Reject waste pellets of paper mills as fuel and their contribution to greenhouse gas (ghg)

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Abstrak

The paper-recycling process of paper mills generates reject waste in the region of 5-25% of its raw material, depending on the recovered fiber quality and process used in the mill. We carried out an assessment of the paper industry's reject waste pellets (RWP) as a boiler fuel. Reject waste was identified by means of sorting. The pelletizing of paper mills' reject waste is a solidification process, as it is easier to store, handle, and transport solid waste. We analyzed the approximate calorific value and the sulphur content of reject waste pellets. The results showed that the components of reject waste are largely comprised of 51% fibers and 49% plastic. The plastic components of are dominated by the high density poly ethylene (HDPE) plastic type. RWP contains a lot of organic matter and has a high calorific value and low sulphur content, which gives it the potential of being used as fuel. Utilization of 10% RWP mixed with 90% coal as boiler fuel could reduce CO2 gas as greenhouse gas (GHG) emissions by about 9%.