Environmental Engineering and Management Journal *October 2016, Vol.15, No. 10, 2327-2336*
http://omicron.ch.tuiasi.ro/EEMJ/

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ANALYSIS OF SOLID WASTE GENERATION IN A UNIVERSITY CAFETERIA IN BRAZIL: A CASE STUDY

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Abstract

Environmental problems that result from increases in the generation of urban solid waste are compounded by the inadequate management of wastes generated by large-scale meal production at Food and Nutrition Units (FNUs). With the growth of eating out sector, solid waste management of FNUs should be focused on minimizing waste generation, while considering all regulations enforced, including those related to hygienic quality of food. The goal of this study was to determine the quantities and types of waste generated by a university cafeteria in Brazil to help implement a solid waste management plan that adhered to the Brazilian National Policy on Solid Waste. For this purpose, the waste generated during each stage of the meal production process was weighed according to its type for 21 days. Additionally, structured observations were conducted to identify adopted waste management practices and further opportunities for waste reduction at the facility. During this study, 6,553.5 kg of waste was generated, of which 82.6% resulted from organic food waste and 17.4% resulted from recyclable and other residual waste. Based on the collected data and structured observations, certain recommendations were provided for reducing the waste generated during cafeteria processes and for modifying the cafeteria activities to meet environmental and hygienic-sanitary requirements. The analysis presented in this study could guide the implementation of waste management plans in similar establishments that seek sustainability in meal production and that intends to comply with current legislation.

Key words: restaurant food waste, restaurant waste composition, waste management, waste management plan

Received: October, 2013; Revised final: February, 2015; Accepted: February, 2015

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