RECOMMENDATIONS FOR IMPROVING OSH PRACTICES IN THE FIREWORKS INDUSTRY IN SRI LANKA

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Declaration

I declare that this is my own work. This thesis/dissertation does not incorporate without acknowledgement of any material previously submitted for a degree or diploma in any other University or Institute of higher learning. To the best of my knowledge and belief, it does not contain any material previously published or written by another person except where the reference is made in the text. I retain the right to use this content in whole or part in future work (such as articles or books).

24.05.2023

Signature: Date:

The above candidate has carried out a research for the Master's thesis/dissertation under my supervision. I confirm that the declaration made above by the student is true and correct.

Name of Supervisor: Prof (Mrs.) Nayanthara De Silva

Signature of the Supervisor: Date:

Abstract

Firework industry is considered accident-prone due to the usage of several hazardous chemicals in manufacturing. The number of employees working in this industry is less than 0.8% of the manufacturing sector workforce in Sri Lanka. The average number of fatal accidents reported to the Department of Labor is between 70 and 80 per year. The firework industry records at least three fatal accidents within the above figure. It shows that fatal accidents in the firework industry are very high compared to the total reported accidents, creating numerous economic and social problems.

The objectives of this study are to identify the accident-causing factors during the firework manufacturing process, review the existing OSH practices and recommend strategies to enhance OSH in the Sri Lankan fireworks industry.

A questionnaire was designed using the literature findings and forwarded to five experts directly involved with the firework industry to seek further improvements. According to the convenient sampling technique, thirty factory samples are selected to cover all the districts where the fireworks industry operates.

The result shows that mistakes made in factory and layout design and selection of construction materials and accessories, not adopting new technologies, shortage of the existing laws and regulations, incorrect handling of chemicals, poor management and employee practices and also improper maintenance are common contributors to firework factory accidents in Sri Lanka.

The study identified the requirement of updating the existing laws and regulations along with the changes in factories, production processes and products, encouragement of customer-based safety mechanisms, training and awareness.

Keywords: Fireworks, Accidents, Occupational Safety, Sri Lanka

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Abbreviation	Description
OSH	Occupational Safety and Health
OSHA	Occupational Safety and Health Association
ILO	International Labour Organization

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