

ABSTRACT

STUDY AND DEVELOPMENT OF ENERGY RECOVERY OF MUNICIPAL WASTE: BULKY AND REJECTION

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Preparation of Waste Derived Fuel (RDF) and its industrial facilities in co-incineration allows maximum use of waste materials and energy. With this practice contributes to an increase in the use of renewable energy themselves, will reduce impacts on the environment and reduce emissions of greenhouse gases. Besides being a toll to achieve the goals for the coming years regarding waste management, increasing industrial competitiveness by reducing manufacturing costs by saving fuel.

The main objective of this thesis has been studying the technical feasibility of using two types of fractions municipal, waste and other bulky waste as alternative fuel in industrial installations. To achieve this the two fractions were characterized to determine their potential energy, metal content, chlorine and other parameters to compare them with the waste acceptance requirements established by cement. It also assessed the environmental issues associated with the use of such waste as fuel. To perform the environmental analysis was used as a tool SIMAPRO commercial program to make the Life Cycle Analysis of the utilization of such wastes as fuel. She is comparing the impact of coal combustion.

The results for both types of waste, in terms of potential energy, the metal content and environmental issues have been satisfactorily tested and demonstrate the ability of such waste to be used as alternative fuels in facilities consumers or producing energy, such as cement or power plants

Keywords: RDF, energy recovery, waste, LCA, alternative fuel, fluff.

