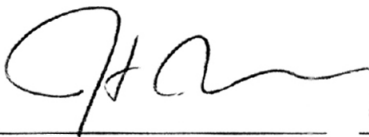


Teerawat Pounsap 2006: Risk Assessment and Efficiency of Fire Detectors
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This research is to study the Risk Assessment on fire which occurred in a Dust collector by using fault tree analysis. The study is focused to determine the probability of fire occurrence from using 2 types of fire detector device: heat detector type and spark detector type. The basic causes of fire are also studied in order to suggest the ways to improve and reduce the risk using the benefit to cost ratio. In addition the views of representative from 139 companies in wood furniture industry on the efficiency of spark detector is also studied. This survey covered the difference of individual views on spark detector to confirm the effectiveness of the spark detector.

The results from this study indicated that the probability of fire occurred when using heat detector is 0.038 and the probability of fire occurred when using spark detector is 0.00382. The benefit to cost ratio is 2.56 when replacing the heat detector with the spark detector.

The results from survey on individual views showed that the industrial representative consider the efficiency of spark detector in a good level, with average value of 4.042 (full score of 5). It is also found that there is no significant difference of individual view at the confidential level of 0.05.

<u>Teerawat Pounsap</u>		<u>19 / 05 / 2006</u>
Student's signature	Thesis Advisor's signature	