

Energy Conversion from Waste Paper Industry Using Fluidized Bed Combustion

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Abstract : Pulp and paper mills generate various quantities of energy-rich biomass as wastes, depending on technological level, pulp and paper grades and wood quality. These wastes are produced in all stages of the process: wood preparation, pulp and paper manufacture, chemical recovery, recycled paper processing, waste water treatment. Energy recovery from wastes of different origin has become a generally accepted alternative to their disposal. Pulp and paper industry expresses an interest in adapting and integrating advanced biomass energy conversion technologies into its mill operations using Fluidized Bed Combustion. Industrial adoption of these new technologies has the potential for higher efficiency, lower capital cost, and safer operation than conventional operations that burn fossil fuels for energy. Incineration with energy recovery has the advantage of hygienic disposal, volume reduction, and the recovery of thermal energy by means of steam or super heated water that can be used for heating and power generation.

Keywords : biomass, fluidized bed combustion, pulp and paper mills, waste

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