

Title (en)  
DECONTAMINATING CONTAMINATED SOIL AND SLUDGE

Title (de)  
DEKONTAMINIEREN VON VERUNREINIGTEN ERDBÖDEN UND SCHLÄMMEN

Title (fr)  
DECONTAMINATION DE SOLS ET DE BOUES SOUILLES

Publication  
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Application  
**EP 99912960 A 19990408**

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• AT 62298 A 19980409

Abstract (en)  
[origin: WO9952656A2] The invention relates to a method for decontaminating any type of soil or sludge which has been contaminated with dangerous waste or oil products and to devices for carrying out this method. The earth is washed out with water and then separated from the eluate. The contaminants carried in the eluate can then be extracted with an adsorbent and subsequently separated off with the sorbent. The cleaned earth can then be used for its intended purpose. Fig. 2 illustrates the principle of simultaneously delivering the contaminated soil and the water that is added for washing out to a mixing and grinding machine (3). The contaminated soil is delivered using a worm conveyor (2) and the water is delivered via a delivery pipe (4). The mixture is crushed in the mixing and grinding machine (3), with strong, turbulent, mechanically produced currents reducing the surface tension in the mixture. This also promotes the washing-out process so that as many as possible of the contaminants in the eluate, which is subsequently separated from the soil or sludge in the tank (5) and press (6), are taken up by the sorbent in the adsorber (10). They are yielded to the (preferably pulverised, solid) sorbent as a result of the superposed action of mechanochemically activated reactions. The residual volume of contaminants discharged into the collecting trough (19) from the decanter (17), together with the sorbent represents 1 to 1.5 % of the original volume of the earth or sludge, which is removed from the container (8) after cleaning according to the method. The contaminants and sorbent can be disposed of at a waste disposal facility or recycled.

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