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KEY WORD: SOLID WASTES / FOOD PROCESSING / GENERATION RATE

YUTTHANA REUNGDEJBUNLIT : GENERATION RATE AND PHYSICAL CHARACTERISTIC OF SOLID WASTES FROM FOOD PROCESSING INDUSTRY IN BANGKOK METROPOLIS.

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The objective of this research is to study the generation rate and the physical and chemical characteristics of solid waste from 10 groups of food processing industries ; poultry slaughtering, milk, seafood canning or freezing, vegetable oil, vegetable and fruit canning or freezing, ready made noodle, seasoning sauce, ice cream, snacks, and glucose syrup industry in Bangkok Metropolis in order to use these data for solid waste management from these industries.

This study indicated that generation rate of solid waste from food processing industries is from 0.4 - 10.5% of raw material weight and from 0.6 - 9.9% of product weight. High solid waste generation rate of fruit canning and seasoning sauce industry because of raw material wasting. The generation rate are 39 and 29% of raw material weight, and 57 and 22.5% of product weight, respectively.

The physical and chemical characteristics are used to consider the disposal method. From the study , the solid waste from these industries are divided into 2 types, first is solid waste from packaging which mainly composed of plastic, 26.56 - 75.82%, and paper, 20.26 - 48.73% by dry weight. These have ash content 1.49 - 9.14%, and calorific value, 2,710 - 7,000 cal/g, which can dispose by incineration. The second is solid waste from process such as fruit peel, soup and noodle residue, potato peel and snack residue. These solid waste are organic substances which have moisture content, 10.44 - 92.87%, and range of C:N ratio is 10.75 - 78.51, so these solid waste can make feedstuff or composting. For spent bleaching earth and carbon powder have high ash content, 55.40 and 29.32%, which suitable for landfill like sauce residue from seasoning sauce industry because of salinity.

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