



The landfill gas regime in old landfill sites

DER DEPONIEGASHAUSHALT IN ALTABLAGERUNGEN –LEITFADEN DEPONIEGAS-

These guidelines explain the hazards caused by landfill gases and procedures for investigating this exposure pathway in old landfill sites.

Chapter 2 deals with the theoretical principles of landfill gas formation. In addition to the "classical" stages of the biological degradation of organic substances in a landfill site, a model for the declining gas production in old landfill sites is described. The long-term behaviour of landfill gas production can be divided into six typical phases. In each of these phases, certain gas concentrations and relative proportions exist.

Chapter 3 describes the so-called "typification", which was also developed when drawing up the guidelines. This approach enables an initial assessment of the gas state on the basis of data from historical investigations. In addition, various investigation methods such as probe measurements, gas extraction tests, gas emission measurements, and more are described and gas analysis advice is provided.

Chapter 4 explains the investigation strategy of the landfill gas pathway. Equally, help is given for the assessment and final risk assessment of the landfill gas situation. Chapter 4 is supplemented with case studies.

