Closure and final rehabilitation of the Municipal Landfill Dänkritz

Project objective:
Closure and final rehabilitation of the Municipal Landfill Dänkritz in Saxony

Location:
Dänkritz near Zwickau

Client:
Regional Waste Management Centre Zwickau (ZAZ)

Period:
1999 – 12/2001 (phase 1)

Description of Project and Services

Phase 1 - Closure
The existing unsecured municipal landfill was completely redesigned in phase 1. It had to be reshaped to meet the requirement of German waste regulation for a final surface sealing. In this process the entrance area was adjusted and a gas collection system with flare was installed. Finally an interim surface cover consisting of mineral soil was placed.

Technical Data:
- Profiling and interim cover with mineral soil
- Active degassing: gas wells, flare
- Surface water collection and disposal
- Total area: 12 ha
- Final height: 38 m
- Volume 1.14 Mio m³

Phase 2 - Rehabilitation
In phase 2 the final surface sealing was installed on the reshaped old landfill. A standard system according to TASI for landfill class II was realised reflecting best technical practise under consideration of economic criteria and the local situation. The drainage layer was replaced by a geotextile drainage element. Surface water and gas collection systems were adjusted. Installations for surface water drainage were already realised in phase 1. The Situation regarding a LHKW-groundwater contamination was analysed and remediation measures were ordered based on an overall risk assessment for the object.

Technical Data:
- Removal of the interim cover (partially used as recultivation material)
- Adjustment gas system; passive degassing
- Adjustment of the surface water collection system
- Final height: ca. 40 m
- Slope inclination: usually 1:4
- Installation of control and monitoring systems
Services provided:

- Feasibility Study incl. Survey, EIA
- Risk assessment
- Preliminary, Technical and Detailed Design according to FIDIC (Red Book)
- Preparation of Tender Documents
- Technical assistance during tendering and contracting of works including evaluation of offers
- Construction supervision according to FIDIC (Engineer)
- Site supervision
- “Safety on Site” - Monitoring