



Evaluation of Cleaner Production Opportunities for the Horizontal Packaging Process

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Abstract

Bioriented polypropylene (BOPP) is a type of flexible polymer widely used in the film format for the packaging of various materials, including in the food market. The packaging route begins with the production of the film that goes into the flexographic printing process and then reaches the horizontal packaging process. The three processes are carried out by different companies and each one presents its environmental impacts, in this sense, this work aims to carry out the diagnosis of these processes and from this survey, to point out Cleaner Production (P + L) opportunities in the packaging process seeking reduction of waste in the generating source. The potential environmental impacts of each of the processes were identified and the packaging process also identified opportunities for improvement aimed at reducing the generation of waste at source. For this, it was taken into account that the company that carries out the packaging process has two different machines for the same type of process: one old and one of a more current model. From a simple process follow-up, it was identified that the old machine generates a greater amount of waste when compared to the new one. In this way, it was highlighted as an opportunity to improve the proper quality control of the coils, to replace the manual feeding of the mats by the automatic feeding and the installation of a stop sensor so that the machine interrupts the process when there is no material on the mat, avoiding the generation of empty packages that are discarded as waste.

Keywords: BOPP, packaging, Cleaner Production.