

# Direct BLM channel to Beam Dump

## Motivation

In the machine protection review the subject of worst case failures was raised, and one extra measure which seems reasonable is to have some dedicated BLMs at the TCDQ/Q4 in IR6, which are basically hardwired directly to the dump trigger without passing through the beam interlock system. Obviously these would have much higher thresholds than the other BLMs in the ring, and maybe also be based on a different technology.

## **Proposed solution (agreed with Etienne & Bernd)**

- SPS-type BLMs and BLM electronics.
- Hard-coded or hard-wired interlock level.
- No energy variation of interlock level.
- Cards to be lodged in VME crate.
- One acquisition card and one dump card (tbc).

A few modifications on the existing SPS acquisition card should allow the required functionality.

Price about 10-20 kCHF (200 m of cable, to each side of the IP, 4 channels, VME cards in dump crates)

## **Follow-up**

MPWG approval

Prepare ECR etc. to get this in the LHC baseline.