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Cleaner Production and PDCA cycle: Practical application for reducing the Cans Loss Index in a beverage company

Adriana S. Silva, Carla F. Medeiros, Raimundo Kennedy Vieira

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Title: Cleaner Production and PDCA Cycle: Practical Application for Reducing the Cans Loss Index in a Beverage Company

Order of Authors:
Adriana S Silva, Carla F Medeiros
Raimundo Kennedy Vieira

a Graduate Program in Industrial Engineering, Federal University of Amazonas, Manaus 69080-900, Brazil

* Corresponding author: kennedy71@gmail.com (R. K. Vieira)

Abstract: Environmental management is a commonly sought-after organizational goal today. Organizations with a successful environmental management program in place have gained prominence in the competitive market and, in addition, generated considerable improvements in their processes. With these concerns in mind, this paper aims to implement a Cleaner Production program based on the plan-do-check-action method to reduce an organization’s Cans Loss Index (CLI). For this study, a literature review was carried out; data were collected from institutional documents; and a direct field observation was made. We suggested to implement the following actions: training in standards; review of maintenance plans; controls per line segment; design of a matrix of responsibilities; alignment between different functions of the company; and equipment maintenance. As a result, the annual CLI fell from 0.97% (April–July) to 0.78% (end of year), representing a drop of more than 35% in costs from one semester to the next. In the second year, the CLI reached the goal of 0.60%, and costs have reduced by 28.91% in the first four months. Thus, both improvements in quality and productivity of the organization and significant reduction of waste in the production of beverage cans were achieved as a result of implementing the proposed Cleaner Production program.

Keywords: Cleaner Production, PDCA Cycle, Cans Loss Index, Waste, Cost.

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