# Mandate for External Panel on Risk

Primary source of incident provoked in sector 34?

(Are there any doubts as to the conclusion that this was caused by a high resistance ,200nOhm, splice)

Risk analysis of a similar incident occurring in the future given the proposed mitigation measures.

(Are the mitigation measures sufficient and appropriate?)

(Is the resistance of the busbar and coil splices the correct parameter? What value of resistance is dangerous, influence of the beam energy, i.e. the dipole current. Simulations of the thermal runaway as a function of resistance and dipole current)

(Can there be complete protection in case of a splice rupture, is there enough time to protect?)

(risk associated with re-training to 7TeV)

(effect of beam current)

(effect of high energy beam operation, 5TeV, 6TeV, 7TeV)

Are the measures foreseen for mitigation of collateral damage appropriate?

(damage to magnet interconnects, cold supports, fixations of jacks, and pollution of the vacuum chamber. Is the proposed combination of these mitigating repairs coherent?)

Relative Risks associated with the two most probable start-up scenarios in 2009-2010. i.e. installation of half of the pressure valves followed by beam operation then the other half. Or installation of all valves followed by beam operation.

(risk during “transition” period)

(schedule risks)

(radiation, ALARA risks)

“Comments on Operability of LHC”

(Helium storage, Safety constraints, PIMs constraints, cooling tower maintenance, Electrical Network maintenance, humidity in sector 34 and corrosion….)