

German Geotechnical Recommendations for the Disposal of Hazardous Wastes in Salt Caverns

by

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Abstract

Recommendations of the Working Group "Salt Mechanics" of the German Society for Soil Mechanics and Foundation Engineering on the geotechnical aspects of underground disposal of hazardous wastes in salt (in this case in caverns). These recommendations apply to the planning, construction, operation and post-operational management of salt caverns used for underground disposal of hazardous wastes. In particular geotechnical site specific safety verification, as required by the governmental Technical Regulations on Wastes (TA-Abfall) in the section entitled "Underground Disposal", is described. This safety verification must cover the entire system comprising waste, cavern, and surrounding rock. For this purpose geomechanical models have to be developed. The steps which have to be taken when carrying out engineering geologic site explorations and when determining geotechnical parameters are mentioned. Additionally, recommendations are made on the design and construction of underground repositories.