

The protection functionalities of the various systems connected to, and associated with, the LBDS are covered in this talk, in particular TCDQ, interlock BPMs and abort gap monitoring. System changes planned for LS1 are described, and the machine protection implications are detailed in terms of the improvements in the system safety and also in terms of changes to the operational procedures and expected performance. Run 1 experience is reviewed concerning aperture and tolerances with an outlook to 7 TeV. Some other ideas for ways to improve operational availability without compromising safety are explored, together with possible improvements to the validation procedures for the dump protection.