



ENERGY CONSERVATION AND CO₂ EMISSIONS REDUCTION FOR CLINKER PORTLAND CEMENT MANUFACTURING PROCESS

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Abstract

At present, dangerous industrial wastes are a main source of environmental pollution because they are stored and deposited improperly. Besides, dangerous industrial wastes could also be a source of secondary raw materials which are not well capitalized. This fact causes substantial losses of secondary raw materials and energy and it is explained by the lack of certain technologies of treatment, capitalization and final removal that are technically and economically sustainable. To identify the main types of dangerous industrial wastes generated in Romania and to group them in relation to their main component that renders them the feature of being dangerous, the ‘List of wastes including dangerous waste’, taken over and adapted in conformity with the European Catalogue of wastes, and presented in Annex 2 of Government Decision no. 856/2002 has been used. This paper analyses the following types of wastes: blast –furnace cinder, flue dust, coal sludge rich in CaO, SiO₂, Al₂O₃, wollastonite which can be used to produce Portland cement clinker in order to reduce energetic consumption and CO₂ emissions.

Key words: CO₂ emissions, cement, energetic consumption, wastes

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