CHAPTER 6 CONCLUSION AND RECOMMENDATION

6.1 Conclusion

In the research of supplier quality improvement, procedure of supplier quality management improvement are:

- 6.1.1 Incoming quality control processhad been developed. The work instruction (WI#QC015), Incoming Inspection Method, has been used by IQC inspector for material inspet@6n. inspection plan had been developed upon supplier manufacturing process flow. IQC inspection plan has been used at IQC section in order to define the inspection points in accordance with supplier manufacturing process describing the standard process which the material is produced. Potential failures are identified based on supplier manufacturing process then inspection checkpoints are define to IQC checkpoints list in order to detect the material failure at IQC gate.
- 6.1.2 Skip and Ship to Stock Program (Reduced inspection and dock to stock program) proposed to MOLEX Thailand Limited company. This program is to reduce IQC inspection for the the suppliers that his products have met our target and conditions and the quality of products are in satisfied quality. Under skip and ship to stock program condition, Hitachi Bangkok Cable supplier had been approved to apply this program because his product quality is satisfied and meets MOLEX Thailand Ltd, requirement.
- 6.1.3 Proposed Supplier Qualification Process, this is supplier qualification process is to consider whether the supplier manufacturing capability meets MOLEX Thailand LTD, company. There are 7 sub systems that are considered in order to evaluated supplier manufacturing before purchasing the product from them. Suppliers will be classified in to 3 categories, approved supplier, conditional approval and probationary approval. From the result all suppliers are conditional approval level. Supplier periodic evaluation will be used to promote these suppliers to be approved supplier.

6.1.4 Supplier Periodic Evaluation

Supplier performance rating process is based on incoming quality control data and supplier supplied data (SPC application method) to evaluate the quality of suppliers both its product and service (in term of responsiveness) upon 6 quality factors, LAR(Lot Acceptance Rate), Defect Per Million (DPM), Production Complaint (Line Feed Back) and Customer Complaint, Responsiveness & Effectiveness of the corrective action, Ship To Stock Program and SPC Utilization. The result will be fed back to supplier so that they will improve on their quality both products and service.

6.1.5 Supplier Disqualification Process to terminate business between MOLEX Thailand Ltd. company and supplier because supplier can not meet MOLEX Thailand Ltd. company expectation. The quality of material has not been solved effectively and also, the responsiveness from supplier is very poor. In this research, poor response and improvement of Thai Wonderful Wire & Cable supplier leads to supplier disqualification proposal up to MOLEX Thailand Ltd management.

6.2 Recommendations

- 6.2.1 According to scope of this research, it covers 6 major suppliers of MOLEX Thailand Ltd. This program should be developed to minor suppliers to figure out the product quality and service quality of the minor suppliers
- 6.2.2 The result of this research should be used at state of new product development during material (product) selection process and product design. Product engineer will have to consider the material of the suppliers who have good performance in term of product quality and service quality. The suppliers who have good relationship to MOLEX Thailand Ltd company and they are ready to give good co operation with the customer to improve the product. It is supposed that if we receive the good quality of the product then assembly process until the finished goods will be proceeded in the smooth way.
- 6.2.3 Improvement plan from the supplier should be followed up aggressively upon the follow up plan so that the supplier can improve their product both quality and service. Performance review should be established either at supplier sides or MOLEX Thailand Ltd,. According to the result, it is difficult to call all suppliers to have a meeting to review their performance because there are two overseas suppliers who are not comfortable to have this meeting. Currently, the suppliers have responded through document acknowledgment such as facsimile, electronics mail via internet and call.

Supplier quality management concerns with two area, incoming quality control at MOLEX Thailand Ltd company and suppliers' co operation to support MOLEX Thailand Ltd company' requirement. Relationship between the suppliers and MOLEX Thailand Ltd company is very important for this implementation.

6.3 Discussion

6.3.1 This study should be developed further in section of supplier periodic evaluation. Three quality factors (LAR, DPM, Material quality problem) should be given much higher priorty and score given than the last three quality factors (Responsiveness, SPC and STS program). The process to rate supplier performance should be evaluate in two stages.

The first three quality factors (LAR, DPM, Material quality problem) have to be focused on. If these three factors are sufficient to evaluate the supplier performance under strong evidence and result. The last three quality factors could be overlooked, or the other quality factors could be proposed to use instead of one or all the last three quality factors (Responsiveness, SPC and STS program).

In section of supplier periodic evaluation, supplier management team of MOLEX Thailand LTD did agree with the conditions that have been used to evalute the supplier performance as mentioned in chapter 4, section 4.2.2.

6.3.2 This implementation have been proceeded without any attack that may break the relationship and responsiveness between MOLEX Thailand Ltd company and suppliers. It can been seen that responses from all suppliers except Thai Wonderful Wire & Cable supplier, are satisfied MOLEX Thailand Ltd company. MOLEX Thailand Ltd will avoid to use Thai Wonderful Wire and Cable supplier product because the products of this supplier have created the quality problem in the production line of MOLEX Thailand Ltd company both in purchasing task and manufacturing process. The other major suppliers have responded in positive way to MOLEX Thailand Ltd company.