

From LHC to HL-LHC –overview of the major environmental issues during civil-engineering and operation

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The High Luminosity LHC Project will enable the LHC to increase the total number of collisions by a factor of 10. Numerous innovative technologies are explored and will be implemented and large civil-engineering works will take place in Switzerland and in France on two existing LHC sites.

The HSE Unit follows-up the progress of the project and ensures that the environmental requirements of the Host States are taken into account. Particular attention is given to the foreseen large civil-engineering worksites, especially regarding water and soil protection, noise and waste management. Also, the design and operation of the industrial facilities that will be added to the existing infrastructure, such as cooling towers, power supply equipment and gas compressors for cryogenics are carefully checked to ensure a limited impact on the environment.

The presentation will give an overview of the local environmental constraints that have to be considered in the framework of the project, how the impact of the civil-engineering worksites is prevented and will be monitored and finally, how the operation of the future infrastructure will affect the environment compared to the present situation.

Email

Sonja.Kleiner@cern.ch

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CERN

Primary author: Mrs KLEINER, Sonja (CERN)

Co-authors: Mrs LEON, Beatrix (CERN); Mrs WOLHGEMUTH, Laetitia (CERN); Mrs ALESSI, Michela (CERN); Mrs SCHADEGG, Sabrina (CERN)

Presenter: Mrs KLEINER, Sonja (CERN)

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