ABSTRACT

This Study was focused on the reducing of production cost of wafer biscuit manufacturing with the prime focus on the generation of less waste materials. Wafers are very specialized type of biscuits requiring special equipment for production. Typically wafer sheets are thin and usually bear intricate surface patterns and difference shapes. They are in high demand in the recent market.

The research was carried out by the application of cleaner production techniques in wafer manufacturing; generation of waste materials during handling can be minimized. The method, which is science based and systematic, can reduce the cost of production through minimization of waste in terms of material and energy. In the source identification, the waste and emission sources within the premises were identified. Employees involved in the different sections were interviewed and most wasteful process steps were roughly identified. A process flow diagram was contrasted as a prequisiste for source inventory. Then each of the operation unit was studied carefully for the identification of waste generation streams.

During the cause evaluation the related output/waste was further quantified regarding each step. The most affected reasons for the waste generation were identified. With regard to each occasion the most wasteful points were selected and treated. Through option generations following steps were taken into account. Product modification, process modification, layout modification and on site recovery.

The points in the manufacturing process at which waste materials are generated were identified and altered to minimize waste material generation. It was also identified that by proper arrangement of machinery and modification of factory design, the production efficiency can be increased with the reduction of labour cost. Also by using cleaner production concepts to the wafer manufacturing process can significantly be minimized to 10-20% of production cost.