

# **Status of Interconnect Works in the LHC Arcs, DS and LSS regions – week 47 (November 19 – November 25, 2007)**

**O. Denis, AT-MCS (on behalf of the arc, DS and LSS coordination teams)      EDMS no. 884105**

This report gives the status of the interconnect works in the LHC arcs, dispersion suppressor and long straight sections regions carried out during week 47 (November 19 – November 25, 2007) in responsibility of the interconnection arc and LSS coordination teams.

## **Sector 1-2 (completed on 05-Nov-07)**

- Repair of Helium gauge ongoing, will be stopped to allow pressure test. Necessary replacements identified during pressure test will be performed during consolidation.
- Leak test vacuum sectors: still 3 to be validated in external only.
- Triplet 2L closed.
- Closure of the triplet interconnections and jumpers in 1R ongoing, will be completed for beginning of W49 to allow pressure test.
- 1 PIM (Q2/Q3R1) will be replaced after pressure test.

## **Sector 2-3 (completed on 30-Oct-07)**

- Repair of Helium guards ongoing to allow installation of Helium level gauge.
- Leaks under localization in 7L3 : M and C'K lines (total leak  $1.10^{-5}$ )
- DFB at 2R: leak on interconnection repaired, will be tested.
- NCR TT in QBQI.10R2 repaired.

## **Sector 3-4 (completed on 18-Sep-07)**

- Repair of DFB jumper ongoing, the jumper has been repaired in the workshop and brought back to the tunnel. It is under reinstallation. The operation should be finished during week 49.
- DSLC interconnections ongoing. All inner cryogenic lines are completed and under leak test.

#### **Sector 4-5 (completed on 29-Apr-07)**

- Cool-down in progress.
- The shutdown of beginning of 2008 has to be planned.

#### **Sector 5-6 (completed on 05-Sep-07)**

- A short circuit on the main dipole circuit was detected on the second day of cooling and then localized on a diode box.

#### **Sector 6-7 (completed on 30-Aug-07)**

- Ready for flushing.
- The QRL flushing is started.

#### **Sector 7-8 (completed)**

- The Leak found on the flexible of KD line on the QRL side of the jumper of Q9R7 has been successfully repaired by AT-MCS; the jumper is closed again.
- Still several Helium guard to change; work in progress.
- The leak found on busbar bellows assembly in D1/DFBX interconnection has been localized on the convoluted part. A repair was attempted by AT-VAC but without success. In the meantime a replacement bellows was received at CERN. AT-MEL will cycle and test it.

#### **Sector 8-1 (completed on 9-May-2007)**