

## **Safety assessment in the built environment of Saudi Arabia**

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**Abstract:** This paper assesses the safety procedures on a construction job site in Saudi Arabia. Safety on the construction site was assessed by conducting a survey of projects during construction. A standardized checklist was used to conduct the survey. This checklist included those items which are perceived to be important from the safety point of view. These are fire prevention, scaffold/mobile tower, cartridge operated tools, trenching and excavation, housekeeping, sandblasting, power tool machine and equipment, heavy equipment, gas/electric welding, construction formwork, health and welfare, transportation, cranes and lifting devices, compressed gas, air compressors, site safety administration, temporary electricity supplies, and special items. The sites for the study were selected randomly from the Eastern province of Saudi Arabia. The sites were differentiated into large and small projects based on the size, dollar volume and number of workmen employed on the job site. This was done to test whether the level of safety on a construction site was a function of the size of a project. The results of the study indicated that safety levels varied between the large and small projects. Small projects averaged low safety assessment scores in fire prevention, health and welfare and safety administration, while safety assessment scores in large project were consistently high in all different divisions. A Spearman Rho rank correlation of the different divisions was computed and a test of hypothesis was conducted. It was found that both large and small projects generally agree on the ranks of the divisions although they have different safety standards. (10 refs.)