



Firewood Consume Reduction Through Cleaner Production: A Red Ceramic industry case

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Abstract

The consumption of firewood by some companies is responsible for the third highest production cost, thus the misuse of this energetic resource may cause many economic and environmental losses. By recognizing this important issue, this work is focused on the energy and mass balances assessment of a tunnel kiln of a red ceramic manufacturer. From the assessment of the main inputs and outputs of the company – ‘green’ (unfired) bricks, fired bricks, firewood, energy and gas -, results show that there are some potentialities in implementing cleaner production practices to allow the company achieves economic and environmental benefits, such as: heat recovering of the chimney, standardization of the heat distribution in the heated zone, and an increase in the air flow from the cooling area to the firing zone.

Keywords: tunnel kiln, firewood and heat.
