Environmental Engineering and Management Journal

May 2017, Vol.16, No. 5, 1155-1160 http://omicron.ch.tuiasi.ro/EEMJ/



"Gheorghe Asachi" Technical University of Iasi, Romania



## IMPACT ON THE ENVIRONMENT OF INDUSTRIAL PACKAGING WASTE TRANSPORT

## Vaska Pejić, Marko Cedilnik, Andrej Lisec\*

Faculty of Logistics, University of Maribor, Celje, Slovenia

## Abstract

Industrial packaging waste as an object of reverse logistics has nowadays from environmental and cost perspective become a huge task especially in retail. In addition to that most costs come from transportation, which if not rationalized leads to negative environmental impacts. The research consists out of two parts, where the first part provides an overview of domestic and foreign literature in the field of environmental impacts caused by transportation of packaging waste in retail and, the second part is an analysis of packaging waste transportation in the largest Slovenian retailer. Finally, the findings and suggestions are presented. In this analysis we wanted to put forward any potential solutions that could improve the existing system environmental performance, by reducing environmental impacts. A conclusion of our analysis has shown that with system reorganization we could significantly reduce the amount of tonne kilometres by 55 % and therefore lower the fuel emissions.

Key words: industrial packaging waste, retailing, reverse logistics, transport

Received: August, 2013; Revised final: May, 2014; Accepted: May, 2014

<sup>\*</sup> Author to whom all correspondence should be addressed: e-mail: andrej.lisec@fl.uni-mb.si; Phone: +38641925368