

CHAPTER 7

CONCLUSION AND RECOMMENDATION

I. CONCLUSION

Hazard Analysis Critical Control Point (HACCP) is a systematic, scientific approach to process control. It is identified to prevent the occurrence of problems by ensuring that controls are applied at any point in a food production system where hazardous or critical situations could occur. There are three kinds of hazards, which are biological (pathological and microbiological for beef slaughter), chemical or physical contamination of food products. In Thailand, some food industries must implement this system to conform to the legislation. However, HACCP should be applied in every food industry to create the international standard for Thai food. Moreover, it can reduce the customer complaint and also the risk of product liability law.

Prior to develop HACCP system, it is necessary to construct the prerequisite program of HACCP. In this thesis, Good Manufacturing Practice (GMP) is then developed in the case factory. GMP provides the basic standards of manufacturers for food safety. Furthermore, GMP prevents the product contamination from the external factors. Subsequently, the twelve steps of HACCP application will be carried out. The first five steps are called as the preliminary steps of HACCP. They are developed to facilitate the company for following the seven principles of HACCP and also for developing HACCP plan. Then, the seven principle of HACCP will be done in accordance with the standard of CODEX Alimentarius Committee.

After finishing HACCP plan, the case company has implemented the HACCP plan in its case factory. We can see that the company can reduce its rework. Nevertheless, it is not the most important thing for HACCP system. HACCP can also create customer satisfaction and since it is applied in the case company, there is no customer complaint about the product. The most important thing is that it can create a systematic approach for manufacturing such a safe product for consumer. Consumer's safety or people life cannot be evaluated into the dollar amount. Therefore, it is the responsibility of all food manufacturers to prevent the contamination of their products.

After conducting this study, it may be useful for other rice companies to develop HACCP system to improve the quality of rice product in Thailand. Feedback from customers is very good according to the case company. Therefore, it can increase the competitiveness of Thai rice against other countries. Moreover, the protection of product against all hazards will lead

to the enhancement of quality and also the control of hazards for rice product. Finally, consumers can safely consume our product.

II. RECOMMENDATION

From the development of HACCP system in the case factory, there are some interesting points that should be pointed out and followed up as follows.

- *Time for collecting data:* Since there are only three weeks for collecting data after implementation, the analysis or evaluation of the study may be deviated due to several factors as previously mentioned. The examples are the arrival of new crop, the low season of export and the time to follow up the customers' responses. For further study, it should follow the feedback from customers because it will take about three months for shipping products to the customers. Therefore, the analysis should be carried out after receiving customers' reactions.
- *Documentation system:* Since the documentation of the company is already existed, it is quite difficult to change. Some documents still have no record number and are not determined whether they are controlled or uncontrolled documents. The further study should concern about controlling document by creating document control center. Moreover, this center will distribute all controlled documents, and if there is any correction or revision, the revision will be sent to the center for approval of the distribution.
- *GMP requirement:* Some requirements of GMP must take such a long time for achieving; for example, to construct a net all around the factory's area, it will consume a lot of time and money. For the estimation, this project needs about 3 millions baht and 3 months of installation. Therefore, some GMP requirements are not mentioned in this thesis. However, this thesis has already described the eight basic procedures that are required to write down into formal documents. Thus, the further step is to in-depth study the GMP and completed all requirements of it.