

**RAT** Réunion Avancement Travaux **Beam Dump System**  
HARDWARE COMMISSIONING COORDINATION

---

---

**Next meeting:  
Tuesday July 3<sup>rd</sup>,  
10:00 building 2685.**

---

---

**June 19, 2007, 10:00 - Point 6 + update of June 26.**

Present:

---

---

PLANNED INTERVENTIONS IN THE AREA

- Control cables of the DFBA's proximity equipments campaign on w27.
- Installation of the roof over MSD platform on w27.
- Test of MSD foreseen for w.38.
- The bake-out of the whole MKDs-to-MKDs sector will be completed by w29. These are the works to be done per vacuum sub-sector:

Sub-sector	Mechanical Installation	Bake-out
ABC5L6	w28	w29
A4L6	w23-w25	w27
IP6	w23-w27	w28
A4R6	w23-w27	w28
ABC5R6	w25	w26

- Second beam for MKDs67: bake-out on w26-27;
- Beam line below MKBs67: installation of jackets for bake-out on w26 (bake-out during tests);
- Second beam for MKDs63: installation during cabling campaign (w29-30); bake-out on w31;
- Beam line below MKBs63: before w31.
- Water cooled cables positioning: RA63 w24-w26 & RA67 w26-w28.
- Fire detection system installation in UD68 on w.25.
- Cool-down of sector 5-6 for the beginning of October.
- Cool-down of sector 6-7 for the end of October.

## INSTALLATION STATUS

- The MKD67 system is all connected and ready for power tests. A final inspection by Norisko has to be planned after de-condamnation by TS-EL (foreseen for w.33).
- The beam dump line in RA63 has to be completed (mounting and alignment) **[action B. Henrist]**. A non-conformity for an electrical distribution box, which is behind the dump line, has been found. The vacuum installation for the two beam lines will end this week, and will restart at the end of August.
- Status of UDs:
  - in UD62 the window, the connection line, the Dump and the concrete block are already installed but not connected, because of the installation of BLMs on w.29;
  - in UD68 the Dump core will be transported on Wednesday June,26; the connection line will be transported and installed on w.27;
  - the two spare cores are presently under fabrication and will be installed in the caverns at the end of September.
- BPM installation: BPMSD are already available and will be installed after completion of the vacuum line. BCTFD will be as well installed after completion of the beam dump line. **[AB/BI]**
- Vacuum pipe on Q4: a verification of alignment to the beam dump line will be carried on after installation of the chamber with a laser tracker.
- Mismatch between the TCDS and the last MSD on each side: a solution has been proposed, which considers the use of standard bellows plus a transition part. A proposition will be made by A. Rossi.
- The TCDQs are connected and movement tests can begin next week - to check if the dump lines above the TCDQ are already aligned, because the clearances are very small **[Action Mirko]**.
- The MKB and FBCT need realigning by up to 8 mm (see ECR currently under approval – EDMS n.849665) - status to check and this item to be added in the planning **[Action Katy]**.

## TEST ACTIVITY

- IMPORTANT: this Friday 29/06, measurements of the earthing of the MKDs in the tunnel will be done, for which the grills will be removed and RA63 passage must be blocked for the day **[action Mirko]**.
- Testing of the MKD63 system will soon require the generators being left under voltage for many hours without experts present in the UAs - before this can take place a first reception visit from Norisko may be needed **[action Mirko/Etienne]**.
- All 15 MKD63 kickers have been individually commissioned to full strength and were pulsed together for the first time last week. The details of the beam 1 tests will be sorted out by BT, in view of present progress and the lessons learnt so far. The commissioning is now focusing on the

synchronisation. One generator is suspect and needs further investigation.

- The dump action is accompanied by a noise measured at 88 db in the tunnel - Katy will request an official measurement to see if this presents any environmental health issues which might need to be addressed **[action Katy]**.

## SAFETY

- In accordance with J. Etheridge and under the suggestion of S. Grillot, a new solution has been decided for the safety measures to be put in place around the equipment under test:
  - 2-m-high metallic nets are put around the magnets and flashing lights and advertising panels are attached to them;
  - chains and advertising panels are put close to the racks powering the magnets.

## Open Issues

---

26.06	Final inspection by Norisko planned after de-condamnation	
26.06	Check if the dump lines above the TCDQ are already aligned (clearances are very small)	
26.06	Realigning of MKB and FBCT up to 8 mm	
26.06	Measurement of the noise during Dump action	
10.04	Installation of BPMSD	AB/BI
10.04	Installation of BCTFD	AB/BI
10.04	Mounting and alignment of beam dump line in RA63	AT/VAC
20.03	Mismatch between TCDS and MSD	AT/VAC&AB/BT
27.02	Vacuum tube between carbon window and TDE (fabrication on going-ready for the end of June)	AB/ATB
20.02	TDE in UD68 ready for end of June	
20.02	Vacuum pipe on Q4	AT/VAC-AB/BT

## Closed Issues

---

05.06	Grounding of instrumentation/after <i>deconsignation</i>	13.03
05.06	Assembly of PDC for MKDs in UA67	03.04
05.06	Modifications on PDC of MKB-67 requested by Norisko	10.04
08.05	Installation of MKD magnets in RA63	10.04
08.05	Installation of junction modules between MKDs in RA67	10.04
08.05	Inspection by Norisko on PDC of UA63	03.04
08.05	Assembly of PDC for MKDs in UA63	03.04
08.05	Optical fibers for pulsing	20.02
17.04	VAC: bake-out of MKD-6L	20.02
10.04	Beam dump line in TD62	10.04
10.04	BLMs integration	13.03
10.04	Smoothing of the MSD	10.04

03.04	Assembly of PDC for MKBs in UA63	03.04
27.03	Safety inspection by Norisko on power distr.rack (MKB67)	20.02
27.03	Grounding of instrumentation/before <i>deconsignation</i>	13.03
10.04	Mounting supports for second beam (on drawings) (6L&R)	13.03
27.03	Place for storing MKDs in UX65	20.03
20.03	Grounding of magnets	13.03
13.03	Intermediate bellows availability	27.02
13.03	Interference between vacuum support and MKD	27.02
27.02	Space in UJ62 and UJ67 for installation of spare TDE (and transport equipment) – late installation of that part of dump line	20.02
27.02	TCS: installation on w.19	
20.02	VAC: bake-out of MKD-6R	11.05