

First experiences with the LHC BLM sanity checks

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The reliability concerns have driven the design of the LHC BLM system from the early stage of the studies up to the present commissioning and the latest development of diagnostic tools.

To protect the system against non-conformities, new ways of automatic checking have been developed and implemented. These checks are regularly and systematically executed by the LHC operation team to insure that the system status is after each test "as good as new".

The sanity checks are part of this strategy. They are testing the electrical part of the detectors (ionisation chamber or secondary emission detector), their cable connections to the front-end electronics, further connections to the back-end electronics and their ability to request a beam abort. During the installation and in the early commissioning phase, these checks have shown their ability to find also non-conformities caused by unexpected failure event scenarios.

After a description of the LHC BLM system and a brief overview of the different checks, the sanity checks will be described in details and the latest performances and typical non-conformities will be presented.

Primary author: Mr EMERY, Jonathan (CERN)

Co-authors: Ms NORDT, Annika (CERN); Dr DEHNING, Bernd (CERN); Dr ZAMANTZAS, Christos (CERN); Mr EFFINGER, Ewald (CERN)

Presenter: Mr EMERY, Jonathan (CERN)

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