International Journal of Mechanical Engineering

FACTORS INDICATING WELL-BEING OF EMPLOYEES IN FIREWORK INDUSTRIES

Dr.KM Ashifa

Asst. Proefessor in Social Work Faculty of Heallth Science Istanbul Gelisim University, Turkey

Abstract- Present investigation trying to analyze factors indicating the well- being issued for the employees in firework industries. Fireworks industry is a very flourishing industries in Tamil Nadu, India especially in Sivakasi district. In fireworks the employees have lot of risk on their safety and well being. There has been lot of health afflictions due to air quality. The firework industry required to implement more safety measure as compared to others due to high-risk nature of the work with fireworks. But unfortunately, it is hardly find proper safety and welfare measures undertaken by the administration for the welfare of workers. Officials of the state and central government organisation should help in implementation of safety system in fireworks units in Sivakasi to ensure misfortune free fireworks industry. So the study is referring to the main intention of to discover the safety measures in the fireworks industry. According to the factories act the safety instrument should be very important because the safety of the employees is very essential. In fireworks industry lot of fire disaster is happening this is a time to identify the safety materials and well-being of the employees.

Key words: Saftey, Risk, well being, sustainability

INTRODUCTION

According to the Factory Act, the employees' primary concern should be their safety. According to the act, fence machinery, dust, and working without safety materials endanger employees. If the factory provides safety for its employees, they will work contentedly. It will also have an effect on the employees' health and well-being. Numerous health problems may arise as a result of the safety concerns surrounding fireworks, and it will also have an impact on their livelihood. The study is primarily concerned with determining the safety precautions taken by employees in the fireworks industry. It is consequently critical to identify and investigate the causes of industrial accidents in order to take preventative measures. Numerous fields are concerned with this approach to safety. Industrial engineering is a discipline that focuses on the design of efficient work environments, equipment, and industrial layouts. Improper handling of pyrotechnics can result in a variety of catastrophic injuries and long-lasting effects, including eye trauma and burns. It's critical to take the time to educate yourself on how to remain safe and happy while in the presence of fireworks companies. The purpose of this research is to determine the safety of employees working in the fireworks industry. The term "well-being" refers to someone who is at ease in their environment. Safety contributes to one's well-being. The experience of health, happiness, and prosperity is referred to as well-being.

This study is to analyze the Industrial safety and well-being of firework employees in Sivakasi There has been lot of researches that has already been taken up for the study. Sreenivasa Ragahavan (2011) in his article captioned "Fireworks unit blast kills Two near Sivakasi", reported that the two men were killed and four seriously injured when some chemical mixture exploded in a fireworks unit near Sivakasi in South Tamil Nadu. The accident occurred when the factory foreman went into the storage room where the chemicals were stored and opened the sacks to distribute it to the workers to make the pieces of fireworks. Sayeedul Islam et. all., April 27, 2011 found that the urban fire incidents have been determined to have a high likelihood of occurrence especially during the dry season. Although fire hazard information is available in the Fire Service and Civil Defense (FSCD), no further mentionable vulnerability or risk assessment has been performed for this hazard. As a result, fire hazard vulnerable area which is not assessed for this hazard may catch fire and cause lots of human death and economic loss. This can negatively affect the economy of the country. The role of unauthorized units situated in residential areas endangering the possibility of explosion accidents is also cautioned. Hence by planning an industrial estate the damages to buildings associated with the accidental explosions during the manufacturing of fireworks and match work products minimized (Sekar,2010).

METHODOLOGY

The safety and well-being are important to the employees. It includes having good mental health, high life satisfaction and a sense of meaning or purpose. Well-being is something sought by just about everyone, because it includes so many positive things feeling happy, healthy, socially connected, and purposeful. Industrial safety's main focus is employee well-being. If the safety is perfect in the industry the employee's well-being is also perfect. The majority of fireworks industry is in Sivakasi. So the study is taken among the Sivakasi fireworks employees. The researcher has taken the study on Industrial safety and well-being of the fireworks employees in Sivakasi. Researchers selected 68 samples for the study by using simple random sampling from the people, who had been working fireworks in vijayarangapuram area. In order to gather information on the effectiveness of fireworks industries researcher conducted

Copyrights @Kalahari Journals

survey among the fireworks employees. The researcher used Interview Schedule as the tool for data collection.

RESULT AND DISCUSSION

The researcher conducted the survey related to industrial safety and well-being of fireworks employees in Sivakasi. Gender of the respondents show that 23.3 percent are male, 76.7 percent are female. The researcher conducted the survey question regarding safety measures of the employees in fireworks. 56.7 percent of respondent said there are no safety guards around the machines and 43.3 percent of respondent said there are safety guards around the machines. The next was asked about the safety measures during fire accidents. 100 percent of respondent feel adequate safety measures are taken during fire accidents. The next question was asked about the safety materials provided for the workers. 93.3 percent of respondents are provided with safety materials during the work, 6.7 percentage of respondent said they dont have safety materials during work. 96.7 percent of respondent feels that building and machines are maintained in proper way and 3.3 percent of respondent said there is no proper maintenance of building and machines. The researcher asked about air circulation in the company. 100 percentage of respondent said the air circulation is perfect in the industry. The next question was regarding conducting medical camps 100 percent of respondent answered there is no medical camp in the industry. Question was asked regarding their well-being of the employees in their working place. 100 percent of respondents said first aid box is available all the time. 100 percent of respondents felt the work place is always clean and neat. 100 percent of respondent said they have separate toilet facilities for men and women. And this question is asked because of the restroom is very essential for reduce their work pressure the 63.3 percent of respondent said they have restroom and 37.7 percent of respondent said there is no restroom for taking rest. The researcher analyzed the safety measures among the fireworks employees. The majority of the respondent said they have no safety materials so the respondent feel they need more safety materials while like gloves, face mask while they working near chemicals and machines in the factory. And they said they need medical camp 6months once. And they feel they need restroom for the relaxation in the break time. And they said the building and machines are maintaining in proper way. These all the discussions are happened among the researcher and the employees.

CONCLUSION

Safety and well-being is very essential for firework employees because in fireworks they are handling dangerous things every day. So the safety measures are most important in the fireworks industry. In Sivakasi, most of the people working in fireworks industry mainly the rural people. They are handling chemicals which will affect their health too. According to the Factories Act, safety and well-being is very necessary. For safety fencing machinery, safety materials, air circulation are required. For well-being first aid kit, toilet facilities, cleanliness and medical camp are very essential. To promote the safety in work place risk assessment should be conducted in the workplace, investigation about the incident which happened and finding the root cause of the incident is also required to be examined. This will ensure the compliance with safety measures. Employees should also understand the risk in the workplace, reduce the stress, take regular break while working and wear safety equipment which suits the task in industry. Employees are to be motivated about safety and make the employee an important part of the companies culture, the leadership team should be champions of safety and use reinforcement in positive way. If some of these points are taken up by the factory, the workers will be working peacefully and protectively in their work place.

REFERENCE

- [1] Azhagurajan,A. (2005): Study on Explosive Waste Disposal With A Case Study on Fireworks Waste, Journal of Industrial Pollution Control, 21, pp 43-50
- [2] Chaudhari., Srivastava., "Moitra and Desai., Risk of domestic accidents among under five children", The Internet Journal of Family Practice, Vol.7, No.1,2009,pp-500-502.
- [3] KarunairagavanK.(2016),information literacy on working conditions and safety measures among the workers of match and fireworks industry in Tamilnadu a study.
- [4] Mashreky., Bari., Sen., .Rahman., Khan and Rahman., "Managing burn patients in a fire disaster: Experience from a burn unit in Bangladesh", The Journal of Fire safety, Vol.43,Issue No.3,March 2010,pp-131-135.
- [5] Narasimhalu K and Sathya Murthy G. (1991), An Economic study of the problem and prospects of firework industries in Sivakasi Block of Virudhunagar District. Dancy Publication, April 2005, p.4.
- [6] N.Selvakumar, A.Azhagurajan, P. Sheikmohamed, A. Suresh, ballistic behavior of gunpowder and flash powder for firework chemicals as a function of particle size
- [7] M. Rajarajan, M. Vetrivel (2015) "Welfare Measures And Quality Of Work Life Among The Workers fireworks Industries An Analysis," Determinants of welfare among Industrial Worker", Vikalpa, Vol.5, No.1, January 1980.
- [8] MandiraDey, PradyumnaTripathy (2015), "A Study On Quality Of Work Life Among Workers With Special Reference To firework Industry In Tirupur District A Textile Hub", International Journal of Multidisciplinary Research, Vol.2 Issue 4, 2012.
- [9] Perumalammal (1999), Momtaz Jahan, "Women Workers in Bangladesh Garments Industry: A Study of the Work Environment", International Journal of Social Science, Vol.1, No.3, May, 2012, pp-1-6.
- [10] Padmini Sivarajah.(2011). "Blast in Sivakasi fireworks unit leaves 8 dead", The Times of India, January 22, 2011,pp-6.
- [11] Roberts. (2006), "Urban residential fire and flame injuries: a population based study", The Journal of health professionals, Vol.6,Issue No.4
- [12] Saravanakumar R.C (2016), A study on problems pertaining of women laborers in fireworks industry with special reference to Copyrights @Kalahari Journals Vol.7 No.2 (February, 2022)

- Sivakasi.
- [13] Sayeedul Islam., Debasis Roy Raza and Saiful Islam.(n.d, "Analyzing Vulnerability of a Community to Fire Hazard: A Case study of Ward 72", Natural Hazards Review, Vol. 3, ISSN 1527-6988, pp-162-176 http://safehazard.blogspot.com/2011/04/w hat-is-safety.html
- [14] Sekar, Ramasamy and. Nampoothiri.(2010), "Planning estate for fireworks industries in Sivakasi", International Journal of Engineering Science and Technology, ISSN No- 0975- 5462, Vol.2 Issue No.6, pp-43-45.
- [15] https://www.psychologytoday.com/us/blog/click-here-happiness/201901/what-is-well-
- $[16] \ \underline{\text{http://www.yourarticlelibrary.com/industr}} ies/industrial-safety-definition-need-and-programmes-for-industrial-safety/34380$
- [17] https://www.slma.cc/the-importance-of- fireworks-safety-blog/
- [18] https://shodhganga.inflibnet.ac.in/handle/ 10603/220264
- [19] Antony Raj M.Maria Antony Raj, KMASHIFA, Aliyev Anar, Godfrey A Alan (2021). Occupational Burnout Among Women Police Force: An Empirical Analysis' Journal of Legal, Ethical and Regulatory Issues, 24(1), 1-5.
- [20] Kiradoo Giriraj, Amri Nik Hashim Nik Alif, Fahmie Ramlee Shah Iskandar, KM ASHIFA (2021). A Comprehensive Study Of Performance Appraisal Of The Business Entity. Journal of Management Information and Decision Sciences, 24(1), 1-10.
- [21] KM ASHIFA (2021). Strategic Measures for Effective Stress Management: An Analysis with Worker in Cotton Mill Industries. Annals of the Romanian Society for Cell Biology, 25(4), 19358-19363