# Status of Interconnect Works in the LHC Arcs and DS regions – week 45 (November 4 - 11, 2006)

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This report gives the status of the interconnect works in the LHC arcs and dispersion suppressor regions carried out during week 45 (November 4 - 11, 2006) in responsibility of the interconnection arc coordination team, starting with a general overview about the advancement per sector.

For the status of the VAC test, production rates, work progress, and number of operations foreseen and performed, the data is reported for each sector separately.

#### The Dashboard

- General Advancement of Interconnects per Sector 100% VAC sector test 90% Close W & Jumper 80% Beam Pipes Welding & 70% VAC tests □ N-Line Package 60% Crvo-Lines Welding & 50% Testing opened opened ě 40% Electrical Interconnects & Der QA per halfcell 30% ìet yet ē □ IC preparation 20% ğ g ğ 10% 0% sector 1-2 sector 2-3 sector 3-4 sector 4-5 sector 5-6 sector 6-7 sector 8-1
- Number of magnets in the tunnel: 915 MB, 325 SSS, 62 LSS.

# Data for General Advancement Plot is counted by number of interventions and grouped by activities as follows:

- IC preparation: Magnet alignment, IC pre-inspection, IC released for work,
- Electrical Interconnects & QA per halfcell: PAQ, US weld of spool pieces, brazing of main busbars,
- Cryo-Lines Welding & Testing: Welding of main busbar lines M1, M2, M3, weld K1 line, K2 line, X line, E line. Vacuum tests of K line, C' line, X line.
- N-Line package: AIV 1, AIV 2, US welding of N line, weld of large sleeve for N line.
- Beam Pipes Welding & VAC tests. VAC sector test: Welding of V1, V2 and VAC tests V1, V2.
- Close W bellow and Jumper.
- VAC test for sector.

This report does not include sector 7/8 which is going to be completed soon.

### Sector coordination team: P. Fessia, A. Musso, M. Struik, C. Vollinger

Sectors	Started
1-2 2-3 6-7	No
3-4 4-5 5-6	Yes
8-1	Yes

Sector 1-2/ Sector 2-3/ Sector 6-7: not yet opened.

#### Sector 3-4

- 7 magnets not aligned.
- Production of Work Package 1: Brazing of main busbars, ultrasonic welding of spool pieces, welds V1,V2, X, C',E lines.



Fig1: Production rates in sector 3-4.



Fig. 2: Snapshot of work progress in sector 3-4 showing the number of operations achieved in total with respect to the total number of operations necessary.

#### Sector 4-5

- 1 magnets not aligned.
- Week 45: 1<sup>st</sup> MPAQ finished, 2<sup>nd</sup> MPAQ and welding activities ongoing.
- Starting closure of 1<sup>st</sup> W-bellow and jumper activities.



Fig. 3: Production rates in sector 4-5.



Fig. 4: Snapshot of work progress in sector 4-5 showing the number of operations achieved in total with respect to the total number of operations necessary.

#### Sector 5-6

- 15 magnets not aligned.
- Production of Work Package 1: Brazing of main busbars, ultrasonic welding of spool pieces, welds V1,V2, X, C',E lines has started.



Fig. 5: Snapshot of work progress in sector 5-6 showing the number of operations achieved in total with respect to the total number of operations needed.

#### Sector 8-1

- Activities have re-started this week with production of Work Package 1: Brazing of main busbars, ultrasonic welding of spool pieces, welds V1,V2, X, C',E lines.
- 1<sup>st</sup> MPAQ planned for week 46, N line insertion DS (L1) started.



Fig. 6: Snapshot of work progress in sector 8-1 showing the number of operations achieved in total with respect to the total number of operations needed.

## Vacuum Tests by Sector



Fig. 7: Status of the VAC tests in sector 3-4.



Fig. 8: Status of the VAC tests in sector 4-5.