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**CDM REGULATIONS: SAFETY TARGETED ASSESSMENT THROUGH GATEWAY EVALUATION
(STAGE) APPROACH**

ABSTRACT

It has been well published that employment within the construction industry, particularly in manual roles, is a dangerous occupation. Within the United Kingdom (UK) some 2.2 million people are employed within this sector and during the last 25 years, over 2,800 people have died with many more injured or suffering ill health as a result of this occupation. Further to this, many more people have indirectly been killed or suffered injury or ill health by poorly designed and constructed workplaces.

As a consequence, much research on occupational health and safety within this sector has been undertaken to establish root causes of accidents and ill health. One attributor identified by research is ineffective consideration of health and safety by construction designers during the design development stages.

Legislation via the Construction (Design and Management) Regulations 2007 (CDM2007) has been introduced in the UK to provide clear responsibilities on construction designers towards occupational health and safety. This responsibility requires construction designers to consider the impact of their design on the health and safety of those affected by the construction and end use, including end users, maintenance staff and future demolition workers.

However, recent research has repeatability shown that CDM has not achieved the desired effect and that many construction designers are failing to fulfil their statutory designer duty obligations as defined by CDM2007.

This research explores the established link between poor design and accident causation and the reported failures of construction designers to effectively manage their legal and moral obligations by considering health and safety implications of their designs. It uses data from existing studies, interviews, focus groups, online forums, questionnaires and case study observations, using a mixed method approach, targeting registered Architects.

The research uncovers a number of underlying barriers that potentially hinder designer consideration of Health and Safety, proposes a number of influencing factors that act as triggers for design team involvement and suggests a framework to utilize these factors.

The developed framework, called STAGE, establishes a series of structured design reviews throughout the design and construction phases of a project and provides tools to encourage and support collective consideration of health and safety risks. This method supports development of a safety culture with focus on collective knowledge sharing and encouragement of holistic and pre planned structured safety reviews.

As pointed out by Walker (1989), disasters of all kinds occur with monotonous regularity in humanly devised systems. This impresses upon us the fact that good design is not simply a question of taste or style; it is literally a matter of life and death.

Keywords: *CDM, Health and Safety, Construction Industry, Design Safety, Safer Design, Influencing Behaviour, Safety Culture, Design for Safety, Architectural Design, STAGE reviews*