

The personal and environmental risks of transporting hazardous substances by rail



Version 2.0 of the TgG Screening Tool gives the supervisory authorities of the government and cantons and the railways the option of analysing the hazardous substances risks across the network, and carrying out studies of local variants. At the same time environmental risks are also taken into account.

The Swiss Major Incident Ordinance (StFV) obliges the owners of transport routes on which hazardous substances are transported to assess the resultant risk situation for the population and the environment, and where necessary to implement safety measures to protect the population and the environment from injury and damage in the case of incidents. The overview of the risk situation for the whole network is to be updated for 2011 in respect of the transport of hazardous substances by rail. Version 2.0 of the TgG Screening Tool was developed in this context.

TgG 2.0 is implemented as a web application. It provides the government and canton supervisory authorities, and the railways, with access to a central database. Standardised and freely-definable sections of railway can be analysed for risks for persons and the environment and displayed on an interactive map. In addition, authorised users can carry out and manage their own studies by modifying the specific local values. In this interdisciplinary project, the Health and Safety department developed the risk analysis methodology; implementation was by the IT + GIS department. TgG 2.0 is based on ArcGIS Server. The data are loaded in MS MQL Server Express. The application was developed in Silverlight and C#.

Client

Swiss Federal Office of Transport (BAV),
Swiss Railways (SBB), BLS, Swiss Federal
Office for the Environment (BAFU),
cantons

Facts

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Project Country	Switzerland

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