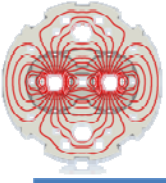


MMM - 13 July, 2009

Status Report of Magnet Work Week 28 / 2009

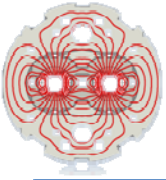
Francesco Bertinelli - TE/MSC

On behalf of - and with several contributions from - surface and IC teams



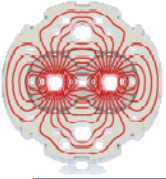
Sector 3-4

- Leak testing of vacuum sectors ongoing:
 - 11 VACSECs are leak-tight;
 - VACSEC 19R3 (Q19 to Q23): helium leak ($>1\text{E-}2$ mbarls⁻¹ at 1 bar) localised in flange QBBI.B22R3 M3;
 - VACSEC 27R3: helium leak ($>1\text{E-}2$ mbarls⁻¹ at 1 bar) localised in diode weld, MB2440 QQBI.30R3;
 - VACSEC 31R3: helium leak ($>1\text{E-}2$ mbarls⁻¹ at 1 bar) localised in flange QBBI.A33R3 M3;
 - Leak repair ongoing.



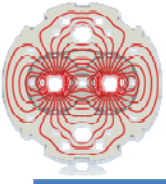
IC 3-4 Detailed Planning: assumptions

- Sequence defined: MEB and chain of surface activities
 - last magnets «ready for installation» W15
 - sequence and timing to be respected
 - resources (production and QC) from surface move to tunnel by W15 (i.e. momentarily stop/slow down surface activity)
 - avoid consistency conflicts (e.g. transport night shifts from W10)
 - no holidays (Easter, May ...): is this realistic?
 - ignore experience on delays (e.g. humidity for PAQs, Cu/Sn/Ag pollution of some TIG welds, leaks with W closing ...)
 - no (more) extra work (... additional sectors ...)
- Closing of W bellows: earliest plan for W23
- but no vacuum subsectors made available earlier



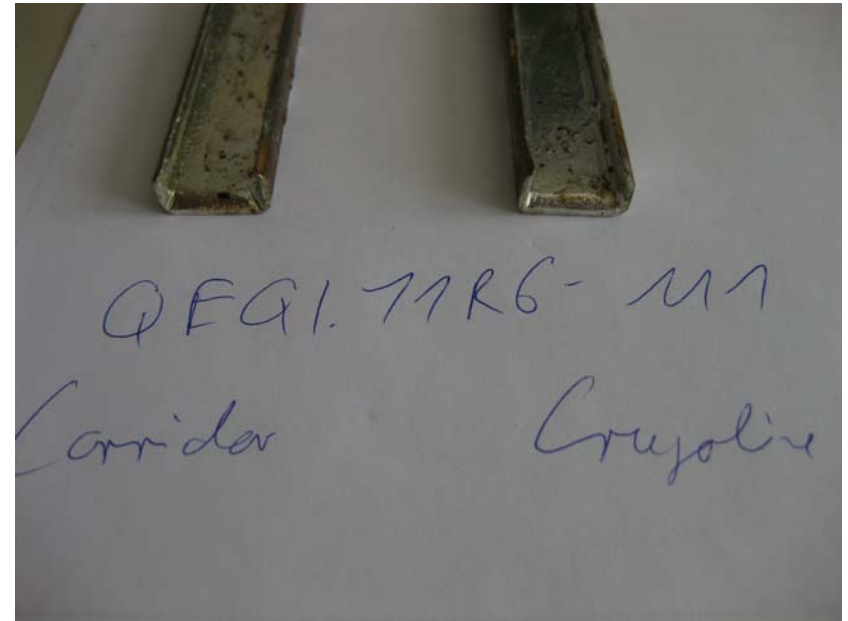
Sector 3-4: workload to repair leaks

- Leaks detected end W27 before week-end pressure test;
- Localisation work started W28, Monday until Wednesday (TE-VSC and AL40-30), opened ~8 W bellows (TE-MSC);
- Cryolines pressure reduced to 1 atm on Thursday morning (TE-CRG), cryo work permit done;
- Cutting of M lines and weld repairs from Thursday afternoon, night (to 4h a.m.), Friday morning (from 7h30) closing last W bellows Friday 12h (Paolo Fessia TE-MSC-LMF Max Duret, Nicolas Bourcey, Antoine Cadoret);
- Friday afternoon restarted vacuum pumping (TE-VSC);
- = 1 week
- and sometimes large leaks hide smaller leaks...

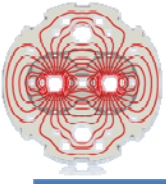


Sector 6-7

- Electrical Quality Control required last minute repairs on QEQL11R6 splices: found “chamfered U pieces”, probably associated to SSS Series 500 busbar repairs;

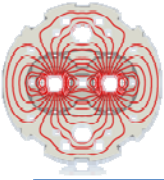


- 12 VACSECs delivered;
- last M welds, W closure and 2 VACSECs delivered today;
- Segments (MB and MQ) to be remeasured W29 Wednesday and Thursday after ELQA.



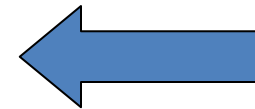
Sector 4-5

- Busbars and segment resistance remeasured: final analysis to be presented by B. Flora this week;
- Splice interventions done only on first 3 M3 outlier segments (15 splices), not on M1 and M2: several left behind mainly in L5;
- All M and k welding done, leak-testing with clamshells today;
- last W bellows closed W29 Tuesday-Wednesday;
- VACSEC: started pumping 5 VACSECs W28 Wednesday afternoon;
- 60 DN200 and DFBAs pressure relief nozzles done end W28;
- BLM remounting could restart in 9 untouched VACSECs;
- Connection Cryostat 11L5 M3 insulation done.



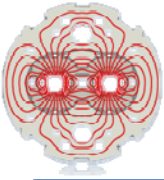
Sector 45 - Cases studied

- Case A - No action:
 - Wk. 26: SK test & RF ball test
 - Wk. 27: Vacuum pumping
- Case B - 1 bad splice:
 - Wk. 26: SK test & RF ball test & start of opening
 - Wk.27-28: repairs and closure
 - Wk.29-30: Vacuum leak test and pumping
- Case C- 15 bad splice:
 - Wk. 26: SK test & RF ball test & start of opening
 - Wk.27-30: repairs and closure
 - Wk.31-32: Vacuum leak test and pumping
- Case D - all consolidation
 - Wk. 26: SK test & RF ball test
 - Estimated time for the work: 8 wks + 2wks for leak tests



From LMC 17 June, 2009

Courtesy K. Foraz



DN200

	1R	2L	2R	3L	3R	4L	4R	5L	5R	6L	6R	7L	7R	8L	8R	1L
Decapage Peinture	Terminé	Terminé	En attente	En attente	Terminé	Terminé	Produit OK	Produit OK	Terminé	Terminé	Terminé	Terminé	Produit OK	Produit OK	Produit OK	Produit OK
Installation DN200	Terminé	Terminé	En attente	En attente	Terminé	Terminé	24	36	Terminé	Terminé	Terminé	Terminé	Terminé	Terminé	Terminé	Terminé
Reprise Planeite	Terminé	Terminé	En attente	En attente	Terminé	Terminé	Terminé	Terminé	Terminé	Terminé	Terminé	Terminé	Terminé	Terminé	Terminé	Terminé
Tests de fuite	Terminé	Terminé	En attente	En attente	Terminé	Terminé	Terminé	Terminé	Terminé	Terminé	Terminé	En cours	Terminé	Terminé	Terminé	Terminé
Decoupe MLI	Terminé	Terminé	En attente	En attente	Terminé	Terminé	24	36	Terminé	Terminé	Terminé	Terminé	Terminé	Terminé	Terminé	Terminé
Installation Couvercle	Terminé	Terminé	En attente	En attente	Terminé	Terminé	24	36	Terminé	Terminé	Terminé	Terminé	Terminé	Terminé	Terminé	Terminé
Installation Cable Inox	Terminé	Terminé	En attente	En attente	Terminé	Terminé	24	36	Terminé	Terminé	Terminé	Terminé	Terminé	Terminé	Terminé	Terminé
Retouche Peinture	Terminé	Terminé	En attente	En attente	Terminé	Terminé	Terminé	Terminé	Terminé	Terminé	Terminé	Terminé	Terminé	Terminé	Terminé	Terminé

En attente	En attente
En Cours	En Cours
Termine	Termine

■ Finishing activities:

- partial paint removal in 2-3 (without touching BLMs);
- Repainting after VAC testing;
- Protection of removed paint areas.

Courtesy J. Perez

