

Tranwimon Kamkokkrud 2014: Reducing Dust Problem in Flour Receiving Process of Dim Sum Food Factory. Master of Engineering (Safety Engineering), Major Field: Safety Engineering, Faculty of Engineering. Thesis Advisor: Assistant Professor Ampika Bansiddhi, Ph.D. 86 pages.

The main problem found in food processing line using flour as raw material is the dispersion of flour powder which affects directly to worker's health. This research is aimed to reduce the flour powder quantity at the step of receiving raw material flour in the Dim Sum production plant.

Studying information during year 2010 to 2013 as well as determination of flour powder quantity within the working area indicated that the average quantity of total dust and respirable dust equal to 27.831 mg/m^3 and 8.348 mg/m^3 , respectively, which were higher than the standard limits for total dust and respirable dust of 15 mg/m^3 and 5 mg/m^3 , respectively, as specified in the Notification by Ministry of Interior on working environment (chemicals) safety, 1977. In addition, it was also found that the lung capacity of the workers tend to gradually decreased. The improvement point of this study was to design the receiving flour containers as close system. Monitoring after improvement showed that the average total dust and respirable dust quantity reduced to 1.125 mg/m^3 and 0.183 mg/m^3 , respectively, which were lower than the standard limits. Moreover, investigating from the workers indicated that all workers were satisfied and gained more confidence on safety and health.

Student's signature

Thesis Advisor's signature