FIRE SAFETY AND AVAILABILITY OF FIRE FIGHTING EQUIPMENT IN SELECTED GARMENT FACTORIES IN BANGLADESH

Mohammad Iqbal
Professor, Shahjalal University of Science and Technology
Sylhet-3114, Bangladesh
Email: iqbalm_ipe@yahoo.com

Salma A. Iqbal
Shahjalal University of Science and Technology, Sylhet-3114, Bangladesh
salmacep@gmail.com

Sumayel Mumammad Mallick
Vice President, Anlima Yarn Dyeing Ltd., Savar
Dhaka-1340, Bangladesh
sumayelmallik@gmail.com

Abstract- Fire safety refers to precautions that are taken to prevent or reduce the likelihood of a fire that may result in death, injury or property damage, alert those in a structure to the presence of an uncontrolled fire in the event one occurs. Fire safety measures include those that are planned during the construction of a building or implemented in structures that are already standing, and those that are taught to occupants of the building. Threats to fire safety are referred to as fire hazards. In RMG sector of Bangladesh, it is important to understand and quantify the current state of affair in fire safety of the garments factories in the country. This paper discusses in brief the fire safety issues of RGM sector like causes of fire accidents, casualty in RGM factory due to fire, reasons for fire, emergency response to fire, work environment of the employee and availability of firefighting equipment in selected garment factories and smoke ventilation. Data from 25 knitting garment factories have been collected by direct investigation. From the analysis it has been found that some factories are running without maintaining safety equipment standard like heat detector an first aid box. Among 25 factories only 32 % factories maintain fire extinguisher standard, 68 % do not maintain their standard. Among 25 factories only 40 % factories maintain fire drills standard, 60 % do not maintain their standard. Among 25 factories only 16 % factories have fire trained employee according to standard, 84 % do not have their standard wise fire trained employee.

Keywords: Fire Safety, Health, Fire Safety, Smoke ventilation and Industrial Fire.

AUTHORS BIOGRAPHY

Dr. Mohammad Iqbal is currently a fulltime Professor in the Dept. of Industrial and Production Engineering and member of University research center, Shahjalal University of Science and Technology (SUST), Sylhet, Bangladesh. He is the founder lecturer of Industrial and Production Engineering dept., Shahjalal University of Science and Technology, Sylhet, Bangladesh. He was the head of Industrial and Production Engineering dept. for 13 years. He served as the Dean of School of Applied Sciences and Technology, SUST, Sylhet for two years. He earned B.Tech. Degree in Mechanical Engineering from S.V. University, Tirupati, Andhra Pradesh, India, M.Sc. in Industrial and Production Engineering, BUET, Dhaka, Bangladesh and Ph.D. from Dublin City University, Dublin, Republic of Ireland. He has published more than 100 journal and conference papers. Dr. Iqbal has completed several research projects funded from University Grand Commission, Bangladesh, Ministry of Education, Bangladesh and Shahjalal University of Science and Technology, Sylhet, Bangladesh. He has over 25 years of experience in industry and teaching. His research interests includes manufacturing, simulation,ergonomics, industrial safety management, scheduling, production management, and environment pollution control, renewable energy. He teaches courses in organizational behavior, entrepreneurship, Advance manufacturing, organizational behavior, CAD/CAM, Robotics and virtual reality, Marketing Management, Industrial Safety management and Industrial laws. He is a life member of Institution of Engineers, Bangladesh and BSME.

Dr. Salma A. Iqbal is serving as a fulltime Professor in the Dept. of Chemical Engineering and Polymer Science, Shahjalal University of Science and Technology, Sylhet, Bangladesh. Salma A. Iqbal holds a Bachelor of Science degree in Chemical Engineering from
Bangladesh University of Engineering and Technology (BUET), Dhaka, Bangladesh, M. Engineering in Rheology of non-Newtonian fluids from Dublin City University, Dublin, Republic of Ireland and Ph.D. in Solid Waste (Textile Sludge) Management from Chemical Engineering Dept., Bangladesh University of Engineering and Technology (BUET), Dhaka, Bangladesh. She has published more than 40 journal and conference papers. She teaches courses in Industrial Management, Heat Transfer, Fluid Mechanics, Process design, Chemical process Industries, Fuel and energy, Petroleum refining Processes, Industrial safety, Waste management and Design. Dr. Salma served as a member of the evaluation committee of University Grants Commission, Bangladesh for evaluating Industry-University collaborative research work, World Bank project in Bangladesh. She is a life member of Institution of Engineers, Bangladesh. Her research interests includes Energy and Environment, industrial safety management, renewable energy, waste management, process design, human health & safety and environment management.

Engr. Sumayel Muhammad Mallick is serving as a Vice President, Anlima Yarn Dyeing Ltd., Savar, Dhaka, Bangladesh. He holds a Bachelor of Engineering in Textile, Dhaka, Bangladesh and MBA from Bangladesh. He actively participated in many workshops, seminars and conferences in Bangladesh and abroad. He is a life fellow member of Textile Engineering division, Institution of Bangladesh. Engr. Mallick served as a secretary of Textile Engineering Division, Institution of Bangladesh for two years. During his tenure as a secretary, he organized several seminar, technical talks and workshops on important issues of Textiles in Bangladesh. He was the joint secretary of Textile journal, Textile Engineering Division, IEB. He is the Joint Secretary of Textile Engineers Forum, Bangladesh. He works as a consultant in Textile areas.