

Review of Occupational Health and Safety Management System and Hazards Controls in the Motion & Industrial Automation Products Manufacturing Industries

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Abstract: Occupational injuries are a major problem worldwide and affect all countries, particularly developing ones. In recent decades, the application of approaches such as the Occupational Health and Safety Management System (OHSMS) has led to the successful control of workplace injuries in high-income countries. The Occupational Health and Safety Assessment Series (OHSAS) 18001 as a world-recognized OHSMS has gained considerable acceptance by a large number of organizations. However, few studies have examined the effectiveness of ISO 45001 on safety performance in certified organizations. This study consisted of four sub-studies, and was conducted to explore the effect of ISO 45001 on the occupational injury, safety climate, and Occupational Health and Safety (OHS) practices in ISO 45001-certified companies compared with a control group in Iran. ISO 45001 practices were also examined in the certified companies, where interviews were conducted to explore the influencing factors on the effectiveness of ISO 45001. A negative binomial regression indicated no significant effect of ISO 45001 certification on the occupational injury rate. The second sub-study applied a new safety climate questionnaire, and a hierarchical regression indicated that the safety climate was influenced by the implementation of ISO 45001 and safety training. The third sub-study pointed to the better OHS practices of the certified companies compared with the control ones. The results also showed that adopting the ISO 45001 standard improved the documentation for the management of OHS, but did not lead to continuous improvement in the required practices. The evaluation of the collected evidence revealed the main reasons for a poor safety culture. The interviewees emphasized the internal and external influencing factors in the effectiveness of OHSAS including commitment of top management and the enforcement of OHS legal requirements. It can be concluded that the implementation of ISO 45001 in an organization is not a guarantee of improved safety performance and of the existence of a high-quality management system. This study suggests that certified companies should focus on proper improvement and maintenance of the implemented management systems by escalating their commitment to the requirements of the established management systems and by participating their employees in ISO 45001 practices. This study also emphasized the importance of providing safety training for employees who work in the certified companies. These efforts may help the companies in the creation of a good safety culture and the transforming the paper systems into effective management systems to make improvement in OHS performance.

The aim of this report to assess and evaluate the effective implementation of occupational health & management system and hazards controls in the Motion & Industrial Automation products manufacturing Industries as per the relevant ISO standards and hierarchy of hazards controls, which is a system used in industry to minimize or eliminate exposure to hazards.

Falls, chemical spills, fire, explosions, working at height, confined space working, mechanical material handling, etc. are few kinds of incidents that can happen in a manufacturing environment. Such incidents are not only tragic and frequently fatal for workers, but also extremely expensive for the employers. Between worker's compensation, regulatory penalties, reduced/diminished productivity

and the costs of fixing or replacing damaged equipment, a single incident can financially devastate a business. To avoid industrial accidents / catastrophes, keep your people from harm, ensure manufacturing compliance, and protect your bottom line, you need to get serious about safety.

Manufacturing Safety is everything organizations does to ensure the physical well-being of the workers in the manufacturing facility or facilities. Manufacturing Safety is also about more than checking a few boxes or putting up 'safety first' signage.

- Manufacturing Safety keeps people alive and unharmed.*
- Manufacturing Safety is also tied to workforce productivity.*
- Manufacturing Safety is an essential form of risk management.*
- Manufacturing Safety is a legal requirement.*
- Manufacturing Safety and Profitability go hand-in-hand. Safe companies perform better and sustain in the business longer than unsafe companies.*

Keywords: Health and Safety Management System

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