

Finding The Causes Of Accident In Suger Factory And Their Preventions In Bangladesh

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Abstract

Sugar industry plays a vital role in the economy of Bangladesh by way of farming and creation of employment. But unfortunately, every year a good number of accidents occur and this sector pays a high price for accidents or injuries in terms of human sufferings and economic losses. On this background this research aims at finding out the significant factors of accident as per the view of the workers. In data collection, questionnaire survey was carried out on the basis of the sample size. In the analysis section, twenty-five factors under four headings were identified through field visits, journal papers and internet search. The analysis of the collected data was started with the reliability analysis of the four major factors such as 'personal factors', 'work factors', 'accident mechanism', 'unsafe act'. Z-test and Relative Importance Index (RII) method was used to analyze it. The findings revealed the significant sub-factors of accidents. The significant sub-factors were workers negligence for safety practices, lack of training, lack of supervision, inadequate maintenance, lack of safety measure, fatigue due to pressure or time limitation, workers avoidance reporting unsafe act, coordination gap, confined work area, lack of judgement, lack of attention to ergonomic/ human factors, ineffective warnings, inadequate protection and barriers, objects dropped, rotating machinery, inadequate handling of materials and inadequate identification of risky items. Finally, some suggestions have been recommended to prevent accidents in the sugar mills. Safety should be the priority for all industrial activities. This research work will help the stakeholders to make and revise the safety issue in the sugar industries.

Keywords

Accident, Sugarmill, Safety, Maintenance

Biography

Professor Dr. Mohammad Iqbal is currently serving as a Professor at Shahjalal University of Science and Technology (SUST) under the Department of Industrial and Production. He is the founder lecturer of Department of Industrial and Production, SUST. He served as the Head of the dept. for 13 years. Dr. Iqbal was the Dean of School

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Md. Abdullah Abu Sayeed has pursued his Master of Science in Industrial and Production Engineering at Shahjalal University of Science & Technology. He accomplished his BSc(Engg) in Industrial and Production Engineering at Shahjalal University of Science & Technology. His research interests include product designing, simulation, manufacturing, scheduling, and lean.

Salma Akhter is a professor in the department of Chemical Engineering and Polymer Science, Shahjalal University of Science & Technology, Sylhet, Bangladesh.. She earned her Masters from Dublin City University (DCU) and B.Sc. in Chemical Engineering from Bangladesh University of Engineering and Technology (BUET). Dr. Salma's research activities include, health and safety in chemical process industries, waste management, climate change and Environment, water pollution, Design, She served as the head of the dept. for the last three years. She has published more than twenty research papers in journals and international conferences.

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