The Effect of the Routine/Non-Routine Nature of Tasks on Accident Rates

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ABSTRACT

An accident model and a model of human cognition were combined to create a hypothesis about a major source of causation for accidents at a manufacturing site. This lead to a definition of a routine/non-routine task or situation as well as some details around the different types of non-routine situations that can occur. The hypothesis is that situations or tasks that are non-routine but where the people involved cannot recognize the non-routine nature of the task, are more likely to lead to accidents than routine situations.

A survey was performed to gather data to see if there is any support for this hypothesis. The data was analyzed and it was shown that a large portion of the accidents do occur in non-routine tasks or situations but that the people involved considered them to be routine. The most common reason for non-routine was non-standard conditions and infrequent tasks.

Finally, some recommendations are made that may reduce the number of accidents occurring under such non-routine situations or tasks. In particular, a special training course was created and delivered to all plant operations people. It is interesting to note that as the notion of routine/non-routine tasks was explained to people, it was very easy for them to relate to activities not only at work but perhaps more importantly, to activities outside work. Many people gave us examples of non-work related tasks, which had lead to accidents or near misses when they were performing such non-routine activities.