## Pembuatan Briket Sampah Kayu TPST Bantargebang dengan Campuran Kotoran Sapi Menggunakan Perekat Kulit Singkong.

Bantargebang TPST Wood Waste Briquettes with a Mixture of Cow Manure Using Cassava Peel as an Adhesive. Supervised by: Dafit Ari Prasetyo, S.T., M.T.

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## ABSTRACT

The increasing of human population has resulted in the diversity of landfills in Indonesia. Therefore, the need for waste management from upstream to downstream in order to provide economic benefits, health for local community, and safe for the environment. Such as quite a lot of waste and not processed properly at the Bantargebang TPST, namely wood waste and twigs as much as 308.08 tons / year, and cow manure produced by slaughterhouses and cassava peels are home industry waste that has not been processed optimally and becomes waste. One way to reduce waste is to use it as an alternative energy sources, namely briquette. This study aims to make briquettes with the main raw material of Bantargebang TPST wood waste with a mixture of cow manure using cassava peel as an adhesive which is expected to meet SNI Briquette standard 01-6235-2000. The wood charcoal we proceed using traditional methods. This study was made with the same adhesive composition of 10% of cassava peel, while the composition of wood charcoal: cow manure that was 80:10%;70:20%;60:30%. The results of the study found the best composition that has met SNI Briquettes standard 01-6235-2000 found in variation C with a composition of wood charcoal, cow manure, and cassava peel (60:30:10%) with a moisture content of 5.8133%, 11.4299% of ash content, 5936 cal/gram of calorific value, 0.7184  $gr/cm^3$  of density, 0.4168  $gr/cm^3$  of kamba density, and 0.0048 g/s of combustion rate.

*Keywords:* Briquette, Cassava Peel, Cow Manure, Traditional carbonization, Wood waste.