Searching Cleaner Production through Lean Production: Case Studies in Foundry Industries

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Abstract

The advancements towards the sustainable development have been too slow in all industrial sectors. The contribution in this direction on part of manufacturing industries frequently stumbles in constraints related to increase in costs and loss of competitiveness. The Cleaner Production (CP) approach that nurtures more sustainable practices focused in manufacturing processes provides an important alternative to overcome this situation. This paper contemplates the relation between the principles of CP and practices of lean production, with the purpose to indicate tools for manufacturing industries that can facilitate the search for sustainable development, without requiring the establishment of a specific and costly structure for supporting this. As in the struggle to accomplish productivity gains, manufacturing firms rationalize their production with lean production practices, they can benefit from the tools and structure of this production approach to also incorporate the goals of CP.

Keywords: cleaner production, lean production, foundry, case studies, environmental control management