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Cleaner Production and Ergonomics: a case of waste minimization and improvement of work conditions

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Abstract

This paper was made in a thermal treatment area, in salt bath oven of an enterprise of North of Santa Catarina. Its goal was to determinate the factors that influence waste generation of salt used in process. It was observed that the mean cause of wastefulness is the position which the workers are obligated to adopt due to pre-determinate procedure, as well, the layout and tools used. The impossibility of workers to maintain the workpiece draining of salt inside of oven, due to weight, tool characteristics and the area conditions causes an additional worker position problem. With direct observation technique, mo, filming, pictures and spaghetti diagram it was verified that due to layout the workers walk 430 m daily and this is one of the causes of salt quantity that is wasted. This quantity is around 2.1 ton/year. With use of ergonomic and cleaner production principles the detected problem of worker position could be eliminated, as well as the unnecessary passage of workers and workpieces. It was proven the existence of strong synergy between ergonomic and cleaner production. Also both can be applied to improve the environment and to preserve the health, as well, to guarantee the workers safety.

Keywords: *Work conditions, Waste minimization, Cleaner production.*
