraci.

### **Preparation of the Cool-Down in Sector78**

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AC cabling non-conformity: -

DC cabling:

- Cabling for the BPMs on going.
- Connections (made by TS/MME) of 120 A cables to be verified (TS/EL) from Q6 to Q10.
- L. Prever-Loiri will contact J.P. Malod-Dognin (160387) to borrow a scaffolding.
- Connections of 600 A cables to the DFBAO to be verified.
- Flohe will start working on the 6 kA and 13 kA of the DFBAO or DFBAM on Wednesday to be defined by TS/HDO depending on the co-activities.
- J.C. Guillaume, will not install the profibus-PA cable requested by J. Casas before the end of the year.
- J.C. Guillaume requested an "ok" from D. Bozzini to go on with the cables of 600 A in 7R.
  - D. Bozzini gives is "ok" for both DFBAN and DFBMH.
  - After performing the galvanic insulation tests, minor modifications have to be done (connections will be done from week 48).

Assembly: -

Vacuum:

- Pressure test foreseen for Friday. The tunnel from RR73 to UJ87 will be not accessible since 13:00. The tests will start at 14:00.
- S.Junker : 21 leak detectors will be placed today all along the arc 78.
- Q11L8 leak repaired.

Cryogenics:

- A. Suraci informs that HV tests of the cryo instrumentation and extra-cabling on the DFBs in LSS8L and LSS7R will be done this week.
- The AT/ACR crates will be installed in UA83 and RR77.
- The problem on the cryo-valves of the DFBX was resolved.
- On DFB instrumentation cables have to be connected.
- The support for WRL on DFBAO will be installed today.

- F. Millet informs that during the leak test on Saturday (18.11) a certain number of leaks have been identified and particularly on current leads of the DFBAO: to be repaired today (1 or 2 hr. should be enough).

#### DFB Commissioning:

- Davide informs that the tests TP4-A and QPS continuity tests and cable assignments on DFBs are still on going in LSS8L and LSS7R.
- S.Junker informs that the valve on the WRL is operational.
- Insulation vacuum of the DFBs R7 will start today (P. Chambouvet) and in L8 next week.
- Current leads racks should be installed by tomorrow evening (A. Funken).

#### Safety:

- Roberto remained that to perform any activity in a part of the tunnel one requires a:
  - AEC - to be asked via EDH.
  - VIC - Visite Inspection Commune (J. Etheridge).

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

#### AOB:

- Planning for week 47 as attached file.

### **Open Issues**

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#### AC non-conformity

- 13.11.06 Non-conformity of the crates of cryo instrumentation (inrush current)
- 13.11.06 Non-conformity of the AC cabling of the crates under the magnets. This concerns ACR, MEL, orbit corrector power converters & VAC.
- 13.11.06 Non-conformity of the DC cabling of the orbit corrector power converters

#### DC cabling

- 13.11.06 6 kA and 13 kA cables positioning at DFBAO, DFBMA and DFBMC
- 13.11.06 120 A cable connections in DFBAO, DFBMC, DFBMA and DFBX LSS8L
- 17.11.06 600 A cable positioning on DFBA
- 20.11.06 Connections (made by TS/MME) of 120 A cables to be verified (TS/EL)
- 20.11.06 Connections of 600 A cables to the DFBAO to be verified
- 20.11.06 Flohe on DFBAO or DFBAM? To be decided

#### Assembly

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## Vacuum

- 20.11.06 21 leak detectors to be placed all along the arc 78
- 17.11.06 Bellows damaged in Q6-Q7 LSS8L

## Cryogenics

- 20.11.06 DFB instrumentation cables to be connected
- 20.11.06 leaks on DFBAO in reparation
- 17.11.06 Instrumentation cable HV tests in LSS8L
- 17.11.06 Pressurized air supply to valve on WRL
- 13.11.06 Support on DFBAO WRL

## DFB Commissioning

- 17.11.06 Prototype of galvanic insulation to be tested at Point 6
- 13.11.06 EIQA-TP4-A in the DFBAO, DFBAN, DFBAX
- 17.11.06 Pumping of insulation vacuum will start next week in 7R

## Safety

General remark: written communication in advance to announce operations!!!

- 16.11.06 Cool down safety procedure & access conditions
- 16.11.06 Definition of Safety procedure for Powering Procedure Test (aka Dry Runs)
- 17.11.06 Monorail in Point 8 locked off on Monday (20.11) starting from 10.30!!!

## Preparation of powering test

- 16.11.06 Water circulating in UA83 for the Powering Procedure Test: filters need to be cleaned!

## AOB

- 13.11.06 BPM connection in Q2, Q3, Q4, Q5, Q6, Q7
- 13.11.06 Quench protection continuity tests and cables assignment LLS7R (DFBMH, DFBAN) and LSS8L (DFBMC, DFBMA and DFBX)

## **Closed Issues**

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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
BLMs' monitor removal	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	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/cabbling 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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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	Diesel Tests
Week 50	Flushing
Week 50 [15.12.06]	Giga PAQ
Week 51	Cool Down Sector 78



**Next RAT meeting**

**Tuesday, November 21th 8:30 @ P8 2889-R-009**

Boris Bellesia