Land-use planning for major accidents prevention in Switzerland

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Agenda

Major Accidents Prevention Ordinance in Switzerland

Risk Assessment Approach

Coordination of land-use planning (LUP) and major accidents prevention
Major Accidents Prevention Ordinance

Scope of application

1’227 Chemical establishments

1’700 km railway lines

10’200 km main roads

2’500 km gas and oil pipelines
Major Accidents Prevention Ordinance

Risk Evaluation criteria

- Fatalities
- Probability of occurrence

- Not acceptable risk
- Transition region
- Acceptable risk

No risk study
Land-use planning

Guideline

• Switzerland has developed in 2013 a guideline describing the coordination process between land-use planning and major accidents prevention.

• This creates a legal certainty for all stakeholders involved.
Consultation areas in the vicinity of hazardous installations are publicly available and are the basis to define if a coordination with LUP is needed or not.
Land-use planning

Risk Assessment Approach in LUP

- The example shows the shift of the risk in case of an increase of 150 persons in the vicinity of the hazardous installation.

- Risk Assessment methods combined with risk assessment criteria (slide 4 of this presentation) help to decide whether or not a risk is still acceptable after a densification in the vicinity of a hazardous installation.
Conclusions

- A good coordination between land-use planning and major accidents prevention is the key to ensure that the risks around hazardous installations do not increase thoughtlessly and that the developments are sustainable.

- Risk assessment methods and evaluation criteria are good tools to assess whether a risk can be judged as acceptable or not after an increase of the population density. If not, then measures must be implemented either by the operator of the hazardous installation itself or on the spatial planning side to reduce the risks.
Thank you very much for your attention!