Ingenieurbüro für Abfallwirtschaft
consultants for waste management
Prof. R. Stegmann und Partner

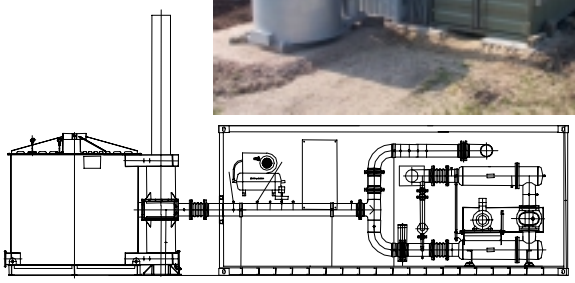
AEROflott® - Low pressure aeration for an accelerated biological in situ stabilization

- Economic and environmentally-oriented landfill aftercare is possible -

In situ stabilization by means of the AEROflott® (patent no. *1000 05 243*) shall serve to reduce the emissions of closed landfills significantly and enable considerable savings in aftercare costs. Using low-energy, low-pressure aeration, a sustained reduction of the emission potential is achieved. Air is introduced at low pressures into the landfill body via gas wells and the exhaust air is collected in a controlled manner via suction wells and supplied to an exhaust air treatment plant. Each aeration measure is planned and implemented on the basis of broad experience and pretests in order to apply the method to the local conditions.

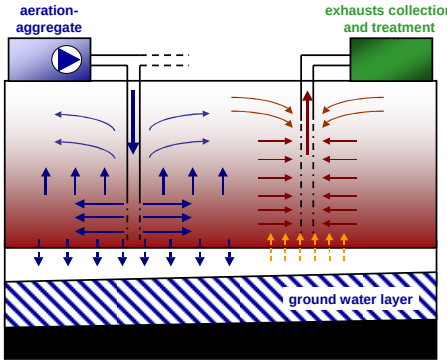
Effects of the AEROflott® low pressure aeration for in situ stabilization

- Enhancement of the biodegradation processes
- Accelerated and controlled decrease of organic and nitrogen compounds
- Prevention of long-term poor gas emissions
- Reduced leachate contamination
- Recultivation and release from landfill aftercare at an earlier time



Costs with regard to AEROflott® low pressure aeration

- Low investment and operation costs
- Existing devices for the collection of gas may be used
- The plant technology may be hired
- Stabilization may be offered as a service, with no technical and economical risks for landfill operators
- **Basic costs of approx. 0.5 to 1 €/m³ landfill volume under favorable general conditions**

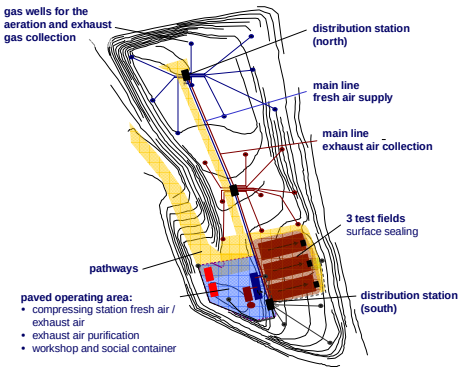


Cost reduction potentials with the AEROflott® stabilization

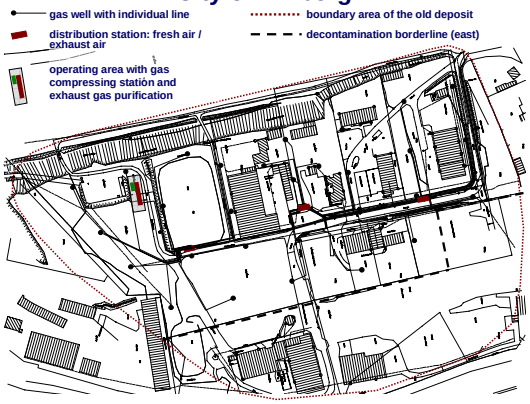
- Reduced landfill aftercare phase
- No costly landfill poor gas treatment
- Leachate treatment for shorter periods of time after closure and at lower costs
- Lower potential of closed landfills regarding groundwater pollution
- Long lasting alternative top cover/sealing systems due to low emission potential (lower investment and maintenance costs)
- Earlier utilisation of the site (e.g. for recreational or commercial areas) which may refinance the in situ stabilization

AEROflott® applications in Germany for the low pressure aeration of waste disposal sites

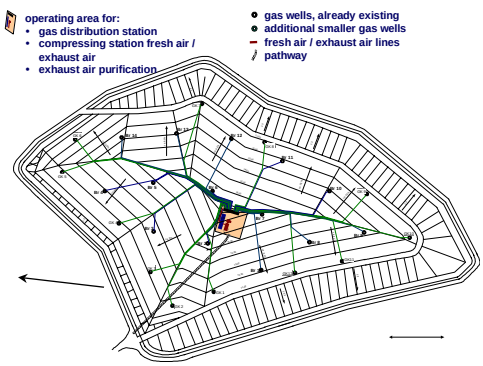
Old Kuhstedt
deposit / district of Rotenburg (Wümme)



Built-up area on the old Neumühle deposit
City of Amberg



Milmersdorf landfill
in the Uckermark district



Technical equipment for the aeration, exhaust air collection and purification in cooperation with the Haase Energietechnik AG, Neumünster

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