

RAT in Point 8 Réunion Avancement Travaux

HARDWARE COMMISSIONING COORDINATION - WEEK 19

11 May 2007 08:30 in 2889-R-009

Present: AB/CO: M. Zerlauth
AB/PO: D. Nisbet, H. Thiesen, S. Page
AB/OP: M. Gruwe, L. Normann
AT/MEL: S. Feher, G. Kirby, B. Flora, K-H. Mess, A. Ballarino, S. Le Naur, R. Denz, K. Dahlerup-Petersen, P. Chambouvet
AT/MTM: A. Siemko, G. D'Angelo
AT/ACR: S. Claudet, R. Rabehl, L. Ronayette
TS/HDO: R. Saban, M. Pojer, MP. Casas Lino, M. Solfaroli, A. Vergara

Powering Tests - Sector 78

- Yesterday (05/10) the powering of the circuits of the matching section ML8 was launched. The sequence of events was:
 - During the morning, the proper transmission of the cryo_start and cryo_maintain signals from the cryogenics to the power converters via the powering interlock was successfully checked.
 - Due to a fault state of one current lead in the DFBMA (missing voltage tap generated by a connector problem that was immediately fixed by Davide's team), the PCC tests started with the correctors of Q5 (DFBMC) instead of Q4 as initially planned.
 - At the end of the afternoon (17:00) the first Q5 corrector had gone through 80% of the PCC test when the cryogenic conditions were lost. Test had to be aborted. The origin of the problem was a wrong manipulation done by somebody in AB/CO who did not realise that he/she was actually interacting with the real system. The main PLC was stopped and the communication between the control room and the tunnel was lost.
 - After informing the EIC, the cryo_maintain signal was removed by the cryo-operator and the consequently the PIC removed the power permit. Markus confirms that the chain of actions worked ok.
 - At 18:00 the PLC was restarted. Unfortunately in the meantime, a new CMF update deployed by AB/CO has been accepted in the P8 control room consoles by the operators making some operation screens blind. The control room consoles were not well configured to avoid "compulsory" CMF updates in any case. From now on the

list of control room machines will be added to the machines in which CMF patches are not compulsory installed and only the explicit validation from the operators will make the patch installed.

- The thunderstorm of tonight stopped the whole system again. Controls seem to be OK now and cryogenic conditions for continuing the powering of the DFBMC and DFBMA should be available by noon.
- The main conclusion taken from the events explained above is that, due to their big impact on the cooldown and the powering tests, any modification or manipulation of the control software tools must be carried out only when authorised by the EICs of cryogenics and/or HCC.
- As soon as cryogenic conditions for the matching section are recovered, AB/PO will continue with the PCC tests of the corrector circuits in Q5 and Q4.
- One could consider the possibility of starting PCC for the main 6kA Q5 circuit as soon as its 2 correctors have gone through PCC. Antonio reminds that powering Q5 may interfere with the tests on the Q4 correctors (a quench detector trip will stop the converters for the rest of circuits in the powering subsector) but it is worthy to try.
- Next meeting Monday, 14 May at 8:30 in 2889-R-009

Antonio Vergara

Open Hardware Commissioning Issues in SECTOR 78

| REGION | ISSUE |
|-----------|--|
| SECTOR 78 | |
| | QPS voltage tap problem in quadrupole 33R7 - Another tap will be used instead. Attention because the damaged tap might be floating on the conductor. |
| | Non-conformity of the crates of cryo instrumentation (inrush current) (A.Suraci) |
| | Securing of the ventilation units |
| | Four circuits in Q5 suffer a breakdown at around 450V due to a weak insulation. The four circuits are RCBCVS5.L8B1, RCBCHS5.L8B2, RCBCHS5.L8B1 and RCBCVS5.L8B2. Insulation towards ground and other circuits is OK. |
| | EI_QA performed on C16L8. ICC test showed reversed sequence of V-taps on circuit RCBV16.L8B1 (D.Bozzini) check |
| | BPM connection in Q2 (R.Jones) ? waiting for Inner Triplet to be repaired |
| | MB1055 magnet to be changed before powering above 2kA RB.A78 |
| | Inner Triplet in Point 8 to be repaired |
| | Failure of supports (red jacks) of D2-Q4 in L8 - temporary repair in place. EDMS document "Major movements of the D2-Q4 magnets and supports in 8L" https://edms.cern.ch/document/833365/1 |
| | Water leak on the tunnel concrete wall to be fixed (C33L8). |

Closed hardware commissioning issues in sector 78 can be found at <http://hcc.web.cern.ch/hcc/activities/activities.php?region=S78>.