

## **HAZARD IDENTIFICATION, RISK ANALYSIS AND RECOMMENDATIONS FOR IMPROVING SAFETY IN PHARMACEUTICAL INDUSTRY**

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### **ABSTRACT**

Pharmaceutical companies form the backbone of an effective health care service and its development is essential for the progress of any nation. With the evolution of pharmaceutical industry new processes are being used for cost effective and high productivity. The danger of an accident happening also increases with induction of new processes. As of late, particularly from 2010 to 2015, accidents in pharmaceutical industry has been significantly increased mainly because of human errors, resulting in fire, explosions and various accidents. The majority of the incidents happen because of the low familiarity with the safe working procedure.

This study concentrates the methods that are being used to assess and minimize the risks that dwell in any company thereby enhancing the wellbeing of the industry. The methods that are mainly used are Hazard identification, Task analysis, internal audit, HAZCOM using MSDS, and Failure mode and effect analysis (FMEA). The palpable proof of mechanical threats and hazardous zones are isolated effectively and sound incident circumstances are recognized which could hamper the workplace. This paper deals with the various techniques that have been implemented in reducing the risk to as low as reasonably practicable (ALARP) level and necessary recommendations are made to improve the safety inside the pharmaceutical plant premises.

**KEYWORDS:** Risk Assessment, Hazard Identification, Task Analysis, Internal Audit, Hazcom