

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

HARDWARE COMMISSIONING COORDINATION

14 Novembre 2006 8 :30 2889-R-009

Present: E. Barbero Soto, B. Bellesia, P.Chambouvet, V. Chareyre, M.Coccoli, S.Junker, E. Lussi, E. Millet, F. Millet, M.Pojer, R.Saban, A.Suraci, A.Vergara.

Preparation of the Cool-Down in Sector78

- Antonio Suraci informed that cryo-valves manipulation is still on going on DFBMH, DFBAN;
- John Etheridge will give his feed back tomorrow morning at RAT meeting on procedures for the HV tests. John Etheridge will also report on EIQA-TP4-A procedures.
- The hydraulic connection of the current leads has finished.
- Antonio Suraci reports that mini-crates will be delivered this week.
- A.Suraci informed coherency tests are being performed on new prototype of crate of cryo instrumentation.
- A worker of Flohe was injured yesterday (not seriously). Flohe calls for a substitute; today the person will be replaced.
- AT/VAC confirmed that the bake-out of Q6-Q7 is starting ramping down the temperature today (15.11).
- Antonio Suraci reports his team is performing minor work on DFBX valves not affecting other activities.
- AT/VAC replaced the "sufflet" with the leak; leak tests are foreseen for this week. Afterwards vacuum will be done.
- EIQA-TP4-A will be performed on DFBAO, DFBAN and DFBAX. Esther Barbero says that on DFBAO some interferences can appear with the on-going bake-out of the vacuum team. Moreover tests on DFBAN can have some difficulties since the INEO team of J.C. Gillaume is positioning the 600 A cables.
- AT/VAC reported that a leak in Q97R has been found and it is being repaired. Moreover they reported the detection of a leak somewhere in the arc, the localization is under investigation; if the problem is not solved for the cool down they will leave it "as it is".
- AT/VAC reports on the need to perform some test on sub-sectors already closed.
- A pressure test will be done during week 47:
 - a. Steffen Junker is preparing the document for the procedures (2.nd version)
 - b. Safety document from Stefano Fratianni is already available.
 - c. Roberto Saban calls for a meeting for the week 47 to discuss about the safety barriers.
- Steffen Junker informs that the hydraulic connection of the current leads should be finished this morning.

- Regarding the non-conformity of the mini-crates of cryo instrumentation, A.Suraci informs that a new prototype is being built and tested. However the new crates will not be ready before the cool-down of Sec.78.
- TS/EL will report on the solution of the non-conformities of the QPS, 60A Orbit Correctors and vacuum crates tomorrow (16.11).
- WRL DFBAO missing support LSS8L could be installed on Friday 17th Nov. Esther Barbero says that on 17.11 there will be three groups working on that spot to: install WRL support, valve monitoring and pre-mounting of the cables of 120/600 A.
- Antonio Vergara reports that:
 - a. 15.11: Visual inspection for preparing the polarity checks on the DFBA cables (TS-EL)
 - b. Thursday 17: Pre-mounting of the 120A cables in the DFBMs (TS-EL) in parallel with Flohe activity (if possible)
 - c. Friday 18.11: 1. Connection of the cables to the 120A current leads in the DFBMs (TS-MME); 2. If possible, start pre-mounting of 120A and 600A cables in the DFBA (also in parallel with Flohe)
 - d. Monday 21.11 (and onwards): 1. Installation of the insulation and short-circuit for the 600A cables in DFBA (AT-MEL); 2. Finishing of the 120A and 600A positioning in the DFBA (TS-EL); 3. Connection of the remaining 120A cables in the DFBM and start of the connections in DFBA.
- Current lead vacuum: appropriate pumping group (turbomolecular + 1 to 3 l/min) has been found.
- Davide Bozzini and Vincent Charenere informed by e-mail on:
 - a. Polarity tests on warm cables of 600 A sector 78 are not yet done. This may cause problems when AT/MEL will install the short circuits.
Antonio Vergara answers by mail to the issue:
The agreement with Jean-Claude regarding the connection of the 600A cables in the DFBAO (and actually also the 120A) is that TS-EL (Iván Moya) will position every single cable lug next to its corresponding current lead (physically attached to it with a "panduit") before AT-MEL install the short-circuit. In such way no mistake should be done while installing the short-circuit since AT-MEL can find the circuit and pole names on the lead labels.
 - b. The safety measure to be approved by John Etheridge:
In agreement with Karl Hubert Mess there is no need to perform partial tests of HV before the definitive ones.
EIQA-TP4-A has no critical points in terms of electric safety (procedures approved CE) because the tensions values are <50 mV.
 - c. Friday 17th Nov. a test (involving AT/MEL and AB/PO) will be performed on the insulation and short circuit tests. The pieces will last 4-5 days to be produced. To be on schedule with the Dry-runs and Cool-down AT/MEL will use provisionally a galvanic insulation made "ad hoc".
 - d. OCR, ICC and DPC tests will be performed on DFBAO, DFBAN, DFBMA, DFBMC, DFBMH, DFBMG.
 - e. They remind that the conventional nomenclature of EIQA has to be respected instead of using terms like GIGA-pac that are not been defined yet.

Open Issues

- 13.11.06 Cryo. valves manipulation on the DFBMH, DFBAN and DFBAO
- 13.11.06 Hydarulic connection of the current leads
- 13.11.06 Non-conformity of the mini-crates of cryo instrumentation
- 13.11.06 Cabling non-conformity affecting QPS and 60A Orbit Correctors IST
- 13.11.06 WRL DFBAO missing support LSS8L
- 13.11.06 3 x 600 A power cable positioning LSS8L
- 13.11.06 BPM connection in Q2, Q2, Q4, Q5, Q6, Q7
- 13.11.06 EIQA-TP4-A in the DFBAO
- 13.11.06 LSS8L Q6-Q7 bake-out
- 13.11.06 120 A Cables connection in DF BMC, DF BMA and DF BX LSS8L
- 13.11.06 6 kA cables positioning at DF BMA and DF BMC
- 13.11.06 Quench protection continuity tests and cables assignment LLS7R (DFBMH, DF BAN) and LSS8L (DF BMC, DF BMA and DF BX)
- 13.11.06 DS7R and DS8L leak test
- 13.11.06 Leak in R7
- 13.11.06 Current lead vacuum: men power and pumping groups availability
- 13.11.06 Galvanic Insulation 600 A, 6 kA, 13 kA for LSS8L and LSS7R available

Closed Issues

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 DF BAN and DFBMH (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 DFBMH	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	Diesel Tests
Week 50	Flushing
Week 50 [15.12.06]	Giga PAQ
Week 51	Cool Down Sector 78



Next RAT meeting

Thursday, November 16th 8:30 @ P8 2889-R-009

Boris Bellesia