



**UNIVERSITY OF  
CAMBRIDGE**

Department of Engineering

## **CONSTRUCTION ENGINEERING MASTERS DISSERTATION ABSTRACT**

### **An investigation into the management and communication of health and safety risk to site operatives on a UK construction project**

The construction industry has significantly improved its safety record over the last 40 years. However, there has been a clear stagnation in the fall in fatality number in recent times. To address this stagnation, something must be done differently. The author of this paper believes that reviewing the approach of managing and communicating health and safety risk to site operatives is one way of doing this. This paper has aimed to critically evaluate these current approaches, as well as making recommendations to industry on how to proceed.

A review of current industry guidance, as well as reviewing previous industry studies of a similar nature was carried out. Understanding the importance of good quality communication is key to the successful management of H&S, together with understanding and accommodating an individual's risk profile to all work-related procedures.

The research methodology constituted of a mixed-method approach through the implementation of a Case Study. Qualitative data was collected through a review of key project documentation, with quantitative elements collected through a survey directed solely at the operatives. The Case Study was selected from one of the UKs leading contractors where the sample was selected from ten trades, employing a total of 284 operatives on the project. Of these, 172 operatives responded to the survey, providing a 60% response rate. Notable observations included low levels of direct employment, a very changeable workforce, and a low skill base. There was evidence that all three parameters had an influence on TC performance yet very few were discussed in the processes reviewed.

The results of the study highlighted several issues with the processes reviewed but primarily the amount of information being communicated. This put a strain on the cognitive capacity of individuals, leading to selective listening and subsequently the filtering of safety critical information by the receiver. Critically, it was concluded that documents were not targeted towards the operatives, with a heavy focus on generic systems and processes, rather than the task or the individuals for which they were intended.

Three recommendations were made as part of the conclusion. The first is for health and safety management processes to shift their focus from the task to the individuals. The second is for current management and communication processes to be rationalised. The final recommendation is for the C-HIP communication model and the HSEs Human Errors models to be proactively used in the project environment. As this study may be considered as unique, recommendations for next steps as well as further research have been made to ensure some of the limitations of the study can be addressed.

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**March 2017**