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Abstract

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Factors and technical methods influencing the Quality of MSWI Bottom Ash

The Quality of MSWI-Bottom Ash is determined by the content of leachable salts and heavy metals. For using MSWI Bottom Ash, it is necessary to reduce the hazard potential of the ash. At the moment there are existing various technical processes to improve the quality. The processes can be distinguished in thermal (Melting and Sintering) and chemical-physical-processes (Leaching and Ageing). The various processes have different effects of the hazardous potential of MSWI Bottom Ash. To value this processes, economical and ecological criterias have to be considered.

In this paper different processes are represented and the chemical and physical effects, which change the quality of the ash are discussed. Also a new investigated process, named „rapid ageing“ is discribed. This method is based to a process-integrated-treatment. Therefore a carbon dioxide containing medium is used for carbonatisaton of the ash.

The presented technical processes will be valuated about the attainable quality of the ash, the technical feasibility and the costs. Therefore dates from literature and dates which descended from own examinations will be used.

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