

# Preventing Incidents in Construction Projects with Help of Risk Management and Risk Assessment

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**Abstract:** *The construction industry is growing all over the world and considered as a labor-intensive industry. It is associated with significant safety risks and losses resulting from major accidents. These critical safety risks are largely due to ignorance or lack of awareness, which causes poor performance in building construction activities. Furthermore, it is difficult to estimate the safety risks because of the incomplete quantitative safety risk database and uncertainty within construction projects. In industrial arena, if any industry to be successful, it has to be safe, reliable, and sustainable in its operations. The industry has to identify the hazards and assess the associated risks and to bring the risks to tolerable level. Hazard Identification and Risk Assessment (HIRA) is carried for identification of undesirable events that can lead to a hazard, the analysis of hazard of this undesirable event, that could occur and usually the estimation of its extent, magnitude and likelihood of harmful effects. It is widely accepted within industry in general that the various techniques of risk assessment contribute greatly toward improvements in the safety of complex operations and equipment. The objective of this work of hazards and risk analysis is to identify and analyze hazards, the event sequences leading to hazards and the risk associated with hazardous events. Many techniques ranging from the simple qualitative methods to the advanced quantitative methods are available to help identify and analyze hazards. The use of multiple hazard analysis techniques is recommended because each has its own purpose, strengths, and weaknesses..*

**Keywords:** Safety Risks

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