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“CLEANER PRODUCTION TOWARDS A SUSTAINABLE TRANSITION”

Cleaner Production in a Steel Industry

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Abstract

This paper focuses on the efficiency of steel production process of a steel industry located in the Northeast of Brazil through the eyes of eco-efficiency that integrates the three aspects of sustainable development which are economic, environmental and social. Aims to analyze the critical inputs and residues from the point of view of industrial eco-efficiency according to the Cleaner Production program on your electric steelworks. It is work based on information obtained directly in the industry. Although steelworks (unit where it becomes pig iron or scrap in liquid steel) is one of the most critical units of the steel plant, where the slag is formed, which represents the largest amount of residue generated and the greatest financial waste, it was observed that the industry in question the use of slag as a co-product for the cement industry was the choice for process improvement. Considering that the scrap, pig iron and lime are the inputs with more expensive costs in steelworks, the process temperature control is a practice that allows the reduction of these inputs, and lower energy consumption. Another practice adopted in the steelworks is the purification of scrap. It follows, therefore, that the application of the Cleaner Production program provides a significant improvement in industrial processes, particularly the steel industry.

Keywords: *steel industry ,steelwork, sustainable development, eco-efficiency, Cleaner Production.*
