

## Abstract

This research is a study of quality improvement and cost reduction in a case study company, which is a synthetic rubber manufacturer for automotive and electronic industries. A study focused on an improvement of extruding and foaming process. The research started with gap analysis by using the criteria of Thailand Quality Award (TQA) part 6: Process management, and an operation of the best practice company to identify the areas of improvement in the production process. The causes of problem were then analyzed. The improvement using quality control tools was proposed and implemented.

The results show that the criteria of Thailand Quality Award (TQA) part 6: Process management and an operation of the best practice company can be employed to identify the areas of process improvement effectively. This research can increase an operational efficiency by reducing defective cost from 0.79% to 0.63% which is 35,000 baht in six months by FMEA technique and measuring system analysis in the process.

In addition, it was found that an improvement following the criteria of Thailand Quality Award (TQA) part 6: Process management can also improved the related operational scenarios in the organization.