Conceptual Specifications validation review: Shielded non-shield beam screens, Layouts in LSS 1 and 5

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7th HL-LHC Technical Committee
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HL-LHC shielded beam screen
EDMS 1361079

- Mask the cold mass, provide pumping
- Low SEY needed (2 beams) : a-C coating
- Heat load, operating temperature
- COLDEX demonstration

Prototype :
- aperture
- installation
HL-LHC (non shielded) beam screen
EDMS 1361096

• Provide pumping
• Heat load, operating temperature 5-20 K
• COLDEX demonstration
• Prototype
• Re-use of standard LHC interfaces
HL-LHC LSS 1 & 5 vacuum layout
EDMS 1361093

- Ensure vacuum performances
- Vacuum sectorisation & instrumentation
- Interface to other systems: variants minimisation
- “quick flange” type connection in hot radiation areas
- Re-use of standard LHC interfaces
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